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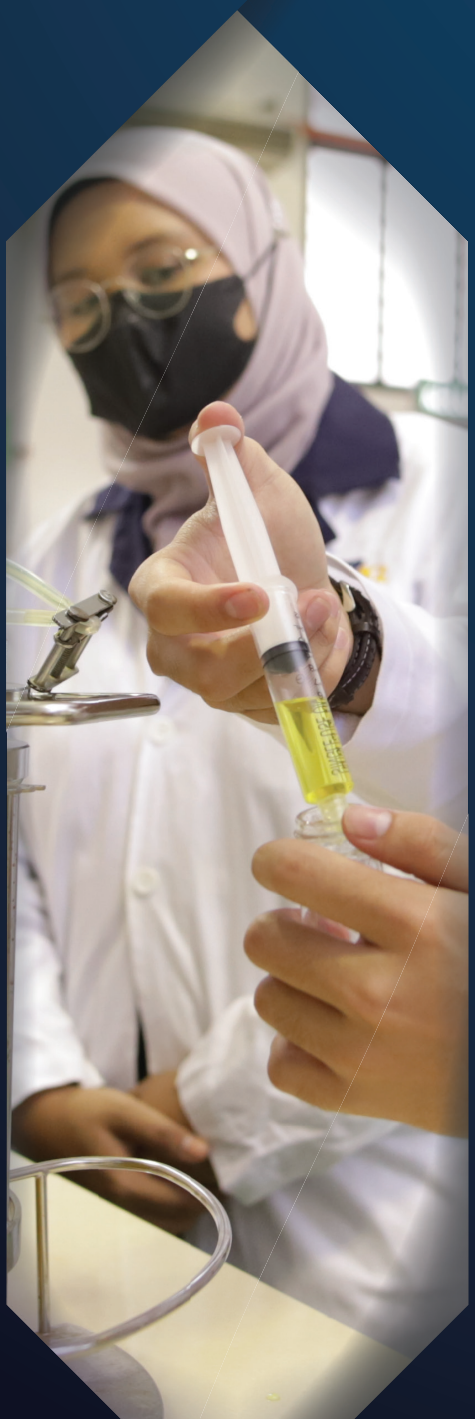


THE RIGHT CHEMISTRY **FOR SUCCESS**

UNIVERSITI KUALA LUMPUR MALAYSIAN INSTITUTE OF CHEMICAL AND BIOENGINEERING TECHNOLOGY (UniKL MICET)

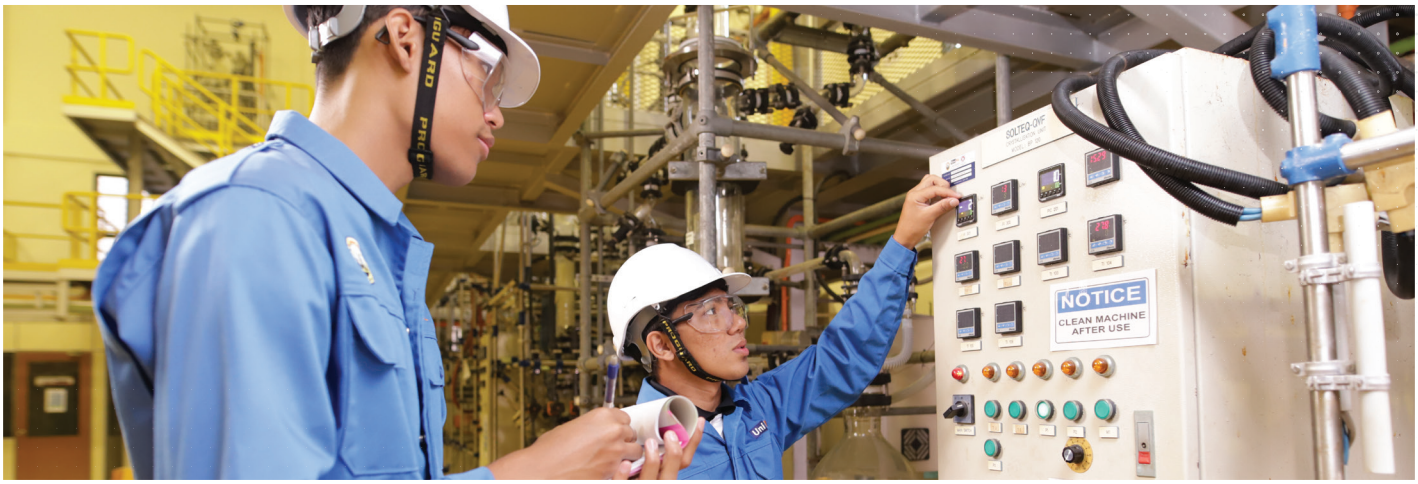
www.unikl.edu.my

UNIVERSITI KUALA LUMPUR
KAMPUS CAWANGAN MALAYSIAN INSTITUTE OF CHEMICAL AND BIOENGINEERING TECHNOLOGY (UniKL MICET)

Universiti Kuala Lumpur Kampus Cawangan Malaysian Institute of Chemical & Bioengineering Technology (UniKL MICET), Melaka is a higher educational institution that specializes in chemical-based engineering technology education. It is fully owned by Majlis Amanah Rakyat (MARA), located in Taboh Naning, Vendor City, Alor Gajah, Melaka, approximately 35km away from Melaka town which was declared as "Historical City" by UNESCO on 7th July 2008.

UniKL MICET was established in 2002 and was grouped under Universiti Kuala Lumpur, under Universiti Teknikal MARA Sdn Bhd. UniKL MICET is the pioneer in providing hands-on chemical based technology education in Malaysia. The Chemical and Bioengineering Technology programmes offered by UniKL MICET made it one of the earliest technical universities in this country. An accomplishment of this university is its up-to-date and modern equipment used in the chemical technology field.

Being Malaysia's first technical University, UniKL MICET is set up with complete, state of the art latest plant design laboratories, Plant Design Management System (PDMS) and SMART 3D software and up-to-date equipment in the field of Chemical Engineering Technology. It has 43 labs; among them are Chemical Analysis Lab, Basic Chemical Lab, Chemical Technology Lab, Preparation Lab, Polymer Test and Assessment Lab, Latex Processing Lab, Food Analysis and Processing Lab, Computer Labs, Pilot Plant and Water Treatment Lab with hands on learning.



PROGRAMS OFFERED

Foundation in Science
JPT/BPP (N/010/3/0530) 01/25 MQA/PA 12391

Diploma in Chemical Engineering Technology (Food)
JPT/BPP (R2/524/4/0038) 10/24, MQA A 10857

Diploma in Chemical Engineering Technology
JPT/BPP (N/524/4/0072) 04/26, MQA/PA 14383

Diploma in Chemical Engineering Technology (Food)
JPT/BPP (R2/524/4/0038) 10/24, MQA FA 14409

Bachelor of Chemical Engineering with Honours
JPT/BPP (R2/524/6/0013) 07/29, MQA/FA 1722

Bachelor of Chemical Engineering Technology (Process) with Honours
JPT/BPP (R2/524/6/0061) 02/29, MQA/FA 11928

Bachelor of Chemical Engineering Technology (Bioprocess) with Honours
JPT/BPP (R3/524/6/0015) 07/29, MQA/FA 11929

Bachelor of Chemical Engineering Technology (Environment) with Honours
JPT/BPP (R2/524/6/0062) 02/29, MQA/FA 11932

Bachelor of Chemical Engineering Technology (Food) with Honours
JPT/BPP (R3/524/6/0014) 07/29, MQA/FA 11931

Bachelor of Chemical Engineering Technology (Polymer) with Honour
JPT/BPP (R2/524/6/0060) 02/29, MQA/FA 11930

Bachelor of Food Safety and Quality Technology
JPT/BPP (N/541/6/0059) 04/26, MQA/PA14057

ENTRY REQUIREMENTS

FOUNDATION

- Pass in Sijil Pelajaran Malaysia (SPM) / O-Level with at least credits in 5 subjects; OR
  Other equivalent qualifications

DIPLOMA

- Pass in SPM or its equivalent with at least credits (minimum Grade C and higher) in Mathematics and Natural Sciences or Technical Based Subjects; OR
- Pass in O-Level with minimum Grade C in three (3) subjects including Mathematics and science or technical based subjects; OR
- Accredited Certificate in Engineering, Engineering Technology, Technical or Malaysian Skills Certificate Level 3 with PT3; or its equivalent; OR
- Recognized related Technical/Vocational/Skills qualifications AND an adequate and relevant bridging programme; OR
- Pass Technical/Vocational/Skills qualifications and recognized and approve by UniKL Senate; OR
- Pass in Sijil Vokasional Malaysia (SVM) qualification been recognized by government of Malaysia and according to approval by UniKL Senate. SVM is recognized as equivalent to 3 credits SPM for candidates who obtain;
  - Academic CGPA is equal to or greater than 2.00;
  - Vocational CGPA is equal to or greater than 2.67 and competent in all vocational modules;
  - Credit in Bahasa Melayu with SVM Code 1104;
  - Pass in Sejarah for graduate cohort 2013-2016.

BACHELOR OF CHEMICAL ENGINEERING TECHNOLOGY

- Pass in STPM/Matriculation/Foundation or its equivalent, with minimum CGPA 2.0 and at least Grade C in Mathematics and one relevant Science subject; OR
- Pass in International Baccalaureate (IB) with at least 24 points; OR
- Pass in A-Level with minimum Grade D in Mathematics one (1) relevant Science subject; OR
- Pass in Sijil Tinggi Agama Malaysia (STAM) with minimum grade of Jayyid and pass SPM or its equivalent with minimum Grade C in Mathematics and one relevant Physical Science subjects (i.e; Physic, Chemistry & etc); OR
- Recognized Diploma in Engineering/Engineering Technology or its equivalent with CGPA 2.0; OR
- Recognized related Technical/Vocational/Skills Diploma with CGPA 2.0
- Pass Diploma Kemahiran Malaysia (DKM)/ Diploma Lanjutan Kemahiran Malaysia (DLKM)/ Diploma Vokasional Malaysia (DVM) with a minimum CGPA of 2.50 and the program must get Full Accreditation (FA) by MQA or others Accreditation bodies that had been recognized by government of Malaysia and according to approval by UniKL Senate; OR
- Pass the DKM/DLKM/DVM with a minimum CGPA of 2.00 AND have at least two (2) years of work experience in the related field. The program must get Full Accreditation (FA) by MQA or others Accreditation bodies that had been recognized by government of Malaysia and according to approval by UniKL Senate

BACHELOR OF FOOD SAFETY AND QUALITY TECHNOLOGY

- Pass in STPM or its equivalent with at least Grade C (NGMP 2.00) in TWO (2) subjects; OR
- Pass Matriculation /Foundation in any IPTA/IPTS/permitted institution to conduct foundation programs with CGPA 2.00; OR
- Pass Diploma in related disciplines with CGPA 2.00; OR
- Pass Advanced Diploma in related disciplines with CGPA 2.0; OR
- Pass STAM (Grade Jayyid) or its equivalent; OR
- Others recognized qualifications or its equivalent.
- Pass Diploma Kemahiran Malaysia (DKM)/ Diploma Lanjutan Kemahiran Malaysia (DLKM)/ Diploma Vokasional Malaysia (DVM) with a minimum CGPA of 2.50 and the program must get Full Accreditation (FA) by MQA or others Accreditation bodies that had been recognized by government of Malaysia and according to approval by UniKL Senate; OR
- Pass the DKM/DLKM/DVM with a minimum CGPA of 2.00 AND have at least two (2) years of work experience in the related field. The program must get Full Accreditation (FA) by MQA or others Accreditation bodies that had been recognized by government of Malaysia and according to approval by UniKL Senate

These entry requirements serve as guidelines only. For detailed information on the entry requirements please log on to; www.unikl.edu.my

BACHELOR OF CHEMICAL ENGINEERING

- Pass in STPM/Matriculation/Foundation or its equivalent, with a minimum CGPA 2.0 and a grade C in Mathematics and one (1) of the Physical Science subjects (i.e; Physic, Chemistry and etc); OR
- Pass in International Baccalaureate Diploma (IBD) with minimum of 24 points and attained a minimum score of 4 in Mathematics and one (1) of the Physical Science subjects (i.e; Physic, Chemistry and etc); OR
- Pass in A-Level with minimum Grade D in Mathematics and one (1) of the Physical Science subjects (i.e; Physic, Chemistry and etc); OR
- Pass in Sijil Tinggi Agama Malaysia (STAM) with minimum grade of Jayyid and pass SPM or equivalent with minimum Grade C in Mathematics and one relevant Physical Science subjects (i.e; Physic, Chemistry & etc); OR
- Pass in Diploma (Level 4, KKM) related to Engineering/Engineering Technology fields from higher education provider recognized by Government of Malaysia with a minimum CGPA 2.00

BACHELOR OF CHEMICAL ENGINEERING WITH HONOURS

JPT/BPP (R2/524/6/0013) 07/29, MQA/FA 1722

PROGRAM CONTENTS

YEAR 1 - SEMESTER 1

- Mathematics for Engineers 1
- Analytical and Organic Chemistry
- Engineering Practice and Professionalism
- Fluid Mechanics
- Fundamental English
- Tamadun Islam dan Tamadun Asia (Local) / Bahasa Melayu Komunikasi 2 (International)

YEAR 1 - SEMESTER 2

- Physical Chemistry
- Chemical Engineering Laboratory 1
- Material Balance
- Mathematics for Engineers 2
- Fundamentals of Electrical and Electronis Engineering
- Hubungan Etnik (Local) /
- Pengajian Malaysia 3 (International)
- Co-curriculum 2

YEAR 2 - SEMESTER 3

- Computer Programming for Engineers
- Introduction to Biochemical Engineering
- Process Heat Transfer
- Engineering Drawing
- Thermodynamics
- Energy Balance

YEAR 2 - SEMESTER 4

- Mass Transfer
- Reaction Engineering 1
- Statistics for Engineers
- Chemical Engineering Laboratory 2
- Materials Engineering
- Momentum Transfer
- Isu-isu Kontemporari Muslim di Malaysia (Local Muslim) /
- Culture and Lifestyle in Malaysia (Local Non-Muslim and International)

YEAR 3 - SEMESTER 5

- Industrial Safety and Health
- Numerical Methods in
- Chemical Engineering
- Separation Processes 1
- Introduction to Environmental Engineering
- Reaction Engineering 2
- Technopreneurship
- Mandarin 2

YEAR 3 - SEMESTER 6

- Process Control and Instrumentation
- Process Design and Economics
- Chemical Engineering Laboratory 3
- Separation Processes 2
- Particle Technology
- Process Analysis and Simulation
- Professional English 2

Short Semester Inter Semester (Between Semester 6 and 7)

- Industrial Training

YEAR 4 - SEMESTER 8

- Engineering Final Year Project 2
- Elective 2
- Elective 3
- Innovation Management

YEAR 4 - SEMESTER 7

- Plant Design and Management System
- Design Project 1
- Renewable and Sustainable Energy Engineering
- Management and Marketing for Chemical Engineers
- Engineers in Society
- Engineering Final Year Project 1
- Elective 1

ELECTIVE SUBJECTS

- Marketing for Chemical Engineering Technologist
- Chemical Engineering Technologist Organizational Behavior
- Enzyme Technology
- Phytopharmaceutical Technology
- Rubber Engineering
- Biopolymer
- Hazard Analysis Critical Control Point (HACCP)
- Environmental Impact Assessment
- Air Pollution Control Technology
- Wastewater Treatment Technology

CAREER PATH

- Chemical Engineer
- Petroleum Engineer
- Food Engineer
- Process Control Engineer
- Quality Manager
- Biomedical Engineer

BACHELOR OF CHEMICAL ENGINEERING TECHNOLOGY (POLYMER) WITH HONOURS

JPT/BPP (R2/524/6/0060) 02/29, MQA/FA 11930

YEAR 1 - SEMESTER 1

- Mathematics 1
- Engineering Technologist in Society
- Tamadun Islam & Tamadun Asia (TITAS)/Bahasa Melayu Komunikasi 2
- Foreign Language 1 (Arabic/Mandarin)
- Engineering Drawing & Computing
- Fundamental English

YEAR 1 - SEMESTER 2

- Physical Chemistry
- Mathematics 2
- Engineering Design
- Hubungan Etnik / Pengajian Malaysia 3
- Chemical Process Principles
- Fluid Mechanics
- Foreign Language 2 (Arabic/Mandarin)

YEAR 2 - SEMESTER 3

- Fundamental of Electric & Electronics
- Analytical & Organic Chemistry
- Thermodynamics
- Transport Process Principles
- Introduction to Environmental
- Engineering Technology
- Isu-isu Kontemporari Muslim di Malaysia/Culture and Lifestyle in Malaysia 2

YEAR 2 - SEMESTER 4

- Principles of Bioprocess Technology
- Professional English 2
- Reaction Engineering
- Industrial Safety & Health
- Co-curriculum
- Principle of Microbiology
- Biochemistry

YEAR 3 - SEMESTER 5

- Polymer Synthesis
- Technopreneurship
- Latex Technology
- Process Instrumentation & Control
- Polymer Rheology
- Rubber Technology

YEAR 3 - SEMESTER 6

- Polymeric Material Design 1
- Polymer Reaction Engineering
- Engineering Statistics
- Oil & Fat Process Technology
- Final Year Project 1
- Elective 1

YEAR 4 - SEMESTER 7

- Final Year Project 2
- Polymeric Material Design 2
- Innovation Management
- Mould and Die Design
- Elective 2
- Elective 3

YEAR 4 - SEMESTER 8

- Industrial Training

ELECTIVE SUBJECTS

- Marketing for Chemical Engineering Technologist
- Chemical Engineering Technologist Organizational Behavior
- Enzyme Technology
- Phytopharmaceutical Technology
- Rubber Engineering
- Biopolymer
- Hazard Analysis Critical Control Point (HACCP)
- Environmental Impact Assessment
- Air Pollution Control Technology
- Wastewater Treatment Technology

CAREER PATH

- Polymer Chemist
- Development Chemist
- Formulations Chemist – Coatings – R&D
- Product Development Engineer (Chemist)
- Rubber and Latex Industries
- Plastic and Bioplastic Industries

BACHELOR OF CHEMICAL ENGINEERING TECHNOLOGY (ENVIRONMENT) WITH HONOURS

JPT/BPP (R2/524/6/0062) 02/29, MQA/FA 11932

PROGRAM CONTENTS

YEAR 1 - SEMESTER 1

- Mathematics 1
- Engineering Drawing and Computing
- Tamadun Islam & Tamadun Asia (TITAS)/ Bahasa Melayu Komunikasi 2
- Engineering Technologist in Society
- Fundamental English
- Foreign Language 1 (Arabic/Mandarin)

YEAR 1 - SEMESTER 2

- Mathematics 2
- Physical Chemistry
- Chemical Process Principles
- Engineering Design
- Fluid Mechanics
- Hubungan Etnik / Pengajian Malaysia 3
- Foreign Language 2 (Arabic/Mandarin)

YEAR 2 - SEMESTER 3

- Thermodynamics
- Transport Process Principle
- Isu-isu Kontemporari Muslim di Malaysia/ Culture and Culture and Lifestyle in Malaysia 2
- Analytical & Organic Chemistry
- Fundamental of Electric & Electronics
- Introduction to Environmental Engineering 2

YEAR 2 - SEMESTER 4

- Environmental Management System
- Professional English 2
- Surface and Groundwater Hydrology
- Reaction Engineering
- Co-curriculum
- Environmental Microbiology & Chemistry
- Industrial Safety & Health

YEAR 3 - SEMESTER 5

- Technopreneurship
- Process Instrumentation and Control
- Air Pollution Control Technology
- Remote Sensing and Geographical Information
- System in Environmental Engineering Technology
- Solid and Hazardous Waste Management
- Water Treatment Technology

YEAR 3 - SEMESTER 6

- Oil & Fat Process Technology
- Engineering Statistics
- Wastewater Treatment Technology
- Life Cycle Analysis Environmental Engineering Technology
- Final Year Project 1
- Elective 1

YEAR 4 - SEMESTER 7

- Final Year Project 2
- Environmental Engineering Design
- Innovation Management
- Pollution Prevention & Industrial Waste Minimization
- Elective 2
- Elective 3

YEAR 4 - SEMESTER 8

- Industrial Training

ELECTIVE SUBJECTS

- Marketing for Chemical Engineering Technologist
- Chemical Engineering Technologist Organizational Behavior
- Enzyme Technology
- Phytopharmaceutical Technology
- Rubber Engineering
- Biopolymer
- Hazard Analysis Critical Control Point (HACCP)
- Environmental Impact Assessment
- Air Pollution Control Technology
- Wastewater Treatment Technology

CAREER PATH

- Instrumentation Specialist
- Chemical Process Engineer
- Waste and Water Treatment

BACHELOR OF CHEMICAL ENGINEERING TECHNOLOGY (PROCESS) WITH HONOURS

JPT/BPP (R2/524/6/0061) 02/29, MQA/FA 11928

PROGRAM CONTENTS

YEAR 1 - SEMESTER 1

- Mathematics 1
- Tamadun Islam & Tamadun Asia (TITAS)/ Bahasa Melayu Komunikasi 2
- Engineering Drawing & Computing
- Engineering Technologist in Society
- Foreign Language 1 (Arabic/Mandarin)
- Fundamental English

YEAR 1 - SEMESTER 2

- Physical Chemistry
- Mathematics 2
- Engineering Design
- Hubungan Etnik / Pengajian Malaysia 3
- Chemical Process Principles
- Fluid Mechanics
- Foreign Language 2 (Arabic/Mandarin)

YEAR 2 - SEMESTER 3

- Fundamental of Electric & Electronics
- Introduction to Environmental Engineering Technology
- Analytical & Organic Chemistry
- Thermodynamics
- Transport Process Principles
- Isu-isu Kontemporari Muslim di Malaysia/Culture and Lifestyle in Malaysia 2

YEAR 2 - SEMESTER 4

- Professional English 2
- Introduction Renewable Energy
- Reaction Engineering
- Separation Process
- Co-curriculum
- Industrial Safety & Health

YEAR 3 - SEMESTER 5

- Process Dynamics & Control
- Technopreneurship
- Numerical Methods in Chemical Engineering
- Process Instrumentation & Control
- Design Project 1 (Design & Feasibility Study of Plant)
- Plant Utilities & Maintenance

YEAR 3 - SEMESTER 6

- Design Project 2 (Plant & Process Optimization)
- Petrochemical & Petroleum Refining Technology
- Engineering Statistics
- Oil & Fat Process Technology
- Final Year Project 1
- Elective 1

YEAR 4 - SEMESTER 7

- Final Year Project 2
- QA & QC in Chemical Engineering
- Innovation Management
- Biochemical Engineering
- Elective 2
- Elective 3

YEAR 4 - SEMESTER 8

- Industrial Training

ELECTIVE SUBJECTS

- Marketing for Chemical Engineering Technologist
- Chemical Engineering Technologist Organizational Behavior
- Enzyme Technology
- Phytopharmaceutical Technology
- Rubber Engineering
- Biopolymer
- Hazard Analysis Critical Control Point (HACCP)
- Environmental Impact Assessment
- Air Pollution Control Technology
- Wastewater Treatment Technology

CAREER PATH

- Chemical Process Engineer
- Process Safety Engineer
- Control System Engineer – Petrochemical/Refining/Oil
- Manufacturing Process Engineer, Chemical Operations

BACHELOR OF CHEMICAL ENGINEERING TECHNOLOGY (FOOD) WITH HONOURS

JPT/BPP (R3/524/6/0014) 07/29, MQA/FA 11931

PROGRAM CONTENTS

YEAR 1 - SEMESTER 1

- Mathematics 1
- Engineering Technologist in Society
- Tamadun Islam & Tamadun Asia (TITAS)/Bahasa Melayu Komunikasi 2
- Foreign Language 1 (Arabic/Mandarin)
- Engineering Drawing & Computing
- Fundamental English

YEAR 1 - SEMESTER 2

- Mathematics 2
- Engineering Design
- Hubungan Etnik / Pengajian Malaysia 3
- Chemical Process Principles
- Fluid Mechanics
- Foreign Language 2 (Arabic/Mandarin)

YEAR 2 - SEMESTER 3

- Fundamental of Electric & Electronics
- Analytical & Organic Chemistry
- Thermodynamics
- Transport Process Principles
- Introduction to Environmental Engineering Technology
- Isu-isu Kontemporari Muslim di Malaysia/Culture and Lifestyle in Malaysia 2

YEAR 2 - SEMESTER 4

- Professional English 2
- Introduction to Food Science and Technology
- Chemical Food Analysis
- Food Microbiology
- Co-curriculum
- Industrial Safety & Health
- Food Chemistry

YEAR 3 - SEMESTER 5

- Instrumental Food Analysis
- Technopreneurship
- Food Quality & Safety Management System
- Process Instrumentation & Control
- Food Packaging Technology
- Food Sensory and Evaluation

YEAR 3 - SEMESTER 6

- Food Processing and Innovation
- Food Process Engineering
- Engineering Statistics
- Oil & Fat Process Technology
- Final Year Project 1
- Elective 1

YEAR 4 - SEMESTER 7

- Final Year Project 2
- Food Plant Design
- Innovation Management
- Halal Technology
- Elective 2
- Elective 3

YEAR 4 - SEMESTER 8

- Industrial Training

ELECTIVE SUBJECTS

- Marketing for Chemical Engineering Technologist
- Chemical Engineering Technologist Organizational Behavior
- Enzyme Technology
- Phytopharmaceutical Technology
- Rubber Engineering
- Biopolymer
- Hazard Analysis Critical Control Point (HACCP)
- Environmental Impact Assessment
- Air Pollution Control Technology
- Wastewater Treatment Technology

CAREER PATH

- Food Technologist
- Food Safety Research
- Food and Baverages Industries
- Quality Assurance and Quality Control
- Health Care Industries

BACHELOR OF CHEMICAL ENGINEERING TECHNOLOGY (BIOPROCESS) WITH HONOURS

JPT/BPP (R3/524/6/0015) 07/29, MQA/FA 11929

PROGRAM CONTENTS

YEAR 1 - SEMESTER 1

- Mathematics 1
- Engineering Technologist in Society
- Tamadun Islam & Tamadun Asia (TITAS)/Bahasa Melayu Komunikasi 2
- Foreign Language 1 (Arabic/Mandarin)
- Engineering Drawing & Computing
- Fundamental English

YEAR 1 - SEMESTER 2

- Physical Chemistry
- Mathematics 2
- Engineering Design
- Hubungan Etnik / Pengajian Malaysia 3
- Chemical Process Principles
- Fluid Mechanics
- Foreign Language 2 (Arabic/Mandarin)

YEAR 2 - SEMESTER 3

- Fundamental of Electric & Electronics
- Analytical & Organic Chemistry
- Thermodynamics
- Transport Process Principles
- Introduction to Environmental Engineering Technology
- Isu-isu Kontemporari Muslim di Malaysia/Culture and Lifestyle in Malaysia 2

YEAR 2 - SEMESTER 4

- Principles of Bioprocess Technology
- Professional English 2
- Reaction Engineering
- Industrial Safety & Health
- Co-curriculum
  Principle of Microbiology
  Biochemistry

YEAR 3 - SEMESTER 5

- QA & QC in Bio Product
- Bioprocess Development & Equipment
- Process Instrumentation & Control
- Bioseparations Engineering Technology
- Biomolecular Technique

YEAR 3 - SEMESTER 6

- Bioplant Design Project 1
- Engineering Statistics
- Final Year Project 1 (Proposal)
- Oil & Fat Process Technology
- Elective 1
- Elective 2

YEAR 4 - SEMESTER 7

- Final Year Project 2 Implementation)
- Bioplant Design Project 2
- Elective 3
- Innovation Management

YEAR 4 - SEMESTER 8

- Industrial Training

ELECTIVE SUBJECTS

- Marketing for Chemical Engineering Technologist
- Chemical Engineering Technologist
- Organizational Behavior
- Enzyme Technology
- Phytopharmaceutical Technology
- Rubber Engineering
- Biopolymer
- Hazard Analysis Critical Control Point (HACCP)
- Environmental Impact Assessment
- Air Pollution Control Technology
- Wastewater Treatment Technology

CAREER PATH

- Bio Process Engineer
- Downstream Fermentation Process
- Engineer – Bioprocess R&D
- Bio-product Researcher
- Oleochemical Industries
- Cosmetic and Skincare Industries
- Biopharmaceutical Industries

BACHELOR OF FOOD SAFETY AND QUALITY TECHNOLOGY

JPT/BPP (N/541/6/0059) 04/26, MQA/PA14057

PROGRAM CONTENTS

YEAR 1 - SEMESTER 1

- Tamadun Islam & Tamadun Asia (TITAS)/ Bahasa Melayu Komunikasi 2
- Isu-isu Kontemporari Muslim di Malaysia/" Culture and Lifestyle in Malaysia
- Hubungan Etnik / Pengajian Malaysia 3
- English for Technologist
- Introduction to Food Safety and Quality Technology
- Mathematics 1
  Analytical and Organic Chemistry

YEAR 1 - SEMESTER 2

- Innovation Management
- Food Product Manufacturing
- Global Food Security
- Microbiological Food Safety
- Food Analysis and Sensory Evaluation
- Engineering Statistics
- Industrial Safety & Health

YEAR 2 - SEMESTER 3

- Co-curriculum
- Food Safety and Packaging Technology
- Food Safety and Legislation
- Supply Chain Management System
- Food Ingredients
- HALAL Management System
- Process Instrumentation & Control

YEAR 2 - SEMESTER 4

- Technopreneurship
- Food Safety Toxicology
- Hazard Analysis Critical Control Point (HACCP)
- Food Quality and Standard
- Food Product Design and Development
- Food Waste Management System

YEAR 3 - SEMESTER 5

- Applied Food Product Manufacturing
- Industrial Final Year Project

YEAR 3 - SEMESTER 6

- Applied Food Quality and Standard
- Refer to Electives
- Industrial Training

YEAR 4 - SEMESTER 7

- Final Year Project 2
- Food Plant Design
- Innovation Management
- Halal Technology
- Elective 2
- Elective 3

YEAR 4 - SEMESTER 8

- Industrial Training

ELECTIVE SUBJECTS

- Applied HALAL Management System
- Applied Food Product Design and Development
- Applied Food Safety and Legislation
- Applied Supply Chain Management System
- Applied Industrial Safety & Health

CAREER PATH

- Food Service Manager
- Quality Control
- Halal Executive
- R & D Executive
- QA Executive
- Product Development Manager
- Food Technologist
- QC Line Leader
- Production Manager
- Sales Executive
- Technical / Quality Manager – Grocery Food
- Raw Materials Procurement Executive

DIPLOMA IN CHEMICAL ENGINEERING TECHNOLOGY

JPT/BPP (N/524/4/0072) 04/26, MQA/PA 14383

PROGRAM CONTENTS

YEAR 1 - SEMESTER 1

- Religious Practices in Malaysia
- Co-curriculum
- Interpersonal Skills
- Competency English
- Introduction to Entrepreneurship
- Foreign Language 1
- General Chemistry
- Technical Mathematics 1
- Electrical Technology

YEAR 1 - SEMESTER 2

- Pengajian Malaysia
- Communication English 1
- Technical Mathematics 2
- Organic & Analytical Chemistry
- Thermodynamics
- Fluid Mechanics
  Material & Energy Balance

YEAR 2 - SEMESTER 3

- Communication English 2
- Foreign Language 2
- Heat Transfer
- Process Instrumentation & Control
- Mass Transfer
- Industrial Safety & Health
- Elective 1
- Elective 2

YEAR 2 - SEMESTER 4

- Engineering Statistics
- Reaction Engineering
- Engineering Drawing
- Elective 3
- Elective 4
- Final Year Project (FYP)

YEAR 3 - SEMESTER 5

- Industrial Training

Specialization: Sustainable Process Engineering

- Elective 1: Plant Utility & Safety
- Elective 2: Petrochemical & Petroleum Refining Technology
- Elective 3: Plant Maintenance & Inspection
- Elective 4: Oil & Fat Process Technology

Specialization: Advanced Material

- Elective 1: Rubber Processing
- Elective 2: Plastics Processing
- Elective 3: Latex Science & Technology
- Elective 4: Composite Technology

Specialization: Biotechnology & Bioengineering

- Elective 1: Introduction to Bioprocess Technology
- Elective 2: Principle of Microbiology
- Elective 3: Analytical Methods in Bioprocessing
- Elective 4: Techniques in Bio Product Recovery

Specialization: Environment Engineering Technology and Sustainability

- Elective 1: Wastewater Treatment
- Technology
- Elective 2: Air Pollution Control
- Technology
  Elective 3: Introduction to Environmental Engineering Technology
  Elective 4: Solid and Hazardous Waste Management

CAREER PATH

- Chemical Production Assistant Engineer
- Plating Technician
- Plant Assistant Engineer
- Plant 3D Software Trainer
- Laboratory Technician
- Chemical Production Assistant
- Chemical Sales & Service Technician
- Primary Production Executive
- Compounding Supervisor
- QA Executive
- Quality and Reliability Technician
- Materials Analysis Technician
- Wastewater Treatment Process Technician

DIPLOMA IN CHEMICAL ENGINEERING TECHNOLOGY (FOOD)

JPT/BPP (R2/524/4/0038) 10/24, MQA FA 14409

PROGRAM CONTENTS

YEAR 1 - SEMESTER 1

- Engineering Drawing and
- Computing
- Competency English
- Amalan Islam Di Malaysia (Local Muslim) Religious Practices in Malaysia (Local Non-Muslim & Int.)
- Technical Mathematics 1
- General Chemistry
- Mandarin 1
- Co-Curriculum

YEAR 1 - SEMESTER 2

- Organic & Analytical Chemistry
- Principles of Chemical Process
- Communication English 1
- Electrical Technology
- Fluid Mechanics
- Interpersonal Skills / Bahasa Kebangsaan (A)
- Technical Mathematics 2

YEAR 2 - SEMESTER 3

- Occupational Safety and Health
- Mandarin 2
- Process Instrumentation
- Pengajian Malaysia 2 (Local) / Bahasa Melayu Komunikasi 1 (Int)
- Thermodynamics
- Transport Process
- Basic Engineering Workshop
- Introduction to Entrepreneurship
- Communication English 2

YEAR 2 - SEMESTER 4

- Reactor Technology
- Statistics
- Food Chemistry
- Food Microbiology
- Sensory Evaluation of Food
- Food Analysis
- Separation Technology

YEAR 3 - SEMESTER 5

- Food Quality and Sanitation
- Food Processing Technology
- Food Packaging
- Final Year Project

YEAR 3 - SEMESTER 6

- Industrial Training

FOUNDATION IN SCIENCE

JPT/BPP (N/010/3/0530) 01/25, MQA/PA 123911

PROGRAM CONTENTS

YEAR 1 - SEMESTER 1

- Chemistry 1
- Physics 1
- Biology 1
- Mathematics 1
- Introduction to Information Technology
- English 1
- Co-curriculum 1

YEAR 1 - SEMESTER 2

- Chemistry 2
- Physics 2 / Biology 2
- Mathematics 2
- Introduction to Information Technology
- English 2
- Critical and Creative Thinking
- Islamic Studies / Moral Studies
- Co-curriculum 2

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