

# Bachelor of Computer Science (Hons) (Software Engineering)

(R2/481/6/0612) (A11215) 05/2025

This programme is designed to provide high-quality undergraduate education to the students with the objective of preparing them for prolific careers and providing graduate training in the area of IT. This programme will reinforce IT areas while inventing and implementing new technology. The graduates will be able to apply sound judgement to the production, communal, ethical, and professional issues of the rapidly developing computing industry.

## BENEFITS

This programme is specifically designed to provide students with:

- Familiarity with the tools and rigorous methodologies used to develop mission-critical and safety-critical software systems.
- The ability to critically evaluate design paradigms, languages, algorithms, and techniques used to develop large-scale and complex software systems.
- A deep appreciation of the importance of software architecture, testing, documentation, and maintainability.

## CAREER PROSPECTS

Students who graduate from this programme can work gainfully in software services companies, outsourcing companies and other allied sectors as a web developer, programmer.

## ENTRY REQUIREMENTS

STPM: Minimum Grade C (GP 2.0) OR Science Stream/ equivalent (Credits in Additional Mathematics or Mathematics and one of Science, Technology or Engineering subject) OR Matriculation/Foundation: Minimum CGPA of 2.0 OR Diploma in Computer Science/ Software Engineering/ Information Technology/ Information Systems: Minimum CGPA of 2.5 OR Diploma in Science & Technology: Minimum CGPA of 2.5 OR

For International Students  
IELTS: Minimum 4.0

Duration of study  
3 year

Credit Hours  
120

## SUBJECTS OFFERED

### YEAR 1

- English for Academic Purposes
- Academic Skills/ Bahasa Kebangsaan A
- Discrete Mathematics
- Introduction to Multimedia
- Computer Programming
- Hubungan Etnik / Pengajian Malaysia III
- English for Employment
- Fundamental of Computational Thinking: Python
- Calculus
- Software Engineering
- Data Structure
- Algorithm & Complexity
- Operating Systems
- Database System
- Object-Oriented Programming

### YEAR 2

- Modelling Simulation
- Software Testing
- Systems Analysis and Design
- Artificial Intelligence
- Fundamentals of Modern Data
- Tamadun Islam Dan Tamadun Asia (TITAS) / Bahasa Melayu Komunikasi II
- Computer Communication and Networks
- Usability Engineering
- Software Architecture & Design
- Introduction to Mobile App Development/Cloud Foundation\*
- Co-Curriculum
- DevOps: Transforming & Improving / Cloud Architecturing /Fundamental Of Blockchain\*
- Human Computer Interaction

### YEAR 3

- Cyber Security
  - Web Development
  - Cloud Architecture/Analysing and Visualizing Data with Power BI/ Excel\*
  - Project 1
  - Software Project Management
  - Software Quality Assurance
  - Software Integration & Improvement
  - Entrepreneurship
  - Project 2
  - Analytics Storytelling for Impact/ Virtual Reality\*
  - Industrial Training
- \*Elective Subjects