## UniKL AWARD & RECOGNITION







## FLEXILEARN **WEEKEND & EVENING CLASSES**

EARN HIGHER QUALIFICATION WITHOUT QUITTING YOUR JOB NOW!



## FINANCIAL **ASSISTANCE**



**MARA** Loan



**HRDF** Claimable



**EPF** Withdrawal



**PTPTN** 

\* Subject to Terms & Conditions

## UNIVERSITI KUALA LUMPUR KAMPUS CAWANGAN

MALAYSIAN INSTITUTE OF CHEMICAL AND BIO-ENGINEERING TECHNOLOGY Lot 1988 Taboh Naning, Kawasan Perindustrian Bandar Vendor 78000 Alor Gajah, Melaka

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JPT/BPP (R/524/6/0061) 02/22, MQA/FA11928

## **BACHELOR OF CHEMICAL ENGINEERING TECHNOLOGY**

WITH HONOURS

## **OVERVIEW**

The programme focuses on the design, operation and maintenance of chemical and material manufacturing processes. Chemical Engineers (Process) engineers intimately deal with the scaling up of chemical reactions or processes that are of importance to society. They must determine how to exploit the knowledge on chemical reaction to design and operate facilities and processes in order to produce commercial quantities of a product. Chemical engineering (Process) also involves developing new processes, project engineering and troubleshooting. They are found in a vast range of industries, such as the petrochemical, mineral processing, material, Information Technology, food and pharmaceutical and biotechnological industries. This branch of engineering is a challenging and rewarding profession for those who aspire to make their mark in, for example:

- Protecting and improving the quality of our environment,
- · Reliably supplying precious energy to society,
- Developing and manufacturing raw materials, chemicals and pharmaceutical products to sustain the quality of modern living, or
- The discovery of new materials through nanotechnology and life science for the betterment of society

## **FLEXIBLE LEARNING**

Offering flexibility to cater to your schedule, so that you can pursue additional knowledge without interfering with your work schedule.

UniKL offers the flexibility to cater to your work schedule and provide you with the opportunity to enhance your skills whilst not compromising your work time. This workaround learning schedule is the main reason many professionals choose to enter UniKL's FlexiLearn programmes. Selected Professional Certificates can be embedded into the programmes as well. Furthermore, prior academic qualifications and working experience may be taken into consideration for syllabus exemptions.

## **APEL**

Accreditation of Prior Experiential Learning

APEL (Accreditation of Prior Experiential Learning) is a systematic process which involves the IDENTIFICATION, DOCUMENTATION, and ASSESSMENT of prior experience related to a study programme.

APEL is a systematic process that involves the identification, documentation and assessment of prior experiential learning, i.e. knowledge, skills and attitudes, to determine the extent to which an individual has achieved the desired learning outcomes, for access to a programme of study and/or award of credits

# PROFESSIONAL RECOGNITION

• Engineering Technology Accreditation Council (ETAC)

# ENTRY REQUIREMENT

- Pass STPM or equivalent with a minimum grade C (CGPA 2.00) in Mathematics, a Science related subjects and other subjects, as well as a pass in SPM or equivalent with at least a pass in English
- Diploma (Level 4, the Ministry of Health) Engineering / Engineering Technology or equivalent recognized, with a CGPA of 2.00 and a minimum;
- Diploma (Level 4, KKM) in the field of vocational and technical / skills that are relevant and recognized with a minimum CGPA of 2.00 and a pass in English at SPM or equivalent
- Passing Basic program of Science and Technology / Science Foundation (Foundation in Science and Technology / Foundation in Science) from UNIKL with minimum CGPA of 2.00 and a pass in English Language subject at the SPM level or equivalent
- Passed the Matriculation program / Preparation in Science recognized with a minimum CGPA of 2.00 and a pass in English Language subject at the SPM or equivalent OR
- Graduated South Australian Matriculation (SAM) / Australian Year 12 / termausk Canadian Grade 12 Mathematics and one Science subject related
- Graduated in the International Baccalaureate (IB) with at least 24/45 points including Mathematics and one Science subject related
- A-Level pass with at least a pass in Mathematics, a Science related subjects and other subjects, as well as a pass in SPM or equivalent with at least a pass in English
- Pass Sijil Tinggi Agama Malaysia (STAM) with at least Jayyid and pass SPM or equivalent with at least a credit in Mathematics, a Science related subjects and pass in English;

\*Eg for applications for admission in 2015, graduated in 2014 or 2013 STAM

- HAVE A UNIVERSITY QUALIFICATION EXAMINATION ENGLISH TEST (MUET) AT LEAST BAND 2
- HAVING AT LEAST MINIMUM IELTS BAND 4.0 OR
- HAVE MINIMUM SCORES AT LEAST TOEFL 450 (PBT) or 135 (CBT) or 40 (IBT)

# PROGRAMME STRUCTURE

## **SEMESTER 1**

- Mathematics I
- Physical Chemistry
- Fundamental of Electric & Electronics
- Engineering Graphic
- Fundamental English
- Co-Curriculum I Malaysian Studies
- Islamic/Moral Studies
- Bahasa Kebangsaan A

### **SEMESTER 2**

- Mathematics II
- Analytical & Organic Chemistry
- Chemical Process Principles
- Principle of Programming
- Fluid Mechanics
- Co-Curriculum II
- Professional English I

## **SEMESTER 3**

- Industrial Safety & Health
- Chemical Engineering Thermodynamics
- Mass Transfer I
- Engineering Statistics
- Process Heat Transfer
- · Professional English II

### **SEMESTER 4**

- Process Instrumentation
- Reaction Engineering
- Mass Transfer II
- Numerical Methods in Chemical Engineering
- Plant Utilities & Maintenance

## **SEMESTER 5**

- Process Dynamics & Control
- Biochemical Engineering
- Design Project I (Design & Feasibility Study of Plant)
- Oil & Fat Process Technology
- Technopreneurship
- Engineering Technologist in Society
- Introduction Renewable Technology

### SEMESTER 6

- Design Project II (Plant & Process Optimization)
- Petrochemical & Petroleum Refining Technology
- Quality Assurance & Quality Control in Chemical Engineering
- Final Year Project (Proposal)
- Mandarin I
- Elective I

## **SEMESTER 7**

- Final Year Project (Implementation)
- Environmental Issues & Waste Management
- Mandarin II
- Innovation Management
- Elective II
- Elective III

## **SEMESTER 8**

Industrial Training

\* the duration of the programme will be based in the actual credit transfer and number of courses taken by student on every semester.