



BACHELOR OF ENGINEERING IN SOFTWARE ENGINEERING (HONOURS)

[R/0612/6/0009]11/27[MQA/FA5712]

DURATION

4 years

INTAKE

February/ April/ September

MEDIUM OF INSTRUCTION

English

ABOUT THE PROGRAMME

The Software Engineering programme follows a curriculum model developed at the main campus and implemented at Xiamen University Malaysia. The programme has extensive collaborations with various enterprises in the software industries. These partnerships provide students with valuable exposure to current industry practices and emerging technologies. They also create opportunities for internships, joint projects, and professional networking.

We have achieved great success in cultivating talents with practical abilities and an international outlook in the field of software engineering since the inception of the programme. Our graduates are highly sought after by industry partners for their strong technical competency and adaptability. Many of them have also excelled in international competitions and progressed to distinguished careers or further studies at renowned institutions. Moreover, our Software Engineering programme has been rated as a top-quality course by Fujian Province and the Ministry of Education, China.

Our programme at Xiamen University Malaysia is geared at producing graduates who are able to strike a balance between theories and practical implementation in software engineering, applying their knowledge and skills to design, develop, maintain, and manage computer and mobile application systems in the context of a real-world engineering environment. In summary, students in this programme are prepared to adeptly utilise current technology through a wide array of application tools and proficiently master diverse programming languages.

Note: The degree is not among the fields of engineering in the register of the Board of Engineers Malaysia.

PROGRAMME HIGHLIGHTS

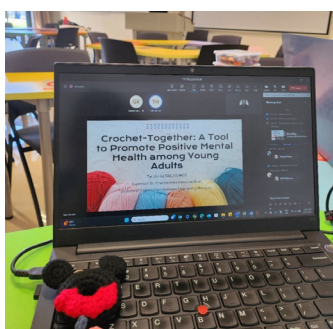
- A comprehensive curriculum aimed at nurturing graduates' core technical abilities while allowing them to focus on specialised aspects of software engineering
- Focusing on cultivating interdisciplinary software engineering talents with diverse skills, capable of addressing evolving challenges in today's dynamic world
- Utilising a problem-centered learning method that integrates practical projects and hands-on training into the learning experience
- Providing students with the opportunity to acquire valuable industry insights and practical experience through partnerships with global IT corporations

CAREER OPPORTUNITIES

- Analyst programmer
- Application analyst
- Database administrator
- IT consultant
- Mobile application developer
- Programmer
- Requirements engineer
- Software design engineer
- Software project manager
- Software quality engineer
- Software architect
- Software auditor
- Software developer
- Software engineer
- Software tester
- Systems analyst
- Techno entrepreneur
- Web developer



Our Academic Staff at the Convocation Ceremony



Final Year Project Presentation by SWE Student



Computer Vision and Face Recognition Workshop – collaboration with Robomy Sdn. Bhd.



Winners of the 10th Huawei ICT Competition Malaysia 2025/2026

BACHELOR OF ENGINEERING IN SOFTWARE ENGINEERING (HONOURS)

ENTRY REQUIREMENTS **For other equivalent qualifications, please consult our programme counsellor*

STPM (Science Stream)	A pass in STPM with at least a Grade C (GP2.0) in Mathematics AND 1 Science/ICT subject
STPM (Non Science Stream)	A pass in STPM with at least a Grade C (GP2.0) in any 2 subjects AND a credit in Additional Mathematics in SPM or its equivalent
A-LEVEL	A pass in A-Level with at least a Grade D in any 2 subjects
UEC	A pass in UEC with at least a Grade B in 5 subjects
Foundation/Matriculation	A pass in Foundation / Matriculation with at least a CGPA of 2.0 out of 4.0
Diploma	A pass in Diploma in Computing fields (Computer Science/Software Engineering/Information Technology/Information System/Data Science) with at least a CGPA of 2.5* out of 4.0 OR A pass in any Diploma Science and Technology or the equivalent with at least a CGPA of 2.75** out of 4.0
AND	(i) Additional Mathematics*** —a credit in SPM or the equivalent; OR (ii) Mathematics and any 1 Science/Technology/Engineering subject —a credit in SPM or the equivalent AND pass a Mathematics placement test organised by XMUM before joining the programme

- NOTES:**
- * Candidates with a CGPA of less than 2.5 but more than 2.0 may be accepted subject to a stringent internal evaluation process.
 - ** Candidates with a CGPA of less than 2.75 but more than 2.5 may be accepted subject to a stringent internal evaluation process.
 - *** The requirement for the Additional Mathematics at SPM level can be exempted if the Foundation/Matriculation or its equivalent offers a Mathematics course that is of a similar or higher level compared to the Additional Mathematics at SPM level.

MAIN COURSES

Year 1

- Discrete Mathematics B
- Computer Fundamentals
- C and C++ Programming
- Principles of Information Systems
- Data Structure
- Introduction of Software Engineering
- Computer Architecture
- Fundamentals of Network Technology

Year 2

- Operating Systems
- Database
- Principles of Artificial Intelligence
- Software Requirement Engineering
- Algorithm Analysis and Design
- Object Oriented Modeling
- Software Quality Engineering
- Advanced Software Engineering

Major Elective (Choose 2)

- Human Computer Interaction
- Computer Graphics
- Programming Elective II (1)
- Python and Tensorflow Programming

Year 3

- Software Verification and Validation
- Software Project Management
- Fundamental Research in Academic Project
- Software Architecture and Design Patterns
- Information Security
- Introduction of Cloud Computing

Major Elective (Choose 2)

- Embedded System
- Digital Media Technology
- Game Design and Development

Major Elective (Choose 2)

- Programming Elective II (2)
- Mobile Application System Design
- Distributed Systems

Year 4

- Software Engineering Academic Project
- Industrial Training

Major Elective (Choose 4)

- Programming Elective II (3)
- Data Mining
- Technology and Application of Internet of Things
- Big Data Analytics
- Virtual Reality Technology and Application

XIAMEN UNIVERSITY MALAYSIA DULN009(B)

TEL : +603 7610 2079

E-MAIL : enquiry@xmu.edu.my

WEBSITE : www.xmu.edu.my

CAMPUS ADDRESS: Jalan Sunsuria, Bandar Sunsuria, 43900 Sepang, Selangor Darul Ehsan, Malaysia

xmu.edu.my



The information in this brochure is correct at the time of publication. Xiamen University Malaysia (XMUM) reserves the right to change the information in line with updates from time to time. Please check the website (www.xmu.edu.my) for latest information.

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