

MASTER OF **ENGINEERING** IN MECHANICAL ENGINEERING

Inclusive . Global . Sustainable

FACULTY OF ENGINEERING

by coursework

FEBRUARY, JUNE
& OCTOBER
Intakes

INTRODUCTION

This new program is suitable for fresh graduates, practicing engineers and academicians with primary degrees in Mechanical Engineering who wish to extend in depth and breadth the knowledge and skills gain from their engineering graduate studies.

The programme offers two specialization areas in mechanical engineering field which are Mechanical & Energy Sustainability and Design & Manufacturing in the elective courses that enable the students to choose their area of interest. These areas of specialization are in line with the current needs of the industry.

ADMISSION

The Master of Engineering in Mechanical Engineering programme is based on trimester system; February, June and October in an academic year. Application is open throughout the year and can be done via oas.ia.unimas.my

PROGRAMME STRUCTURE

Semester 1 (September)

KNJ6012	Research Method
KNJ6023	Computational Method in Solid
Elective A	
Elective B	
Elective C	

Semester 2 (February)

KNJ6054	Project 1
KNJ6043	Engineering Management
Elective D	
Elective E	

Semester 3

KNJ6033	Thermodynamics in Energy
Elective F	
KNJ6067	Project 1

Common for both area of specialization

KNJ6233	Computer Aided Design and Applications
KNJ6403	Applied Data Analytics
KNJ6413	Occupational Safety and Health for Engineers

List of Elective Courses*

Mechanical & Energy Sustainability

KNJ6073	Tribology
KNJ6133	Mechanical Behaviour of Materials
KNJ6183	Combustion Engineering
KNJ6193	Advance Heat Transfer
KNJ6103	Vibration
KNJ6113	Applied Biomechanics
KNJ6163	Fracture Mechanics
KNJ6223	Solar Energy
KNJ6213	Energy Optimization and Management
KNJ6093	Acoustics
KNJ6203	Heat, Ventilation and Air Conditioning
KNJ6083	Structural Dynamics

Design & Manufacturing

KNJ6243	Engineering Design Optimization
KNJ6253	Product Realization
KNJ6393	Additive Manufacturing
KNJ6323	Reliability and Quality Control Engineering
KNJ6123	Characterisation of Materials
KNJ6273	Lean Manufacturing
KNJ6283	Industrial Ergonomics
KNJ6293	Industrial Automation
KNJ6353	Computer Integrated Manufacturing
KNJ6383	Probability and Statistics for Quality Analysis
KNJ6153	Polymer and Composites
KNJ6263	Supply Chain Management
KNJ6343	Metal Cutting and High Speed Machining
KNJ6363	System Modelling and Simulation
KNJ6143	Materials Selection and Processing
KNJ6173	Corrosion and Prevention

DURATION OF THE PROGRAMME

The minimum of study is 1 year on full time to a maximum period of 3 years. Teaching and learning activities for the programme are conducted in weekends.

FACILITIES AND RESOURCES

- Robotic and Automation Laboratory
- Mechanics Dynamic Laboratory
- Computer Numerical Control Laboratory
- Non Destructive Test Laboratory
- Energy Research Room Laboratory
- Mechanical of Solid Laboratory
- Mechanical Metallurgy Laboratory
- Physical Metallurgy Laboratory
- Applied & Basic Thermodynamics Laboratory
- CAE Laboratory
- Computer Numerical Laboratory
- Control Laboratory
- Fluid Laboratory
- General and Training Workshop
- Instrumentation Laboratory
- Mechanics Statics Laboratory

COURSE FEES

Malaysian student **RM 18,726.00**
International student **RM 30,900.00**

Fees include administrative, tuition and course materials for the duration of the programme. Further payment will be required if the students extend their studies.

WHO SHOULD APPLY

The programme aims at providing opportunities to various group of potential candidates such as:

- Fresh graduates
- Practicing engineers
- Academicians

ENTRY REQUIREMENTS

For admission into the programme, a candidate must meet the following criteria:

- A Mechanical Engineering Bachelor's Degree with a minimum CGPA of 2.50 or;
- A Mechanical Engineering Bachelor's degree or equivalent but CGPA less than 2.50 may be admitted subject to a minimum of five years working experience in the relevant field or,
- Other equivalent qualifications approved by Senate
- For international students, an IELTS score of 5.0 is required in addition to the entry requirements

PROGRAMME SCHEDULE

The programme requires students to accumulate 40 credit hours in their studies in which preferably 14, 13 and 13 credit hours are completed in Semester 1, Semester 2 and Semester 3, respectively.

CONTACT US

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