

# PETROLEUM ENGINEERING, PHD

**Requirements for Students Matriculating in or before Academic Year 2023-2024.** Learn more about Graduate College Academic Regulation 7.0 (<http://catalog.okstate.edu/graduate-college/#70>).

**Total Hours: 68**

Code	Title	Hours
<b>Degree Program Core:</b>		
PETE 5313	Advanced Drilling Modeling and Simulation	3
PETE 5333	Advanced Production and Flow Assurance	3
PETE 5373	Advanced Well Stimulation	3
PETE 6813	Research Methods in Petroleum Engineering	3
<b>Hours Subtotal</b>		<b>12</b>
Three hours from:		3
PETE 6010	Petroleum Engineering Seminar	
<b>Degree Program Guided Electives:</b>		<b>21</b>
<i>Petroleum Engineering (CEAT)</i>		
PETE 5210	Special Topics in Petroleum Engineering	
PETE 5303	Petroleum Geomechanics	
PETE 5343	Advanced Reservoir Engineering	
PETE 5363	Petroleum Economics and Investments	
PETE 5413	Advanced Well Design and Operational Analysis	
PETE 5513	Directional Drilling	
PETE 5613	Advanced Well Completions	
PETE 5990	Special Problems in Petroleum Engineering <sup>1</sup>	
PETE 6110	Advanced Topics in Petroleum Engineering	
<i>Chemical Engineering (CEAT)</i>		
CHE 5123	Advanced Chemical Reaction Engineering	
CHE 5373	Process Simulation	
CHE 5733	Neural Networks	
CHE 5743	Chemical Engineering Process Modeling	
<i>Geology (CAS)</i>		
GEOL 5023	Petroleum Geology	
GEOL 5133	Structural Styles in Oil and Gas Exploration	
GEOL 5353	Advanced Well Log Analysis	
GEOL 5483	Petroleum Water Management	
GEOL 6133	Unconventional Petroleum Reservoirs	
GEOL 6283	Geology of Shales	
GEOL 6503	Rock Fractures	
<i>Mathematics (CAS)</i>		
MATH 5063	Calculus of Several Variables	
MATH 5023	Advanced Linear Algebra	
MATH 5233	Partial Differential Equations	
MATH 5263	Introduction to Partial Differential Equations	
MATH 5553	Numerical Analysis for Linear Algebra	

MATH 5563	Finite Element Methods for Partial Differential Equations	
Statistics (CAS)		
STAT 5013	Statistics for Experimenters I	
Mechanical Engineering (CEAT)		
MAE 5233	Advanced Fluid Dynamics I	
MAE 5253	Multiphase Flow	
MAE 5563	Finite Element Methods	
MAE 5573	Continuum Mechanics	
Hours Subtotal		24
PETE 6000	Doctoral Thesis <sup>2</sup>	32
Total Hours		68

<sup>1</sup>

A maximum of 3 credit hours of PETE 5990 may be counted toward the guided electives requirement.

<sup>2</sup>

6 hours of PETE 5000 may be substituted for PETE 6000 or 6 Hours of other coursework may be substituted for PETE 6000 at the discretion of Petroleum Graduate Coordinator.

## Graduate College Doctor of Philosophy (PhD) Requirements

Learn more about Graduate College 2023-2024 Doctor of Philosophy (PhD) Degree Program Requirements (<http://catalog.okstate.edu/graduate-college/>). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.