UTP
UNIVERSITI TEKNOLOGI PETRONAS

MSc in
Offshore Engineering

JPT/BPP(R2/0716/7/0004)08/29
JPT/BPP(R-DL/0716/7/0005)01/30

Solving the new equation for offshore engineering talent

The offshore industry, despite being one of hardest hit in the energy sector since the start of the most recent oil price decline, remains a significant contributor to Malaysia's economy. To meet changing demands, the imperative now shifts away from pushing technical boundaries to discovering game-changing ways to transform costs and redesign how work gets done. Decidedly, all these efforts will lay the groundwork for the industry's sustainable operations in the long run.

Although the industry has rapidly expanded over the last 70 years, experts predict that Malaysia will face a talent shortage caused by a shrinking talent pipeline. Compounding this complexity is a large segment of the workforce retiring in the years to come and the lack of graduates produced by Malaysian universities. In order to fill these talent and skill gaps, a new generation of resourceful graduates will be needed to solve the industry's new equation for various growth areas such as the upstream sector, facility development, offshore structure and floating facilities.

At UTP, our MSc in Offshore Engineering programme prepares fresh graduates and engineers in oil & gas companies to take up leadership roles with superior technical knowledge that's highly sought after in the industry. To this end, candidates will work on research projects with our broad range of industry partners.

Building a talent pipeline of offshore engineering specialists! Benefit from learning objectives tied to the contours of reality-based industry situations and changes!

Join a leading feeder university for the offshore engineering industry!

Get in touch with the latest industry thinking.

Grow your industry perspective with subjects grounded in day-to-day industry challenges, opportunities and outcomes.

Learn how to leverage real industry data and research evidence to provide solutions through cutting edge technology tools and management techniques.

"It changed my way of thinking. Civil Engineering majoring with Offshore Engineering was far deeper than I thought. It helped sharpen my vision for my future goal career - The decision to go into the academia became reinforced. I had no doubts.

I'm trusting that the decision will payoff and I remember that wanted to do it for my own betterment. It just feels gratifying to keep learning, and to know that you are relied on to be an expert in particular area. As for me, I am in loveeeee with pipelines and subsea equipments. Eventually you'll be called on to teach others, and you realize, wow, I'm really mastering and exploring the subject, and I'm going to get to pass that on to other people.

No, you can't touch confidence, hope, or the satisfaction that comes with making a meaningful personal impact the same way you can handle a paycheck. But you probably won't get your hands on a rewarding career without intangibles like these."

- Zaty Amirah Binti Ahmad Rashidi -
Offshore Engineering alumni

Building a resilient offshore engineering industry driven by fresh talent and ideas

As global industries are being reconfigured as people and technology collaborate, offshore engineering engineers will be a key cog for the oil and gas industry's growth through R&D. Against this background, innovative and resourceful offshore engineers will be highly sought after to bring change, confront new challenges and respond to a new reality brought on by the latest technology-led trends.

4 reasons to choose MSc in Offshore Engineering at UTP!

1. Modular-based programme jointly developed with PETRONAS' custodian engineers!
   Reap the benefits of an industry-backed programme that supports the global mission of the industry!

2. Leverage our vast industry network!
   Grow your technical expertise through industry-specific projects with any one of our renowned industry partners.

3. Get a sneak peek at the future with maximum industry exposure!
   Boost your industry preparedness and take advantage of a diverse range of career opportunities.

4. Sign up for our Open Distance Learning (ODL) programme
   Offered with the flexibility of classes on campus, online or a blend of both, working professionals can opt for the best mode of learning to accommodate their busy schedules.

APPLY NOW

The industry is our classroom

1	Curriculum jointly developed with PETRONAS Technical Professionals (TP).
2	Programme supported and endorsed by professional consultants designed to meet stringent offshore requirements and regulations.
3	Programme subjects delivered by well-established academics, senior industry experts and adjunct lecturers.
4	Project-based assignments: Capture real industry-derived analytical data resources.

Get your hands in the industry with our vast network

Benefit from our close collaborations with the industry. Immerse yourself in the future and identify answers to the industry's most complex challenges.

Course Structure

Candidates are required to complete total of 41 credit hours. The programme's curriculum structure is as follows:

Category	Module	Credit Hour
Core	Wave Hydrodynamics	3
	Structural Dynamics	3
	Offshore Foundations	3
	Design of Fixed Offshore Structures	3
	Risk, Reliability & Integrity of Offshore Structures	3
	Offshore Project Management	3
Technical Electives (Choose 2)	Offshore Engineering Materials	3
	Offshore Geohazards	3
	HSE Management in Offshore Engineering	3
	Pipeline Engineering	3
	Design of Floating Offshore Platforms	3
	Coastal Engineering & Sustainability	3
University Requirement	Data Analytics	3
	Project Management	2
National Requirement	Research Methodology	2
Project	Research Project I	3
	Research Project II	7
TOTAL		41

As per requirement by Malaysian Qualification Agency (MQA), candidates coming from non-discipline into MSc in Offshore Engineering programme (such as sciences) have to take TWO pre-requisite courses before enrolling for the MSc programme. The two pre-requisite courses are (1) Mechanics of Solid and (2) Structural Analysis

Mode of study

Conventional

ODL

Minimum **12 months**
Maximum **36 months**

Flexible arrangement for Full Time Open and Distance (ODL) Learning mode:

- 100% online with self-instructional materials (SIMS)
- 8 hours minimum of online live class session for each course per semester
- Classes after working hours/over the weekend
- Online open book final exam

Medium of Instruction

English

Intake

January/May/September

Entry requirements

Academic

1	Bachelor's Degree in Engineering / Engineering Technology or its equivalent from a recognised university with a minimum CGPA of 2.50 or its equivalent OR;
2	Bachelor's Degree in a relevant field from a recognised university with a CGPA of 2.00 - 2.49 or its equivalent will require 5 years of working experience and internal rigorous assessment
3	Bachelor's Degree from different discipline, must undergo pre-requisite courses in Engineering or Engineering Technology.
4	No Bachelor's Degree? Apply with your working experience. Candidates who satisfy APEL A requirements are eligible to enrol. Scan the QR code to learn more.

APEL A

English language proficiency

International students are required to be proficient in written and spoken English with a minimum TOEFL score of 500 OR a minimum IELTS score of 5.0 or its equivalent.

Exemptions may be provided for candidates who are native English speakers or degree holders with English as the medium of instruction.

Graduation requirements

In order to graduate with MSc in Offshore Engineering degree, candidate is required to::

1	Obtain a minimum cumulative grade point average (CGPA) of 3.00
2	Satisfy all the requirements approved by UTP Senate
3	Fulfill the required credit hours and pass Research Methodology course

Tuition fees

	Local		International	
Application Fee	RM50		RM200 / USD50	
Registration as a student				
Bond	None		RM3,000	
Registration Fee	RM500		RM1,400	
Commitment Fee	RM500		RM800	
Total	RM1,000		RM5,200	
Commitment throughout studies				
Semester Fee	RM400		RM400	
Tuition Fee	Conventional	ODL	Conventional	ODL
	28,350	22,500	37,400	29,600

Rankings & ratings

2022 SETARA COMPETITIVE

(6 STAR) MyRA® MALAYSIA RESEARCH ASSESSMENT

THE World University Rankings 2025 WORLD TOP 250

RANKED 53 QS WORLD UNIVERSITY RANKINGS ASIA IN THE TOP 100 2025

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For admission enquiry:

www.utp.edu.my

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Universiti Teknologi PETRONAS, 32610 Seri Iskandar, Perak Darul Ridzuan, Malaysia

For further details on the application, visit www.utp.edu.my

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** As of January 2025*