



**MAHSA**  
UNIVERSITY

# BACHELOR OF CIVIL ENGINEERING WITH HONOURS

KPT/JPS ( N/521/6/0177 ) ( MQA/PA9591 ) 01 / 25

**FACULTY OF ENGINEERING  
AND BUILT ENVIRONMENT**

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"A great bridge is a great monument which should serve to make known the splendour and genius of a nation; one should not occupy oneself with efforts to perfect it architecturally, for taste is always susceptible to change, but to conserve always in its form and decoration the character of solidity which is proper."

**- Jean Perronet**

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# OVERVIEW

The Bachelor of Civil Engineering with Honours is a four-year programme designed in consultation with a panel of experts and approved by the Engineering Accreditation Council Malaysia (EAC) and Malaysian Qualifications Agency (MQA).

This programme is largely conducted in the MAHSA University campus with extensive exposure to laboratory work. The programme promotes student-centred learning, problem-based learning, and hands-on training which will help students develop critical thinking and problem-solving skills. This programme not only equips students with advanced technical and practical skills but also teaches them to plan and manage a project strategically. Students apply

the knowledge they have learned from the course to study, analyse and address real-life industry requirements. The focus will be on imparting practical and theoretical knowledge required for gainful employment in industry.

Engineering modules provide the necessary industry application and technological skills which are very useful for employment. Students use their knowledge of strong critical thinking, analysis and teamwork to develop and apply relevant engineering skills. Upon completion of the first three years, the Capstone Design Project and other advanced modules will further enhance students' understanding in the fourth year.

## PROGRAMME STRUCTURE

### Year 1

- Construction Materials and Technology
- Engineering Drawing
- Engineering Mathematics 1
- Engineering Mathematics 2
- Engineering Mechanics
- Engineering Geology
- Engineering Survey
- Engineering Survey Lab
- Introduction to C Programming
- Strength of Materials

### Year 2

- Building Services
- Civil Engineering Lab 1
- Civil Engineering Lab 2
- Engineering Statistics
- Fluid Mechanics
- Hydraulics and Hydrology
- Introduction to Environmental Engineering
- Numerical Methods
- Soil Mechanics
- Structural Analysis 1
- Structural Analysis 2

### Year 3

- Civil Engineering Lab 3
- Creativity and Innovation
- Foundation Engineering
- Geotechnical Engineering
- Highway Engineering
- Industrial Training
- Multimedia Application
- Reinforced Concrete Design
- Steel and Timber Design
- Structural Analysis 3
- Traffic and Transportation Engineering
- Water and Wastewater Engineering

### Year 4

- Advanced Reinforced Concrete Design
- Capstone Design Project
- Civil-infrastructure Design
- Construction Project Management
- Engineer and Society
- Estimating and Contract
- Technical Elective 1
- Technical Elective 2
- Thesis 1
- Thesis 2

#### General Modules

- Community Service
- Entrepreneurship
- Youth Development

#### MALAYSIAN STUDENTS:

- Hubungan Etnik
- Tamadun Islam dan Tamadun Asia

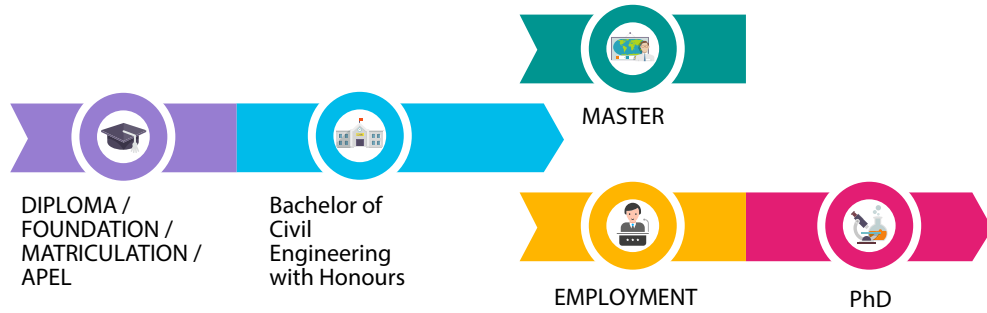
#### INTERNATIONAL STUDENTS:

- Bahasa Melayu Komunikasi 2
- Malaysia Studies

#### Electives

- Advanced Steel Design
- Advanced Hydraulics and Hydrology
- Environmental, Safety and Health
- Geo-environmental Engineering
- Hazardous Waste Management
- Pavement Analysis and Design
- Pre-stressed Concrete Design
- Retaining Structures
- Shallow Foundation Engineering
- Solid Waste Management
- Traffic Analysis and Design
- Transportation Planning
- Water Resources Engineering
- Water Supply and Sewerage

# PROGRESSION PATHWAY



## ENTRY REQUIREMENTS

### ACADEMIC QUALIFICATION REQUIREMENTS

- Diploma / Matriculation / Foundation** ♦ Related field pass with minimum CGPA 2.0.
- STPM** ♦ Pass with min. Gred C (GCPA 2.0) in three (3) subjects including Mathematics and one (1) Science Subject.
- A-Level** ♦ Pass in three (3) Subjects including Mathematics, and one (1) Science Subject.
- UEC** ♦ Pass with Gred B in five (5) Subjects including Mathematics and one (1) Science Subject.
- Other** ♦ Recognised Malaysian qualifications or their equivalent.
- English Proficiency** ♦ MUET : BAND 2 | IELTS : 5.0 | TOEFL : 500

## CAREER OPPORTUNITIES

- **Civil and Structural Engineer**
- Construction Engineer
- **Contractor**
- Environmental Engineer
- **Geotechnical Engineer**
- Hydraulic and Irrigation Engineer
- **Project Engineer**
- Project Manager Site Supervisor
- **Site Engineer**
- Traffic and Transportation Engineer





# MAHSA360

At MAHSA University, we provide our students with the opportunity to develop quality skills and understanding that go beyond their field of study which will prepare them for their next leap upon graduation.

MAHSA 360 is our specially designed ecosystem that works to ensure every student is nurtured and supported throughout their student journey.



## MAHSA's PASSPORT TO SUCCESS



Professional Industry-Driven Education (P.R.I.D.E) is MAHSA University's specially designed education pathway that give students the best of both academic and professional certifications. Students have the opportunity to gain professional skills through various programmes from MAHSA's collaborations with internationally recognised professional bodies. P.R.I.D.E increases the employability rate of our fresh graduates and puts them on par with the rest in the professional world.

### MASTERCLASS

Students of this programme are eligible to gain add-on certification in Masterclasses. There are more than fifty Masterclasses to choose from, and all are designed to further enhance the student's employability, in line with the Industrial Revolution 4.0.

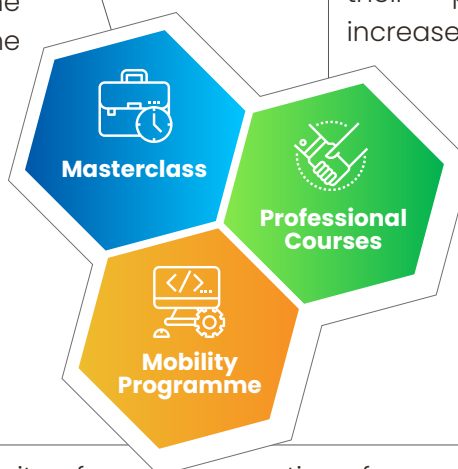
### PROFESSIONAL COURSES

Through MAHSA's collaboration with internationally recognised professional bodies, students will earn certifications that will enhance their professional skills and increases their employability rate.

### MOBILITY PROGRAMME

This is a unique opportunity for students to study abroad for up to one year. This programme lets students experience different cultures and

practices from around the world. Ask us about our university partners in over fifty different countries.



# MAHSA

U N I V E R S I T Y

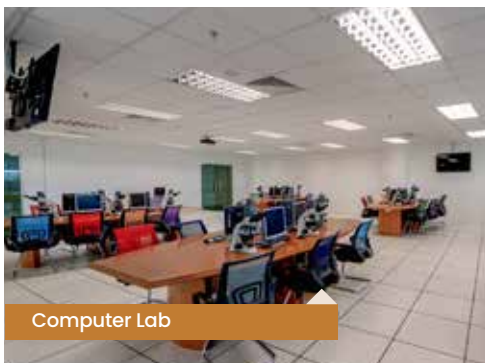
# BE MORE



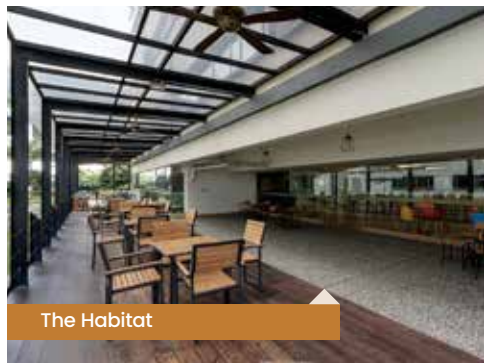
Engineering Lab Workshop



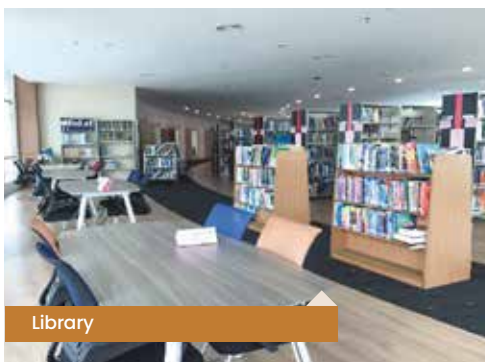
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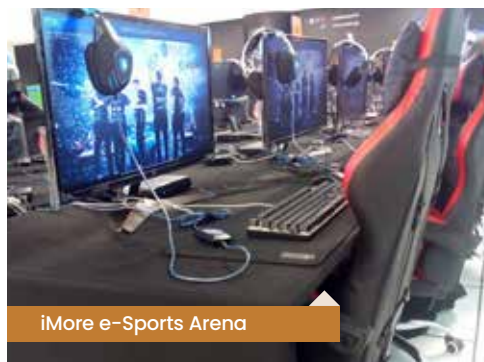
Computer Lab



The Habitat



Library





iMore e-Sports Arena


Contact us  
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