



BACHELOR OF SCIENCE IN MARINE ENVIRONMENTAL CHEMISTRY (HONOURS)

[R/0532/6/0003] 12/32 [MQA/FA9533]

DURATION

4 years

INTAKE

February/April/September

MEDIUM OF INSTRUCTION

English

ABOUT THE PROGRAMME

Xiamen University (XMU) began its marine studies nearly a century ago and is widely recognised as the cradle of China's marine sciences. The Department of Oceanography, founded in 1946, was the first of its kind in China. Since then, the College of Ocean and Earth Sciences (COE) at XMU has grown into one of China's leading marine research institutions, hosting a state key discipline in marine science.

The COE at XMU is supported by world-class facilities, including the State Key Laboratory of Marine Environmental Science (MEL) and the multi-purpose Tan Kah Kee Research Vessel (R/V TTK). Equipped with state-of-the-art instruments, the R/V TTK has provided students with opportunities to engage in cutting-edge oceanographic research since its launch in 2016.

With strong backing from XMU, the China-ASEAN College of Marine Sciences (CAMS) was established at Xiamen University Malaysia (XMUM) as the first overseas college of marine sciences, supported by the Chinese Ministry of Foreign Affairs through the China-ASEAN Maritime Cooperation Fund. Our well-equipped laboratories and research facilities support both teaching and research in marine and environmental sciences, providing undergraduates with valuable hands-on experience that prepares them for advanced study and professional careers.

Recognising the vital role of a healthy marine environment in conserving aquatic resources and driving sustainable economic growth, there is a growing demand for skilled professionals in marine environmental monitoring and management. In response, we introduced the Marine Environmental Chemistry (MEC) programme. This programme equips students with the knowledge and skills needed to contribute to the sustainable management of marine resources and ecosystems, meeting the needs of industry, government, and society. Through the MEC programme, students develop expertise in the sustainable utilisation of marine resources, cultivate strong environmental awareness, and graduate well-prepared for postgraduate study at XMU or other leading institutions worldwide.

PROGRAMME HIGHLIGHTS

- **Strong Academic Legacy** – Study at one of China's most respected and long-standing institutions in marine studies
- **Modern Facilities** – Access well-equipped laboratories and advanced research tools for marine and environmental sciences
- **Expert Teaching** – Gain knowledge from experienced academics and industry professionals across XMU's China and Malaysia campuses
- **Global Research Opportunities** – Join projects with leading scientists from Malaysia, China, and international partner institutions

CAREER OPPORTUNITIES

- **Research, Teaching & Management** – Work in universities, research institutes, and other educational organisations
- **Industry Careers** – Take on roles in environmental and marine monitoring, consultancy, protection, product development, and marine-related management
- **Further Studies** – Pursue Master's or PhD programmes at top universities in Malaysia and beyond



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ENTRY REQUIREMENTS

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

STPM	A pass in STPM with at least a CGPA of 2.0 AND a minimum Grade C in Mathematics or one science subject (Biology/Physics/Chemistry/General Science), or its equivalent.
A-LEVEL	A pass in A-Level with at least 2 passes AND with a minimum Grade C in Mathematics or one science subject (Biology/Physics/Chemistry/General Science), or its equivalent.
UEC	A pass in UEC with at least a Grade B in 5 subjects including Mathematics or one science subject (Biology/Physics/Chemistry/General Science), or its equivalent.
Foundation/Matriculation (Science/in a relevant field)	A pass in Foundation/Matriculation with at least a CGPA of 2.0 out of 4.0 AND a pass in Mathematics or a credit in one science subject (Biology/Physics/Chemistry/General Science), or its equivalent.
Diploma (in a relevant field)	A pass in Diploma with at least a CGPA of 2.0 out of 4.0

MAIN COURSES

YEAR 1

- Basic Biology and Laboratory
- Calculus I B
- Descriptive Oceanography
- General Chemistry and Laboratory
- General Physics
- Introduction to Environmental Science
- Introduction to Marine Science
- Marine Ecology and Laboratory
- Organic Chemistry and Laboratory
- Python Programming Language

YEAR 2

- Chemical Oceanography and Laboratory
- Environmental Pollution Control Technology
- General Physics Experiments: Mechanics, Thermodynamics, Electromagnetism, and Optics
- Integrated Coastal Zone Management (ICZM)
- Marine Microbiology and Laboratory
- Probability and Statistics B
- Remote Sensing and Geographic Information System (GIS)
- Waste Management

Major Electives

- Marine Conservation Planning
- Marine Environmental Policy

YEAR 3

- Environmental Biology and Laboratory
- Environmental Ethics and Sustainability
- Environmental Impact Assessment (EIA)
- Environmental Monitoring and Laboratory
- Environmental Toxicology
- Final Year Project I
- Global Environmental Change
- Instrumental Analysis and Laboratory
- Marine Environmental Modelling

Major Electives

- Calculus II
- Environmental Management System (EMS)
- Fundamentals of Environmental Economics
- Principles of Artificial Intelligence (AI)
- Scientific Communication

YEAR 4

- Final Year Project II
- Industrial Training

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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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