



BACHELOR OF ENGINEERING IN NEW ENERGY SCIENCE AND ENGINEERING (HONOURS)

[R/0712/6/0004]08/27[MQA/FA5668]

DURATION

4 years

INTAKE

February/ April/ September

MEDIUM OF INSTRUCTION

English

ABOUT THE PROGRAMME

NESE is an interdisciplinary engineering programme related to the efficient, safe, environmentally friendly, and economical extraction, conversion, transportation, storage, and use of energy, with an aim to increase efficiency whilst minimising negative effects on humans, nature and the environment.

The NESE programme at Xiamen University is supported by College of Energy, one of China's top-rated new energy technology research institutions for education, R&D, and technology transfer. We are supported by a strong faculty, consisting of high-calibre researchers and engineering experts in the fields of clean chemical energy, nuclear energy, solar and wind energy, bio energy, energy economics, and energy efficiency engineering, all dedicated to high quality R&D in energy science and technologies.

We are working closely with many leading universities, such as the Australian National University, University of Cincinnati and National University of Singapore, and major industry players including EDRA ENERGY, +Plus Solar, Infineon, Petronas, China Southern Power Grid and Zhejiang Electric Power Construction Co. Ltd.

Our programme at Xiamen University Malaysia aims to develop highly flexible professionals with solid specialty knowledge, who are ready for employment in energy related industries or to pursue scholastic endeavours in the same or related fields. At the end of the programme, students will be equipped with core theoretical knowledge and practical skills for the analysis, modelling, evaluation, design, development, and implementation of energy technology.

PROGRAMME HIGHLIGHTS

- A world-leading programme which produces well-trained professionals who are able to devise strategies to counter the global energy crisis by promoting the use of efficient, clean, renewable, and sustainable energy technologies
- A customised programme which benefits from the vast Chinese experience in energy technology research and development
- A close cooperation with leading overseas universities and major industry players which ensures up-to-date appreciation of energy technology developments and research directions

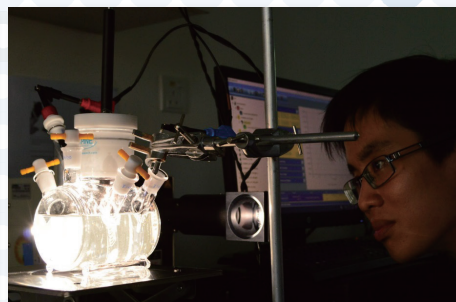
CAREER OPPORTUNITIES

Technical or research work in power plants, energy technologist, material engineer, solar engineer etc.



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

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ENTRY REQUIREMENTS

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

STPM	A pass in STPM with at least a Grade C (GPA 2.0) in Mathematics AND Physics/Chemistry
A-LEVEL	A pass in A-Level with at least a Grade C in Mathematics AND Physics/Chemistry
UEC	A pass in UEC with at least a Grade B in 5 subjects including Mathematics AND Physics/Chemistry
Foundation/Matriculation	A pass in Foundation/Matriculation with at least a CGPA of 2.0 out of 4.0 AND passes in Mathematics AND Physics/Chemistry
Diploma	A pass in Diploma in Engineering/Engineering Technology or the equivalent with at least a CGPA of 2.5 out of 4.0 AND passes in Mathematics AND Physics/Chemistry
AND	MUET - at least Band 2 or its equivalent

MAIN COURSES

MAJOR CORE COURSE

General Physics I
 General Physics II
 General Physics Laboratory
 Energy Economics and Policy
 Corrosion and Protection of Materials
 Circuit Foundation
 Principles of Chemical Engineering I
 Physical Chemistry
 Engineering Drawing
 Foundation of Materials Science
 Principles of Chemical Engineering II
 Introduction to Electric Power Systems
 Engineering Thermodynamics
 Petrochemical Engineering
 Engineering Fluid Mechanics
 Practices of Energy Technology
 Energy Innovation Laboratory

Thesis I

Thesis II

Industrial Training

MAJOR ELECTIVE COURSES

Solar Energy Engineering
 Technology of Electrochemical Power Sources
 Natural Gas Chemical Engineering
 Semiconductor Physics
 Introduction to Combustion
 Coal Chemical Engineering
 Microbial Energy
 Electrical & Electronic Technology
 Chemical Engineering of Energy
 Biomass Energy Engineering
 Fundamentals of Nuclear Science and Engineering
 Modeling and Simulation in Energy Engineering

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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.

December 2023