

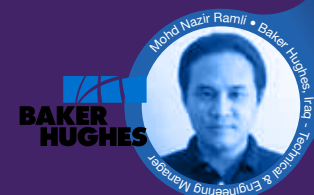
Vision

To become a leader in the mechanical engineering discipline towards global excellence through world-class education and research.

Mission

To produce graduates with excellent engineering fundamentals with analytical and leadership skills, who are able to compete, be innovative and with high professional ethics.

FACULTY OF MECHANICAL ENGINEERING



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FACULTY OF MECHANICAL ENGINEERING

“Generating Transformative Mindset”

ABOUT THE FACULTY

UiTM is one of the premier universities for the training of engineers in Malaysia. The mechanical engineering program began in 1968 and offered the equivalent degree program. Nearly forty years on, the faculty has now included training of engineers from the diploma to the doctor of philosophy levels.

The faculty boasts excellent laboratory facilities, small Technology Enabled Classrooms, as well as experienced and dedicated staff. All the programs offered by the faculty are fully accredited and recognized by the relevant governing authorities in the country.

LIST OF PROGRAMMES

Currently the Faculty offers a total of six programs. The diploma program is conducted in the branch campuses.

1. Diploma in Mechanical Engineering [Permatang Pauh, Penang; Bukit Besi, Terengganu; and Pasir Gudang, Johor]
2. Bachelor of Engineering (Hons) Mechanical [Shah Alam]
3. Bachelor of Mechanical Engineering (Manufacturing)(Hons) [Penang]
4. Master of Science in Mechanical Engineering [Shah Alam]
5. Masters in Engineering Management [Shah Alam]
6. Doctor of Philosophy in Mechanical Engineering [Shah Alam]

DIPLOMA PROGRAMME

EM110 - Diploma in Mechanical Engineering [E2430]

The Diploma in Mechanical Engineering is a three-year program (equivalent to six semesters). It provides a basic foundation in mechanical engineering principles in the first two years of studies. Starting from fourth semester, students have the option to choose from any of the sixth specializations: mechanical, manufacturing, automotive, aerospace, naval architecture and industrial engineering.

Entry Requirements

1. University's General Requirement

SPM or its equivalent as recognized by the Malaysian Government with at least five (5) credits including *Bahasa Melayu* and Pass in History.

2. Program's Special Requirements

a) SPM holder and Equivalent

Fulfilling the university's general requirement with credits in the following subjects:

- Mathematics
- Additional Mathematics
- Physic
- English and
- Pass in Chemistry

b) Polytechnics or other Institution Certificate holder

Pass in Polytechnics Certificate or other Institutions recognized by the Malaysian Government with minimum of grade B in Mathematics and Engineering Science.

and

Fulfilling the university's general requirement with credits in the following subjects:

- Mathematics
- Additional Mathematics
- Physics
- English and
- Pass in Chemistry

c) UiTM Pre-Diploma Science Graduate

Pass in Pre-Diploma Science Program (PD007/PD008) from UiTM.

UNDERGRADUATE PROGRAMMES

Mechanical Engineering is one of the oldest and broadest disciplines among the engineering disciplines. Mechanical engineers apply knowledge of mathematics and sciences to design and manufacture tools, engines, machines, and many other mechanical equipments and systems that improve our living standard.

In order to cater with the needs of high quality and competitive mechanical engineers in the local and international market, the faculty at present offers two undergraduate programs;

EM220 - Bachelor of Engineering (Hons) Mechanical [EK08] – Shah Alam

EM241 - Bachelor of Mechanical Engineering (Manufacturing) (Hons) [EK09] - Penang

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The programs prepare students with theoretical knowledge and necessary skills for a rewarding career in engineering. Graduates of our programmes secure employment in oil and gas industries, building construction and services, utility companies, automotive industries, manufacturing sectors, marine industries, etc. Our graduates have the option to continue developing their professional career by engaging in professional activities or pursuing postgraduate studies.

Entry Requirements

1. University's General Requirement

- Pass in SPM or equivalent with good credits
- Credits in *Bahasa Melayu* at SPM level or equivalent
- Possess a minimum of C grade (2.00 GPA) in Pengajian Am subject or a minimum CGPA of 2.00
- Pass MOE Matriculation programme / UM Science Foundation/ UiTM Foundation and possess a minimum CGPA of 2.00
- Pass in Diploma from other higher learning institutions (IPTs) recognized by the Malaysian Government
- Malaysian University English Test (MUET) of Band 2

2. Programme's Special Requirements

a) UiTM Diploma Graduate

- In Mechanical Engineering with a minimum CGPA of 2.50
- In Science or related engineering discipline with a minimum CGPA of 2.75

b) Other Institutions' Diploma Graduate recognized by the Malaysian Government

- Diploma graduates in Mechanical Engineering with a minimum CGPA of 3.00 and
- Pass in SPM or equivalent with minimum five credits which must include the following subjects:
 - ✓ Mathematics
 - ✓ Additional Mathematics
 - ✓ Physics and
 - ✓ pass in English

c) UiTM Foundation / UM Science Foundation / KPM Matriculation Graduate

- Minimum grade of B- (2.67) in two (2) subjects and C grade (2.00) in another one (1) subject in any of the following:
 - ✓ Mathematics
 - ✓ Physics/ Engineering Physics
 - ✓ Chemistry/ Engineering Chemistry and
 - ✓ Pass in SPM or equivalent and
 - ✓ Pass in English

d) STPM holder or equivalent

- Grade of B- (2.67 GPA) in any two (2) of the following subjects:
 - ✓ Mathematics T / Further mathematics T
 - ✓ Physics
 - ✓ Chemistry and
 - ✓ Pass in SPM or Equivalent and
 - ✓ Pass in English

Note: Applicant with limb disabilities that could cause difficulties to conduct laboratory works is not qualified to apply for these programs.

POSTGRADUATE PROGRAMMES

1. EM704 - Masters in Engineering Management (By Coursework)

In line with the need for further exposure, this program is introduced to provide engineers and professionals with management competencies. Combination of managerial related courses offered in this program will enhance the managerial skills of the candidates.

The curriculum was designed in collaboration with various industries to incorporate the current and immediate future needs of practicing professionals who wish to become leaders in organizations or entrepreneurs. The program helps students preparing towards eligibility for Project Management Professional (PMP) certification.

Delivery Modes

Rigorous academic exposures, experiential learning and solving real case studies are the main features of this program. Experts and practicing professional's involvement are sought to share their experiences and knowledge in the corporate world.

Entry Requirements

- a) Possess a bachelor's degree in Engineering or Physical Science from a recognized university with a minimum CGPA of 2.75 and
- b) A minimum three (3) years of working experience in industries or public sectors related to engineering field.
- c) Candidates are required to submit a resume / CV and will be invited for interview.
- d) Less qualified students with more than five (5) years experience may be accepted if they have significant work experiences in industry or public sector related to engineering area.

Mode and Duration

Full-time: 3 – 6 semesters
Part-time: 4 – 8 semesters

2. EM750 - Master of Science in Mechanical Engineering (By Research)

This program prepares students with the necessary research skills in various field of specialization in the field of mechanical engineering. The program is designed for those who desire to be involved in research and development activities as well as a stepping stone for those aspiring to be academicians. Areas of research specialization are similar to those available for the PhD program below.

Entry Requirements

- a) Possess a Bachelor of Engineering degree or equivalent from a university recognized by UiTM Senate with a minimum CGPA of 2.75 or equivalent.
- b) Professional experience would be an added advantage. Candidate who interested to apply for admission is required to submit a research proposal in the intended areas of study.
- c) Candidates have to attend an interview, which will determine their suitability in the proposed area of research.

Mode and Duration

Full-time : 3 – 6 semesters
Part-time : 4 – 8 semesters

3. EM950 - Doctor of Philosophy in Mechanical Engineering

Doctoral program at the Faculty of Mechanical Engineering was first introduced in June 1999. It is intended for graduates with an appropriate Master degree who wish to pursue research towards the award of PhD. Research supervision for the PhD students is usually led by academics and experts in the respective fields of specialization.

Entry Requirements

- a) Candidates who possess a Master degree in engineering or in one of the physical sciences from a recognized university, or other higher learning institutions recognized by UiTM Senate.
- b) Candidates who are interested to apply for admission are also required to submit a research proposal in the intended area of study.
- c) Candidates have to attend an interview, which will determine the suitability of their proposed research.

PhD

Full-time : 6 – 10 semesters
Part-time : 6 – 12 semesters

Areas of Specialization

The areas of specialization in the Faculty of Mechanical Engineering include:

- Energy and Environment
- Engineering Management
- Materials Engineering
- Combustion and Propulsion
- System and Dynamic Control
- Mechatronics and Automation
- Structural Integrity
- Fracture Mechanics
- Heat and Mass Transfer
- Computational Fluid Dynamics
- Computational Structural Analysis
- Manufacturing Engineering
- Aerodynamics and Flight Engineering
- Fire Risk Management and Emergency
- Micro/Nanotechnology
- Automotive Engineering

For more information, please contact:

Dean

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