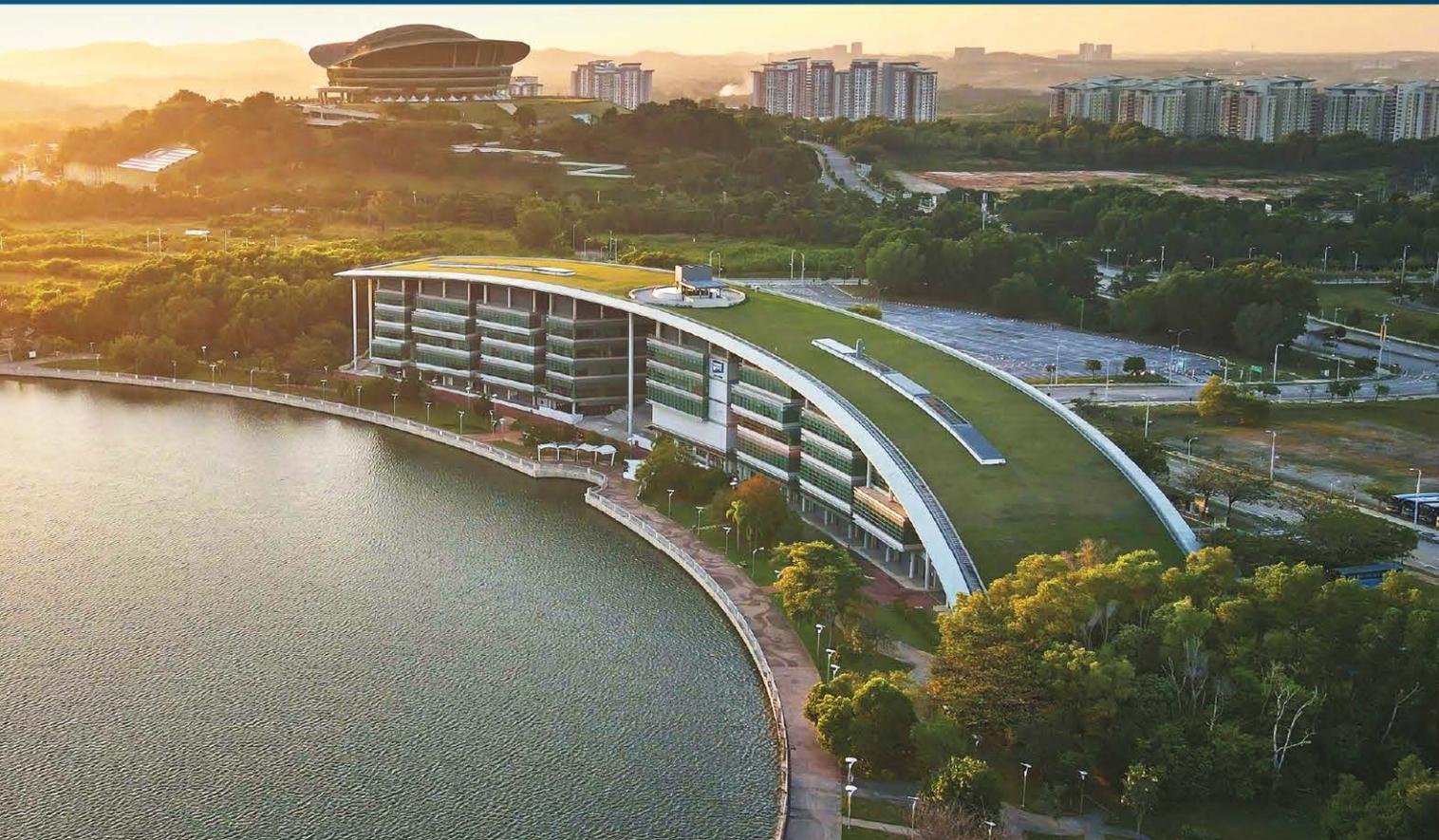




**HERIOT
WATT**
UNIVERSITY
UK | DUBAI | MALAYSIA

Engineering &
Built Environment
2026



Engineering & Built Environment

at Heriot-Watt University Malaysia

As the leading research institution in Scotland, UK and Dubai, we have a reputation for excellence that spans the globe. Our programmes for professionals cover engineering, built environment, renewable energy, oil and gas, and more.

We understand the importance of building future thinkers and leaders who have global perspectives. And we do that by equipping them with the ability to explore international opportunities, engage in our inter-campus transfer programme and gain experience with real-world projects. That means exposure to practical industry-specific problem-solving tasks via collaborations with local and international companies, government agencies and professional bodies.

Our postgraduate programmes offer flexibility where students can study while remaining in full-time employment - ensuring that the learning and advancement process never has to be put on pause.

Discover

the intakes and durations of our undergraduate and postgraduate programmes today.

Undergraduate

MEng Chemical Engineering - 4 Years
Intake: September, January

MEng Mechanical Engineering - 4 Years
Intake: September, January

MEng Electrical and Electronic Engineering - 4 Years
Intake: September

MEng Robotic and Mechatronic Engineering - 4 Years
Intake: September*

MEng Civil Engineering - 4 Years
Intake: September, January

BSc (Hons) Quantity Surveying - 3 Years
Intake: September, January

Postgraduate

MSc Petroleum Engineering - 1 to 2 Years
Intake: September, January

* Not available for Go Global programme



MEng Chemical Engineering

KPT/JPS (R/524/6/0041) (MQA/FA5107) 11/26

Intake: September, January

This degree will allow you to understand the chemical and physical principles underlying chemical engineering concepts, and help you cultivate the ability to apply your skills to real, practical engineering problems. The programme will provide an in-depth knowledge of key features of sustainability management and the relevant legislation and develop students' ability to critically evaluate sustainability and environmental risks. It will also develop your transferrable skills in communication, team-working, industrial and commercial awareness, and career management.

ACCREDITATION

This programme is accredited by the Malaysian Qualifications Agency (MQA). Our MEng programme is accredited and recognised by the Board of Engineers Malaysia (BEM). MEng is internationally recognised and accredited by the Institute of Chemical Engineers (IChemE). Our MEng qualification is designed to satisfy the academic

Accredited by:



Year 1

- Industrial Chemical Processes
- Fluid Mechanics
- Chemical Thermodynamics & Introductory Chemical Kinetics
- Maths Engineers & Scientists 3
- Thermodynamics
- Heat Transfer
- Process Design A
- Mathematical Modelling for Chemical Engineers

Year 2

- Separation Processes A
- Chemical Reaction Engineering
- Process Control
- Sustainable Development and Engineering Management
- Separation Processes B
- Multiphase Thermodynamics
- Process Health and Safety
- Bioprocessing

Year 3

- Separation Processes C
- Sustainability Management and Process Economics
- Process Optimisation, Integration and Analysis
- Particle Technology
- Reaction Engineering
- Applied Transport Phenomena
- Process Engineering Design Project

Students undertake a compulsory industrial training placement at the end of Year 3.

Year 4

Optional courses from a range of specialist engineering subjects. Two major projects are taken in this year: an in-depth individual research project; and an enhanced group-based design project, where students can demonstrate their skills in process design and commercial awareness, culminating in a board-style presentation to senior industry leaders.

- Design Project
- Research Project

Plus 4 optional courses related to Oil & Gas Technology, Bioprocessing, Energy Engineering, Environmental Engineering, and Formulation Engineering.

Testimonial



Kevin Lam

MEng Chemical Engineering (Class of 2020),
Obsolescence SPA
at bp

Throughout my time with the University, I've been exposed to a curriculum geared towards the application of knowledge, giving me a holistic understanding of the underlying theory, whilst appreciating its application in a practical manner.



MEng Mechanical Engineering

KPT/JPS (R/521/6/0092) (MQA/FA5108) 11/26

Intake: September, January

This degree aims to produce graduate engineers who are able to meet the challenging needs of today and tomorrow's industries and society. The curriculum is rigorous to ensure solid foundation in current mechanical engineering principles enriched with industrial relevance and group work.

This programme is accredited by the IMechE on behalf of the Engineering Council UK, and fully meets the exemplifying academic benchmark requirements for registrations as a Chartered Engineer (CEng).

Students completing an IMechE accredited degree are deemed to have met part or all of the academic requirements for registration as a Chartered or Incorporated Engineer and are in a strong position to move on to achieve professional engineering status after a period of initial professional development in industry.

ACCREDITATION

Our MEng programme is also accredited by the Malaysian Qualifications Agency (MQA), recognised by the Board of Engineers Malaysia (BEM), and fully accredited by the Malaysian Engineering Accreditation Council (EAC).

Accredited by:



Year 1

- Design and Manufacture 2
- Electrical Power and Machines
- Mathematics for Engineers and Scientists 3 & 4
- Mechanics of Materials A
- Dynamics
- Fluid Mechanics A
- Thermodynamics A

Year 2

- Sustainable Development and Engineering Management
- Design and Manufacture 3 and 4
- Mechanics of Materials B
- Computational Fluid Dynamics and Compressible Fluids
- Vibration Analysis & Control Engineering
- Thermodynamics B
- Automotive Technologies 1 (Optional)
- Energy Studies (Optional)

Year 3

- Industrial Design and Manufacture

Optional Courses:

- Incompressible Fluid Dynamics
- Heat Exchangers and Heat Transfer
- Dynamics 1
- Advanced Mechanics of Materials 1
- Compressible Fluid Dynamics
- Advanced Thermodynamics Application
- Dynamics 2

Students undertake a compulsory industrial training placement at the end of Year 3.

Year 4

- Failure Accident Analysis
- Group Project
- Professional and Industrial Studies
- Computational Fluid Dynamics with Heat Transfer
- Specialist Engineering Technologies 2
- Individual Project

Students take a total of eight courses per year including core and optional courses as well as projects.

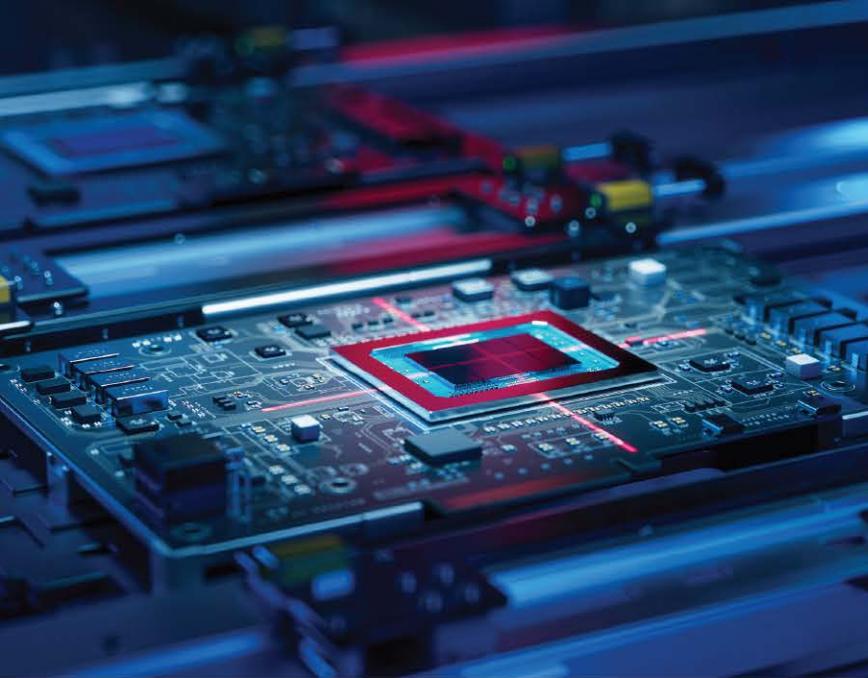
Testimonial



Peter Rattray

MEng Mechanical Engineering (Class of 2021),
Data Engineer
at Mars, Virginia, USA
1 year in Edinburgh + 3 years in Malaysia

The option to seamlessly transfer between the UK and Malaysia campuses at any point during my engineering degree has allowed me to develop my soft skills by working with students on the other side of the world. I was able to do my first year at the Edinburgh campus before doing the rest of my degree at the Malaysia campus in Putrajaya.



MEng Electrical and Electronic Engineering

KPT/JPS (R/523/6/0265) (MQA/FA6194) 08/27

Intake: September

From the electricity that powers our lives to the mobile phones that enable communication and provide entertainment, the technologies around us inspire wonder. Highly trained engineers are needed to specify and design such systems and devise electronic engineering solutions for future challenges such as electric transportation, renewable energy generation, robot systems and medical diagnostics.

ACCREDITATION

This programme is accredited by the Malaysian Qualifications Agency (MQA). Our MEng qualification is designed to satisfy the academic requirements set by the Engineering Council UK for registration as a Chartered Engineer (CEng) status.

Chartered engineers enjoy excellent prospects, enhanced employability and high salaries.

Our MEng programme is accredited and recognised by the Board of Engineers Malaysia (BEM). Graduates from this programme are eligible for registration with BEM under the Electrical Discipline.

Accredited by:



Year 1

- Circuits and Analysis
- Digital Design and Programming
- Mathematics for Engineers and Scientists 3
- Sustainable Development and Engineering Management
- Mathematics for Engineers and Scientists 4
- Introduction to Electricity and Magnetism
- Electrical Power and Machines
- Computer Architecture and Embedded Systems

Year 2

- Semiconductor Electronics
- System Project
- Probability, Statistics, and Information Theory
- Time Frequency and Signal Analysis
- Signals and Systems
- Electrical Energy Systems
- Electromagnetism

Year 3

- MEng Group Project 1
- Professional and Industrial Studies
- MEng Group Project 2

Optional Courses:

- Linear Control
- Digital Signal Processing
- Advanced Analogue Electronics
- Sustainable Energy and Power Systems
- Communication Devices and Systems

Students undertake a compulsory industrial training placement at the end of Year 3.

Year 4

MEng students do Project 1 and Project 2 plus four optional courses.

Optional Courses:

- Electrical Power System
- Digital Signal Processing
- Distributed Generation
- Renewable Generation and Conversion

Students take a total of eight courses per year including core and optional courses as well as projects.

Testimonial



Thanjeetraaj Kaur

MEng Electrical & Electronic Engineering (Class of 2019), SEA Industry Consultant at Rockwell Automation (Malaysia) Sdn Bhd

Heriot-Watt University Malaysia equipped me with technical skills, problem-solving and adaptability that I now apply as an Industry Consultant at Rockwell Automation, supporting Southeast Asia's semiconductor and data centre sectors with advanced automation and AI solutions.



MEng Robotic and Mechatronic Engineering

KPT/JPS (N/0713/6/0062) (MQA/PA18142) 03/32

Intake: September*

Robotic and mechatronic is an emerging field that are both high priority and high impact and graduates from this programme can contribute to the growing interest and demand in the industry for professional robotic and mechatronic engineers, both locally and abroad. As robotic and artificial intelligence become the key technology enabler for the future, graduates from the programme will be at the forefront of designing innovative products and devices. The main aim of this programme is to equip students with strong theoretical and practical skills in robotic and mechatronic to work at a professional level in related industries.

The programme will combine a broad range of multidisciplinary knowledge and skills in mechanical engineering, electrical and electronic engineering with intelligent embedded control to solve complex engineering problems. The first two years will provide a solid foundation while the final two years will provide specialisation in robotic and mechatronic. Students will take a mix of mandatory and optional modules plus a dissertation. The modules will cover concepts such as mathematics, computing, control, embedded systems, electronics and intelligent system design. Project modules are also introduced to enable students to have hands-on experience and apply the knowledge into building and designing robotic and mechatronic systems.

ACCREDITATION

This programme has provisional accreditation by the Malaysian Qualifications Agency (MQA).

* Not available for Go Global programme

Year 1

- Mathematics for Engineers and Scientists 3
- Circuits and Analysis
- Digital Design and Programming
- Mechanics of Materials A
- Mathematics for Engineers and Scientists 4
- Dynamics
- Mechatronics Systems Group Project
- Introduction to Robotics

Year 2

- Design and Manufacture 2
- Signals and Systems
- Sustainable Development & Engineering Management
- Fluid Mechanics A
- Robotic and Mechatronic Design Project
- Thermodynamics A
- Time Frequency and Signal Analysis

Year 3

- Robotic and Mechatronic Group Project 1
- Professional and Industrial Studies
- Embedded Systems
- Linear Control
- Robotic and Mechatronic Group Project 2
- Image Processing
- Robotic Mechanical Systems

Students undertake a compulsory industrial training placement at the end of Year 3.

Year 4

- Project 1
- Industrial Automation and Instrumentation
- Robotics Systems Science
- Project 2
- Advanced Digital Electronic
- Machine Vision
- Embedded Software

Students take a total of eight courses per year including core and optional courses as well as projects.

Testimonial



Zhao Chen

*MEng Robotic and Mechatronic Engineering
(Current Student),
Heriot-Watt University Malaysia*

I really enjoy the atmosphere here. The lecturers and classmates are super nice and helpful, which creates a very supportive environment for international students like me. If you are interested in both electrical and mechanical engineering, this is a great choice. It's always exciting to work on the 'cool stuff', like operating robot arms or making a line-following buggy by yourself. It's also good for making friends, since we share a few classes with students from other majors like Electronic and Electrical, and Mechanical Engineering. I also want to thank all the lecturers for being so supportive and for making these challenging subjects fun to learn.



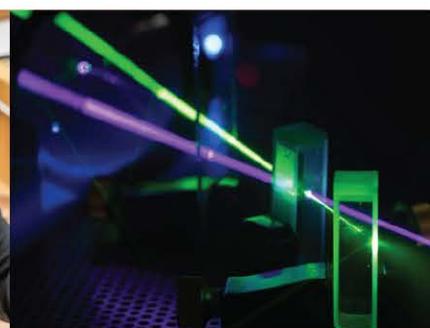
The National Robotarium

The UK's centre for Robotics and Artificial Intelligence

As global leaders in robotics and engineering, the National Robotarium is strategically located at the **Heriot-Watt University, Edinburgh campus** spanning 40,000sq ft.

The stunning purpose-built £22.4m facility houses unrivalled technology, laboratories and equipment; central for testing and development of robotics and AI solutions, offering flexible spaces for science, engineering and industry to work collaboratively under one roof.

The global research institute is home to three distinct areas of research and development:



■ **Robotics and Autonomous Systems (RAS)**

■ **Human-Robot Interaction (HRI)**

■ **Precision Laser Applications (PLS)**

The National Robotarium fosters the teaching and development of the next generation of roboticists, producing highly-skilled graduates who are trained to conduct world-leading research with a market focus, and development engagement and learning programmes to equip the current and future workforce with robotics, data, computer science and other STEM skills.



MEng Civil Engineering

KPT/JPS (R/526/6/0108) (MQA/FA6195) 08/27

Intake: September, January

Our rigorous core curriculum equips students with a solid grounding in major civil-engineering disciplines. In the early years, you'll master analytical techniques and material behaviour; during specialisation, you'll apply design principles and project-management skills. Throughout, collaborative projects and industry internship enrich your personal and professional development.

To meet industry demands, we've introduced a cutting-edge Machine Learning and Programming course. This AI-focused module covers programming languages, algorithms and model deployment within civil-engineering contexts, teaching you to harness data-driven tools, automate analyses and develop smart and sustainable infrastructure solutions. Graduates are highly sought after in construction, utilities, energy and transportation sectors, thanks to their blend of technical expertise, managerial know-how and innovative mindset.

ACCREDITATION

Our MEng programme holds international accreditation from the Joint Board of Moderators (JBM) comprising the Institution of Civil Engineers (ICE), the Institution of Structural Engineers (IStructE), the Institute of Highway Engineers (IHE), the Chartered Institution of Highways and Transportation (CIHT) and the Permanent Way Institution (PWI) on behalf of the Engineering Council (UK), fully satisfying the academic requirements for Chartered Engineer (CEng) registration.

In addition, our degree is recognised by the Board of Engineers Malaysia (BEM) and is fully accredited by the Malaysian Engineering Accreditation Council (EAC) and the Malaysian Qualifications Agency (MQA), ensuring that our graduates enjoy both global and local professional standing.

Accredited by:



Year 1

- Analysis of Determinate Structures
- Hydraulics and Hydrology A
- Surveying and GIS
- Mathematics for Engineers and Scientists 3
- Civil Engineering Materials
- Stress Analysis and Element Strength
- Design Studies A - Problem Solving
- Statistics for Science

Year 2

- Indeterminate Structures
- Geology and Soil Properties
- Design of Steel Elements
- Transport Design, Infrastructure and Society
- Hydraulics and Hydrology B
- Geotechnics A - Intro to Soil Mechanics
- Design of Concrete Elements
- Environmental Technology and Management

Year 3

- Geotechnics B - Geotechnical Applications
- Highway Engineering
- Structural Element Design
- Finite Element Method Linear Analysis
- Foundation Engineering
- Plastic Analysis of Structures
- Urban Drainage and Water Supply
- Civil Engineering Design Project
- Industrial Training (Min 8 Weeks)

Year 4

- Civil Engineering Professional Design Project
- Dissertation 1 & 2 Civil Engineering Discipline
- Project Management Theory and Practice
- Construction Financial Management
- Project Management Strategic Issues

Optional Courses:

- Finite Element Method Nonlinear Analysis
- Machine Learning and Programming

Testimonial



Valentina Nicson

MEng Civil Engineering (Class of 2022),
Technical Sales Engineer
at IDAS Technology Pte Ltd, Singapore

At Heriot-Watt University Malaysia, what stood out to me the most was the amicability and willingness of the lecturers to help, as they were always available for tutorials and provided ample advice and guidance, which enabled us to gain a better insight into the subject matter.



BSc (Hons) Quantity Surveying

KPT/JPS (R2/0734/6/0001) (MQA/FA4369) 06/29

Intake: September, January

Quantity surveying today extends beyond traditional roles, integrating sustainability principles and leveraging construction digitalisation for cutting-edge project management. In addition to offering financial, contractual, management and technical advice, quantity surveyors now champion sustainable practices, ensuring that construction projects in multiple industries meet immediate needs and contribute to long-term environmental and societal well-being.

Furthermore, in the era of construction digitalisation, quantity surveyors harness innovative technologies to streamline processes, enhance efficiency, and optimise project outcomes. From utilising Building Information Modelling (BIM) for seamless collaboration to implementing advanced cost estimation software for accurate budgeting, they leverage digital tools to revolutionise project delivery.

ACCREDITATION

Our accredited programme, recognised by esteemed institutions such as the Royal Institution of Chartered Surveyors (RICS), Chartered Institution of Civil Engineering Surveyors (ICES), and Board of Quantity Surveyors Malaysia (BQSM), as well as endorsed by the Malaysian Qualifications Agency (MQA), prepares aspiring quantity surveyors to excel in this dynamic and forward-thinking industry landscape.



Accredited by:



Year 1

- Construction Technology: Structure and Fabric
- Commercial Law
- Surveying and Geographic Information System (GIS)
- Cost Modelling and Measurement
- eConstruction
- Building Services Technology
- Principles of Property Valuation
- The Economy

Year 2

- Safety Management and Site Establishment
- Construction Technology for Commercial Building
- Procurement and Contracts
- Design Cost Planning and Control
- Measurement and Cost Evaluation
- Design Issues
- Design for Construction
- Innovation in Construction Practice

Year 3

- Cost and Value Management
- QS Practice
- Design Project
- Dissertation
- Construction Information Management
- Business Management in the Built Environment

Students take a total of eight courses per year including core, optional and elective courses/projects.

Testimonial



Billy Wong

*BSc (Hons) Quantity Surveying (Class of 2019),
Quantity Surveyor / Contract Administrator
at Turner International Malaysia*

My time at Heriot-Watt University Malaysia was truly transformative. The Quantity Surveying programme provided the technical skills and practical experience that prepared me for my role at Turner. From leading group projects and presenting at conferences to an eight-month township development challenge, I gained real-world insight and confidence. Learning BIM was a turning point, connecting theory with on-site practice.

Campus life was just as enriching — from late-night study sessions in scenic Putrajaya to a study trip to the UK that highlighted Heriot-Watt's global standards. The programme offered more than just QS training, with strong commercial and contractual foundations that helped shape my career path.



MSc Petroleum Engineering

KPT/JPS (R2/0711/7/0001) (MQA/FA3474) 06/28

Intake: September, January

Petroleum Engineering at Heriot-Watt University is ranked 15th in the world and 2nd in the UK. It also holds the No.1 position for Employee Reputation in the UK, as per the QS World University Rankings by Subject 2025.

Petroleum engineering is central to safe, efficient and sustainable development of oil and gas assets to meet global energy and resource demands. Heriot-Watt University has delivered its internationally renowned petroleum engineering MSc programme for decades, providing thousands of graduates with the knowledge and skills to tackle the oil and gas industry's most challenging problems across the globe. The programme offers an interdisciplinary approach to exploration and extraction of petroleum resources.

The programme includes lectures, project work, and field trips, covering a wide range of petroleum engineering fundamentals that are highly relevant to the modern petroleum industry.

Courses

- Geoscience for Petroleum Engineering
- Reservoir Engineering
- Drilling Engineering
- Formation Evaluation
- Petroleum Economics
- Production Technology
- Reservoir Simulation
- Reservoir Engineering - Well Test Analysis
- Field Development Project
- Individual Project

Testimonial



Felicity Valerie Karim

*MSc Petroleum Engineering (Class of 2025),
Reservoir Engineer
at PETRONAS Carigali Sdn Bhd*

My most memorable moments at Heriot-Watt University Malaysia were the time spent with my classmates, not only in class but also sharing meals, camping in the postgraduate common room, completing coursework, preparing for final exams, and doing casual activities together. After a few years of working, I decided to take a career break to strengthen my fundamentals, which is why I chose the programme. The programme connected me with classmates from different countries and helped me grow on a personal level and in my professional development, allowing me to contribute better to my organisation.

About Our Go Global

At Heriot-Watt University, the world is your classroom. Immerse yourself in a truly international learning experience with students from diverse backgrounds. Unlock the world's possibilities through our seamless inter-campus transfer programme to the **Edinburgh** or **Dubai campuses** and enjoy a **20% discount***.

** Subject to the degree programme running at your chosen campus.*

20%

tuition fee discount when you transfer to our **Edinburgh** or **Dubai campuses**

99%

of **Go Global students** said they would recommend it

Heriot-Watt University
Student Survey 2020

80%

of surveyed employers actively seek out graduates **with international experience**

QS Global Employer
Survey Report



HOW TO APPLY

Heriot-Watt
University
Malaysia accepts
applications all
year round.

APPLY ONLINE

You can apply online for our programmes at <https://bit.ly/HWApply> You must create an account to use the online application form. You don't have to complete the application in one session; you can save the information you have already entered and return to complete it at a later date. There is a help facility on each page of the online form.

SUPPORTING DOCUMENTS

Please remember to upload supporting documents so that we can make a decision on your application. This includes proof of English language proficiency and original or certified copies of academic transcripts.

Please refer to the supplemental item checklist on the Online Application form:

▶ <http://bit.ly/hwumaccount>

See website for details of fees:

▶ http://bit.ly/hwum_fees



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www.hw.edu.my

Open for consultation:
Weekdays 9am - 5pm
Weekends by appointment

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As of January 2026