UTP
UNIVERSITI TEKNOLOGI PETRONAS

MSc in Process Safety

JPT/BPP(R/540/7/0015)12/25
JPT/BPP(N-DL/540/7/0004)03/26

Progress towards zero safety incidents!

Improving process safety has never been more vital. Yet, statistics suggest it has also never been more difficult. Also, recent statistics have shown that Major Hazard Installations (MHI) are moving upward in the region. However, the supply pipeline of process safety engineers is simply not wide enough to cater to the industry's growing needs. Designed in collaboration with well-known process safety institutions and experts, MSc in Process Safety at UTP aims to overcome the industry's talent deficit in Malaysia and the Asia Pacific region. Decidedly, process safety engineers will be at the centre of managing process safety hazards, laying down the bedrock for ongoing improvements especially in upstream and downstream operations.

At UTP, candidates will work with senior industry experts and capture real-case data in understanding and managing risks linked to the industry's larger performance management goals. This helps candidates to attain a focus on the prevention, mitigation and response to major accidents and losses caused by fire, explosion and toxic release in a process installation. Ultimately, candidates will adopt a future-ready mindset and exposed to the latest best practices to oversee process safety management across the full process lifecycle spectrum.

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

Join a leading feeder university for the process safety 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.

> **Major incidents in upstream and downstream operations over the last few years are setting the tone for better practices and regulations. In the future, the industry is set to become a highly regulated professional industry where process design architecture, engineering, operating and maintenance principles will boost industry-wide practices—enhancing quality and safety.**

- Daveen Kumar Selvam -
Process Safety Engineer, SynergenOG

In asset-intensive industries, good safety is good business!

As global industries are being reconfigured as people and technology collaborate, process safety engineers will be a key cog for critical sectors such as oil and gas, petrochemical, chemical, pharmaceutical, consulting, public and R&D. Against this background, innovative and resourceful process safety engineers will be highly sought after to bring change as risk and safety managers, process and technical safety engineers, HSE lead engineers, risk analysts, safety consultants and many more.

3 reasons to join MSc in Process Safety at UTP!

1 Established in 2017 after extensive deliberation via an Expert Panel Workshop attended by renowned academicians and professionals from industries. This is the only program focusing on Process Safety offered in Malaysia.

2 Modular-based programme jointly developed with PETRONAS, custodian engineers, and well-known process safety institutions as well as experts.

3 Comprehensive coverage of the main discipline and thrust of process safety
Includes Hazard Properties, Safety System, Process Technology/ Design, Human Factor, and Risk Analysis) through offerings of developed modules

APPLY NOW

The industry is our classroom

1	**Curriculum jointly developed with PETRONAS' custodian engineers and well-known process safety institutions as well as experts. (IChemE Safety Centre & MKO Process Safety Centre)**
2	**Programme subjects delivered by senior industry experts and adjunct lecturers.**
3	**Project-based assignments: Capture real industry-derived analytical data resources.**

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	Principles of Process Safety Management	3
	Safe Design and Operation	3
	Human Factors	3
	Principles of Hazard Analysis & Risk Management	3
	System Safety Engineering	3
Electives (Choose 3)	Fire & Explosion Engineering	3
	Quantitative Risk Assessment	3
	Incident Prevention & Emergency Management	3
	Industrial Hygiene Engineering	3
	Environmental Risk & Impact Assessment	3
	Process Plant Integrity & Reliability	3
University Requirement	Data Analytics	3
	Project Management	2
National Requirements	Research Methodology	2
Project	Master Project I	3
	Master Project II	7
TOTAL		41

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

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 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.

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 Process Safety 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

For programme enquiry:

Programme Manager
Ts Dr Mohd Hizami Mohd Yusoff
Email: hizami.yusoff@utp.edu.my
Direct Line: +6053687616

Centre for Graduate Studies
Ms Nurul Asmira Sulaiman
Email: asmira.sulaiman@utp.edu.my
Direct Line: +6053688192

For admission enquiry:

www.utp.edu.my

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

UTPOfficial

** As of January 2025*