電子工程學課程
Electronic Engineering Programme

Room 454, Ho Sin Building, The Chinese University of Hong Kong
Shatin, N.T., Hong Kong
Tel: (852) 3943 8446 / (852) 3943 8240
Fax: (852) 2852 5566
General Enquiry Email: deelect@cuhk.edu.hk
Homepage: http://www.ee.cuhk.edu.hk

Our mission is to educate future leaders in electronic engineering, to pursue knowledge and advance state-of-the-art electronics, including hardware, software and design with electronics as the core. From nanoelectronics, devices, circuits to systems, and the application of such technology to meet societal and individual needs. In our teaching and research, the Department is guided by the highest international standards. It is ranked 25th in the QS World University Rankings by Subject 2013 - Electrical 

電子工程學課程

電訊工程

電子工程學課程

Career

A degree in Electronic Engineering provides a solid foundation to launch your career locally or globally with excellent prospects in a wide range of technological sectors, which include: telecommunications, broadcasting, automotive electronics, railway, electric power, semiconductor, medical equipment, government agencies (e.g. EMRD and ICAG), information technology, industrial manufacturing, and product design. Some of our graduates choose to pursue postgraduate studies in local or overseas institutions.

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Multimedia Technology

Digital Entertainment: High Definition Digital TV
Computer Animation & Virtual Reality
Computer Generation of Voice & Music
Xbox & DVD: High-speed Digital Audio/Video
Xbox: Digital Entertainment
Software Engineering: Digital Audio/Video
Health & Medical: Digital Hearing Aids, Medical Image Processing
Security: Current Tends in Vehicle, Intelligent Surveillance "Vision"
Sports: Image Processing for Sports

Optoelectronics & Optical Communication

Optical Communication: Cable TV, Broadband Internet
Wireless Communication: UMTS, ZigBee, ZigBee, Bluetooth, Wi-Fi
Integrated Optics: High-Speed Optical Components

Wireless Technology

Wireless LAN: Bluetooth, Wi-Fi
Radio Frequency Identification (RFID): For Logistics
### Multimedia Technology

**Digital Entertainment**
- High Definition Digital TV
- Computer Animation 

**Computer Generation of Voice & Music**
- Speech Synthesis
- Audio/Video Compression

**Health and Medical**
- Digital Hearing Aids
- Medical Image Processing

**Security**
- Cryptography
- Biometrics

### Optoelectronics & Optical Communication

**Optical Communication**
- Cable TV, Broadband Internet

**Opto-electric Memory**
- Laser Diode, Light Emitting Diode

**Laser Applications**
- Optical Data Storage

**Integrated Optics**
- High-Speed Fibre Optic Components

### Wireless Technology

**RFID**
- Radio Frequency Identification

**Wireless LAN**
- Local Area Network

**Radio-Frequency Radiation Measurement**
- RF Spectrum Analysis

### 4-Year Curriculum

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<tr>
<th>Year 1</th>
<th>Course Titles</th>
<th>Description</th>
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<tr>
<td>Year 4</td>
<td>Specialized Courses</td>
<td>Graduation Project, Exam, Thesis, Dissertation</td>
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<td>Year 3</td>
<td>Engineering Fundamentals</td>
<td>Engineering Mathematics, Engineering Economy, Engineering Ethics</td>
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<td>Year 2</td>
<td>Advanced Courses</td>
<td>Circuits and Devices, Specialized Systems Design, Communication Principles, Digital Circuits and Systems</td>
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<tr>
<td>Year 1</td>
<td>Fundamentals</td>
<td>Mathematics, Chemistry, Biology, Engineering Design</td>
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### Work-Study Program

Our work-study program was first introduced in 1928 in the belief that combining course work and practical training would enhance the skills of students and their career prospects.

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<tr>
<th>Semester</th>
<th>Topic</th>
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<tr>
<td>Fall</td>
<td>Physics, Mathematics</td>
<td>Communication, Circuits and Systems</td>
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**Optoelectronics & Optical Communication**

- Laser Diode, Light Emitting Diode
- Optical Data Storage
- High-Speed Fibre Optic Components

**Wireless Technology**

- Radio Frequency Identification (RFID)
- Local Area Network (LAN)
- Radio-Frequency Radiation Measurement

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**Semiconductor Devices & Integrated Circuits**

- Mixed Signal Integrated-Circuit Design
- Mobile Phone Applications
- Microelectronics
- Analog Circuits
- Digital Circuits
- Integrated Circuits

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**Artemis, Bluetooth, WiFi**

- Spectrum Analysis
- RF Spectrum Analysis
- Radio-Frequency Radiation Measurement

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**Micro-electronics**

- Printed Circuit Board Assembly
- Analog Design
- Digital Design

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**Digital Entertainment**

- High Definition Digital TV
- Computer Animation 

**Computer Generation of Voice & Music**
- Speech Synthesis
- Audio/Video Compression

**Health and Medical**
- Digital Hearing Aids
- Medical Image Processing

**Security**
- Cryptography
- Biometrics
Multimedia Technology

- Digital Entertainment: High Definition Digital TV
- Computer Animation & Virtual Reality
- Computer Generation of Videos & Music

Health & Medical: Digital Hearing Aids, Medical Image Processing

Security: Contactless Ware Verification, Intelligent Surveillance Vision

Digital Electronics, Signal Processing, Electromagnetic Theory

Semiconductor Devices & Integrated Circuits

Mixed Signal Integrated-Circuit Design: Mobile Phone
- Mixed-Signal Integrated Circuits: Cellular Phone
- Smart Cards: Octopus, HKICD Card
- Nanometer-Process Technology

Nanometer Semiconductor Devices and Materials

Wireless Technology

- Optoelectronics & Optical Communication
- Wireless LAN

- Radio Frequency Identification (RFID) for Logistics
- Radio-Frequency Radiation Measurement
- Radio-Frequency Technology