The Master of Engineering in Oil and Gas provides a comprehensive skill set for engineering graduates seeking employment in the global oil and gas industry.

Designed in collaboration with UWA’s industry partners to match current energy trends, the course is in sync with the rapidly expanding natural gas and Liquefied Natural Gas (LNG) industries in Western Australia and is unique in its focus on downstream oil and gas processing.

About the course
The course will equip students with industry-relevant, advanced knowledge about technical implementation and leadership in the oil and gas industry. A particular focus is placed on natural gas, both its extraction and subsequent conversion to LNG.

Students will develop skills at a professional level in a range of key areas including petroleum engineering, gas economics, investment strategies and liabilities, work-flow concepts, and current production and processing technologies.

Students will also gain an in-depth understanding of the challenges and processes used to deliver these energy streams in a multi-disciplinary marketplace, as well as an awareness of the future direction in which the oil and gas industry is heading.

Business leadership
Business-orientated units will cover the principles of project planning and project management within the context of the oil and gas industry.

Students will get to explore and review a wide selection of case studies taken from real-world oil and gas projects. Additional technical units will have an emphasis on teamwork to solve multi-disciplinary problems in an efficient, timely manner.

Field work
Students will produce a variety of written technical reports and business proposals, and will take part in various group projects, including a unique hydrocarbon field development project.

Fast facts
- UWA is ranked among the top 1% of universities in the world in the Academic Ranking of World Universities
- UWA is the only Western Australian member of the Group of Eight – a coalition of prestigious, research-intensive Australian universities
- UWA was awarded five stars for graduate starting salaries, success in getting a job, positive graduate outcomes, research grants, research intensity and student demand by the 2014 Good Universities Guide.
- The average starting salary for UWA engineering and technology graduates is $70,244, considerably higher than the national average of $63,841 (2014 Good Universities Guide)
- Perth is a global minerals and energy resources hub.
“If you want to study in energy then Perth is the best place in Australasia. UWA is very affiliated with industry and studying there sets you up well for when you start working. During my studies I was introduced to people from Shell – you cannot underestimate the power of networking in the oil and gas industry. I’ve had the chance to work all over Southeast Asia, in Bangalore, in Perth and now Africa. In Gabon it is all onshore projects. We’ve got a few hundred wells and so you never know what challenge is going to confront you. As an Engineer you get trained to deal in uncertainty and this is the part of the job I most enjoy. You can’t solve these types of problems on your own. You need to work as a team.”

Aman Chauhan completed Master level studies in Oil and Gas Engineering at UWA and is now working for Shell on one of the largest oilfields in Sub-Saharan Africa.

Benefits of UWA
As Perth is a regionally strategic area for oil and gas, UWA is ideally positioned to be able to provide an industry-relevant course with excellent graduate outcomes.

In 2013, Western Australia’s resource exports exceeded $110 billion per annum and this growth has attracted world-renowned expertise to UWA.

Chevron, one of the world’s leading integrated energy companies, has made a multi-million dollar investment in gas processing research at UWA, providing an endowment to UWA capable of supporting a Professorial Chair in Gas Process Engineering in perpetuity.

During your studies, you will benefit from close interaction with our leading academics and their links to industry.

Course structure
Core units
- Gas Processing 1 – Flow Assurance and Gathering
- Gas Processing 2 – Treating and LNG Production
- Field Development Project
- Advanced Thermodynamics

Electives
Students choose 4 units from the list below:
- The Hydrocarbon Economy
- Introduction to Oil and Gas Engineering
- Reservoir Engineering
- Risk, Reliability and Safety
- Project Management and Engineering Practice

Conversion units
- Introduction to Oil and Gas Engineering
- Reaction Engineering
- Chemical Process Thermodynamics and Kinetics
- Fluid Mechanics
- Unit Operations and Unit Processes
- Heat and Mass Transfer
- Process Synthesis and Design
- Project Management and Engineering Practice
- Risk, Reliability and Safety
- Introduction to Design of Offshore Systems

Students who have completed undergraduate studies in engineering may be eligible to receive credit towards conversion units.

Delivery
Course duration is 1-2 years of full-time study or the equivalent in part-time study. The Master of Engineering in Oil and Gas is delivered in coursework mode, comprising 16 units. The course has intake periods in February and July.

Admission requirements
To be eligible for admission into the Master of Engineering in Oil and Gas you must meet the following requirements:
- Have a 4-year accredited Engineering degree completed with a Weighted Average Mark (WAM) of at least 65 percent; or

An Engineering degree equivalent to a 3-year degree in Australia with a WAM of at least 65 percent; and

Be able to meet the University’s required level of English Language Competency (visit studyat.uwa.edu.au/elc).

How to apply
For information about the application process, both domestic and international applicants should refer to the Future Students Website at: studyat.uwa.edu.au/postgraduate/apply

International students should also visit international.uwa.edu.au/students/esos for more information about the study environment, course fees and refund policy, and support services.

Course enquiries
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This publication should be treated as a general guide only. For further information, contact the UWA Faculty of Engineering, Computing and Mathematics.