

MSC IN PETROLEUM ENGINEERING

JPT/BPP(R3/0724/7/0003)05/30
JPT/BPP(N-DL/0711/7/0002)10/27





Rebuilding oil and gas workforce for future success!

The petroleum engineering industry faces a yawning talent gap that has been building for years. Following the industry's recent boom and bust cycles, the supply of petroleum engineers is estimated to fall short of the industry's needs over the next several years. Unless addressed soon, the shortage will undermine the industry's long-term growth. As a result, this will spark a surge in the demand for petroleum engineers in the near future.

Developed in collaboration with PETRONAS SKG-10: an engineering focus group under PETRONAS' development wing, custodian engineers and senior industry experts, UTP's MSc in Petroleum Engineering prepares students to capture gains by applying leading industry practices and quantitative methods to exploit subsurface oil and gas reserves. In response to the industry's relentless change, students will work with senior industry experts to generate thematic insights and outcome-based project delivery from conducting research and field projects using the latest industry-derived data to drive growth.

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

Join a leading feeder university for the oil and gas 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 field-development tools and techniques.

Empowering Future Leaders in Petroleum Engineering

In the evolving energy landscape, hydrocarbons continue to play a critical role in meeting global energy demands. However, as these resources become increasingly difficult to access, the industry faces mounting challenges of production stagnation. This programme is specifically designed for individuals eager to tackle these challenges by leveraging cutting-edge technologies for resource extraction. By doing so, graduates will not only meet the growing demand for skilled petroleum engineers but also unlock opportunities to excel in research, production, and consultancy, shaping the future of the energy sector. Moreover, graduates can easily adapt to emerging fields such as carbon storage and unconventional energy sources.

3 reasons to join MSc in Petroleum 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.



The industry is our classroom

1

Curriculum jointly developed with PETRONAS, custodian engineers.

2

Programme subjects delivered by senior industry experts and adjunct lecturers.

3

Project-based assignments: Capture real industry-derived analytical data resources.

4

Digitally enabled classes, high performance workstations and virtual reality.

Expand Your Expertise with Our Extensive Industry Network

Tap into our robust partnerships with leading upstream oil and gas industry players. Alongside PETRONAS and Shell, we collaborate with top-tier companies such as Schlumberger, CMG, Halliburton, and DownUnder GeoSolutions. These alliances support curriculum development and provide valuable industrial attachment opportunities, bridging the gap between academic knowledge and practical industry experience.

Course structure

Candidates are required to complete all credit hours as below:

Full Time 41 credit hours

Full Time (ODL) 40 credit hours

Full Time (Conventional)		
Category	Module	Credit Hour
Core	Reservoir Engineering	3
	Formation Evaluation	4
	Drilling Fluids & Cementing	3
	Drilling Engineering	3
	Production Engineering	4
	Well Test Analysis	3
	Project Management & Economics	3
	Reservoir Simulation	3
University Requirement	Data Analytics	3
National Requirement	Research Methodology	2
Project	Individual Research Project 1	3
	Individual Research Project 2	7
TOTAL		41

Full Time ODL		
Category	Module	Credit Hour
Core	Reservoir Engineering	3
	Formation Evaluation	4
	Drilling Engineering	4
	Well Test Analysis	3
	Production Engineering	4
	Reservoir Simulation	3
	Petroleum Economics	3
Electives (Choose 1)	Project Management	2
	Strategic Management	2
University Requirement	Data Analytics	3
National Requirement	Research Methodology	2
Project	Research Project	10
TOTAL		40

As per requirement by Malaysian Qualification Agency (MQA), candidates coming from non-discipline into MSc in Petroleum 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) Reservoir Engineering I and (2) Fundamental of Petroleum Exploration Engineering

Mode of study

Conventional

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 a relevant field 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 minimum 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.



Applications with other relevant qualifications can also be considered subject to research and working experience as well as candidates' capability to satisfy study requirements.

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 Petroleum 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

Application Fee	Local	International
	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
	28,150	21,900	37,100	28,800

Rankings & ratings



**World
University
Rankings 2025**
WORLD TOP 250

RANKED 53



For programme enquiry:

Programme Manager

Ts Dr Berihun Mamo Negash

Email: bmamo.negash@utp.edu.my

Direct Line: +6053687109

Centre for Graduate Studies

Ms Nurul Asmira Sulaiman

Email: asmira.sulaiman@utp.edu.my

Direct Line: +6053688192

For admission enquiry:

Admission Line :

Local candidates : +605 368 8064

International candidates : +605 368 8364

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

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



* As of January 2025