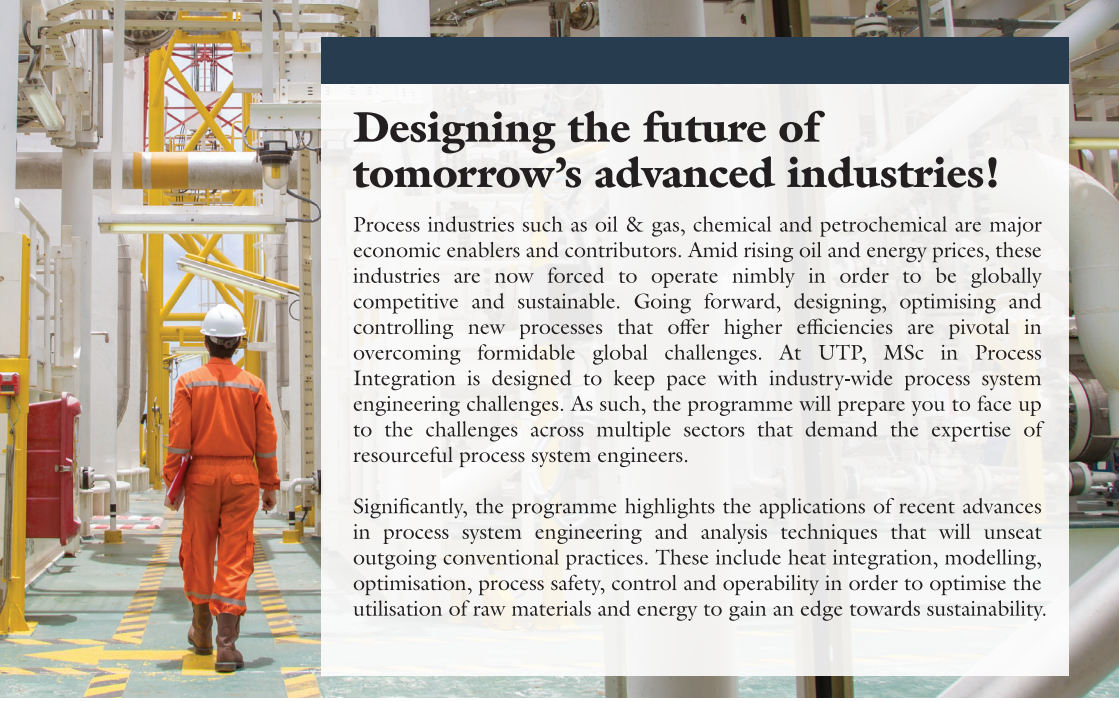
UTP
UNIVERSITI TEKNOLOGI PETRONAS

MSc in Process Integration

JPT/BPP(R2/524/7/0040)07/24
JPT/BPP(N-DL/524/7/0080)02/25



Designing the future of tomorrow's advanced industries!

Process industries such as oil & gas, chemical and petrochemical are major economic enablers and contributors. Amid rising oil and energy prices, these industries are now forced to operate nimbly in order to be globally competitive and sustainable. Going forward, designing, optimising and controlling new processes that offer higher efficiencies are pivotal in overcoming formidable global challenges. At UTP, MSc in Process Integration is designed to keep pace with industry-wide process system engineering challenges. As such, the programme will prepare you to face up to the challenges across multiple sectors that demand the expertise of resourceful process system engineers.

Significantly, the programme highlights the applications of recent advances in process system engineering and analysis techniques that will unseat outgoing conventional practices. These include heat integration, modelling, optimisation, process safety, control and operability in order to optimise the utilisation of raw materials and energy to gain an edge towards sustainability.

Programme highlights

Designed in collaboration with the industry, UTP's MSc in Process Integration helps students break through conventional thinking to plan and deliver an exciting future.

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

Join a leading feeder university for the process integration 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 tools and techniques.

"The industry-focused knowledge, views and insights gained during my study now serve as a practical guide in my decision making—allowing me to formulate higher efficiency execution plans that have contributed to my plant's overall operational improvement. Also, the framework helps me to optimise existing processes by analysing operations and planning from a strategic perspective. Great support and vast industrial experience of the lecturers contributed to deeper understanding of the practical relevance of the courses in my day-to-day work challenges."

- JJ Lau -
Plant Engineer

Who is the programme for?

Take advantage of the industry's rapid talent recruitment drive!

The industry's tilt towards Asia is driving strong demand for process engineers as opportunities are aplenty in chemical, petrochemical, and oil and gas downstream and upstream sectors. Ultimately, the programme prepares students to implement Industry 4.0 and attain a focal point in key engineering areas such as sustainable development and advanced chemical process design.

4 reasons to join MSc in Process Integration at UTP!

1

Programme jointly developed with PETRONAS' experienced engineers

Reap the benefits of an industry-backed programme that supports the global mission of the industry!

2

Leverage our vast industry network via possible industrial attachment programme!

Grow your technical expertise through process system engineering specific projects with any one of our reputable industry partners.

3

Industry support for students from non-industrial backgrounds!

Choose between the two options below

- Carry out an individual design project across a 4-month industrial attachment with a host company, OR
- Carry out a design project using real industry-derived data.

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.

The industry is our classroom

1	**Programme subjects delivered by senior industry experts and adjunct lecturers.**
2	**Industrial-based examples incorporated into the courses.**
3	**Design projects using real industry-derived data.**

Get your hands in the industry with our vast network

Benefit from our collaborations with a wide-range of industry partners that are mapped across our curriculum development and adjunct lecture series.

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	Heat Integration Modelling Optimisation Operability & Control	3 3 3 3
Technical Electives (Choose 4)	Process Safety Environmental Design for Atmospheric Emission Advanced Distillation Design Cogeneration & Site Utility Environmental Design for Aqueous Emissions Refinery and Petrochemical Processes Synthesis of Reaction and Separation Systems	3 3 3 3 3 3 3
University Requirement	Data Analytics Project Management	3 2
National Requirements	Research Methodology	2
Project	Project 1 Project 2	3 7
TOTAL		41

Mode of study

Conventional

ODL

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

On-demand tailored weekend programme

Busy working? Fret not. We have 2 options for you:
a. On-demand tailored weekend programme (Conventional mode)
b. Fully online programme (ODL mode)

Medium of Instruction

English

Intake

January/May/September

Entry requirements

Academic

1	A bachelor's degree with a minimum CGPA of 2.50 or equivalent, or
2	A bachelor's degree or equivalent not meeting CGPA of 2.50, can be accepted subject to a minimum of 5 years of working experience in a relevant field.
3	Bachelor's Degree from different discipline, must undergo pre-requisite courses in Engineering or Engineering Technology.
4	Apply with your working experience. Candidate who satisfy APEL A requirements are eligile to enrol. Scan the QR code to learn more.

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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 Process Integration 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

Malaysian			International		
Conventional	ODL		Conventional	ODL	
RM29,550	RM23,700		RM38,600	RM30,800	
RM400		Resource (every semester)	RM400		
RM500		Registration	RM1,400		
RM500		Commitment	RM800		
-		Personal bond	RM3,000		

Rankings & ratings

2019 SETARA HIGHLY COMPETITIVE MATURE UNIVERSITY

(6 STAR) MyRA® MALAYSIA RESEARCH ASSESSMENT

RANKED 60 THE WORLD UNIVERSITY RANKINGS 2022 TOP 60 EMERGING ECONOMIES

THE World University Rankings 2023 TOP 500

RANKED 79 THE World University Rankings Young 2023 TOP 80

RANKED 63 THE World University Rankings 2023 Asia

For programme enquiry:

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SCAN ME

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

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** As at 19 October 2023*