



EGYPTIAN NATIONAL UNIVERSITIES

مشروع وإنشاء الجامعات المصرية الأهلية

**جامعة العلمين الدولية**  
ALALAMEIN INTERNATIONAL UNIVERSITYAl Alamein  
International University

## Petroleum & Gas Engineering Program

## برنامج هندسة البترول والغاز

### Study Plan

### الخطة الدراسية

Semester	Code	Course Name	LCT	LAB	TUT	OTH	CNTCT	CH	SWL	ECTS
1	MEC011	Engineering Drawing (1)	2	0	3	0	5	3	165	6
	PHY111	Physics I	2	2	0	0	4	3	150	6
	MAT111	Mathematics I	3	0	1	0	4	3	150	6
	MAT122	Statics	3	1	1	0	5	3	165	6
	CHE142	Engineering Chemistry	2	2	1	0	5	3	150	6
	UC1	University Requirement (1)	2	0	0	0	2	2	90	4
							<b>25</b>	<b>17</b>	<b>870</b>	<b>34</b>
2	MEC012	Engineering Drawing (2)	2	3	0	0	5	3	165	6
	MEC041	Production Engineering	2	3	0	0	5	3	165	6
	PHY211	Physics II	2	2	0	0	4	3	150	6
	MAT112	Mathematics II	3	0	1	0	4	3	150	6
	MAT121	Dynamics	3	1	1	0	5	3	165	6
	UC2	University Requirement (2)	2	0	0	0	2	2	90	4
							<b>25</b>	<b>17</b>	<b>885</b>	<b>34</b>
3	PGE111	Organic chemistry of petroleum	3	2	1	0	6	3	180	6
	MEC251	Fluid Mechanics	2	1	2	0	5	3	165	6



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	GES111	Physical Geology	2	2	1	0	5	3	165	6
	MAT312	Differential Equations	2	0	2	0	4	3	150	6
	UC3	University Requirement (3)	2	0	0	0	2	2	90	4
							<b>22</b>	<b>14</b>	<b>750</b>	<b>28</b>
4	ELE114	Principles of Electrical and Electronic Engineering	2	1	2	0	5	3	165	6
	PGE121	Materials Science and Engineering	2	3	1	0	6	3	180	6
	PGE122	Mechanics of materials	2	3	1	0	6	3	180	6
	MEC256	Engineering Thermodynamics	2	1	2	0	5	3	165	6
	PGE113	Introduction to petroleum and gas engineering	3	0	1	0	4	3	150	6
	UC4	University Requirement (4)	2	0	0	0	2	2	90	4
							<b>28</b>	<b>17</b>	<b>930</b>	<b>34</b>
5	PGE214	Introduction to petroleum geology	2	2	0	0	4	2	120	4
	MAT131	Probability and Statistics (1)	2	1	2	0	5	3	195	6
	MEC341	Measurement & Instrumentation	1	3	0	0	4	2	120	4
	PGE231	Natural Gas Engineering I	2	1	2	0	5	3	165	6
	CHG352	Environment & Safety Management	2	3	0	0	5	3	165	6
	CSE014	Structured Programming	2	3	0	0	5	3	180	6
	UC5	University Requirement (5)	2	0	0	0	2	2	90	4
							<b>30</b>	<b>18</b>	<b>1035</b>	<b>36</b>
6	PGE232	Natural Gas Engineering II	2	1	2	0	5	3	165	6
	PGE241	Drilling Engineering, I	2	2	0	0	4	3	120	4
	PGE251	Basic reservoir engineering	2	2	1	0	5	3	165	6
	PGE223	Corrosion in Petroleum & Gas Field	2	2	1	0	5	3	165	6
	E1	Elective Course (1)	2	2	2	0	6	3	180	6
	E2	Elective Course (2)	2	2	2	0	6	3	180	6



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Semester	Code	Course Name	LCT	LAB	TUT	OTH	CNTCT	CH	SWL	ECTS
							<b>31</b>	<b>18</b>	<b>975</b>	<b>34</b>
7	PGE342	Drilling Engineering II	2	3	1	0	6	3	180	6
	PGE343	Petroleum Production	2	3	0	0	5	3	165	6
	PGE344	Drilling fluids	2	2	0	0	4	2	120	4
	PGE352	Applied reservoir engineering	2	2	1	0	5	3	165	6
	UC6	University Requirement (6)	2	0	0	0	2	2	90	4
	UE1	Elective University (1)	2	0	0	0	2	2	90	4
							<b>24</b>	<b>15</b>	<b>810</b>	<b>30</b>
8	CHG421	Reservoir Simulation	2	3	0	0	5	3	165	6
	CHG458	Principles of Enhanced Oil Recovery	2	3	0	0	5	3	165	6
	CHG457	Petroleum Refining Engineering	3	2	0	0	5	3	165	6
	PGE391	Industrial Project	1	6	0	0	7	3	195	6
	E3	Elective Course (3)	2	2	2	0	6	3	180	6
	UE2	Elective University (2)	2	0	0	0	2	2	90	4
							<b>30</b>	<b>17</b>	<b>960</b>	<b>34</b>
9	PGE471	Graduation Project 1	1	6	0	0	7	3	195	6
	PGE447	Well Testing	2	2	0	0	4	3	150	6
	PGE435	Oil and Gas property evaluation	2	2	0	0	4	2	150	6
	PGE448	Formation evaluation	2	2	1	0	5	3	165	6
	E4	Elective Course (4)	2	2	2	0	6	3	180	6
	UC7	University Requirement (7)	2	0	0	0	2	2	90	4
							<b>28</b>	<b>16</b>	<b>930</b>	<b>34</b>
10	PGE472	Graduation Project 2	1	6	0	0	7	3	195	6
	E5	Elective Course (5)	2	2	2	0	6	3	180	6
	E6	Elective Course (6)	2	2	2	0	6	3	180	6



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Semester	Code	Course Name	LCT	LAB	TUT	OTH	CNTCT	CH	SWL	ECTS
	PGE436	Petroleum engineering design	2	0	2	0	4	3	150	6
	CHG422	Petroleum Economics	2	0	1	0	3	2	105	4
	UE3	Elective University (3)	2	0	0	0	2	2	90	4
							28	16	900	32
							271	165	9045	330

### Elective (E1)

- PGE233 Operation research  
PGE261 Wastewater treatment in petroleum industry  
CHG371 Renewable Energy Resources Interfacing

### Elective (E2, E3, E4, E5, E6)

- PGE334 Natural gas handling and networking  
PGE345 Horizontal drilling  
PGE346 Well stimulation  
PGE423 Materials selection in oil & gas industry  
PGE437 Computer applications in oil and gas industry  
PGE438 Selected topics in petroleum and gas engineering  
PGE449 Well control  
PGE499 Special Topic