**Inter-disciplinary Professional Diploma**

**“Petroleum and Natural Gas Industry”**

1. **Introduction**

The program format is directly comparable to the postgraduate professional diploma offered by the Faculty of Engineering at Cairo University. It is open to candidates who hold B.Sc. in Science, Geology, Geophysics or any other discipline from any Egyptian university or its equivalent from any academic institution approved by the Egyptian Supreme Council of Universities. As such, it is particularly suited to non-engineers working in the field of Petroleum and Natural Gas Industry and aim to become familiar with the engineering practice related to their profession.

The purpose of this program is to supply the Egyptian market with non-engineering candidates familiar with basic elements of Petroleum and Natural Gas Industry. Graduates will be able to develop career in the oil and gas industry, either in the local, regional or international labor market.

The interdisciplinary diploma follows all postgraduate general regulations of Faculty of Engineering, Cairo University (credit hour system 2016 – 2017). The Certificate awarding the post graduate degree is granted indicating the title of the Diploma. The statement “Professional Diploma” is mentioned explicitly preceding the title of the program “Petroleum and Natural Gas Industry”. The awarded certificate does not, by any means, qualify the graduate for registration in any of the post graduate academic degrees offered by the Faculty of Engineering – Cairo University or any other Faculty in the Engineering Sector. Furthermore, the certificate awarding the post graduate degree does not allow the graduates (Professional Diploma Holders) to apply for the membership of the Syndicate of Engineers.

1. **Program Distinction**

Considering the permanent and continuing approach of the companies operating in the field of oil and gas industry to develop and keep up with the latest and most recent technologies, the interdisciplinary professional diploma contemplates four main educational objectives. These can be summarized as follows:

1. Provide a study opportunity which enables the candidates to acquire basic knowledge and understanding of engineering fundamentals relevant to Petroleum & NG Engineering profession.
2. Develop the appropriate intellectual skills required to help graduates to plan, design, analyze, execute and manage industrial Petroleum & NG projects.
3. Provide candidates with the practical and professional skills necessary for employment in the field of Petroleum & NG engineering and related fields.
4. Develop communication skills necessary for the profession that enable the graduates to work in multi-disciplinary teams and interact properly in the professional environment.
5. **Program Structure**

The Professional Diploma in Petroleum & Natural Gas Engineering is an inter-disciplinary diploma implemented under the supervision of a steering committee formed by the membership of the Faculty Vice-dean for post graduate affairs, the Program Main Coordinator, the Program Executive Coordinator, in addition to a number of leaders of the oil and gas industry representing Egyptian General Petroleum Corporation, and the relevant holding and associated companies.

The courses studied - a total of 9 compulsory 2-credit courses - are equally distributed among the four main disciplines directly involved in the oil and gas industry: Petroleum, Chemical, Mechanical and Electrical Engineering. In addition, an introductory course “Introduction to Engineering” resembles a main component of the program which is tailored for non-engineering students aiming to familiarize them with different fields of engineering and introduce to them various problem solving techniques employed by engineers. It also introduces the engineering profession through thefundamentals of engineering problem-solving including basic skills from mathematics, science, and computation in the field of petroleum, chemical, mechanical and electrical Engineering.

The time required to attain the Professional Interdisciplinary Diploma is four main semesters (2 academic years) if the student is registered as a part-time student. The Faculty Council may approve, upon the proposal of the Steering Committee, the duration of study to be two main semesters only provided that he/she is enrolled as a full-time student.The number of credit hours required to complete this professional diploma program is 20 credit hours distributed among 10 courses as announced in the program courses listed here-in-after. The qualifying course "Introduction to Petroleum, Chemical, Mechanical and Electrical Engineering" shall count as a part of these credit hours.

1. **Program Admission Requirements**

The minimum entrance qualification is a B.Sc. in Science, such: as geosciences, physics, chemistry, geology or any other discipline from any Egyptian university or its equivalent from any academic institution approved by the Egyptian Supreme Council of Universities. Registered students should dedicate at least two days per week for attending the Professional Diploma lectures.

1. **Graduate Attributes**

A graduate of the Professional Diploma in “Petroleum and Natural Gas Industry” should be able to:

1. Apply professionally the acquired knowledge in Petroleum and Natural Gas Industry practice.
2. Master the professional skills and technological tools appropriate for oil and gas Technology.
3. Identify professional problems and propose appropriate solutions.
4. Communicate effectively and lead teams through systemic professional work.
5. Demonstrate decision making skills in the light of the available information.
6. Deploy available resources in oil and gas Technology & relevant industries effectively.
7. Exhibit awareness of his/ her role in community development and saving the environment.
8. Reflect commitment to integrity, credibility and ethics in oil and gas profession.
9. Recognize the necessity of self development and engage in continuous learning.
10. **Teaching and learning methods**
* Lectures
* Practical classes
* Guided Self-reading
* Mini-research projects
* Interactive discussions
* Case studies
* Site visits
1. **Program Courses**

Introduction to Petroleum, Chemical, Mechanical and Electrical Engineering (PNG 500)

Fundamentals of Electrical Engineering (PNG 501)

Gas Reservoirs (PNG 502)

Production Technologies (PNG 503)

Measurements, Transportation & Storage (PNG 504)

Instrumentation and control (PNG 505)

Separations & Purification (PNG 506)

Processing of Fractionation (PNG 507)

Petrochemical Processes (PNG 508)

NG Utilization (PNG 509)

**FOR MORE INFORMATION ABOUT THE PROGRAM VISIT OUR WEBSITE**

[**http://www.msrc-cu.org**](http://www.msrc-cu.org)

**OR E-MAIL** **info@msrc-cu.org**

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