



College: **ENGINEERING**  
Department: **PETROLEUM AND CHEMICAL ENGINEERING**  
Cohort: **2006**  
Degree: **B. ENG.**  
Major: **PETROLEUM AND NATURAL GAS ENGINEERING**

<b><u>Summary of Credits:</u></b>	
<b>University Requirements (UR)</b>	<b>18</b>
Arabic	3
English	6
Contemporary Omani Society	1
Oman & Islamic Civilization or Islamic Culture	2
Free Elective	6
<b>College Requirements (CR)</b>	<b>35</b>
Math	17
Physics	8
Computer Programming	3
Chemistry	3
Introduction to Engineering	2
Workshop	1
Elective	1
Industrial Training	0
<b>Department Requirements (DR)</b>	<b>87</b>
Department Core	27
Program Core	54
Department Elective	6
<b>TOTAL</b>	<b>140</b>

For reference contact: Prof. Mehmet Hastaoglu (HOD) Ext. 1318

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HoD	Date
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Dean's Office	Date
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Registrar's Office	Date
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**Department of Petroleum and Chemical Engineering**  
**Degree Plan: 2006Cohort (Scheme I: Petroleum and Natural Gas Engineering)**

	Course Code	Course Title	Cr.	Lec.	Lab.	Tut.	Pre-req./ Co-req.*	Cat.
Semester 1 Fall 2006		University English	0					UR
	<b>Total</b>			<b>0</b>				

Semester 2 Spring 2007	HIST 1010 ISLM 1010	Oman & Islamic Civilization or Islamic Culture	2	2				UR
	LANC 2160	English for Engineering I	3	6				UR
	CHEM 1071	General Chemistry for Engineers	3	3				CR
	ENGR 1500	Introduction to Engineering	2	1		2		CR
	ENGR 1600	Workshop I	1		2			CR
	MATH 1106	Pre-Calculus Mathematics	4	3		2		CR
<b>Total</b>			<b>15</b>					

Semester 3 Fall 2007	ARAB 1001	Arabic	3	3				UR
	LANC 2161	English for Engineering II	3	6			LANC 2160	UR
	SOCI 3320	Contemporary Omani Society	1	1				UR
	MATH 2107	Calculus I	4	3		2	MATH 1106	CR
	PHYS 2107	General Physics I	4	3	3		MATH 2107*	CR
<b>Total</b>			<b>15</b>					

Semester 4 Spring 2008		University Elective	3					UR
	COMP 2xxx	Computer Programming <sup>a</sup>	3					CR
	MATH 2108	Calculus II	3	2		2	MATH 2107	CR
	PHYS 2108	General Physics II	4	3	3		PHYS 2107	CR
	PNGE 2102	Basic Mechanics	3	2		2	PHYS 2107	DR
<b>Total</b>			<b>16</b>					

Semester 5 Fall 2008		College Elective <sup>b</sup>	1				LANC 2161	DR
	MATH 4174	Differential Equations & Applications for Engineers	3	2		2	MATH 2108	CR
	CHPE 3102	Engineering Thermodynamics	3	2		2	MATH 2107	DR
	ERSC 2101	Introduction to Geology I	4	3	2			DR
	PNGE 3111	Chemistry for Petroleum Engineering	3	2		2	CHEM 1071	DR
	PNGE 3112	Introduction to Petroleum and Natural Gas Engineering	2	1		2		DR
<b>Total</b>			<b>16</b>					

Winter break	ENGR 3006	Industrial Training I	0				PNGE 3112	CR
	<b>Total</b>			<b>0</b>				

<sup>a</sup> COMP 2xxx Fortran/ C++/ Visual Basic/Matlab/ENGR2216

<sup>b</sup> CHPE 3103 Professional Practice

Semester 6 Spring 2009	MATH 3171	Linear Algebra and Multivariate Calculus for Engineers	3	2		2	MATH 2108	CR
	CHPE 3101	Materials Engineering	3	2		2		DR
	PNGE 3212	Rock and Fluid Properties	3	2	2		PNGE 3112, PNGE 3111	DR
	CHPE 3302	Fluid Flow	3	2		2	CHPE 3102	DR
	ERSC 5051	Petroleum Geology	3	2	2		ERSC 2101	DR
<b>Total</b>			<b>15</b>					

Semester 7 Fall 2009	CHPE 3402	Heat Transfer	3	2		2	CHPE 3302, MATH 4174 or MEIE 3141* or MEIE 4151*	DR
	PNGE 3202	Numerical Methods & Analysis	3	2		2	COMP 2xxx, MATH 3171	DR
	PNGE 4101	Statistics for Engineers	3	2		2	MATH 2107	DR
	PNGE 4212	Drilling Technology	3	2		2	PNGE 2102, CHPE 3101, PNGE 4312*	DR
	PNGE 4312	Drilling Technology Lab	1		2		CHPE 3302, PNGE 4212*	DR
	PNGE 4412	Reservoir Engineering	3	2		2	PHYS 2108, PNGE 3212, ERSC 5051	DR
<b>Total</b>			<b>16</b>					

Semester 8 Spring 2010	ECCE 3015	Electrical Engineering Fundamentals	3	2		2	PHYS 2107	DR
	GEOP 3041	General Geophysics	3	3			PHYS 2107, MATH 2107, ERSC 2101	DR
	PNGE 4512	Formation Evaluation	3	2		2	PNGE 4412 or GEOP3041	DR
	PNGE 4612	Well Testing	3	2		2	PNGE 4412	DR
	PNGE 4712	Reservoir Simulation	3	2		2	PNGE 4412, PNGE 3202	DR
<b>Total</b>			<b>15</b>					

Summer 2010	ENGR 4006	Industrial Training II	0				ENGR 3006	CR
<b>Total</b>			<b>0</b>					

Semester 9 Fall 2010		University Elective	3					UR
		Technical elective I	3					DR
	PNGE 5103	Engineering Economy	3	3			MATH 2107	DR
	PNGE 5112	Production Engineering	3	2		2	CHPE 3302, PNGE 4412	DR
	PNGE 5115	Project I	2		4		PNGE 4212/4512/4612/4712, CHPE 3103	DR
	PNGE 5212	Secondary and Enhanced Oil Recovery	3	2		2	PNGE 4412, CHPE 3402	DR
<b>Total</b>			<b>17</b>					

Semester 10 Spring 2011		Technical elective II	3					DR
	PNGE 5102	Health, Safety and Environment	3	2		2	CHPE 3103	DR
	PNGE 5203	Mineral Resources Management	3	3			PNGE 5103	DR
	PNGE 5215	Project II	3		6		PNGE 5115	DR
	PNGE 5412	Field Processing of Natural Gas	3	2		2	PNGE 5112	DR
<b>Total</b>			<b>15</b>					

## Department of Petroleum and Chemical Engineering

### Degree Plan: 2006 Cohort (Scheme II: Petroleum and Natural Gas Engineering)

	Course Code	Course Title	Cr.	Lec.	Lab.	Tut.	Pre-req./ Co-req.*	Cat.
Semester 1 Fall 2006		University English	0					UR
	<b>Total</b>			<b>0</b>				
Semester 2 Spring 2007		University English	0					UR
	<b>Total</b>			<b>0</b>				
Semester 3 Fall 2007	ARAB 1001	Arabic	3	2				UR
	LANC 2160	English for Engineering I	3	6				UR
	CHEM 1071	General Chemistry for Engineers	3	3				CR
	ENGR 1500	Introduction to Engineering	2	1		2		CR
	ENGR 1600	Workshop I	1		2			CR
	MATH 1106	Pre-Calculus Mathematics	4	3		2		CR
	<b>Total</b>			<b>16</b>				
Semester 4 Spring 2008		University Elective	3					UR
	HIST 1010 ISLM 1010	Oman & Islamic Civilization or Islamic Culture	2	2				UR
	LANC 2161	English for Engineering II	3	6			LANC 2160	UR
	SOCI 3320	Contemporary Omani Society	1	1				UR
	MATH 2107	Calculus I	4	3		2	MATH 1106	CR
	PHYS 2107	General Physics I	4	3	3		MATH 2107*	CR
	<b>Total</b>			<b>17</b>				
Summer 2008	COMP 2xxx	Computer Programming <sup>a</sup>	3					CR
	MATH 2108	Calculus II	3	2		2	MATH 2107	CR
	<b>Total</b>			<b>6</b>				
Semester 5 Fall 2008		College Elective <sup>b</sup>	1				LANC 2161	DR
	MATH 4174	Differential Equations & Applications for Engineers	3	2		2	MATH 2108	CR
	CHPE 3102	Engineering Thermodynamics	3	2		2	MATH 2107	DR
	ERSC 2101	Introduction to Geology I	4	3	2			DR
	PNGE 3111	Chemistry for Petroleum Engineering	3	2		2	CHEM 1071	DR
	PNGE 3112	Introduction to Petroleum and Natural Gas Engineering	2	1		2		DR
	<b>Total</b>			<b>16</b>				
Winter break	ENGR 3006	Industrial Training I	0				PNGE 3112	CR
	<b>Total</b>			<b>0</b>				

<sup>a</sup> COMP 2xxx Fortran/ C++/ Visual Basic/Matlab

<sup>b</sup> CHPE 3103 Professional Practice

Semester 6 Spring 2009	MATH 3171	Linear Algebra and Multivariate Calculus for Engineers	3	2		2	MATH 2108	CR
	CHPE 3101	Materials Engineering	3	2		2		DR
	PNGE 3212	Rock and Fluid Properties	3	2	2		PNGE 3112, PNGE 3111	DR
	CHPE 3302	Fluid Flow	3	2		2	CHPE 3102	DR
	ERSC 5051	Petroleum Geology	3	2	2		ERSC 2101	DR
<b>Total</b>			<b>15</b>					

Summer 2009	PHYS 2108	General Physics II	4	3	3		PHYS 2107	CR
	PNGE 2102	Basic Mechanics	3	2		2	PHYS 2107	DR
<b>Total</b>			<b>7</b>					

Semester 7 Fall 2009	CHPE 3402	Heat Transfer	3	2		2	CHPE 3302, MATH 4174 or MEIE 3141* or MEIE 4151*	DR
	PNGE 3202	Numerical Methods & Analysis	3	2		2	COMP 2xxx, MATH 3171	DR
	PNGE 4101	Statistics for Engineers	3	2		2	MATH 2107	DR
	PNGE 4212	Drilling Technology	3	2		2	PNGE 2102, CHPE 3101, PNGE 4312*	DR
	PNGE 4312	Drilling Technology Lab	1		2		CHPE 3302, PNGE 4212*	DR
	PNGE 4412	Reservoir Engineering	3	2		2	PHYS 2108, PNGE 3212, ERSC5051	DR
<b>Total</b>			<b>16</b>					

Semester 8 Spring 2010	ECCE 3015	Electrical Engineering Fundamentals	3	2		2	PHYS 2107	DR
	GEOP 3041	General Geophysics	3	3			PHYS 2107, MATH 2107, ERSC 2101	DR
	PNGE 4512	Formation Evaluation	3	2		2	PNGE 4412 or GEOP3041	DR
	PNGE 4612	Well Testing	3	2		2	PNGE 4412	DR
	PNGE 4712	Reservoir Simulation	3	2		2	PNGE 4412, PNGE 3202	DR
<b>Total</b>			<b>15</b>					

Summer 2010	ENGR 4006	Industrial Training II	0				ENGR 3006	CR
<b>Total</b>			<b>0</b>					

Semester 9 Fall 2010		University Elective	3					UR
		Technical elective I	3					DR
	PNGE 5103	Engineering Economy	3	3			MATH 2107	DR
	PNGE 5112	Production Engineering	3	2		2	CHPE 3302, PNGE 4412	DR
	PNGE 5115	Project I	2		4		PNGE 4212/4512/4612/4712, CHPE 3103	DR
	PNGE 5212	Secondary and Enhanced Oil Recovery	3	2		2	PNGE 4412, CHPE 3402	DR
<b>Total</b>			<b>17</b>					

Semester 10 Spring 2011		Technical elective II	3					DR
	PNGE 5102	Health, Safety and Environment	3	2		2	CHPE 3103	DR
	PNGE 5203	Mineral Resources Management	3	3			PNGE 5103	DR
	PNGE 5215	Project II	3		6		PNGE 5115	DR
	PNGE 5412	Field Processing of Natural Gas	3	2		2	PNGE 5112	DR
<b>Total</b>			<b>15</b>					