

BACHELOR OF TECHNOLOGY (HONS) IN ELECTRONICS



PROGRAMME OVERVIEW

The programme teaches you the theory and practice of electronic science and engineering, which are at the heart of electronic devices and systems that are now integral to modern living. Ordinary people ranging from surgeons to astronauts use electronic devices, items, tools, or systems. You will acquire an in-depth understanding of electronics, and be able to identify and formulate solutions to electronic technology-related problems.

You will learn to design an electronic device system, its components, and processes, to meet defined specifications, be able to work with electronic instruments, hardware, and software; and know-how to implement and maintain a safe, healthy work environment as well as to conduct electronics technology research.

The final year will require students to undertake an independent full-year project, to enable students can apply all electronics engineering science and practice learnt. At the same time, the students are given a chance extended to a professional level where they can explore Python Programming, Electronic Systems Packaging, and Embedded System Design

PROGRAMME STRUCTURE & COURSES

The typical course units, totalling 123 Credits, are as follows:

Year 1

- Workplace Communication Skills
- Foundation Mathematics
- University Mathematics A
- Computers in a Networked Society
- Learning Skills for University Studies
- Circuit Theory I
- Fundamentals of Electronics
- Digital Electronics
- Basic Electromagnetic Theory

Year 4

- Co-Curriculum
- Technopreneurship
- Principles of Communication System
- Signals and Systems
- VLSI Design
- Control Systems
- EL Project part 1

Year 2

- Writing Skills for University Studies
- Engineering Mathematics I
- Engineering Mathematics II
- Introduction to Electrical Machine and Power Systems
- Digital Circuit Design
- Analogue Electronics
- Engineering Mathematics III
- Semiconductor Devices and Physics
- Process Control and Instrumentation

Year 5

- EL Project part 2
- EL Project part 3
- Industrial Training

Elective (Choose Any 2)

- Electronic Systems Packaging
- Embedded System Design
- Additive Manufacturing
- Python programming

- Automation & Robotics
- Mechatronics System Design with IoT Application
- Principles and Practice of Management



BACHELOR IN ELECTRONICS

- The expertise of tutors/instructors from the industry
- Up-to-date with the current syllabus (IR 4.0, artificial intelligence (AI), IoT Application
- Hands-on skills development & immediate real-world applications
- Networking with industry peers
- Collaborations with industry players

Year 3

- Bahasa Melayu Komunikasi 2 (for foreign students only) OR Penghayatan Etika dan Peradaban (for Malaysian students only) OR
- Philosophy and Current Issues
- Bahasa Kebangsaan A (for those with no credit in BM) OR Decision Making skills (for students with SPM credit in BM and foreign students)
- Structured Programming
- Circuit Theory II
- Engineering Management & Ethics
- Microelectronics
- Power Electronics and Drives
- Microprocessor and Microcontroller

- Basic Accounting
- Effective Leadership
- Operations Management

ASSESSMENT SYSTEM

Combination of assignments, projects, class tests, labs, presentations, quizzes and examinations.

DURATION OF STUDY

Intakes are available as follows:
January, May and September intakes
15 semesters over 5 years

AWARDING INSTITUTION

Wawasan Open University (WOU) Campus

STUDY PATHWAY

SPM /
O-Level /
IGCSE /
UEC or
equivalent



Matriculation or
Foundation in Arts /
STPM (Science Stream or
equivalent) /
UEC /
DISTED Diploma



Bachelor of Technology
(Hons) in Electronics

MINIMUM ENTRY REQUIREMENTS

Matriculation / Foundation

Matriculation/Foundation in Science/Engineering qualification with a minimum CGPA of 2.00 out of 4.00, or any equivalent qualification.

STPM (Science Stream or equivalent)

A pass in STPM with a minimum Grade C (GP 2.0) in any 2 Mathematics or Science subjects or its equivalent.

A-Level

A-Level or HSC with minimum Grade D in any 2 Mathematics or Science subjects or its equivalent.

UEC

UEC III with a minimum 5 Grade B including any 2 Mathematics or Science subjects or its equivalent.

Diploma

A Diploma in Vocational/Technical/Skills in Engineering/Engineering Technology or equivalent with a minimum CGPA of 2.5, pass bridging courses*. OR

A Diploma in Engineering/Engineering Technology or equivalent with a minimum CGPA of 2.0.

*Any other Diploma in Science or Business studies with a minimum CGPA of 2.5 may be admitted subject to a rigorous internal assessment** process and a credit in Mathematics at the SPM level or its equivalent.*

OR

Other equivalent qualifications recognised by the Malaysian Government.

** Bridging courses must be passed in the first year of studies.*

*** Internal assessment = Interview conducted by School*