

# BACHELOR OF ENVIRONMENTAL ENGINEERING WITH HONOURS

## ENVIRONMENTAL ENGINEERING TOWARDS A SUSTAINABLE FUTURE

The Environmental Engineering programme embraces broad environmental concerns including water quality and supply, groundwater protection and remediation, wastewater treatment, indoor and outdoor air quality, solid and hazardous waste disposal, supply of safe drinking water, cleaning contaminated sites, preserving sensitive wetlands, and prevention of pollution through product and process design. It involves efforts related to environmental sustainability, which is to improve recycling, waste disposal, public health, water, and air pollution control, as well as awareness and knowledge of environmental engineering laws.

The programme includes the planning, design, construction and operation of facilities in municipalities and industries, modelling and analysis of water quality, design of soil and remediation systems, planning for the disposal and reuse of wastewaters and sludges, and the collection, transport, processing, recovery and disposal of solid wastes according to accepted engineering practices.

Now everyone can push for a sustainable planet with living choices that make a difference. Expect to learn about Environmental Chemistry, Geo-Environmental Engineering, Passive and Active Environmental Controls, Environmental Impact Monitoring, Building Operation and Facilities Management, Safety Certification, Compliance and Auditing, as well as Township Design and Planning.



**ACCREDITATION CODE** (N526/6/0146; 01/2027); (MQA/PA 12251)

**CLASSIFICATION** BEng(Hons)

**SUBJECT AREA** Environmental Engineering

**COURSE MODE** Full-time

**COURSE DURATION** Four years

**COURSE LOCATION** Kuala Lumpur

**INTAKES** January, May and September

# COURSE SYLLABUS

## YEAR 1

- Engineering Static and Dynamic
- Fluid Mechanics
- Environmental Sustainability
- Sustainable Materials
- Mathematical Methods for Engineers 1
- Mathematical Methods for Engineers 2
- Climatology
- Environmental Chemistry
- Safety Health and Environment
- Engineering Design and Drawing
- Technical Communication

## YEAR 4

- Final Year Project A
- Capstone Design Project 1
- Safety Certification, Compliance and Auditing
- Capstone Design Project 2
- Final Year Project B
- Township Design and Planning

## YEAR 2

- Statistics
- Geo-Environmental Engineering
- Engineering Hydrology
- Sustainable Design and Construction
- Disaster Mitigation and Control
- Water and Wastewater Treatment
- Sustainable Transportation
- Contaminant Hydrology
- Environmental Software and Application
- Environmental Field Trip
- Air Quality Control
- Industrial Training 1

## YEAR 3

- Passive and Active Environmental Controls
- Water Efficiency and Conservation
- Engineering Management and Economic
- Energy Efficiency and Conservation
- Solid and Hazardous Waste Management
- Renewable Energy and Resources
- Urban Transportation Planning
- Environmental Impact Monitoring
- Building Operation and Facilities Management
- Safety Process and Risk Management
- Industrial Training 2

- Engineers in Society
- Elective Course (**choose 1 course only**):  
Introduction to Artificial Intelligence  
Technopreneurship  
GIS Fundamental and Application

## ENTRY REQUIREMENTS

| QUALIFICATION   | ACADEMIC REQUIREMENTS   |
|---|---|
| Foundation (Science Stream)   | Minimum CGPA 2.0  |
| Sijil Tinggi Persekolahan Malaysia (STPM) (Science Stream)                                  | Minimum 2Cs including Mathematics and one relevant Physical Science subject   |
| A-Levels (Science Stream)   | Minimum 2Ds including Mathematics and one relevant Physical Science subject   |
| Unified Examination Certificate (UEC) (Science Stream)                                      | Minimum 5Bs including Mathematics and one relevant Physical Science subject   |
| South Australian Matriculation (SAM) / Canadian Pre-University (CPU) (Science Stream)       | SAM – Minimum average of 60% in 5 subjects, inclusive of minimum scores of 60% in Mathematics and one relevant Physical Science subject<br>CPU – Minimum average of 60% in 6 subjects, inclusive of a minimum score of 60% in Mathematics and one relevant Physical Science subject |
| Matriculation (Science Stream)  | Minimum CGPA 2.0  |
| International Baccalaureate (Science Stream)  | Minimum 26/42 points from 6 subjects (inclusive Mathematics and one relevant Physical Science subject).   |
| Diploma/ Advance Diploma/ Degree / Equivalent   | Minimum CGPA 2.0<br><i>*Subject to Faculty discretion after reviewing transcript and syllabus. Max credit transfer of 30% of the programme total credits</i>  |
| Other qualifications deemed equivalent to STPM / A-Level by Malaysian Qualifications Agency | Minimum overall average of 60%, inclusive of minimum 60% in Mathematics and one relevant Physical Science subject.  |
| WAE/NECO  | Maximum aggregate of 15 points out of best 5 subjects, inclusive of minimum B in Mathematics and one relevant Physical Science subject  |
| SACE/AUSMAT/TEE/SAM   | Minimum overall average of 60%, inclusive of a minimum score of 60% in Mathematics and one relevant Physical Science subject  |
| WACE/NTCE   | Minimum overall average of 60%, inclusive of a minimum 60% in Mathematics and one relevant Physical Science subject   |

## ENGLISH LANGUAGE REQUIREMENTS

A distinction (A+, A or A-) in the English Language subject at SPM/UEC level; or IELTS 5.0/CEFR B1 or equivalent with TOEFL PBT (410-413) or TOEFL IBT (34) or CAE (160) (Cambridge English: Advance) / CEFR B2 or CPE (180) (Cambridge English: Proficiency) / CEFR C1 or PTE (Pearson Test of English) (36) or MUET (Malaysian University English Test) Band 3.

In the event that the English Language Requirements are not met for local students, student may be required to undertake additional English module(s) prior to or concurrently with the undergraduate programme, based on the University's decision.

*Note / Legend:*

Discretion is given to the Head of School to deal with applicants who have results borderline to the Academic Requirements.

I.e.: SPM Credit – 'A+' to 'C' | O-Level – 'A' to 'C' | UEC Credit – 'A1' to 'B6' | STPM principal – 'A' to 'C' | 'A' Levels principal – 'A' to 'E'

## CAREER OPPORTUNITIES

Environmental Engineer • Air Quality Specialist • Environmental Manager • Sustainability Manager • Water Engineer

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TOP 10 IN MALAYSIA