We aim to train energy professionals to meet the growing demand of energy specialists. This is inline with the energy saving strategies of the government, which plans to save 40% of energy by 2025.


Ma Lik Kuen, Martin 马力健

As a very first student in Green Energy Science, my study in HKBU is approaching its end in the next academic year. I still recall the moment when I made the decision of selecting Green Energy Science two years ago. Looking backward, it is definitely a right decision that opens up many doors. The Ptelets, the Doctons and the staffs are very passionate in teaching. To me, they are not only my teachers, but also my friends.

I am extremely grateful to the Physics Department. They supported me a valuable opportunity to attend the World Energy Engineering Congress (WEEC) 2014 in the US. In addition to broadening my horizon, I could also glimpse into my future and my career in the area of energy science.

In the past 2 years, what I saw, heard and learnt was way beyond my expectations. The passionate teachers, the Department’s unlimited support, and the extraordinary experience in the US are not just enlivening my academic knowledge, but also shaping my learning attitude. Green Energy Science is a very unique, interesting and diversified programme. It consists of more than just scientific knowledge, but also geography, energy policies, technology development around the world, and anything that is related to energy science. We learn Green Energy Science based on physical principles. More importantly, I also glimpse into the development trend of green industry around the world.

The development of green energy in Hong Kong is still in its infancy, but I believe "to be greener" is an irreversible trend. It is my honor to be a Green Energy Science student, not only have a passion for inventing new green technology, but also a vision to improve the green energy development of Hong Kong.

GES student Li Zeqian (李泽乾) obtains HKSSG Government Scholarship for 2015/16

In my high school, when my physics teacher solved the Maxwell Equations step by step and showed the existence of electromagnetic wave as Maxwell did more than two hundred years ago, I was shocked. This was how my enthusiasm for physics was first developed. Eventually, I joined the Physics Department of the Hong Kong Baptist University.

To me, physics is not only something I enjoy and I excel at, but it also enables me to serve the community. Physics is where technology, breakthroughs and social evolutions originated. In particular, nowadays energy is a worldwide issue. Limited resources and high energy consumption make it more and more important to develop more efficient and sustainable energy sources. By studying physics, I sincerely hope to contribute my part to the world.
Background
The Department of Physics offers a four-year undergraduate degree programme in Green Energy Science. It aims at preparing students for a multidisciplinary career in the energy sector. Students will be admitted by the science faculty and have a broad-based education in science during their first year study. By the end of the first year, students will declare their preferred major programmes.

Structure of the Four-Year Undergraduate Degree Programme in Green Energy Science

Total (minimum) Required for Graduation
129 units

- General Education 38 units
- Major 61 units
- Electives 30 units

Streams
- Energy and Applied Physics
- Energy Management
- Environmental Science

Major courses
- Underlining Physics Principles
  - Heat & Motion
  - Electricity & Magnetism
  - Atomic & Nuclear Physics
  - Structure & Properties of Matter

- Technology
  - Renewable Energy Sources
  - Energy Storage, Distribution, & Conservation
  - Non-Fossil Fuels
  - Green Energy Laboratory I & II

Elective courses (Examples)
- Renewable Energy Materials & Devices
- Advanced Green Energy Lab
- Physics & Technology of Energy Conversion
- Advances in Displays & Lighting
- Semiconductor Physics & Devices
- Electronics

Materials & Device Physics
- Mathematical Methods for Physical Science
- Intermediate Electromagnetism
- Solid State Physics
- Mechanics
- Electromagnetic Waves and Optics
- Quantum Mechanics

Advanced Physics
- Energy Problems & the Environment
- Energy Policy & Analysis
- Energy Management in China
- Energy Management
- Topics in Energy Science

Scholarships/Exchange/Internship
- Sponsoring participation in local & overseas conferences such as the World Energy Engineering Congress
- Scholarships
- Opportunities in international Exchange & Internship

Certified Energy Manager (C.E.M.)
Our programme is designed to be in line with the CEM Certification. For more information, please see the official website at, http://www.aecenter.org/ia/pages/index.cfm?pageid=3351

Career Prospects
Our programme aims to train energy professionals. Graduates may work in energy firm, energy consultancy firm, government, construction firm, high-tech companies and research institutes, and further studies.

Admission requirement
Candidates must fulfil the following for admission to the programme:

HKDSE Requirements
Level 3 in: Chinese Language, English Language
Level 2 in: Mathematics, Liberal Studies,
One Elective Subject (preferably good results in a science-related subject)