UCSI University

UCSI EDUCATION SDN BHD  (185479-U)

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LOT 2864 (P/L 1319), BLOCK 7, MUARA TABUAN LAND DISTRICT, ISTHMUS, TANJONG SEBERANG PENDING POINT, SEJINGKAT, 93450 KUCHING, SARAWAK, MALAYSIA.
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TERENGGANU CAMPUS  DU020-01(T)
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Latitude: 5.216519 (5° 12' 59.47'' N)    Longitude: 103.161621 (103° 9' 41.84'' E)

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FACULTY OF ENGINEERING, TECHNOLOGY AND BUILT ENVIRONMENT
Established in 1992, the Faculty of Engineering, Technology and Built Environment is one of the strongest faculties at UCSI University. A confluence of practical studies and theoretical learning, the Faculty has developed a range of innovative programmes that are recognised by both local and international bodies like the Malaysian Qualifications Agency (MQA), the Malaysian Engineering Accreditation Council (EAC), and the Board of Engineers Malaysia (BEM). With Malaysia as a signatory of the Washington Accord, our programmes are also recommended for recognition by member countries including Australia, Canada, Ireland, New Zealand, UK and US.

Adding to its renown is its expertise – which is extensive. Students learn from esteemed academics – a rich mix of industry practitioners, professors and informed researchers – who have established lasting bonds with the industry and leading-edge universities across the globe. The academics build on two vital qualities: An eagerness to share their knowledge and a desire to engage students in the Faculty’s research projects. Supported by its very own custom-built campus where students will have access to industry-standard facilities and engineering software and technology, the Faculty continues to assert its role as a place of creativity and exceptional learning and teaching. This has led to tie-ups with partner universities across the globe, enabling the Faculty to make headway in high impact research collaborations. Our top students are sent abroad annually for research attachments at some of the best universities in the world such as Imperial College London in the UK and Tsinghua University in China.

Each of these features is woven into the Faculty’s long-standing tradition of excellence, where its sterling reputation is matched only by the many achievements of its teaching staff, students and graduates. Your studies here will be insightful. But more than that, it will be meaningful. Theory will lead to cutting-edge practice. Your enthusiasm will lead you to achievements. And your work will be challenging and impactful.

Engineer your future with us today.

UCSI is one of the few Malaysian private universities to break into the 2015 and 2016 QS Asian University Rankings.

UCSI is in the Rating System for Malaysian Higher Education Institutions (SETARA). Tier 5 is classified “Excellent” and it is the highest rating accorded to Malaysian universities so far.

Over 30% of UCSI’s student population is INTERNATIONAL.

TOP 250-350 IN ASIA

3 CAMPUSSES

110 NATIONALITIES

1,000,000 FT² OF OUR CO-OP PARTNERS WOULD LIKE TO REHIRE UCSI INTERNS

AROUND 4,000 GLOBAL COMPANIES PROVIDE OUR STUDENTS WITH INTERNSHIP

OVER 10,000 STUDENTS ON CAMPUS

OVER 100 academic programmes make UCSI the most ACademically Diverse private university in Malaysia by far.

OVER 30% of UCSI’s academic staff are PhD holders and a further 17% are pursuing their doctorate. The 2015 average at private higher education institutions in Malaysia is 16%.

AEDICALY DIVERSE

HIGH IMPACT RESEARCH

YEARLY RESEARCH ATTACHMENTS AT PRESTIGIOUS UNIVERSITIES LIKE IMPERIAL COLLEGE LONDON.

AWARD WINNING FACULTY

STAFF AND STUDENTS REGULARLY RECEIVE ACCOLADES.

STATE-OF-THE-ART FACILITIES

COMPANIES PLACED ON TECHNICAL EXPERIENCE.

INDUSTRY COLLABORATIONS

REGULAR SITE VISITS AND TALKS BY INDUSTRY MOVERS.

GLOBALLY RECOGNISED

MALAYSIA AS A SIGNATORY OF THE WASHINGTON ACCORD.

DIVERSIFIED PROGRAMMES

COMPREHENSIVE COURSES INVOLVING 7 ENGINEERING AREAS.

Pioneer of Aquatic Science, Biotechnology, Food Science, Music and Nutrition. *

* In Malaysia’s private higher education landscape

In the Rating System for Malaysian Higher Education Institutions (SETARA). Tier 5 is classified “Excellent” and it is the highest rating accorded to Malaysian universities so far.
BEng (Hons) Chemical Engineering

This four-year programme combines the three basic physical sciences — chemistry, physics and biology — with mathematics, which makes it one of today’s most versatile engineering fields. This allows room for specialisation in a very broad spectrum of fields — from nanotechnology and oil refining to conversion of biomass or waste valuable products. At UCSI, students are exposed to a myriad of new technologies that are rapidly reshaping the society we live in.

DID YOU KNOW?

The Faculty is known to regularly win awards at competitions organised at the home front and internationally. Since 2014, UCSI’s chemical engineering students have bagged a total of 14 awards.

Best Student Award
The Institution of Engineers Malaysia (IEM) 2015
RAYSON CHOT CHUN YUAN
BEng (Hons) Chemical Engineering

Gold Medal and Best Award
Agriculture, Environmental and Renewable Energy Category
6th International Engineering Invention and Innovation Exhibition 2015 (I-ENVEX)
PIUA ENG HOCK KIN & SHARGUNAN PUNUSAMY (right) and DHEENAKARHAN VIJU KUMAR (left)
BEng (Hons) Chemical Engineering

International Degree Pathway*
University of Queensland (2+2/2+2.5)
BEng (Hons) Chemical Engineering

Career Opportunities:
Process Engineer | Product Engineer | Environmental Engineer | Design Engineer | Production Engineer | Quality Engineer | Service Engineer | Health and Safety Engineer | Risk Engineer | Project Engineer | Material Engineer | Research Engineer | Cost Engineer | Lab Engineer | Instrumentation Engineer | Process Control Engineer

*General Courses (MUP) are compulsory for all students. Please refer to page 11.

BEng (Hons) Petroleum Engineering

Under a well-balanced curriculum that aims to provide both breadth and depth across petroleum engineering specialisations, students will build a solid foundation in oil and gas exploration, production and development as they master core topics in petroleum geology, petroleum economy and well completion.

At the Faculty, students will have access to well-equipped laboratories and sophisticated computers equipped with licensed engineering software such as ECLIPSE, PETREL and other commercial reservoir simulation software. Industrial-based projects will also open the way for insights from industry experts. By the end of this four-year programme, they will have learned to address pressing issues and design innovative solutions that benefit society and organisations.

DID YOU KNOW?

One of the top five finalists of the Petrobowl Competition (Asia Pacific region) 2015 organised by the Society of Petroleum Engineers

Represented the Asia Pacific region at the SPE World Petrobowl Championship 2015 in Houston, USA

SHEILLA MINERVA, TER BOON WAY, DHAIEF ALLAH DHAIEF
BEng(Hons) Petroleum Engineering

First Runner-Up Schlumberger Enhanced Oil Recovery Contest

GOH HWEI SIONG AND CHAN Y LOON
BEng(Hons) Petroleum Engineering

Career Opportunities:
Drilling Engineer | Production Engineer | Field Engineer | Reservoir Engineer | Operation Engineer | Project Development Engineer | Mud Engineer | Well Completion Engineer | Cost Engineer | Workover Engineer | Process Engineer | Subsea Engineer | Offshore Engineer | Simulation Engineer | Health and Safety Engineer

*Terms and conditions apply
BEng (Hons) Mechanical Engineering

This programme offers a comprehensive range of core engineering science courses and practical projects to ensure it is highly integrated and industry-relevant. As they progress, students will be well-equipped to not only design mechanical components and systems but also solve engineering problems by applying different techniques and strong analytical skills. They will be exposed to the latest advances in engineering technologies and with the emphasis on experimental work, students will gain the skills needed to take on the challenge of designing products and process that are faster, more versatile and environmentally friendly.

**DID YOU KNOW?**

The Faculty’s Head of Postgraduate and Research, Assistant Professor Dr Ammar Ali Al Talib, is working hand-in-hand with a team of academicians and students to research new ways of harvesting palm oil using laser technology.

### SUBJECT LISTING

#### BEng (Hons) Mechanical Engineering

**YEAR 1**

- Calculus & Analytical Geometry II
- Engineering Graphic Design
- Engineering Statics
- Fluid Mechanics
- Thermodynamics I
- Mechanical Drawings & Assembly Techniques
- Mechanical Lab I

#### BEng (Hons) Mechatronic Engineering

**YEAR 1**

- Calculus & Analytical Geometry II
- Engineering Graphic Design
- Mathematical Methods for Engineers I
- Technical Communication
- Circuit Theory I
- Engineering Statics
- Electrical Power
- Material Science
- Mechanical Drawing & Assembly Techniques

#### International Degree Pathway*

**University of Manitoba (up to 2+2)**

- BSc Mechanical Engineering
- BSc Mechanical Engineering (Aerospace Option)
- BSc Mechanical Engineering (Manufacturing Option)
- BEng (Hons) Mechanical Engineering

**University of Queensland (2+2)**

- BEng (Hons) Mechatronic Engineering

### Career Opportunities:

**University of Manitoba (up to 2+2)**

- Process Engineer
- Product Engineer
- Environmental Engineer
- Design Engineer
- Production Engineer
- Quality Engineer
- Service Engineer
- Health and Safety Engineer
- Risk Engineer
- Project Engineer
- Material Engineer
- Research Engineer
- Cost Engineer
- Lab Engineer
- instrumentation Engineer
- Process Control Engineer

**University of Queensland (2+2)**

- Mechatronics Engineer
- Robotics Engineer
- Software Engineer
- Industrial Designer
- Mechanical Systems Engineer
- Mechanical Engineer
- Mechanical Design Engineer
- Project Engineer
- Electro-mechanical Engineer

### DID YOU KNOW?

The Malaysian ChemE Car Competition is an annual competition organised by the Institution of Engineers Malaysia. It challenges students to design and build a model car powered by a chemical reaction that will carry a load to the finish line within a given time.

Four students from the Faculty edged out over 60 participating teams from local public and private universities to clinch first runner-up at the 9th Malaysia ChemE Car Competition. They made a repeat achievement in the following year when they were named second runner-up in the poster presentation category.

**First Runner-Up (Car Performance)**

9th Malaysian ChemE Car Competition 2014

**Second Runner-Up (Poster Presentation)**

10th Malaysian ChemE Car Competition 2015

**CHONG JEUN HAO**

BEng (Hons) Mechatronic Engineering

**SOH WEI MING, HO LUP FAI**

TAN KUAN LEONG

BEng (Hons) Chemical Engineering

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*Terms and conditions apply*
The buildings we frequent, the bridges we cross, the roads we drive on; every structure, surface and support system is underpinned by civil engineering. In this programme, students will learn how to design, construct and maintain structures in the ‘built environment’. Students will read a wide range of courses that includes structural analysis, geomatics, and hydraulics, highway and traffic, as well as water and sewerage systems – all of which emphasise engineering and managerial skills at the same time. This will ensure they have the ability to apply what they learn to real-life projects where financial and ethical issues are taken into account. By the end of the programme, students will be well prepared to devise high impact solutions and change lives for the better.

**Civil Engineering**

**BEng (Hons)**

**Career Opportunities:**
- Building Control Surveyor
- Consulting Civil Engineer
- Contracting Civil Engineer
- Nuclear Engineer
- Site Engineer
- Structural Engineer
- Water Engineer
- Environmental Engineer
- Geotechnical Engineer
- Materials Engineer
- Structural Engineer
- Transportation Engineer

**International Degree Pathway**
- Deakin University (1.5+2.5)
- B Civil Engineering (Hons)
- University of Manitoba (up to 2+2)
- BSc Civil Engineering
- BSc Civil Engineering (Environmental Option)
- University of Queensland (2+2.5)
- BEng (Hons) Civil Engineering

**Subject Listing**

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Subject Listing</th>
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<tbody>
<tr>
<td>1</td>
<td>Calculus &amp; Analytical Geometry 2</td>
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<td></td>
<td>Geometrics</td>
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<td>Geometrics Field Work</td>
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<td>Project for Engineers</td>
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<td>Engineering Graphics &amp; Design</td>
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<td>Mathematical Methods For Engineers 1</td>
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<td>Mathematical Methods For Engineers 2</td>
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<td></td>
<td>Engineering Statics</td>
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<td>Electrical Principles</td>
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<td>2</td>
<td>Fluid Mechanics</td>
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<td>Theory Of Structure</td>
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<td>Civil Lab 1 (Fluid Mechanics Theory of Structure)</td>
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<td>Stress Analysis &amp; Design</td>
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<td>Engineering Dynamics</td>
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<td>Mechanical Lab 5 (Stress Analysis &amp; Design)</td>
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<td>Eng Dynamics)</td>
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<td>Materials In Civil Eng</td>
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<td>Soil Mechanics</td>
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<td>Civil Lab 2 (Materials in Civil Eng &amp; Soil Mechanics)</td>
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<td></td>
<td>Numerical Analysis</td>
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<td>Cooperative Placement 2</td>
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<td>3</td>
<td>Geotechnical Materials &amp; Analysis*</td>
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<td>Structural Analysis</td>
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<td>Water And Waste-Water Engineering*</td>
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<td>Reinforced Concrete Design 1</td>
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<td>Hydraulics</td>
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<td>Engineers In Society</td>
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<td>Reinforced Concrete Design 2</td>
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<td>Structural Steel And Timber Design</td>
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<td>Cooperative Placement 4</td>
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<td>4</td>
<td>Final Year Project A</td>
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<td>Highway Engineering*</td>
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<td>Project Construction &amp; Management</td>
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<td>Contract &amp; Estimation</td>
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<td>Construction Technology</td>
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<td>Final Year Project B</td>
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<td>Environmental Engineering Analysis &amp; Design</td>
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<td>Engineering Hydrology</td>
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<td>Cipstone Design Project 2</td>
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<td>Engineering Management &amp; Economics</td>
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<td>Elective Course (May see course):</td>
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<td></td>
<td>Groundwater Hydrology</td>
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<td>Fluid Element Analysis</td>
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<td>Transportation Engineering</td>
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<td>Technopreneurship</td>
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</tbody>
</table>

**Communication and Electronic Engineering**

**BEng (Hons)**

**Career Opportunities:**
- Electrical and Electronics Installer
- Technical Support Engineer
- Optical Networks Technical Marketing Engineer
- Satellite Communications Engineer
- Optics Engineer
- Instrumentation and Controls Engineer
- Biomedical Engineer
- Telecommunications Engineer
- Broadcast Engineer
- Computer Systems Engineer

**International Degree Pathway**
- Waterford Institute of Technology (2+2)
- BEng (Hons) Communication and Electronic Engineering

**Subject Listing**

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<td>Circuit Theory I</td>
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<td>Electrical Principles</td>
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<td>Advanced Circuit Theory &amp;TL</td>
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<td>Engineering Design</td>
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<td>Mathematical Methods For Engineers II</td>
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<td>Electronic Manufacturing Industry Engineering Softwares &amp; Applications</td>
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<td>Electrical Power</td>
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<td>Computing for Engineers</td>
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<td>Co-operative Placement 2</td>
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<td>Analogues Electronics 8</td>
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<td>Digital Electronics II</td>
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<td>Electronic Laboratory 2A</td>
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<td>Electronic Laboratory 2B</td>
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</tbody>
</table>

**Communication and Electronic Engineering**

**BEng (Hons)**

**Career Opportunities:**
- Telecommunications Engineer
- Broadcast Engineer
- Computer Systems Engineer
- Optics Engineer
- Instrumentation and Controls Engineer
- Biomedical Engineer
- Optical Networks Technical Marketing Engineer
- Satellite Communications Engineer
- Electrical and Electronics Installer
- Technical Support Engineer
- Telecommunications Field Service Engineer

**Did You Know?**

The UCSI IET On Campus is a student chapter of the Institution of Engineering and Technology – one of the world’s largest engineering institutions with over 167,000 members in 150 countries. In 2015, the chapter received the IET Most Promising On Campus Award presented in recognition of its growing membership and beneficial activities. It continues to serve the student community with a wide range of industry visits, technical talks and competitive events.

**First Runner-Up**

**IET Present Around the World Competition 2015**

**Recipient**

**IET Gold Medal Award 2016**

**WONG SOON KHEN**

**BEng (Hons) Communication and Electronic Engineering**

**First Runner-Up**

**ABB Interarsity Innovation Challenge 2016**

**Recipient**

**Medal Award 2016**

**MUHAMMAD HAFIDZ KHAIRUDIN, GANESH KUMAR TINAKARAN AND RIFAYET ASHRAF**

**International Degree Pathway**

- Deakin University (1.5+2.5)
- B Civil Engineering (Hons)
- University of Manitoba (up to 2+2)
- BSc Civil Engineering
- BSc Civil Engineering (Environmental Option)
- University of Queensland (2+2.5)
- BEng (Hons) Civil Engineering

**Career Opportunities:**

- Telecommunications Engineer
- Broadcast Engineer
- Computer Systems Engineer
- Optics Engineer
- Instrumentation and Controls Engineer
- Biomedical Engineer
- Optical Networks Technical Marketing Engineer
- Satellite Communications Engineer
- Electrical and Electronics Installer
- Technical Support Engineer
- Telecommunications Field Service Engineer

*Terms and conditions apply*
BEng (Hons) Electrical and Electronic Engineering

Electrical and Electronic Engineering is one of the broadest engineering disciplines and this programme will cover multiple subject areas like analogue electronics, microelectronic chip design, digital signal processing, power generation, protection and distribution, C++ programming, instrumentation and measurements control, renewable energy systems, and more. Students will also have the chance to learn MATLAB, PSPICE and LABVIEW which are used to run simulations in projects and research.

DID YOU KNOW?

UCSI is home to the Institute of Electrical and Electronics Engineers-Eta Kappa Nu (IEEE-HKN) Student Chapter – and third in Asia Pacific. Through this Student Chapter, our students enjoy exciting events and opportunities to interact with top students at renowned universities across the globe such as Massachusetts Institute of Technology, Purdue University and the University of California, Berkeley. This Student Chapter has recently received Outstanding Student Chapter Award 2015.

Ir. Associate Professor Dr Rodney Tan Hean Gay is the recipient of the Mathworks Central Challenge Coin Award, presented in recognition of his contributions to MATLAB – a system used by engineers and scientists worldwide.

International Degree Pathway*

University of Manitoba (up to 2+2)
BSc Biosystems Engineering
BSc Biosystems Engineering (Environmental Option)
BSc Computer Engineering
BSc Electrical Engineering

University of Queensland (2+2.5)
BEng (Hons) Electrical Engineering
Waterford Institute of Technology (2+2)
BEng (Hons) in Electronic Engineering

Career Opportunities:

Design Engineer | Project Engineer | R&D Engineer | System Design Engineer | Analog Design Engineer | Test Engineer | PCB Design Engineer | Electrical Engineer | Digital Design Engineer

Diploma In Electrical and Electronic Engineering

Students of this programme will receive a strong engineering foundation in electrical technology, telecommunication, control and instrumentation systems, as well as digital and analogue electronics. Expect plenty of hands-on training in cutting-edge laboratories as you hone your technical skills and tackle complex projects.

Career Opportunities:

Design Engineer | Project Engineer | R&D Engineer | System Design Engineer | Analog Design Engineer | Test Engineer | PCB Design Engineer | Electrical Engineer | Digital Design Engineer

Diploma In Engineering (Materials Science)

This programme combines the elements of applied physics and chemistry. Students will also be exposed to metallurgy, polymer science, ceramics and composites. Through their practical training, they will learn how to handle different instruments and tools for characterisation and analysis.

Career Opportunities:


SUBJECT LISTING

YEAR 1

Calculus & Analytical Geometry II
Circuit Theory I
Digital Electronics I
Analogic Electronics I
Mathematical Methods for Engineers I
Technical Communication
Electromagnetic Theory I
Electronic Laboratory 1A
Electronic Laboratory 1B

YEAR 2

Advanced Circuit Theory & TTL Engineering Design
Mathematical Methods for Engineers II
Electronic Manufacturing Industry Engineering Softwares & Applications
Electrical Power
Computing for Engineers
Co-operative Placement 2
Analogic Electronics II
Digital Electronics II
Electronic Laboratory 2A
Electronic Laboratory 2B

YEAR 3

Communication Theory
Numerical Analysis
Instrumentation & Measurement
Data Communication Network
Microprocessor-Based Systems
Electronic Devices
Environmental Engineering
Control Systems
Engineering & Management & Economics
Engineers in Society
Embedded System Design
Electronic Laboratory 3A
Electrical Laboratory 3B
Electronic Laboratory 3C

YEAR 4

Digital Signal processing
Digital Systems & VLSIs
Energy Conversion & High Voltage Power Transmission
Power Electronics
Design Project
Final Year Project A
Power Systems
Final Year Project B
Co-operative Placement 4
Power System Protection
Electronics Laboratory 4A
Electrical Laboratory 4B
Elective
Electromagnetic Theory II
Introduction to Production and manufacturing
UAV Design
Technopreneurship

YEAR 1

Engineering Physics I
Engineering Mathematics I
Computer Applications (Computing Essentials)
Electrical and Electronics Principles
Engineering Physics II
Circuit Analysis I
Engineering Mathematics II
Engineering Design
Digital Electronics

YEAR 2

Engineering Principles
Applied Computing (Computing Air Engineers)
Circuit Analysis 2
Electrical Technology I
Electrical Technology 2
Engineering Mathematics 3
Telecommunication Principles
Industrial Studies
Project A
Analogic Electronics
Co-operative Placement 2

YEAR 3

Control & Instrumentation Systems
Microprocessor-Based Systems
Project B

*General Courses (MPU) are compulsory for all students. Please refer to page 73.

*Terms and conditions apply
FACULTY OF ENGINEERING, TECHNOLOGY AND BUILD ENVIRONMENT

POWER, MACHINE AND DRIVE LAB
In this lab, students study the courses related to power, machines and drives. This lab allows students to conduct experiments related to power system protection, power electronics, power transmission and distribution with AC machines, DC machines and an electrical transformer.

INSTRUMENTATION LAB
This laboratory has state-of-the-art equipment for teaching and research development. It includes an atomic absorption spectroscopy (AAS), Fourier Transform Infrared Spectroscopy (FTIR), UV-VIS spectroscopy with desktop computer, nano zeta sizer, titrator and tensiometer.

PETROCHEMICAL LAB
This lab has the necessary equipment for the analysis and characterisation of solid, liquid and gaseous substances which students can use to conduct testing and research in the areas of air and water pollution. The equipment available includes a viscometer bath, flashpoint tester, seta oil test centrifuge, rotary evaporator, colorimeter, jar test, and turbidity meter.

ADVANCED CHEMICAL LABORATORY
This laboratory has all the equipment for aspiring chemical engineers to conduct physical and chemical processes (fluid flow, heat and mass transfer). Equipment includes a PC-controlled and data logging system, a gas chromatography with a desktop computer, gas absorption demonstration unit, tubular flow reactor with a desktop computer, refractometer, continuous distillation column, batch reactor and CSTR in series.

FACILITIES
The state-of-the-art facilities and laboratories that our students work and study in have played a significant role in preparing them for the real world. Here are some of them.

GEOMATIC AND CONCRETE LAB
This lab is equipped with all the necessary surveying equipment. Students use this equipment for land surveying, and to analyse data collected during assignments. Students can also perform engineering evaluations and experiments to test the qualities of building materials like concrete and other cementitious materials here.

ELECTRICAL AND ELECTRONIC LAB
Equipped with the state-of-the-art of fundamental Electrical and Electronic measurements, this lab allows students to run experiments related to Circuit Analysis, Digital and Analogue Electronics using multimeter, power supply, oscilloscope and function generators.

MATERIAL SCIENCE AND PETROLOGY SOIL MECHANICS LAB
In this lab, students can develop further knowledge of materials structure, properties, performance and its processes by producing, transforming, and analysing materials. Students can also conduct experiments to process, test and determine soil properties here.

THERMO-FLUID LAB
The lab allows students to conduct research in thermodynamics, fluid mechanics, and heat transfer. Students can also study a variety of complex engineering issues, such as electronics cooling, nanofluidics, micro-flow control, and bio-inspired fluid dynamics.
GENERAL COURSES (MPU)

COMPULSORY FOR ALL STUDENTS

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<tr>
<th>MALAYSIAN STUDENTS</th>
<th>INTERNATIONAL STUDENTS</th>
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<td>• Ethnic Relations</td>
<td>• Malaysian Studies</td>
</tr>
<tr>
<td>• Islamic Civilization</td>
<td>• Communication in Bahasa</td>
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<td>• Malay 3</td>
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<tr>
<th>ALL STUDENTS</th>
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</thead>
<tbody>
<tr>
<td>• U2 – University Life</td>
<td>• U2 – Study Skills and Employability</td>
</tr>
<tr>
<td>• U2 – Technical Communication</td>
<td>• U3 – Malaysian Eco-Tourism/Malaysian Traditional Food</td>
</tr>
<tr>
<td>• U3 – Malaysian Ethic Food</td>
<td>• U4 – Extra-curricular Learning Experience 1 to 3</td>
</tr>
</tbody>
</table>

SOME OF OUR MANY STUDENT ACHIEVERS

SOH WEI MING (left) and LEON TAN KUAN LEONG

BEng (Hons) Chemical Engineering

Advanced science at Imperial College London

Selected for cutting-edge research programmes in nanoparticles and protein crystallisation. Upon their return, their research paper was subsequently accepted for the 2016 4th Asia Conference on Mechanical and Materials Engineering and will soon be published in a Scopus-indexed journal.

LEE MAY YAN

BEng (Hons) Chemical Engineering

Advanced science at Imperial College London

Drove cutting-edge research in functional particles. Supervised by Imperial’s Dr Jerry Heng, May Yan optimised existing research on functional particles, specifically coal fly ash, in the bid to improve current methods of extracting cenosphere. Cenosphere is used to create lightweight cement.

TEO XSU LI

BEng (Hons) Chemical Engineering

Advanced science at Tsinghua University

Furthered research in DNA nanotechnology with the aim of innovating protein crystallisation, a process which produces the crystals needed to study the molecular structure of protein for various pharmaceutical or biotechnological applications.

ENTRY REQUIREMENTS

INTAKES: JANUARY, MAY AND SEPTEMBER

DIRECT ENTRY INTO BACHELOR’S DEGREE (ALL ENGINEERING MAJORS EXCEPT CHEMICAL ENGINEERING)

<table>
<thead>
<tr>
<th>QUALIFICATIONS</th>
<th>ACADEMIC REQUIREMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPM / O-Levels</td>
<td>Minimum 2C including Mathematics and Physics</td>
</tr>
<tr>
<td>A-Levels</td>
<td>Minimum 2D including Mathematics and Physics</td>
</tr>
<tr>
<td>IUEC</td>
<td>Minimum 5 credits including Mathematics and Physics</td>
</tr>
<tr>
<td>CPU</td>
<td>CPU – Minimum average of 60% in 6 subjects, inclusive of a minimum score of 60% in Mathematics and Physics</td>
</tr>
<tr>
<td>Local Matriculation</td>
<td>Minimum COPA of 2.0</td>
</tr>
<tr>
<td>Foundation from other University/ College</td>
<td>Minimum COPA of 2.0</td>
</tr>
<tr>
<td>WAEC/NECO</td>
<td>Maximum aggregate of 15 points out of best 5 subjects, inclusive of minimum B’s in Mathematics and Physics</td>
</tr>
<tr>
<td>Advanced Diploma / Degree / equivalent</td>
<td>Pass subject to school discretion after reviewing transcript and syllabus. Max credit transfer of 30% of the programme total credits</td>
</tr>
<tr>
<td>Other qualifications deemed equivalent to SPM/IUEC by Malaysian Qualifications Agency</td>
<td>Minimum overall average of 65%, inclusive of minimum 65% in Mathematics and Physics</td>
</tr>
<tr>
<td>International Baccalaureate</td>
<td>Minimum 26/42 points from 6 subjects (inclusive Mathematics &amp; Physics/ Chemistry)</td>
</tr>
<tr>
<td>SAM</td>
<td>Minimum average of 65% in 5 subjects, inclusive of minimum scores of 65% in Mathematics and Physics</td>
</tr>
</tbody>
</table>

* Chemistry is required for Chemical Engineering. Physics is required for all other programmes.

DIPLOMA IN ELECTRICAL AND ELECTRONIC ENGINEERING / DIPLOMA IN ENGINEERING (MATERIALS SCIENCE)

<table>
<thead>
<tr>
<th>QUALIFICATIONS</th>
<th>ACADEMIC REQUIREMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPM / O-Levels</td>
<td>Minimum 2C including Mathematics and Science/Technical/ Vocational (Pass is required for English)</td>
</tr>
<tr>
<td>IUEC</td>
<td>Minimum 2D including Mathematics and Science/Technical/ Vocational (Pass is required for English)</td>
</tr>
<tr>
<td>WAEC/NECO</td>
<td>Minimum 3 credits including Mathematics and Science/Technical/ Vocational (Pass is required for English)</td>
</tr>
<tr>
<td>Advanced Diploma / Degree / equivalent</td>
<td>Minimum overall average of 50% (inclusive Mathematics and Science)</td>
</tr>
<tr>
<td>Other qualifications deemed equivalent to SPM/IUEC by Malaysian Qualifications Agency</td>
<td>Minimum overall average of 50% (inclusive of Mathematics and Science)</td>
</tr>
<tr>
<td>Certificates from Polytechnics relevant field</td>
<td>Minimum 50% average</td>
</tr>
</tbody>
</table>

Upon successful completion of the diploma programme, students will gain up to 30% of credit transfer of the total credits, depending on the chosen degree programme.

Note: Discretion is given to Dean/Deputy Dean to deal with other borderline Academic Requirements.

ENGLISH REQUIREMENTS

* A distinction (A+, A or A-) in the English Language subject at SPM/IUEC level; or MUET Band 5; or a score of 196 (computer-based) / 525 (writing-based) / 69-70 (internet-based) in TOEFL; or Band 5.5 in IELTS.

In the event that the English Language Requirements are not met, student may be required to undertake additional English module(s) prior to or concurrently with the undergraduate programme, based on the University’s decision.

International students holding equivalent academic qualifications but which are not conducted in English, are required to sit for the English Placement Test, which may result in the taking of the English Enrichment Programme (1 to 10 months). Students who intend to pursue the above undergraduate programme directly, are advised to fulfil the above English requirements prior to commencing their studies at the University.