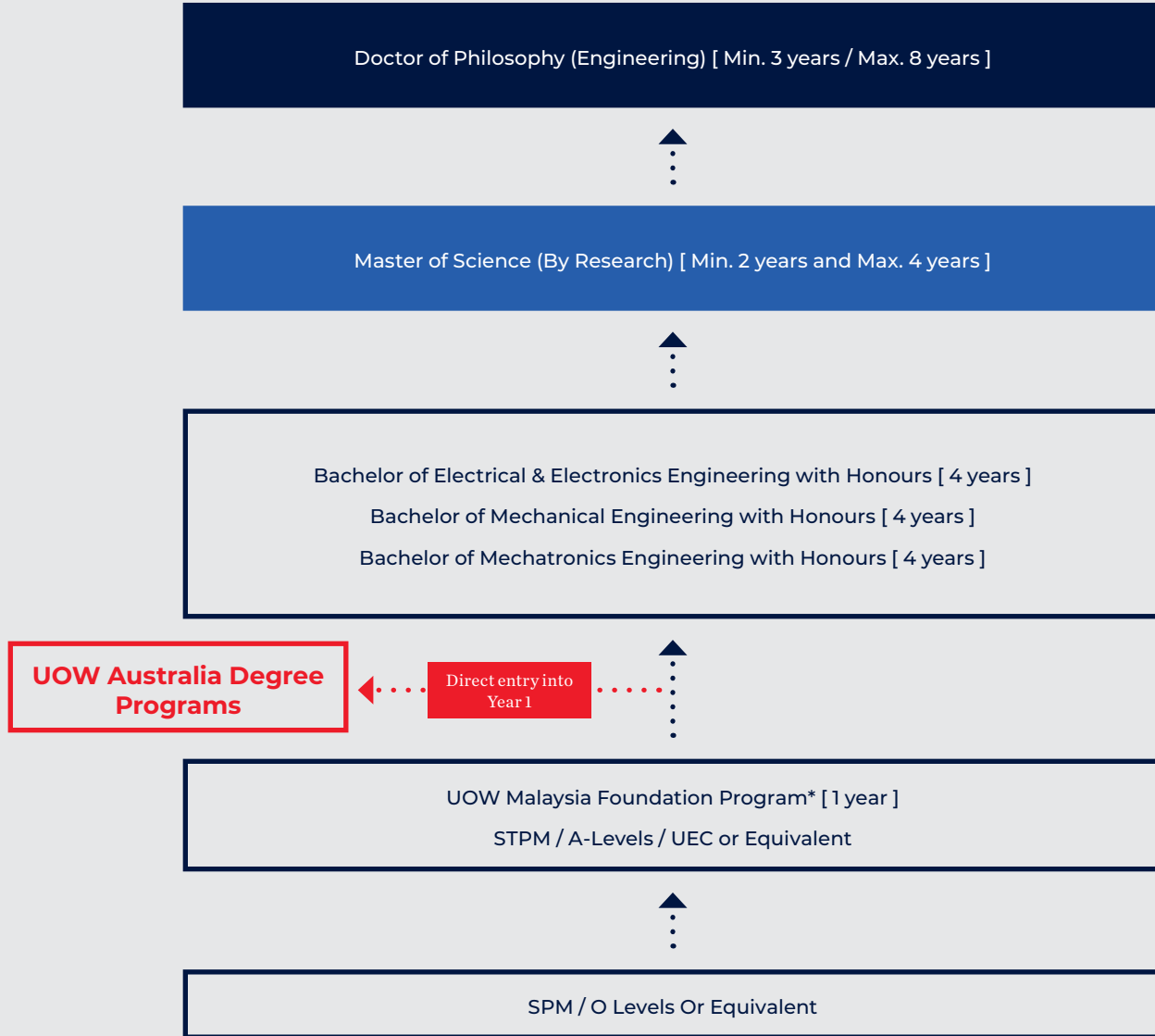




Study route

 **Selangor**



* Specific Foundation programs that meet the entry requirement.
For all Postgraduates programs, kindly refer to Postgraduate Guide or website for more information.



R2/010/3/0236(07/24) A 10301

Foundation in Engineering

Intakes

January, May and September

Duration

1 Year (Full-Time)

Course Location

University of Wollongong Malaysia, Glenmarie

Engineering plays a pivotal role in our lives and it's no surprise engineers are in great demand all over the world!

The UOW Malaysia's Foundation in Engineering is ideal for those looking to gain admission into engineering degree programs, providing students with opportunities to develop fundamental knowledge and skills set in physical sciences, technical knowledge in engineering and language skills for tertiary education. Students are introduced to engineering-based subjects such as mechanics, electronics, and robotics, enabling them to decide their specialised field of engineering to pursue upon completion.

Upon completion, students will be able to articulate seamlessly into engineering degree programs offered at UOW Malaysia.

COURSE STRUCTURE

Modules

- Chemistry
- Engineering Mathematics 1
- Engineering Mathematics 2
- Engineering Mathematics 3
- Fundamentals of Mechanics
- Fundamentals of Physics
- Fundamentals of Information Technology
- Fundamentals of Electrical and Electronics
- Introduction to Communication
- Critical Writing and Research Skills
- Introduction to Robotics
- Technical Drafting & CAD

MPU

- Cultural Studies
- Study Skills
- Bahasa Kebangsaan A*
- * Bahasa Kebangsaan A is compulsory for all Malaysian students
 - without a credit in SPM Bahasa Malaysia.
 - without SPM Bahasa Malaysia (applicable to students from UEC, O Levels, or other equivalent programs)

ENTRY REQUIREMENT

Academic Qualification

Requirement

SPM / O Levels	Min. 5 Credits (5Cs) inclusive of a Credit in English, Mathematics and Physics
UEC	Min. 3 Credits (3Bs) inclusive of a Credit in English, Mathematics and Physics
Home Schooling with SAT	Pass Year 11 and SAT score of 1050 over 1600 with minimum score of 550 for Mathematics and Physics*

ENGLISH REQUIREMENT

Local Student

Credit (SPM / 1119 / UEC / O Levels English)

International Student

Band 4.0 in IELTS; or a min score of 30 (IBT) or 5 (Essentials-Online) in TOEFL; or Cambridge English (140); or PTE Academic (36); or UOW Malaysia English Entrance Test (60)

If English Language requirements are not fulfilled, additional English module(s) may be taken at UOW Malaysia.





Bachelor of Electrical & Electronics Engineering with Honours

Intakes

January, May and September

Duration

4 Years (Full-Time)

Course Location

University of Wollongong Malaysia,
Glenmarie

Enabling great technologies through electrical and electronics engineering.

Technologies such as universal electric power, television, medical imaging are all examples of how electrical and electronics engineering play a strong role in modern society. UOW Malaysia's Bachelor of Electrical & Electronics Engineering with Honours provides students with a broad-based education in electrical and electronics engineering, and equips them with the technical knowledge and skills necessary to design, assess and improve electrical and electronic products and service.

This program is fully accredited by the Board of Engineers Malaysia (BEM). Our graduates are also recognised internationally through the Washington Accord of the International Engineering Alliance.

Career Opportunities

Appliances Engineer | Building Service Engineer | Computer Engineer | Control Engineer | Electrical and Electronics Engineer | Instrumentation Engineer | Maintenance Engineer | Microelectronics Engineer | Network Engineer | Power Engineer | Project Engineer | Signal Processing Engineer | Software Engineer | Telecommunications Engineer | Test Engineer | Transmission Engineer

COURSE STRUCTURE

Year 1

- Engineering Mathematics 1
- Circuit Theory
- Computer Programming for Engineers
- Engineering CAD
- Engineering Design Fundamentals
- Engineering Mathematics 2
- Analogue Electronics
- Digital Electronics
- Introduction to Communication Systems

Year 2

- Engineering Mathematics 3
- Circuit Theory and Analysis
- Principles of Microcontroller Systems
- Object Oriented Programming
- Statistics
- Engineering Ethics, Safety and Environment
- Numerical Methods
- Electric Machines
- Signals and Systems
- Electromagnetic Field Theory and Applications
- Instrumentation and Measurement

Year 3

- Power Electronics
- Advanced Electronics
- Control Systems
- Power Systems
- Computer Networks
- Digital Communication
- Microcontroller System Design
- Electric Machines and Drive Systems
- Engineering Project Management
- Capstone Project

Year 4

- Digital Signal Processing
- Principles of Sustainable Engineering
- MEMS Sensors and Actuators
- Electrical Energy Utilisation
- Power Station and High Voltage Engineering
- Elective (2 subjects)
- Final Year Project
- Industrial Training

Elective (Choose 2)

- Real Time Embedded Systems
- Very Large-Scale Integration (VLSI)
- Energy Storage
- Renewable Energy Systems

MPU

- Penghayatan Etika dan Peradaban (Malaysian Students) / Bahasa Melayu Komunikasi 2 (International Students)
- Falsafah dan Isu Semasa
- Entrepreneurship

- Integrity & Anti-Corruption
- Global Social Responsibility

- Bahasa Kebangsaan A*

- * Bahasa Kebangsaan A is compulsory for all Malaysian students
 - without a credit in SPM Bahasa Malaysia.
 - without SPM Bahasa Malaysia (applicable to students from UEC, O Levels, or other equivalent programs)

ENTRY REQUIREMENT

Academic Qualification

Requirement

A-Levels	2 Principal Passes (2Ds) inclusive of Mathematics and Physics
STPM	2 Principal Passes (2Cs) inclusive of Mathematics and Physics * minimum Grade C (GP 2.0)
UEC	Min. 5 Credits (5Bs) inclusive of Mathematics and Physics
Diploma / Foundation Studies	Pass with minimum CGPA of 2.00

ENGLISH REQUIREMENT

Local Student Band 4 in MUET

International Student Band 5.5 in IELTS; or a min score of 46 (IBT) or 8 (Essentials-Online) in TOEFL; or Cambridge English (160); or PTE Academic (51)

If English Language requirements are not fulfilled, additional English module(s) may be taken at UOW Malaysia.



R/521/6/0047(02/25) MQA/FA 2023

Bachelor of Mechanical Engineering with Honours

Intakes

January, May and September

Duration

4 Years (Full-Time)

Course Location

University of Wollongong Malaysia,
Glenmarie

Master complex mechanical engineering systems.

Mechanical engineers work with advanced technology across a wide range of specialisations.

At UOW Malaysia, the Bachelor of Mechanical Engineering with Honours program enables students to apply the principles of physics and material science to design, produce and operate a wide variety of equipment and systems. Our approach is holistic learning to ensure graduates are well equipped with a solid platform for adaptation to ever-changing developments in science and technology, thus meeting the rigorous demands of global industries.

Students will gain various opportunities for hands-on training to hone their technical skills and knowledge through various subjects, to be completed in our state-of-the-art laboratories.

Our Design Centric Curriculum also ensures that students will be able to apply their analytical and design skills through creative problem-solving in industry projects.

This program is fully accredited by the Board of Engineers Malaysia (BEM). Our graduates are also recognised internationally through the Washington Accord of the International Engineering Alliance.

Career Opportunities

Aerospace Engineer | Aircraft Engineer | Automotive Engineer | Design Engineer | Industrial Engineer | Maintenance Engineer | Manufacturing Engineer | Materials Engineer | Mechanical Engineer | Mechatronic and Robotic Engineer | Oil & Gas Engineer | Process Engineer | Project Engineer | Product Development Engineer | Quality Assurance Engineer | Systems Engineer | Technical Support Engineer

COURSE STRUCTURE

Year 1

- Engineering Mathematics 1
- Statics
- Engineering Materials
- Computer Programming for Engineers
- Engineering CAD
- Industrial Design
- Engineering Mathematics 2
- Dynamics
- Mechanical Workshop Practices
- Principles of Electrical and Electronics

Year 2

- Fluid Mechanics 1
- Solid Mechanics 1
- Electric Machines
- Statistics
- Engineering Ethics, Safety and Environment
- Numerical Methods
- Solid Mechanics 2
- Fluid Mechanics 2
- Engineering Thermodynamics
- Instrumentation and Measurement
- Engineering Mathematics 3

Year 3

- Advanced Thermodynamics
- Control Systems
- Manufacturing Processes
- Mechanical Vibrations
- Principles of Microcontroller Systems
- Engineering Project Management
- Component Design
- Capstone Project
- Heat Transfer
- Computer Aided Engineering

Year 4

- Computer Aided Manufacturing
- Total Quality Management
- Renewable Energy Systems
- Principles of Sustainable Engineering
- Elective (2 subjects)
- Industrial Training
- Final Year Project

Elective (Choose 2)

- Air Conditioning and Mechanical Ventilation
- Internal Combustion Engine
- Advance Materials Technology
- Materials Selection in Design

MPU

- Penghayatan Etika dan Peradaban (Malaysian Students) / Bahasa Melayu Komunikasi 2 (International Students)
 - Falsafah dan Isu Semasa
 - Entrepreneurship
 - Integrity & Anti-Corruption
 - Global Social Responsibility
 - Bahasa Kebangsaan A*
- * Bahasa Kebangsaan A is compulsory for all Malaysian students
- without a credit in SPM Bahasa Malaysia.
 - without SPM Bahasa Malaysia (applicable to students from UEC, O Levels, or other equivalent programs)

ENTRY REQUIREMENT

Academic Qualification	Requirement
A-Levels	2 Principal Passes (2Ds) inclusive of Mathematics and Physics
STPM	2 Principal Passes (2Cs) inclusive of Mathematics and Physics * minimum Grade C (GP 2.0)
UEC	Min. 5 Credits (5Bs) inclusive of Mathematics and Physics
Diploma / Foundation Studies	Pass with minimum CGPA of 2.00

ENGLISH REQUIREMENT

Local Student	Band 4 in MUET
International Student	Band 5.5 in IELTS; or a min score of 46 (IBT) or 8 (Essentials-Online) in TOEFL; or Cambridge English (160); or PTE Academic (51)

If English Language requirements are not fulfilled, additional English module(s) may be taken at UOW Malaysia.



R/0788/6/0001(05/28) MQA/FA 8097

Bachelor of Mechatronics Engineering with Honours

Intakes

January, May and September

Duration

4 Years (Full-Time)

Course Location

University of Wollongong Malaysia, Glenmarie

The interdisciplinary nature of mechatronics, which encompasses mechanical, electronics, computer, control and systems design engineering; is envisaged to become more important in the future, both domestically as well as globally. Mechatronics has been recognized as a continuous evolving reality in the creation of intelligent machines and advanced manufacturing and processing systems.

At UOW Malaysia, the Bachelor of Mechatronics Engineering with Honours program is designed to expose students to the principles and practice of mechatronics by gaining knowledge of engineering processes, mechanical principles, as well as the use of digital electronics, 3D printing technology and computer-aided (CAD) software. It has a strong focus on design-and hands-on project-based learning activities that use equipment associated with robotics, industrial control and advanced manufacturing. Thus, provides a holistic preparation for students to embark into future challenges in existing and emerging sectors.

This program is fully accredited by the Board of Engineers Malaysia (BEM). Our graduates are also recognised internationally through the Washington Accord of the International Engineering Alliance.

Career Opportunities:

Robotics engineer | Automation engineer | Control system design engineer | Instrumentation engineer | Electronic engineer | Maintenance engineer | Mechatronics Project Engineer | Mechatronics, R&D or Systems Engineer | Industrial Engineer | Process Control Engineer | Service Engineer

COURSE STRUCTURE

Year 1

- Engineering Mathematics 1
- Statics
- Computer Programming for Engineers
- Circuit Theory
- Engineering CAD
- Engineering Design Fundamentals
- Engineering Mathematics 2
- Engineering Materials
- Analogue Electronics
- Dynamics

Year 2

- Engineering Mathematics 3
- Digital Electronics
- Principles of Microcontroller Systems
- Electric Machines
- Statistics
- Engineering Ethics, Safety and Environment
- Numerical Methods
- Fluid Mechanics
- Signals and Systems
- Instrumentation and Measurement
- Engineering Thermodynamics

Year 3

- Control Systems
- Manufacturing Processes
- Automation and Robotics
- Artificial Intelligence
- Power Electronics
- Capstone Project
- Engineering Project Management
- Strength of Materials
- Heat Transfer
- Component Design

Year 4

- Computer and Machine Vision
- Computer Aided Engineering
- Principle of Sustainable Engineering
- Computer Aided Manufacturing
- Elective (2 subjects)
- Final Year Project
- Industrial Training

Elective (Choose 2)

- Robotics Kinematics and Control
- MEMS Sensors and Actuators
- Real Time Embedded Systems
- Autonomous Mobile Robot
- Advanced Control Systems

MPU

- Penghayatan Etika dan Peradaban (Malaysian Students) / Bahasa Melayu Komunikasi 2 (International Students)
- Falsafah dan Isu Semasa
- Entrepreneurship
- Integrity & Anti-Corruption
- Global Social Responsibility
- Bahasa Kebangsaan A*
- * Bahasa Kebangsaan A is compulsory for all Malaysian students
 - without a credit in SPM Bahasa Malaysia.
 - without SPM Bahasa Malaysia (applicable to students from UEC, O Levels, or other equivalent programs)

ENTRY REQUIREMENT

Academic Qualification	Requirement
A-Levels	2 Principal Passes (2Ds) inclusive of Mathematics and Physics
STPM	2 Principal Passes (2Cs) inclusive of Mathematics and Physics * minimum Grade C (GP 2.0)
UEC	Min. 5 Credits (5Bs) inclusive of Mathematics and Physics
Diploma / Foundation Studies	Pass with minimum CGPA of 2.00

ENGLISH REQUIREMENT

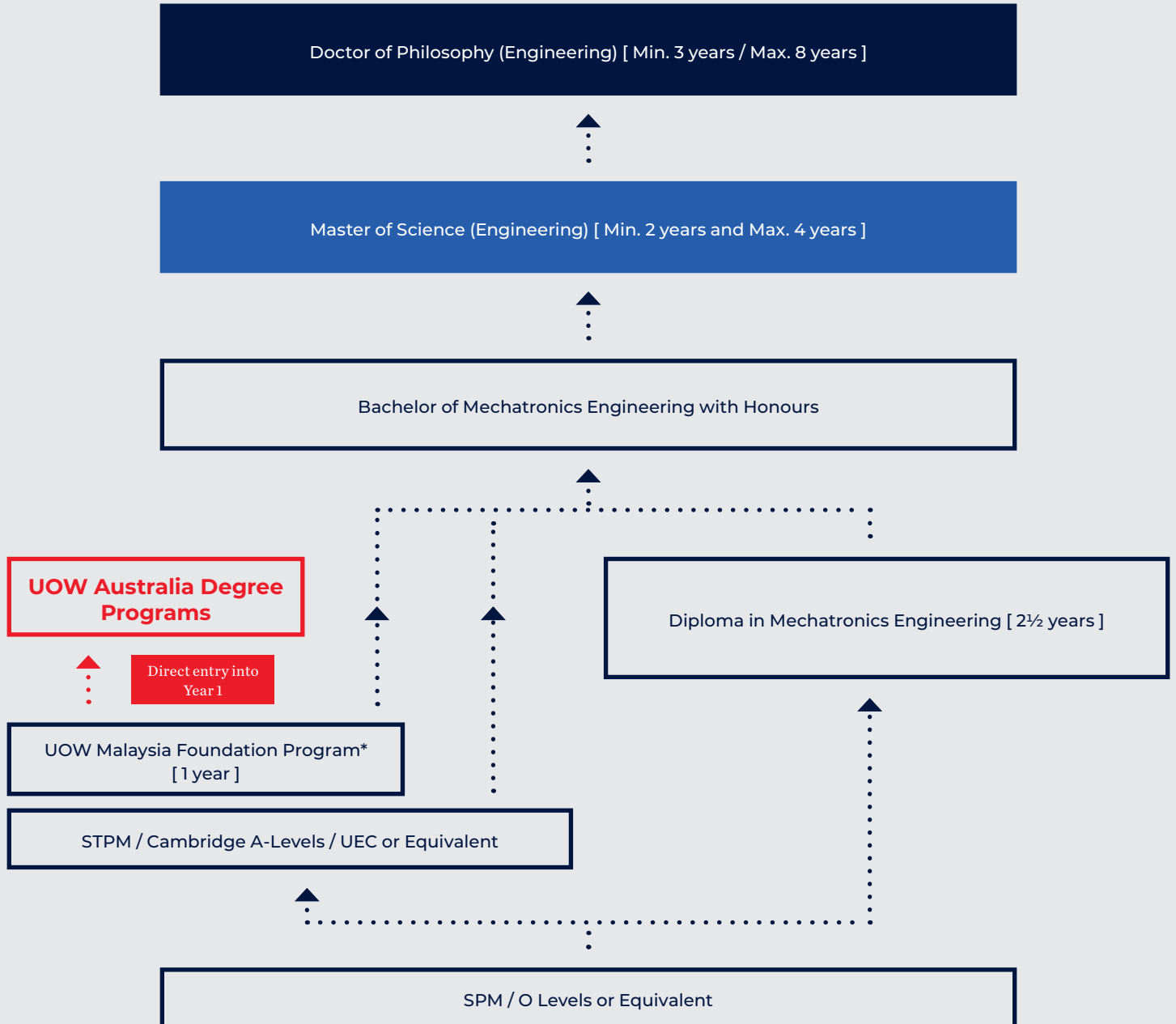
Local Student	Band 4 in MUET
International Student	Band 5.5 in IELTS; or a min score of 46 (IBT) or 8 (Essentials-Online) in TOEFL; or Cambridge English (160); or PTE Academic (51)

If English Language requirements are not fulfilled, additional English module(s) may be taken at UOW Malaysia.



Study route

 **Penang**



* Specific Foundation programs that meet the entry requirement.
For all Postgraduate programs, kindly refer to Postgraduate Guide or website for more information.

The UOW Malaysia, part of the University of Wollongong Australia Global Network, attempts to ensure the information contained in this publication is correct at the time of publication (January 2024); however, sections may be amended without notice by the institute in response to changing circumstances or for any other reason. Check with the institute at the time of application/enrolment for any updated information.



R/0011/3/0034(12/26) MQA/FA 8033

Foundation in Science

Intakes

January, May and September

Duration

1 Year (Full-Time)

Course Location

UOW Malaysia KDU Penang
University College, George Town

UOW Malaysia KDU Penang
University College, Batu Kawan

This Foundation program equips students with the necessary fundamental knowledge to pursue their university studies. This flexible program ensures students are grounded with a strong grasp of core subjects, as well as a variety of other subjects to give them a broad-based educational platform. It also helps them to explore new methods and ideas, as well as skills and concepts, to encourage independent and critical thinking.

The Foundation in Science is a one-year program that provides students with 2 elective areas:

- Pure Science (e.g. Food Science, Biomedical Science, Pharmacy)
- Physical Science (e.g. Engineering, IT, Computer Science)

COURSE STRUCTURE

Semester 1

- English Grammar and Usage
- Study Skills
- Creative Studies
- Mathematics 1
- Biology 1

Semester 2

- Advanced English Course
- Computer Application
- Chemistry 1
- Physics 1
- Mathematics 2

Semester 3

- Elective (2 subjects)
- Introduction to Programming
- Critical Writing and Research
- Statistics

Elective: Pure Science

- Chemistry 2
- Biology 2

Elective: Physical Science

- Mathematics 3
- Physics 2

Note: Order of courses offered subject to change.

ENTRY REQUIREMENT

Academic

Qualification Requirement

SPM / O Levels	5 Credits
UEC	3 Credits

ENGLISH REQUIREMENT

Local

Student

Pass (SPM / 1119 / UEC / O Levels examination)*

International

Student

Band 4.0 in IELTS; or a min score of 30 (IBT) or 5 (Essentials-Online) in TOEFL; or Cambridge English (140); or PTE Academic (36); or UOW Malaysia English Entrance Test (60)

If English Language requirements are not fulfilled, additional English module(s) may be taken at UOW Malaysia.

Note: Students with this program receives an additional offer letter from UOW Australia which allows them to complete their degree studies in Malaysia or Australia.



R2/523/4/0014(04/26) MQA/FA 0284

Diploma in Mechatronics Engineering

Intakes

January, May and September

Duration

2½ Years (Full-Time)

Course Location

UOW Malaysia KDU Penang
University College, Batu Kawan

Mechatronics is a multidisciplinary field that focuses on mechanical, electronics and computing, in creating engineering solution.

This program is broad-based and specifically designed to integrate three major areas – electrical, electronics and mechanical engineering – into one stream. These courses give students theoretical and practical introduction to a career in electrical, electronics & mechanical engineering. This comprehensive, organized and focused program provides the students with more flexibility in choosing or tailoring their career paths and endeavors.

Career Opportunities

Automation & Control Technician | CAD/CAM Technician | Clerk of Works | Failure Analysis and Reliability Technician | Material and Production Controller | Process Designer | Process Technician | QC Supervisor | Sales and Marketing Executive

COURSE STRUCTURE

Year 1

- Semiconductor Devices & Applications
- Electric Circuit I
- Engineering Mathematics I
- Fundamentals of Computer Systems
- Digital Electronics
- Writing and Referencing
- Engineering Mathematics II
- Basic Programming
- Electric Circuit II

Year 2

- Engineering Mathematics III
- Microcontroller System Design & Applications
- Analogue Electronics
- Introduction to Inventive Problem Solving in Engineering
- Computer Aided Design/Drafting
- Engineering Materials
- Mechatronic System Design
- Instrumentation and Control
- Robotics and Automation
- Project Lab 1
- Industrial Training

Year 3

- Project Lab 2
- Electric Machines
- Pneumatics and Hydraulics

MPU

- Penghayatan Etika dan Peradaban (Malaysian Students) / Bahasa Melayu Komunikasi I (International Students)
 - Personal Development Skills
 - Integrity and Anti-Corruption
 - Teamwork and Community
 - Bahasa Kebangsaan A*
- * Bahasa Kebangsaan A is compulsory for all Malaysian students
- without a credit in SPM Bahasa Malaysia.
 - without SPM Bahasa Malaysia (applicable to students from UEC, O Levels, or other equivalent programs)

ENTRY REQUIREMENT

Academic Qualification

Requirement

SPM / O Levels	3 Credits including Mathematics and 1 relevant Science subject
UEC	3 Credits including Credit in Mathematics and 1 Science subject
Sijil Kemahiran Malaysia (SKM)	Pass Level 3 in related field

ENGLISH REQUIREMENT

Local Student

Pass (English at SPM level or equivalent)

International Student

Band 5.0 in IELTS; or a min score of 40 (IBT) or 7.5 (Essentials-Online) in TOEFL; or Cambridge English (154); or PTE Academic (47)

If English Language requirements are not fulfilled, additional English module(s) may be taken at UOW Malaysia.



MQA/PA 16810

Bachelor of Mechatronics Engineering with Honours

Intakes

January, May and September

Duration

4 Years (Full-Time)

Course Location

UOW Malaysia KDU Penang
University College, Batu Kawan

The interdisciplinary nature of mechatronics, which encompasses mechanical, electronics, computer, control and systems design engineering; is envisaged to become more important in the future, both domestically as well as globally. Mechatronics has been recognized as a continuous evolving reality in the creation of intelligent machines and advanced manufacturing and processing systems.

At UOW Malaysia, the Bachelor of Mechatronics Engineering with Honours program is designed to expose students to the principles and practice of mechatronics by gaining knowledge of engineering processes, mechanical principles, as well as the use of digital electronics, 3D printing technology and computer-aided (CAD) software. It has a strong focus on design-and hands-on project in collaboration with the industry to provides a holistic preparation for students to embark into future challenges in existing and emerging sectors.

Career Opportunities

Robotics Engineer | Automation Engineer | Control system Design Engineer | Instrumentation Engineer | Electronic Engineer | Maintenance Engineer | Mechatronics Project Engineer | Mechatronics, R&D or Systems Engineer | Industrial Engineer | Process Control Engineer | Service Engineer



This program is accredited by the Board of Engineers Malaysia (BEM). Our graduates are also recognised internationally through the Washington Accord of the International Engineering Alliance.

COURSE STRUCTURE

Year 1

- Engineering Mathematics 1
- Engineering Mathematics 2
- Engineering Drawing
- Statics
- Dynamics
- Engineering Materials
- Workshop Technology
- Introduction to Inventive Problem Solving in Engineering
- Electrical & Electronic Principles
- Digital Electronics
- Computer Programming
- Writing and Referencing

Year 2

- Engineering Mathematics 3
- Numerical Methods
- Statistics
- Engineering Design Fundamentals
- Engineering Computing and Analysis
- Mechanics of Materials
- Mechanical Engineering Design
- Engineering Thermodynamics
- Fluid Mechanics
- Electric Power and Machines
- Analogue Electronics
- Microprocessors and Microcontrollers

Year 3

- Manufacturing Technology
- Instrumentation and Measurement
- Control Systems
- Signals and Systems
- Industrial Automation
- Robotics Kinematics and Control
- Artificial Intelligence for Engineering
- Project Management
- Engineering Ethics, Safety and Environment
- Capstone Project

Year 4

- Computer Aided Manufacturing
- Embedded Systems
- Elective (Choose 2)
- Final Year Project
- Industrial Training

Elective (choose 2)

- IoT System Design and Validation
- Very LargeScale Integration (VLSI)
- Computer Aided Engineering
- Machine Vision
- State Space Control
- Sustainable Energy Systems
- Digital System Design and Implementation
- Micro-Electromechanical Systems (MEMS)

MPU

- Penghayatan Etika dan Peradaban (PEP)
- Philosophy and Current Issues
- Entrepreneurship
- Integrity & Anti-Corruption
- Global Social Responsibility

ENTRY REQUIREMENT

Academic Qualification

Requirement

STPM	Pass STPM with NGMP 2.0 / Grade C in Mathematics and Physics
A-Levels	Pass A-Level (DD) inclusive of Mathematics and Physics
UEC	5 Credits (Min B6) inclusive of Mathematics and Physics
Foundation / Matriculation in Science/ Engineering	Pass with min. CGPA of 2.00 inclusive of Mathematics and Science subject
Australian Matriculation / Foundation	ATAR score of 70 inclusive of Mathematics and Science subject
International Baccalaureate	Minimum 28 points in 6 subjects inclusive of 5/7 in Mathematics and Physics
Diploma in Engineering	Recognised Diploma with CGPA \geq 2.00

ENGLISH REQUIREMENT

Local Student

MUET Band 2

International Student

Band 5 in IELTS; or a min score of 40 (IBT) or 7.5 (Essentials-Online) in TOEFL; or Cambridge English (154); or PTE Academic (47)

If English Language requirements are not fulfilled, additional English module(s) may be taken at UOW Malaysia.