School of Engineering

Master of Advanced Engineering
(Energy and Sustainability)

www.eng.monash.edu.my
Take your knowledge further

The Master of Advanced Engineering (Energy and Sustainability) is designed for working engineers and engineering graduates with an ambition to lead. Addressing the pertinent demands in sustainable energy development, the course guides students to greater applicable knowledge in this area of specialisation and to succeed in complex problem solving methods.

This program is ideal for those who aspire for career advancement in the competitive global environment.

Learning from the best

Monash University Malaysia commands a distinguished position in the field of engineering education. Its School of Engineering is rated excellent, or Tier 5, in the D-Setara rating for engineering by the Malaysian Qualifications Agency. All undergraduate programs conducted by the School are fully accredited in Malaysia (by the Engineering Accreditation Council and the Board of Engineers) and by Engineers Australia.

The School is anchored by academic staff who actively engage in inter-disciplinary advanced engineering research to address national priorities, such as energy and sustainability, green electronics, nanomaterials, biotechnology, automation and manufacturing. The excellent teaching and learning environment at Monash Malaysia is set against a multi-cultural and international environment, where staff and students represent diverse nationalities, offering a global approach to higher learning right here in Malaysia.
Course structure

You will complete eight units (**48 credit points**) as follows:

<table>
<thead>
<tr>
<th>Core units</th>
<th>Major units</th>
<th>Elective units</th>
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<tbody>
<tr>
<td>Advanced Engineering Data Analysis</td>
<td>Energy Conservation and Management</td>
<td>Environmental and Air Pollution Control</td>
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<tr>
<td>Engineering Entrepreneurship</td>
<td>Sustainable Energy Technologies</td>
<td>Smart Grids</td>
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<tr>
<td>ENG5001</td>
<td>MEC5885</td>
<td>MEC5887</td>
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<tr>
<td>ENG5002</td>
<td>MEC5886</td>
<td>ECE5886</td>
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<td></td>
<td>Energy Efficient Lighting</td>
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<tr>
<td></td>
<td>ECE5885</td>
<td>Minor project (12 credit points)</td>
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<td></td>
<td></td>
<td>ENG5881</td>
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<tr>
<td></td>
<td></td>
<td>Principles and Practices for Sustainable Development</td>
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<td>CHE5885</td>
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Area of study

Students will acquire an advanced understanding in energy and sustainability and the ability to develop solutions to complex engineering problems. Students will study core units in engineering leadership and engineering analysis to strengthen their abilities in critical reasoning, innovation and strategic thinking.

- Apply advanced energy and sustainability based knowledge in an engineering context
- Employ energy and sustainability based techniques to solve complex problems, design engineering solutions, and evaluate potential designs to identify optimal solutions
- Research, investigate and critically appraise current developments and research directions, and identify future directions for energy and sustainability
- Demonstrate a commitment to uphold code of ethics and established norms of professional engineering conduct
- Communicate information effectively to industry and wider community
- Demonstrate knowledge of team dynamics and leadership, and function effectively as an individual and in diverse engineering teams
- Select and apply appropriate resources and modern engineering tools to systematically manage systems and progress knowledge
- Employ energy and sustainability techniques into all phases of engineering project work, including business planning and financial management.

Research option

This program offers a research pathway option as an alternative route for students to progress from a coursework master’s program into a PhD program. The research option requires the recommendation of the Associate Head of School (Research Training) and approval from the Faculty/MIGR (Monash University Institute of Graduate Research).
Applications must be submitted to the Admissions Office using a completed application form, accompanied by relevant certified copies of academic transcripts and a non-refundable application fee of RM100.

More information on application procedures is available on www.monash.edu.my/study/apply

How to apply

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Course fee

**Malaysian student**
RM48,000 per year

**International student**
RM52,800 per year

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**Minimum entry requirements**

- Minimum average of 70% in a 4-year Bachelor of Engineering degree from a recognised tertiary institution, or

- Minimum average of 65% in a 4-year Bachelor of Engineering degree from a recognised tertiary institution with 5 years of relevant working experience. A Curriculum Vitae and a 300-word Statement of Purpose is required. A phone interview may be requested, or

- Minimum average of 70% in a 3-year Bachelor of Engineering degree from a recognised tertiary institution with 2 years of relevant working experience, and

- having fulfilled Monash University’s English language proficiency entry requirements
  (for details, visit http://www.monash.edu.au/admissions/english-language-requirements.html)

**Intakes and duration of study**

- Two intakes per year
  - **February and July**

- **Full-time**
  - 1 year (2 semesters)

- **Part-time**
  - 2 years (4 semesters)
Monash University Malaysia

Established in 1998, Monash University Malaysia is one of Malaysia’s most respected universities. We are Monash University’s global footprint in the Asian region, carrying with us the distinction of being the Malaysian constituent of a premier research intensive Australian university ranked among the top 100 universities in the world and a member of Australia’s prestigious Group of Eight (Go8). From humble beginnings, Monash Malaysia has grown in stature and is now recognized as a leader in the international higher education sector in Malaysia.

As an independent, self-accrediting University, we attract students not just from Malaysia, but all over the world. Approximately 6,000 students representing almost 70 nationalities are currently enrolled at Monash Malaysia and enjoy a quality academic experience.

We offer a range of specialist Undergraduate and Postgraduate courses in the areas of Arts & Social Sciences, Business, Engineering and Information Technology, Medicine & Health Sciences, Pharmacy, and Science, which are directly linked to the human resource needs of Malaysia and the region. All our courses are accredited in Malaysia and Australia, ensuring an education that is locally relevant and internationally recognized.

With a Monash degree, our graduates, who are globally-engaged and industry-driven, are able to pursue rewarding careers in both the public and private sectors across the region.

We are located 30 minutes south of Kuala Lumpur, one of Asia’s most commercial, dynamic, exciting and culturally diverse capital cities. Our students have access to inexpensive, clean and secure accommodation, a range of delectable cuisine, and enjoy a cosmopolitan lifestyle in a multi-cultural environment.

Our faculty is a mix of locally and internationally recruited academics with extensive teaching, business and industry experience. They bring years of knowledge gained from research in their respective fields into the class room, providing students with a stimulating academic environment. Classes are small in number, allowing the lecturers to cater to students’ individual needs.

Since our inception, Monash Malaysia has built a reputation for quality, credibility and integrity, and is held in high esteem by our students, alumni, industry and government. We are committed to maximising the potential of everyone in the global community we serve, seeking to develop well-rounded individuals who embrace challenge and change. We encourage critical thinking to help discover new ideas, reveal new perspectives and devise solutions. We maintain a long and proud tradition of excellence in education, combined with liberal values of enquiry, providing a fertile environment for bright young minds to flourish, and life-long opportunities for those wishing to enhance their education and career.
Contact us
Business hours: Monday to Friday 8.30am – 6pm
Counselling hours for course enquiries: Monday to Friday 8.30am – 6pm and Saturdays 9am – 12.30pm
Closed on Sundays and Public Holidays

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Monash University Malaysia reserves the right to alter information, procedures, fees and regulations contained in this document. Please check the Monash University Malaysia website for updates (www.monash.edu.my). All information reflects prescriptions, policy and practice in force at time of publication.

Produced by Marketing and Future Students, Monash University Malaysia
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July 2015
DULN002(B) Co. No. 458601-U (Date of establishment: 20 March 2000)
N/520/7/0075