



BACHELOR OF SCIENCE IN MARINE ENVIRONMENTAL CHEMISTRY (HONOURS)

[N/0521/6/0002] 12/25 [MQA/FA9533]

DURATION

4 years

INTAKE

February/April/September

MEDIUM OF INSTRUCTION

English

ABOUT THE PROGRAMME

Xiamen University (XMU) started marine studies almost 100 years ago and is recognised as the cradle of China's marine studies. Its Department of Oceanography, established in 1946, is the first of its kind in China, while its College of Ocean and Earth Sciences has developed into one of China's best marine research institutions with the state key discipline in Marine Science. Among the faculty, there are two academicians of the Chinese Academy of Sciences and a number of experts involved in "Thousand Talents Plan", China's Recruitment Programme of Global Experts. The college also boasts excellent education and research platforms such as the State Key Laboratory of Marine Environmental Science, outstanding educational centers like the National Experimental Center for Education, as well as multi-purpose scientific research vessel Jiageng (嘉庚号). This vessel is equipped with the state-of-the-art scientific instruments, which enable students to experience the front-line work and conduct scientific research in oceanography discipline since 2016.

With strong support from XMU, China-ASEAN College of Marine Sciences (CAMS) grew as the first overseas college of marine sciences in Xiamen University Malaysia (XMUM), sponsored by the Chinese Ministry of Foreign Affairs under the China-ASEAN Maritime Cooperation Fund. Our well-equipped facilities serve both teaching and research purposes in the marine and environmental science fields, providing students with opportunities to gain practical and research experience even at the undergraduate level. Their experience here will prepare them for further study and employment.

As the quality of marine environment is very important for the conservation of aquatic resources as well as sustainable economic development, there is an increasing demand of professionals in the field of marine environmental monitoring, investigation, protection and management. As a result, our Marine Environmental Chemistry programme was introduced. Students in this programme will learn how to assist in the management of marine resources and ecosystems, fulfilling the needs of market, industry and society. In addition, students will be equipped with the knowledge of the sustainable utilisation of marine resources, and trained to be conscious of the current environmental issues. Students who would like to pursue further studies in this area are welcome to apply for postgraduate programmes at XMU.

PROGRAMME HIGHLIGHTS

- Excellent educational resources from one of the most highly-respected and longest-established institutions in China for marine studies
- Well-equipped facilities serving both teaching and research purposes in marine science and environmental science fields, funded by the Ministry of Foreign Affairs of China
- Interactive teaching by experts in the fields from both XMU China and Malaysia campuses
- Exposure to research activities involving world-class marine environmental chemistry scientists and professors from Malaysia, China and other international institutions collaborating with CAMS

CAREER OPPORTUNITIES

- Marine/environmental/chemistry-related research, teaching and management work in universities and other educational institutions
- Research and administrative work in marine environmental monitoring and consultation, environmental protection, marine related product trading, etc
- Further studies: Master & PhD programme in local and overseas universities



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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
- Basic Biology Laboratory
- General Chemistry (Part 1)
- General Chemistry (Part 2)
- General Chemistry Laboratory
- General Physics (Part 1)
- Calculus I B
- Calculus II
- Introduction to Marine Science
- Introduction to Environmental Science
- Marine Ecology
- Marine Ecology Laboratory
- Programming in Language C

YEAR 2

- Organic Chemistry
- Organic Chemistry Laboratory
- Probability and Statistics B
- General Physics (Part 2)
- General Physics Experiments: Mechanics, Thermodynamics, Electromagnetism, and Optics
- Descriptive Oceanography
- Analytical Chemistry
- Environmental Ethics
- Marine Environmental Policy
- Marine Pollution Chemistry
- Chemical Oceanography
- Chemical Oceanography Laboratory

Major Electives

- Marine Ecosystems
- Environmental Impact Assessment

YEAR 3

- Environmental Biology and Laboratory
- Marine Environmental Toxicology
- Integrated Coastal Zone Management (ICZM)
- Global Environmental Change
- Marine Microbiology
- Marine Microbiology Laboratory
- Environmental Monitoring
- Environmental Monitoring Laboratory
- Instrumental Analysis
- Instrumental Analysis Laboratory

Major Electives

- Fundamentals of Environmental Economics
- Environmental Pollution Control Technology
- Remote Sensing and GIS
- Environmental Modelling
- Physical Chemistry
- Environmental Planning
- Environmental Management

YEAR 4

- Industrial Training
- Capstone Experience in Marine Environmental Science
- Senior Capstone Seminar

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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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