



# FOUNDATION IN SCIENCE

[R/010/3/0391] 12/25 [MQA/FA8153]

## DURATION

1 year (3 semesters)

## INTAKE

April / August / December

## MEDIUM OF INSTRUCTION

English

## ABOUT THE PROGRAMME

Science and technology are at the forefront of driving the progress and development as well as the competitiveness of a country. Appropriately and adequately trained manpower in the fields of science and technology is required to implement nation-building and economic development projects in addition to spearheading research and development activities that can lead to technological innovation. To meet the growing demand for skilled workforce in the areas of science and technology, the younger generation must take up the mantle of becoming the torchbearer for the acquisition of knowledge and skills in those fields.

At Xiamen University Malaysia (XMUM), we are committed to attracting young people to science and technology by offering them an alternative route to undergraduate studies via a pre-university study programme in science. The XMUM Foundation in Science programme is designed to cater to the special interests and academic inclinations of students particularly in the fields of marine science, traditional Chinese medicine, energy science, and information and communication technology. Upon the successful completion of the foundation programme, students will progress to the designated undergraduate programmes at XMUM.

## HIGHLIGHTS OF THE XMUM FOUNDATION IN SCIENCE PROGRAMME

- Recognition as an entry qualification for undergraduate studies at XMUM
- Lessons conducted by well-qualified and experienced academic staff
- Opportunities to interact and network with students from diverse nationalities and cultural backgrounds
- Access to world-class learning and teaching facilities and infrastructure

## ENTRY REQUIREMENTS

Physical Science	Biological Science/Traditional Chinese Medicine
A pass in SPM/SPMV with at least a credit or Grade C in 5 subjects including Mathematics and Physics, and a pass in Bahasa Melayu and English or other equivalent qualifications; or	A pass in SPM/SPMV with at least a credit or Grade C in 5 subjects including Mathematics and 2 science subjects, and a pass in Bahasa Melayu and English or other equivalent qualifications; or
A pass in O-Level with at least a credit or Grade C in 5 subjects including Mathematics and Physics, and a pass in English or other equivalent qualifications; or	A pass in O-Level with at least a credit or Grade C in 5 subjects including Mathematics and 2 science subjects, and a pass in English or other equivalent qualifications; or
A pass in UEC with at least a Grade B in 3 subjects including Mathematics and Physics, and a pass in Bahasa Melayu and English or other equivalent qualifications.	A pass in UEC with at least a Grade B in 3 subjects including Mathematics and 2 science subjects, and a pass in Bahasa Melayu and English or other equivalent qualifications.

## ACADEMIC PATHWAYS

SPM / SPMV / O-LEVEL / UEC

### FOUNDATION IN SCIENCE AT XMUM (1 YEAR) ACADEMIC TRACKS

Physical Science

Biological Science

Traditional Chinese Medicine

### UNDERGRADUATE PROGRAMMES OFFERED BY XMUM

Bachelor of Engineering in Computer Science and Technology (Honours) (4 years)

Bachelor of Engineering in Software Engineering (Honours) (4 years)

Bachelor of Engineering in Digital Media Technology (Honours) (4 years)

Bachelor of Engineering in Artificial Intelligence (Honours) (4 years)

Bachelor of Engineering in Data Science (Honours) (4 years)

Bachelor of Engineering in Cyber Security (Honours) (4 years)

Bachelor of Engineering in New Energy Science and Engineering (Honours) (4 years)

Bachelor of Chemical Engineering with Honours (4 years)

Bachelor of Engineering in Electrical and Electronics Engineering (Honours) (4 years)

Bachelor of Science in Mathematics and Applied Mathematics (Honours) (3 years)

Bachelor of Science in Physics (Honours) (4 years)

Bachelor of Science in Marine Biotechnology (Honours) (4 years)

Bachelor of Science in Marine Environmental Chemistry (Honours) (4 years)

Bachelor of Medicine in Traditional Chinese Medicine (Honours) (5 years)

## PROGRAMME STRUCTURE

### Foundation in Science

#### COMPULSORY COURSES

Introduction to Academic English

Academic Reading and Writing

Basics of Critical Thinking

Effective Presentations

Computing and Digital Skills

#### CORE COURSES

Statistics for Science

Chemistry I

Chemistry II

Algebra

Calculus

Science Communication

#### CORE COURSES (SPECIALISATION)

Physical Science

Mechanics and Waves

Electromagnetism

Computer Science

Thermodynamics and Modern Physics

Biological Science

General Physics

Cell Biology

Introduction to Biotechnology

Basics of Environmental Science

Traditional Chinese Medicine

General Physics

Cell Biology

Human Physiology and Genetics

Chinese for Traditional Chinese Medicine

The courses listed above are subject to change.

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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