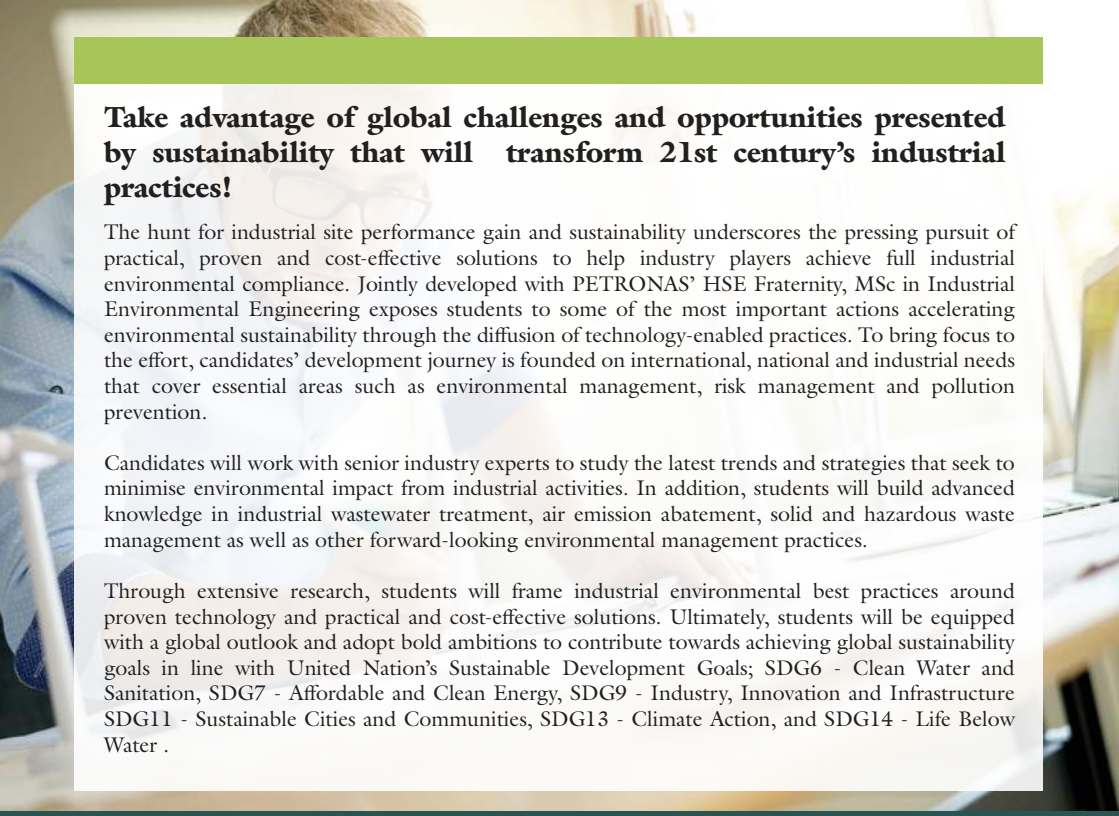
UTP
UNIVERSITI TEKNOLOGI PETRONAS

MSc in Industrial Environmental Engineering

JPT/BPP(R/0717/7/0003)07/29
JPT/BPP(N-DL/0717/7/0002)07/27



Take advantage of global challenges and opportunities presented by sustainability that will transform 21st century's industrial practices!

The hunt for industrial site performance gain and sustainability underscores the pressing pursuit of practical, proven and cost-effective solutions to help industry players achieve full industrial environmental compliance. Jointly developed with PETRONAS' HSE Fraternity, MSc in Industrial Environmental Engineering exposes students to some of the most important actions accelerating environmental sustainability through the diffusion of technology-enabled practices. To bring focus to the effort, candidates' development journey is founded on international, national and industrial needs that cover essential areas such as environmental management, risk management and pollution prevention.

Candidates will work with senior industry experts to study the latest trends and strategies that seek to minimise environmental impact from industrial activities. In addition, students will build advanced knowledge in industrial wastewater treatment, air emission abatement, solid and hazardous waste management as well as other forward-looking environmental management practices.

Through extensive research, students will frame industrial environmental best practices around proven technology and practical and cost-effective solutions. Ultimately, students will be equipped with a global outlook and adopt bold ambitions to contribute towards achieving global sustainability goals in line with United Nation's Sustainable Development Goals; SDG6 - Clean Water and Sanitation, SDG7 - Affordable and Clean Energy, SDG9 - Industry, Innovation and Infrastructure SDG11 - Sustainable Cities and Communities, SDG13 - Climate Action, and SDG14 - Life Below Water .

Building a talent pipeline of industrial environmental specialists! Benefit from learning objectives tied to reality-based industry scenarios and changes

Join a leading feeder university in technology

Get in touch with the latest best practices

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

Leverage practical solutions through the adoption of technology and cost-effective field-development tools and techniques

> **"I strongly recommend environmentalists and sustainability practitioners to take up this programme. Now is a good time to broaden your industry knowledge and insights as the industry needs young and aspiring talents to come forward with fresh ideas. Further, the programme has been designed to suit changing industry needs and help students leverage the full spectrum of the latest engineering practices to accelerate the United Nations' SDGs. With better alignment on industry vision and competitive advantage, students will be exposed to industrial design and operations to boost their career prospect."**

- Mr Teoh Shi Sheng -
Sustainability Manager
Apical Group (Expert Panel)

Lead the sector's engineering practice with our innovative industry-backed education!

The programme aims is to help environmental managers and executives implement sustainable solutions by establishing a link between engineering stewardship and global sustainability efforts. As such, candidates will be equipped with the capability to propose fit-for-purpose technological solutions and pioneer new opportunities as environmental engineers and industry consultants.

3 reasons to join MSc in Industrial Environmental Engineering at UTP!

1

Modular-based programme jointly developed with PETRONAS' Technical Professionals in Environmental Management

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

2

Leverage on our vast industry network!

Grow your technical expertise through industry-specific projects with PETRONAS and partner companies.

3

Get a sneak peek at the future with maximum exposure across industries that offer promising career opportunities!

Boost your industry readiness with our career-connected programme

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 requirements of environmental regulations.**
3	**Project-based assignments: Capture real industry-derived analytical data resources.**
4	**Programme subjects delivered by well-established academics, senior industry experts and adjunct lecturers.**

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.

In response to the rising costs of unchecked environmental pollution, the programme prepares students to become innovative Environment Officers (EO) who are well versed with changing industry requirements and upcoming environmental laws. Essentially, the introduction of the programme's wastewater treatment facility's subject is important for students to learn about the ins and outs of Industrial Effluent Treatment System (IETS) as the current legal requirements in environmental law. At the Department of Environment, all of our staff are IETS certified as they need to be on the same page with the industrial sector.

- ***Mior Izzuddin Baharuddin*** **-**
Environmental Control Officer,
Department of Environment, Perak

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	Advanced Biological Wastewater Treatment	3
	Sludge Management and Disposal	3
	Advanced Physical-Chemical Treatment Technologies	3
	Renewable Energy Technology	3
	Air Pollution Prevention and Control	3
Technical Electives (Choose 1 technical elective)	**Technical Elective 1: Environmental Management**	
	Climate Change and Greenhouse Gas Management	3
	Environmental Impact and Risk Management	3
	Environmental Management System for Industries	3
	Technical Elective 2: Pollution Prevention	
	Contaminated Site Assessment and Remediation	3
	Spill Prevention and Control	3
	Integrated Solid Waste Management	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

Full Time ODL

Category	Module	Credit Hour
Core	Advanced Biological Wastewater Treatment	3
	Sludge Management and Disposal	3
	Environmental Hazardous Substances and Waste Management	2
	Advanced Physical-Chemical Treatment Technologies	3
	Renewable Energy Technology	3
	Air Pollution Prevention and Control	3
Technical Electives (Choose 1 technical elective)	**Technical Elective 1: Environmental Management**	
	Climate Change and Greenhouse Gas Management	3
	Environmental Impact and Risk Management	3
	Environmental Management System for Industries	3
	Technical Elective 2: Pollution Prevention	
	Contaminated Site Assessment and Remediation	3
	Spill Prevention and Control	3
	Integrated Solid Waste Management	3
University Requirement	Data Analytics	2
National Requirement	Research Methodology	2
Project	Research Project	10
TOTAL		40

As per requirement by Malaysian Qualification Agency (MQA), candidate coming from non-discipline into MSc in Industrial Environmental Engineering programme (such as sciences) has 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 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.

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 Industrial Environmental 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**
	28,350	21,900	37,400	28,800

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:

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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

UTPOfficial

** As of January 2025*