UNIMAS
UNIVERSITI MALAYSIA SARAWAK

MASTER OF ENGINEERING IN MECHANICAL ENGINEERING

Community-Driven University For a Sustainable World

FACULTY OF ENGINEERING

by coursework

OCTOBER, FEBRUARY & JUNE
Intakes

INTRODUCTION

Master of Engineering in Mechanical Engineering programme by coursework 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. The programme is based on a trimester system; October, February and June in an academic year.

ENTRY REQUIREMENTS

i. A bachelor's degree in related Engineering/Engineering Technology discipline or its equivalent with a minimum CGPA of 2.50; or
ii. A bachelor's degree in related Engineering/Engineering Technology discipline or its equivalent with a minimum CGPA of 2.00 and not meeting a CGPA of 2.50, can be accepted subject to a minimum of five years working experience in the relevant field and/or subject to a rigorous internal assessment process; or
iii. Candidates without a qualification in the related fields or working experience in the relevant fields must undergo appropriate prerequisite courses and meet the minimum CGPA based on (i) to (ii); or
iv. Passed the APEL.A T-7 assessment in the related field.
v. For International students, a minimum TOEFL score of 500 OR IELTS score of 5.0 OR its equivalent (e.g. MUET Band 3.5; TOEFL iBT 40; TOEFL Essential (Online) 7.5, Pearson Test of English (PTE) 47, Cambridge English Qualifications and Tests 154) is required. If a student does not meet this requirement, UNIMAS must offer English proficiency courses to ensure that the student's proficiency is sufficient to meet the needs of the programme.

ALTERNATIVE OPTION FOR ADMISSION

APEL. A for Access

- APEL.A is applicable to local and international applicants who do not meet the regular entry requirements imposed by academic programmes at any MQF level
- Applicants applying for entry via the APEL.A must meet the minimum age requirements stipulated for the various level of qualifications
- Applicants must fulfil the minimum formal qualifications stipulated, for Master's and Doctorate level
- Applicants applying for entry via the APEL.A must have prior experiential learning

POTENTIAL APPLICANTS

- Fresh graduates
- Practising engineers
- Academicians

DURATION OF PROGRAMME

Full Time
1-2 years

PROGRAMME SCHEDULE

The programme requires students to accumulate 40 credit hours in their studies. All teaching and learning activities are conducted during the weekends (Saturday & Sunday).

FACILITIES & RESOURCES

- Perpustakaan Tun Abdul Rahman Ya'kub (PeTARY)
- Computing Facilities
- Online Learning Support
- Resources Rooms
- Laboratory Facilities

PROGRAMME STRUCTURE

Semester 1

KNJ6012	Research Methodology
KNJ6023	Computational Method in Solid Mechanics
Elective 1	
Elective 2	
Elective 3	

Semester 2

KNJ6043	Engineering Management
KNJ6054	Project 1
Elective 4	
Elective 5	

Semester 3

KNJ6033	Thermodynamics in Energy Conversion
KNJ6067	Project 2
Elective 6	

Common elective courses for both area of specialization

KNJ6233	Computer Aided Design and Applications
KNJ6413	Occupational Safety and Health for Engineers
KNJ6213	Energy Optimization and Management
KNJ6403	Applied Data Analytics

COURSE FEES

Full Time:
Malaysian student **RM18,726.00**
International student **RM30,900.00**

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

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
KNJ6093 Acoustics
KNJ6203 Heat, Ventilation and Air Conditioning
KNJ6083 Structural Dynamics

Design & Manufacturing

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

*The elective courses offered in each semester are subject to the minimum number of students registering for the programme.

FAST TRACK OPTION

APEL.C for Credit Transfer
Qualified individuals with relevant prior learning experiences could take APEL. C assessments (Portfolio/Challenge Test) for credit transfer in APEL Assessment Centre, UNIMAS .

CONTACT US

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APPLICATION PROCEDURE

Application must be submitted online at **https://oas.aa.unimas.my**

Application is open throughout the year.



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