

## PETROLEUM ENGINEERING: Geology and Technical Elective Guide

### GEOLOGY ELECTIVES – 6 s.h. required

In general, 3000-level or 4000-level Geology (GG) and Geography (GR) courses are acceptable as long as they align with the PTE curriculum and your career goals. Below is a table of pre-approved geology electives. If the course in which you are interested is not on the list below, obtain your assigned PTE faculty advisor's approval before registering for the course. In addition, make sure you review and meet all course pre-requisites. *Structural Geology for Industrial Applications* (currently offered in fall semesters as GG 4990) is strongly recommended as one of the two geology electives.

Course	Title of Approved Geology Elective
GG 4063	Dev of Fossil Fuel Res
GG 4233	Applied Geophysics
GG 4304	Prin Sed Dep I
GG 4990	Structural Geology for Industrial Applications (future requirement)
GG 4433	Subsurface Methods
GR 4303	Principles of GIS
GR 4313	Advanced GIS
GR 4323	Cartographic Sciences

### TECHNICAL ELECTIVES – 3 s.h. required

A Geology Elective may substitute for a Technical Elective. There are many STEM courses at the 3000-level and 4000-level that may be used to satisfy this degree requirement, and you should choose a course that supports your career goals and interests. Below is a table of pre-approved technical electives. If the course in which you are interested is not on the list below, obtain your assigned PTE faculty advisor's approval before registering for the course. In addition, make sure you review and meet all course pre-requisites.

Course	Title of Approved Technical Elective
GG XXXX GR XXXX	Geology Electives (see list above)
CHE XXXX	3000-level and 4000-level CHE courses that are not a requirement of the PTE curriculum (e.g., CHE 4633 – Chemical Pro Safety and CHE 4683 – Fund of Biofuels Prod)
ECE 3714	Digital Devices
ECE 3724	Microprocessors
EM 2433	Engineering Mechanics II
EM 4123	Intro Finite Element
EM 4143	Eng Design Optimization
IE 4333	Prod Control Sys I
IE 4513	Engineering Admin
IE 4533	Project Mgt
IE 4543	Logistic Engineering
IE 4573	Process Improvmnt Eng
IE 4623	Eng Statistics II
IE 4653	Ind Qual Control I
IE 4733	Linear Programming I (same as MA 4733/6733)
IE 4743	Eng Design Optimization (same as ASE 4553/6553 & EM 4143/6143)

## PETROLEUM ENGINEERING: Geology and Technical Elective Guide

Course	Title of Approved Technical Elective
IE 4753	System Engr & Analysis
IE 4773	Sys Simulation I
MA 3113	Intro Linear Algebra
MA 3353	Diff Equations II
MA 4153	Mat & Lin Algebra
MA 4243	Data Analysis I
MA 4253	Data Analysis II
MA 4313	Numerical Analysis I
MA 4373	Int Part Diff Equa
ST 4213	Nonparametric Meth
ST 4243	Data Analysis I (same as MA 4243)
ST 4253	Data Analysis II (same as MA 4253)