

2018 Petroleum and Natural Gas Engineering Curriculum Updated Spring 2017

	Fall				Spring			
	Course No.	Name	Prerequisite/Note	Credits	Course No.	Name	Prerequisite/Note	Credits
Freshman Year	MATH 121	Calculus I	MATH 110- Pre-calculus	3	MATH 122	Calculus II	MATH 121-Calc. I	3
	HIST 259	Environmental History	First semester freshman	3	PHYS 121	Physics I	MATH 110- Pre-calculus	4
	CHEM 121	Chemistry I		4	CHEM 122	Chemistry II	CHEM 121 - Chem. I	4
	ENGR 101	Intro to Eng		1	CORE 113	First Year Seminar*	Freshman Year	3
	ENGL 103	ENGL 103 *	linked with CHEM121	3	GEOL 205	Physical & Structural Geology	MATH 110-Pre-calculus	3
	RLST 105	Religious Study	Freshman Year	3	CORE 104	Community Enrichment Series		0
	CORE 103	Community Enrichment Series		0	PNGE 193	PNGE Freshman Seminar		0
	PNGE 192	PNGE Freshman Seminar		0				
		Total	17			Total	17	
Sophomore Year	LANG XXX	Language > 101		3	MATH 306	Diff Equations I	MATH 122	3
	GEOL 221	Sedimentology and Sequence Stratigraphy	GEOL 205	3	PHYS 122	Physics II	PHYS 121	4
	ENGR 201	Statics	PHYS 121	3	ENGL 104	ENGL 104**		3
	PNGE 231	Reservoir Rock Properties	GEOL 205, Recitation	3	PNGE 261	Intro to Drilling System & Drilling Fluids Lab	GEOL 205, GEOL 221	3
	MATH 221	Calculus III	MATH 122	3	PNGE 241	Reservoir Fluid Properties	CHEM 122, PNGE 231	3
	ENGR 210	Programming for Engineers (Lecture + lab)	MATH110-Pre-calculus	2	ENGR 315	Mechanics of Materials	ENGR 201	2
	PNGE 110	Petroleum Statistics Lab	MATH 110-Pre-calculus	1	CORE 212	Community & Global Wellness		0
	CORE 211	Personal Wellness		0	PNGE 293	PNGE Sophomore Seminar		0
PNGE 292	PNGE Sophomore Seminar		0					
		Total	18			Total	18	
Junior Year	ENGR 301	Fluid Mechanics	MATH 221	4	PHIL 307	Environmental Ethics	GETM 1: "Ethics"	3
	GEOL 321	Petroleum Geology	GEOL 221	2	PNGE 381	Formation Evaluation	PNGE 341 & Co PNGE 361	3
	PNGE 341	Fundamentals of Reservoir Engineering	PNGE 241	3	PNGE 361	Drilling Engineering I	PNGE 261	3
	PHYS301/L	Thermodynamics	GETM 2: "Science & Quantitative Literacy"	4	PNGE 311	Environmental-Petroleum Engineering	GETM 3: "Communication & Diversity"	3
	PHIL 205	PHIL 205		3	PNGE 351	Production Engineering I	PNGE 261, MATH 121	3
	PNGE 392	PNGE Junior Seminar		1	GETM 4 , MGMT	Principles of Management	GETM 4: "Social Systems"	3
	EXAM 301	Wr Comp Exam	Junior Year	0	PNGE 393	PNGE Junior Seminar		0
		Total	17			Total	18	
Senior Year	PNGE 411	Economic Evaluation of Oil & Gas Properties	PNGE 351, 361, & 381	3	PNGE 436	Geophysics	PNGE 361, 381 & PNGE 103	3
	PNGE 421	Reservoir Engineering II	PNGE 341	3	PNGE498	Senior Capstone Design	PNGE 497, PNGE 411	3
	Soc Sci	***Soc Sci		3	PNGE 4XX	PNGE Elective 2		2-3
	PNGE 4XX	PNGE Elective 1		2	FNAR	Fine Arts Elective		3
	PNGE 431	Introduction to EOR	PNGE 341	2	CORE 407	Keystone Sem.		3
	ECON 101	MacroEconomics	***Soc Sci	3	PNGE 493	PNGE Senior Seminar		0
	PNGE 497	Senior Project Proposal	PNGE 351, 361, & 381	1				
PNGE 492	PNGE Senior Seminar		0					
		Total	17			Total	14-15	
Total Credits: 136-137 (45-46 PNGE, 8 GEOL, 12 ENGR, 32 Collateral, & 39 Gen Ed)								