

Typical Plan for BSc Program – Common First Year

Petroleum and Natural Gas Engineering

Level 1			
Code &#	Course Title	Hrs. (X-Y-L)	Requisites
ENGS 10x	English language	6(6,9,0)	
MATH 101	Differential Calculus	3(3,1,0)	
ENT 101	Entrepreneurship	1(1,0,0)	
CHEM 101	General Chemistry	4(3,0,2)	
ARAB 100	Writing Skills	2(2,0,0)	
Total		16	

Level 2			
Code &#	Course Title	Hrs. (X-Y-L)	Requisites
ENGS 11x	English	6(6,9,0)	
CUR 101	University Skills	3(3,0,0)	
CT 101	IT skills	3(0,0,6)	
STAT 101	Introduction to Statistics	3(2,2,0)	
EPH 101	Health & fitness	1(1,1,0)	
Total		16	

Level 3			
Code &#	Course Title	Hrs. (X-Y-L)	Requisites
IC 1xx	Optional IC course	2(2,0,0)	
PHYS 103	General Physics (1)	4(3,0,2)	
MATH 106	Integral Calculus	3(3,2,0)	MATH 101
MATH 107	Vectors & Matrices	3(3,2,0)	MATH 101
ENGL 109	Language & Communication	2(2,1,0)	
GE 104	Basics of Engineering Drawing	3(2,0,2)	
Total		17	

Level 4			
Code & #	Course Title	Hrs. (X-Y-L)	Requisites
PHYS 104	General Physics (2)	4(3,0,2)	PHYS 103
ENGL 110	Technical Writing	2(2,1,0)	ENGL 109
MATH 203	Differential and Integral Calculus	3(3,2,0)	MATH 106 MATH 107
GE 106	Introduction to Engineering Design	3(2,1,2)	GE 104
GE 201	Statics	3(3,1,0)	MATH 106 MATH 107
GE 203	Engineering and Environment	2(2,0,0)	CHEM 101 MATH 101
Total		17	

Level 5			
Code &#	Course Title	Hrs. (X-Y-L)	Requisites
IC 1XX	Optional IC Course	2(2,0,0)	---
MATH 204	Differential Equations	3(3-2-0)	MATH 203 (Pre)
ME 340	Mechanical Engineering for Petroleum Students	3(3-1-0)	GE 201 (Pre)
CHE 312	Momentum Transport Operations for Petroleum and Natural Gas Engineering Students	3(3-1-0)	---
GE 209	Computer Programming	3(2-0-2)	---
PGE 251	Introduction to Petroleum & Natural Gas Engineering	2(2-1-0)	---
Total		16	

Level 6			
Code & #.	Course Title	Hrs. (X-Y-L)	Requisites
PGE 361	Reservoir Rock Properties and Fluid Flow	2(2-1-0)	PGE 251 (Pre)
CHE 304	Thermodynamics for Petroleum and Natural Gas Engineering Students	2(2-1-0)	---
PGE 362	Reservoir Fluid Properties	2(2-1-0)	PGE 251 (Pre)
PGE 363	Reservoir Engineering Laboratory	2(1-0-2)	PGE 361 (Co) PGE 362 (Co)
PGE 391	Principles of Petroleum Geology	3(3-1-0)	PGE 251 (Pre)
IC 1XX	Optional IC Course	2(2,0,0)	---
MATH 254	Numerical Methods	3(3-2-0)	MATH 107 (Pre)
GE 403	Engineering Economics	2(2,1,0)	
Total		18	

Level 7			
Code &#	Course Title	Hrs. (X-Y-L)	Requisites
IC 1XX	Optional IC Course	2(2,0,0)	---
GE 402	Engineering Projects Management	3(3-1-0)	---
PGE 490	Petroleum & Natural Gas Exploration -1-	3(3-1-0)	PGE 391 (Pre)
PGE 460	Petroleum Reservoir Engineering	3(3-1-0)	PGE 362 (Pre-) PGE 363(Pre-)
PGE 366	Natural Gas Reservoir Engineering	2(2-1-0)	PGE 362 (Pre-) PGE 363 (Pre-)
PGE 471	Drilling Engineering -1-	2(2-1-0)	PGE 490 (Co-)
Total		15	

Level 8			
Code &#	Course Title	Hrs. (X-Y-L)	Requisites
PGE 492	Well Logging	3(3-1-0)	PGE 471 (Pre)
PGE 474	Drilling Engineering -2-	3(3-1-0)	PGE 471 (Pre) PGE 494 (Co)
PGE 481	Production of Naturally Flowing Wells	3(3-1-0)	PGE 471 (Pre)
PGE 464	Improved Oil Recovery	3(3-1-0)	PGE 460 (Pre)
PGE 485	Petroleum Production Engineering Laboratory	2(1-0-2)	PGE 481 (Co)
PGE 494	Petroleum & Natural Gas Exploration -2-	2(2-1-0)	PGE 490 (Pr-)
PGE 457	Computer Applications in Petroleum and Natural Gas Engineering	2(1-2-0)	PGE 460 (Pre) PGE 366 (Pre)
Total		18	

Level 9			
Code &#	Course Title	Hrs. (X-Y-L)	Requisites
PGE 455	Transportation & Storage of Petroleum and Natural Gas	2(2-1-0)	PGE 481 (Pre-)
PGE 476	Drilling Engineering Laboratory	2(1-0-2)	PGE 474 (Pre-)
PGE 493	Well Test Analysis	3(3-1-0)	PGE 460 (Pre-)
PGE 484	Natural Gas Production Engineering	3(3-1-0)	PGE 366 (Pre-)
PGE 482	Artificial Lift Methods and Surface Operations	2(2-1-0)	PGE 481 (Pre-)
PGE 450	Seminar	2(1-2-0)	PGE 496 (Co-)
PGE 496	Graduation Project -2	2(2-0-0)	Successful completion of 129 credit hours + passing all courses in levels 1 through 7.
Total		16	

Level 10			
Code &#	Course Title	Hrs. (X-Y-L)	Requisites
PGE 491	Petroleum and Natural Gas Economics	2(2-1-0)	PGE 496 (co-)
PGE 486	Well Stimulation and Sand Production Management	3(3-1-0)	PGE 482 (Pre-)
PGE 478	Directional & Horizontal Drilling and Well Completion	3(3-1-0)	PGE 474 (Pre-)
PGE 467	Reservoir Simulation	3(3-1-0)	PGE 460 (Pre-) MATH 204 (Pre)
SC 1XX	Free College Course	2(2-x-0)	
PGE 497	Graduation Project - 2	2(2-0-0)	PGE 496
PGE 999	Practical Training	1 (NP)	Successful completion of 110 credits hours
PGE 998	Research Project	0 (NP)	Successful completion of 129 credits hours
Total		16	