

MARIETTA COLLEGE

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DEAN: DR. SUE DEWINE, PROVOST
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CONTACT INFORMATION

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DEGREE INFORMATION

DEGREES OFFERED IN PETROLEUM ENGINEERING

Degree	Petroleum Hours	Total Hours	Curriculum Description
B.S.	35	138	http://www.marietta.edu/~petr/index.html

ACCREDITATION

The four year basic level day program in Petroleum Engineering is accredited by the EAC of ABET.

CURRICULUM DESCRIPTION

Undergraduate: Petroleum engineering is a specialized discipline that prepares students primarily for careers in the exploration, production, processing and transportation of crude oil and natural gas. The petroleum engineer deals with a product that cannot be seen, held, examined or tested until it has been located in rock formations deep within the earth and brought to the surface. In light of this, petroleum engineers must be capable of designing, drilling, completing and analyzing subsurface well systems; characterizing and evaluating subsurface geological formations and their resources; designing and analyzing systems for producing, injecting, and handling fluids; applying reservoir and production engineering principles and practices to optimize resource development and management; and applying economics to these tasks under conditions of risk and uncertainty. The engineering science and technology involved in petroleum engineering also has direct application in the fields of environmental engineering and hydrology where subsurface well systems are used to access fluids in the earth.

The eight-semester course sequence recommended for petroleum engineering majors is designed to provide students with a logical progression of courses beginning with fundamental courses in mathematics and general sciences. In turn, these courses provide a foundation for engineering science courses that give students the tools necessary for solving engineering design problems that are the real focus of the major in junior-and senior-level petroleum engineering courses. There is an inherent strong emphasis in the curriculum on the development of communication skills. All majors seeking employment in the U.S. must take the Fundamentals of Engineering (FE) Exam during their senior year. Passing the exam is not a requirement. The FE Exam represents the first formal step in the process of becoming a registered professional engineer. It is also recommended that all majors join the Society of Petroleum Engineers.

Masters:

Doctorate:

PROGRAM ADMISSION REQUIRMENTS

Undergraduate: There are no specific admission requirements for the petroleum engineering program. Any student admitted to Marietta College may enter the Petroleum Engineering program.

Masters:

Doctorate:

CURRICULUM ANALYSIS

MATHEMATICS

Course Type	Hours Required
Calculus I, II, III	12
Differential Equations	3
Probability and Statistics	3

PHYSICS

Course Type	Hours Required
Physics I + Lab	4
Physics II + Lab	4

CHEMISTRY

Course Type	Hours Required
General Chemistry I + Lab	4
General Chemistry II + Lab	4

GENERAL ENGINEERING

Course Type	Hours Required
Engineering Mechanics	3
Strength of Materials	3
Fluid Mechanics	3

Thermodynamics	3
Electrical Engineering	3
Engineering Economics	3

HSS

Course Type	Hours Required
Historical Perspectives	3
Social Analysis	3
Fine Arts	6
Global Issues & Diversity	6
Leadership & Ethics	3
Writing Intensive Courses	6

PETROLEUM ENGINEERING

Course Type	Hours Required
Petrophysics	3
Core Analysis Lab	1
Phase Behavior	3
Reservoir Engineering	3
Drilling Engineering	3
Drilling & Cementing Lab	1
Production Systems I, II	6
Formation Evaluation	3
Enhanced Recovery	3
Natural Gas Engineering	3
Natural Gas Lab	0
Well Testing	3
Senior Capstone Design	3

COMMUNICATION

Course Type	Hours Required
Communications	3
English	3
Technical Writing	3

OTHER

Course Type	Hours Required