



**IICSE University**  
...a liberal arts education

# MS in Oil and Gas Engineering Graduate Program

## Master of Science in Oil and Gas Engineering (MS)



MS

OIL AND GAS  
ENGINEERING

**M**aster of Science in Oil and Gas Engineering is a one-year program, designed to educate professionals in the work-flow concepts now prevailing in the oil and gas industries, and to produce engineers that are fully prepared to work efficiently in multi-disciplinary teams.

Master of Science in Oil and Gas Engineering focuses primarily on educating students in the common processes and procedures used in this field. Quite a lot of engineering disciplines are also covered in most of these programs, including natural gas, reservoir and geological engineering.

This program involves advanced study in areas such as rock mechanics, petrophysics, enhanced oil recovery and oil field management, along with well drilling, completion and stimulation.

The objective is to prepare the student for professional work in the energy industry through completion of fundamental courses in the major field and in related sciences as well as independent research.

[www.iicseuniversity.org](http://www.iicseuniversity.org)



**The Program Structure:**

Course Code	MS: <b>First Semester Courses</b>	Credit
ENG 801	Numerical Methods and Geostatistics	2
ENG 802	Research Methods	3
ENG 803	Advanced Engineering Design Project	3
ENG 804	Petroleum Geology	2
ENG 805	Computational Fluid Dynamics	2
ENG 806	Drilling Operations	3
<b>TOTAL CREDITS</b>		<b>15</b>
Course Code	MS: <b>Second Semester Courses</b>	Credit
ENG 811	Energy and Sustainability	2
ENG 812	Hydrocarbon Properties and Thermodynamics	3
ENG 813	Petroleum Production Operations	3
ENG 814	Reservoir Engineering	2
ENG 815	Natural Gas Engineering	2
ENG 816	Petroleum Equipment Design and Drawing	3
<b>TOTAL CREDITS</b>		<b>15</b>
Course Code	MS: <b>Third Semester Courses</b>	Credit
ENG 821	Methods of Applied Mathematics	2
ENG 822	Petroleum Field Instrumentation and Control	3
ENG 823	Geology for Petroleum Engineers	3
ENG 824	Expert Witness in the Legal Process	2
ENG 825	Drilling Fluid and Cements	2
ENG 826	Drilling Technology	3
<b>TOTAL CREDITS</b>		<b>15</b>
Course Code	MS: <b>Fourth Semester Courses</b>	Credit
ENG 831	Human Factors Methods	2
ENG 832	Numerical and Statistical Methods	3
ENG 833	Environmental Impact Assessment	3
ENG 834	Value and Risk Management	2
ENG 835	Project Management Theory and Practice	2
ENG 836	Master Thesis	3
<b>TOTAL CREDITS</b>		<b>15</b>

**The thesis**

A thesis on a particular topic of your choice (with a Supervisor's approval) will be completed by each student in the last semester. There is considerable scope in the choice of subject areas by the student and the research method employed. Each student is allocated a supervisor who guides them through the thesis. The thesis aims to assimilate the theoretical and practical elements of the academic program of study.

**Duration of program:** A Semester runs for a period of three months. Our "Master's Degree" programs are completed within the period of four semesters (one year). We allow extension in the period of study, in case your courses could not be completed within the stipulated time frame. No additional fee, no extra charge for extension in the period of study.

**How to apply**

Prospective student must complete the Admission Form and pay the processing fee of \$45 USD or its equivalent. The processing fee is refundable if admission is denied.

