



**UniKL**  
UNIVERSITI  
KUALA LUMPUR

**Branch Campus  
Malaysian Institute of Chemical &  
Bioengineering Technology**

**Programme Handbook  
January 2022**

***Disclaimer:***

*The Programme Handbook Bachelor January 2022 Intake  
is meant for the students for Bachelor January 2022 Intake.*

*Universiti Kuala Lumpur Branch Campus  
Malaysian Institute of Chemical & Bioengineering Technology  
(UniKL MICET)*

*reserves the right to change the content without prior notice.*

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## Vision & Mission of University

# CORPORATE STRATEGY





**UniKL**  
UNIVERSITI  
KUALA LUMPUR



### VISION

TO BE THE LEADING ENTREPRENEURIAL TECHNICAL UNIVERSITY







### MISSION

TO PRODUCE ENTERPRISING GLOBAL TECHNOPRENEURS

# Academic Activities Calendar January 2022

| DESCRIPTION   | JANUARY SEMESTER |
|---|------------------|
| Semester Registration for Returning Students  | Week 0 - 1       |
| Online Semester Registration is <b>CLOSED</b>   | Week 2           |
| Late Semester Registration  | Week 1           |
| Appeal to Reactivate Student Status   | Week 4           |
| Deferment from Study<br>After Week 5 – Pay full Tuition Fees & subjects will recorded as ‘W’  | Week 1 – 9       |
| Add Subject<br>( <b>ONLINE - ECITIE</b> )   | Week 0 – 1       |
| Drop Subject<br>( <b>ONLINE- ECITIE</b> )   | Week 1 – 4       |
| Verifying Subject Registration<br>( <b>ONLINE - ECITIE</b> )  | Week 3 – 4       |
| Correction of records only on:<br>a) Wrong Subject Code<br>b) Change Subject Group<br><br>After Week 4 – Penalized at minimum RM50 for each request.<br><br>After Week 9 - Penalized at minimum RM100 for each request. | Week 2 – 4       |
|   | Week 5 – 9       |
|   | Week 10 onwards  |
| Subject Withdrawal<br>( <b>MANUAL - FORM</b> )  | Week 5 – 9       |
| Subject Pre-Registration <b>ONLINE – ECITIE</b>   | Week 11 – 12     |
| Draft of Final Examination Timetable released   | Week 10          |
| Final Examination Timetable released  | Week 12          |
| BAR List released   | Week 15          |
| <b>FINAL EXAMINATION</b>  | Week 16 - 17     |

## Academic Top Management Team UniKL MICET

|   |   |
|---|---|
|    | <p>Associate Professor Ts. Dr Ruzainah binti Ali@Jaafar<br/>           Dean of UniKL MICET<br/>           Email: <a href="mailto:ruzainah@unikl.edu.my">ruzainah@unikl.edu.my</a><br/>           Phone: 06-551 2146</p>           |
|    | <p>Dr Raja Nazrul Hakim bin Raja Nazri<br/>           Deputy Dean Academic and Technology<br/>           Email: <a href="mailto:rajanazrul@unikl.edu.my">rajanazrul@unikl.edu.my</a><br/>           Phone: 06-551 2077</p>        |
|   | <p>Azu Farhana binti Anuar<br/>           Deputy Dean Student Development &amp; Campus Lifestyle<br/>           Email: <a href="mailto:azufarhana@unikl.edu.my">azufarhana@unikl.edu.my</a><br/>           Phone: 06-551 2136</p> |
|  | <p>Ts Dr Muhamad Yusuf bin Hasan<br/>           Deputy Dean IIIP<br/>           Email: <a href="mailto:muhamadyusuf@unikl.edu.my">muhamadyusuf@unikl.edu.my</a><br/>           Phone: 06-551 2077</p>                             |

# Academic Staff Member of UniKL MICET

## TECHNICAL FOUNDATION SECTION

SL: STUDY LEAVE  
SL: STUDY LEAVE

| NO. | NAME  | HIGHEST QUALIFICATION   | DESIGNATION     |
|-----|---|---|-----------------|
| 1.  | MS. ZAIDA RAHAYU BINTI YET<br>(Head of Section) | MASTER OF SCIENCE   | SENIOR LECTURER |
| 2.  | MR. ABDUL HAKIM BIN HJ ABU BAKAR                | MASTER ELECTRICAL ENGINEERING   | SENIOR LECTURER |
| 3.  | MS. ASIMI ANA BINTI AHMAD                       | MASTER OF ENGINEERING<br>(CHEMICAL)   | LECTURER        |
| 4.  | MS. AZLINA DIN                                  | MASTER OF COMPUTER SCIENCE  | LECTURER        |
| 5.  | HANIZA BINTI KAHAR (Ts.)                        | MASTER OF SCIENCE (ANALYTICAL<br>CHEMISTRY & INSTRUMENT)                    | LECTURER        |
| 6.  | MS. IZUME AYUNA BINTI MOHAMED<br>KHAMIL         | MASTER OF INFORMATION<br>TECHNOLOGY   | LECTURER        |
| 7.  | MR. MOHD NASIR MAHMUD                           | MASTER OF MATHEMATICS   | LECTURER        |
| 9.  | MR. MOHD NIZAM BIN ZAHARI                       | MASTER OF ENGINEERING<br>TECHNOLOGY (GREEN & ENERGY<br>EFFICIENT BUILDINGS) | LECTURER        |
| 10. | NAZATULSHIMA BINTI HASSAN (Dr)                  | PhD (BIOSTATISTIC)  | SENIOR LECTURER |
| 11. | MS. NURUL NABIHAH BINTI RAHMAN                  | MASTER OF ENGINEERING<br>MATHEMATICS  | LECTURER        |
| 12. | SITI HARTINI BINTI HAMDAN (Ts. Dr)              | PhD (MECHANICAL ENGINEERING)<br>TRIBOLOGY                                   | SENIOR LECTURER |
| 13. | MS. SITI NUR ELMI BINTI ABDUL AZIZ              | MASTER OF SCIENCE   | LECTURER        |
| 14. | MS. TEO SIEW HWAY                               | MASTER OF INFORMATION<br>TECHNOLOGY   | LECTURER        |
| 15. | MS. YUSHAZAZIAH BINTI MOHD<br>YUNOS             | MASTER OF SCIENCE (MECHANICAL<br>ENGINEERING)                               | LECTURER        |
| 16. | MS. NORHAYATI BINTI MOHD IDRUS                  | MASTER OF SCIENCE   | LECTURER        |

## **PROCESS ENGINEERING TECHNOLOGY SECTION**

**SL: STUDY LEAVE**

| <b>NO.</b> | <b>NAME</b>  | <b>HIGHEST QUALIFICATION</b>                              | <b>DESIGNATION</b>  |
|------------|--|---|---------------------|
| 1.         | MOHD. RAZEALY BIN ANUAR (Dr.)<br>(Head of Section)         | PhD (CHEMICAL ENGINEERING)                                | SENIOR LECTURER     |
| 2.         | AHMAD AZAHARI BIN HAMZAH (Dr)                              | PhD (ELECTRICAL ENGINEERING)                              | SENIOR LECTURER     |
| 3.         | MS. AIZA SYUHANIZ BINTI SALLEH                             | MASTER OF ENGINEERING                                     | LECTURER            |
| 4.         | ALIFF RADZUAN BIN MOHAMAD<br>RADZI (Ts. Dr)                | PhD (CHEMICAL ENGINEERING)                                | SENIOR LECTURER     |
| 5.         | AMIN SAFWAN BIN ALIKASTURI (Dr)                            | PhD (CHEMICAL ENGINEERING)                                | SENIOR LECTURER     |
| 6.         | MR. AZRIN BIN ABDUL RAHMAN                                 | MASTER OF SCIENCE (PROCESS PLANT<br>MANAGEMENT)           | SENIOR LECTURER     |
| 7.         | MS. FARIDAH BINTI GHAFAR                                   | MASTER OF SCIENCE   | SENIOR LECTURER     |
| 8.         | INDOK NURUL HASYIMAH BINTI<br>MOHD AMIN (Assoc. Prof. Dr.) | PhD (CHEMICAL ENGINEERING &<br>PROCESS)                   | ASSOCIATE PROFESSOR |
| 9.         | KELLY YONG TAU LEN (Assoc. Prof. Dr.)                      | PhD (MECHANICAL SCIENCE &<br>ENGINEERING)                 | ASSOCIATE PROFESSOR |
| 10.        | LAW JENG YIH (Dr)  | PhD (CHEMICAL ENGINEERING)                                | SENIOR LECTURER     |
| 11.        | MS. MARMY ROSHAIDAH BINTI MOHD<br>SALLEH                   | MASTER OF ENGINEERING                                     | LECTURER            |
| 12.        | MS. NADIA BINTI ISA (SL)                                   | MASTER OF SCIENCE   | SENIOR LECTURER     |
| 13.        | MS. NAZERAH BINTI AHMAD                                    | MASTER OF ENGINEERING                                     | LECTURER            |
| 14.        | NOR AINI BINTI BUROK (Ts.)                                 | MASTER OF INDUSTRIAL SAFETY<br>MANAGEMENT                 | SENIOR LECTURER     |
| 15.        | NOR SHAHIRAH BINTI MOHD NASIR<br>(Dr)                      | PhD (CHEMICAL ENGINEERING)                                | SENIOR LECTURER     |
| 16.        | MS. NORULAKMAL BINTI NOR HADI                              | MASTER OF SCIENCE   | SENIOR LECTURER     |
| 17.        | MS. RABIATUL ADAWIAH BINTI MAT<br>NOOR (SL)                | MASTER OF SCIENCE   | LECTURER            |
| 18.        | MR. SYAHIDI FADZLI BIN ALFAN                               | MASTER OF SCIENCE (INDUSTRIAL &<br>TECHNOLOGY MANAGEMENT) | LECTURER            |
| 19.        | MR. SYED AZHAR BIN SYED AB<br>RAHMAN                       | MASTER OF SCIENCE (CHEMICAL<br>ENGINEERING)               | SENIOR LECTURER     |
| 20.        | WAN NOOR AIDAWATI BINTI WAN<br>NADHARI (Dr.)               | PhD (BIORESOURCE, PAPER AND<br>COATINGS TECHNOLOGY)       | SENIOR LECTURER     |
| 21.        | ZAINAL ABIDIN BIN MOHD YUSOF (Ts.)                         | MASTER OF SCIENCE   | SENIOR LECTURER     |



- |     |                                |                            |                 |
|-----|--------------------------------|----------------------------|-----------------|
| 22. | ZULHAFIZ BIN TAJUDIN (Ts. Dr.) | PhD (CHEMICAL ENGINEERING) | SENIOR LECTURER |
| 23. | MS. ZURAIDAH BINTI RASEP (SL)  | MASTER OF ENGINEERING      | LECTURER        |

## **BIOENGINEERING TECHNOLOGY SECTION**

**SL: STUDY LEAVE**

| <b>NO.</b> | <b>NAME</b>   | <b>HIGHEST QUALIFICATION</b>               | <b>DESIGNATION</b>  |
|------------|---|--|---------------------|
| 1.         | MS. FARA WAHIDA BINTI AHMAD HAMIDI<br>(Head of Section) | MASTER OF SCIENCE (BIOPROCESS ENGINEERING) | LECTURER            |
| 2.         | LEONG CHEAN RING (Dr)                                   | PhD IN MEDICINE                            | SENIOR LECTURER     |
| 3.         | MOHAMAD ZULKEFLEE BIN SABRI (Ts. Dr)                    | MASTER OF ENGINEERING                      | LECTURER            |
| 4.         | NIK IDA MARDIANA BINTI NIK PA (Dr.)                     | MASTER OF SCIENCE                          | SENIOR LECTURER     |
| 5.         | MS. NORHANI BINTI JUSOH (SL)                            | MASTER OF ENGINEERING                      | SENIOR LECTURER     |
| 6.         | MS. NURDIYANA BINTI HUSIN                               | MASTER OF SCIENCE                          | LECTURER            |
| 7.         | NURUL FAEZAWATY BINTI JAMALUDIN (Ts.)                   | MASTER OF SCIENCE                          | SENIOR LECTURER     |
| 8.         | ROZYANTI BINTI MOHAMAD (Ts. Dr)                         | PhD (CHEMICAL ENGINEERING)                 | SENIOR LECTURER     |
| 9.         | RUZAINAH BINTI ALI @JAAFAR (Assoc. Prof. Dr.)           | PhD (BIOTECHNOLOGY)                        | ASSOCIATE PROFESSOR |
| 10.        | TONG WOEI YENN (Dr.)                                    | PhD IN MICROBIOLOGY                        | SENIOR LECTURER     |
| 11.        | ZAINATUL 'ASYIQIN BINTI SAMSU (Ts. Dr)                  | MASTER OF SCIENCE                          | LECTURER            |

## **ENVIRONMENT AND POLYMER ENGINEERING TECHNOLOGY SECTION**

**SL: STUDY LEAVE**

| <b>NO.</b> | <b>NAME</b>   | <b>HIGHEST QUALIFICATION</b>  | <b>DESIGNATION</b>  |
|------------|---|---|---------------------|
| 1.         | FAHMI ASYADI BIN MD YUSOF (Dr)<br>(Head of Section)   | PhD (CHEMICAL ENGINEERING)  | SENIOR LECTURER     |
| 2.         | AMELIA BINTI MD SOM (Dr)                              | PhD (GEOENVIRONMENT<br>ENGINEERING)                                 | SENIOR LECTURER     |
| 3.         | AHMAD NAIM BIN AHMAD YAHAYA<br>(Assoc. Prof. Ts. Dr.) | PhD (ENVIRONMENT ENGINEERING<br>TECHNOLOGY)                         | ASSOCIATE PROFESSOR |
| 4.         | MS. KHAIRUL NADIAH BINTI IBRAHIM                      | MASTER OF TECHNOLOGY  | SENIOR LECTURER     |
| 6.         | MR. MOHD SYAZWAN BIN MOHD<br>GHAZALI (SL)             | MASTER OF SCIENCE   | LECTURER            |
| 7.         | NOR ZALINA BINTI KASIM (Dr.)                          | PhD (CIVIL ENGINEERING)   | SENIOR LECTURER     |
| 8.         |   |   |                     |
| 9.         | ROBERT THOMAS BACHMANN (Prof.<br>Dr.)                 | PhD (ENVIRONMENTAL ENGINEERING<br>TECHNOLOGY)                       | PROFESSOR           |
| 10.        | SITI NOORAIN BINTI ROSLAN (Dr)                        | DOCTOR OF ENGINEERING (CIVIL &<br>ENVIRONMENTAL ENGINEERING)        | SENIOR LECTURER     |
| 11.        | Ts. Dr NORILHAMIAH BINTI YAHYA                        | PhD (FUEL CELL ENGINEERING)   | SENIOR LECTURER     |
| 12.        | MS. MAZLINA BINTI GHAZALI (Ts.)                       | BACHELOR OF ENGINEERING (HONS)<br>IN POLYMER ENGINEERING            | ASST. LECTURER      |
| 13.        | MR. MOHD EDYAZUAN BIN AZNI (SL)                       | MASTER OF ENG. TECH. (GREEN &<br>ENERGY EFFICIENT BUILDINGS)        | LECTURER            |
| 14.        | MR. MUAZZIN BIN MUPIT                                 | MASTER OF SCIENCE   | SENIOR LECTURER     |
| 15.        | MUZAFAR BIN ZULKIFLI (Ts. Dr.)                        | PhD (CHEMICAL ENGINEERING)  | SENIOR LECTURER     |
| 16.        | NOOR FAIZAH BINTI CHE HARUN (Dr)                      | DOCTOR OF ENGINEERING<br>(ENVIRONMENTAL CHEMISTRY &<br>ENGINEERING) | SENIOR LECTURER     |
| 17.        | NOR NADIAH BINTI MOHAMAD YUSOF<br>(Dr)                | PhD (ENERGY & ENVIRONMENT<br>SCIENCE)                               | SENIOR LECTURER     |
| 18.        | ONG SIEW KOOI (Assoc. Prof. Ts. Dr.)                  | PhD (POLYMER TECHNOLOGY)  | ASSOCIATE PROFESSOR |
| 19.        | RAJA NAZRUL HAKIM BIN RAJA NAZRI<br>(Dr)              | PhD (MATERIAL & METALLURGICAL<br>ENGINEERING)                       | SENIOR LECTURER     |
| 20.        | NADIA BINTI RAZALI (Dr.)                              | PhD (CONSTRUCTION)  | SENIOR LECTURER     |
| 21.        | MS. SUHAINI BINTI MAMAT                               | MASTER OF ENGINEERING   | LECTURER            |
| 22.        | YUSRIAH BINTI LAZIM (Dr.)                             | PhD IN MATERIAL SCIENCE AND ENG.                                    | SENIOR LECTURER     |
| 23.        | ZAIHAR BIN YAACOB (Dr.)                               | MASTER OF ENGINEERING   | SENIOR LECTURER     |

## **FOOD ENGINEERING TECHNOLOGY SECTION**

**SL: STUDY LEAVE**

| <b>NO.</b> | <b>NAME</b>   | <b>HIGHEST QUALIFICATION</b>                     | <b>DESIGNATION</b>  |
|------------|---|--|---------------------|
| 1.         | SITI FATIMAH BINTI IBRAHIM (Dr.)<br>(Head of Section) | PhD (CHEMICAL ENGINEERING)                       | SENIOR LECTURER     |
| 2.         | ABDUL MANAN BIN DOS MOHAMED<br>(Assoc. Prof. Dr.)     | PhD (BIOSCIENCE & BIOTECHNOLOGY)                 | ASSOCIATE PROFESSOR |
| 3.         | MS. FARAH SALINA BINTI HUSSIN                         | PhD (FOOD BIOTECHNOLOGY)                         | SENIOR LECTURER     |
| 4.         | HARUN BIN SARIP (Assoc. Prof. Ts. Dr.)                | PhD (FOOD TECHNOLOGY)                            | ASSOCIATE PROFESSOR |
| 5.         | KHAIRUL FAIZAL BIN PA'EE (Dr.)                        | PhD (FOOD & NUTRITIONAL SCIENCE)                 | SENIOR LECTURER     |
| 6.         | MS. LILY SUHAILA BINTI YACOB                          | MASTER OF ENVIRONMENT<br>(ENVIRONMENTAL SCIENCE) | LECTURER            |
| 7.         | MS. MASNIZA BINTI MOHAMED @<br>MAHMOOD                | PhD (KEJURUTERAAN KIMIA DAN<br>PROSES)           | SENIOR LECTURER     |
| 8.         | NOR ZANARIAH BINTI SAFIEI (Dr.)                       | PhD (CHEMICAL ENGINEERING)                       | SENIOR LECTURER     |
| 9.         | NORIZA BINTI AHMAD (Ts. Dr.)                          | PhD (FOOD SCIENCE & TECHNOLOGY)                  | SENIOR LECTURER     |
| 10.        | MS. RINANI SHIMA BINTI ABD. RASHID<br>(SL)            | MASTER OF SCIENCE (FOOD<br>TECHNOLOGY)           | SENIOR LECTURER     |
| 11.        | SHARIFAH SOPLAH BINTI SYED<br>ABDULLAH (Ts Dr)        | PhD (ENVIRONMENTAL ENGINEERING)                  | SENIOR LECTURER     |
| 12.        | MUHAMAD YUSUF BIN HASAN (Ts. Dr.)                     | MASTER OF SCIENCE (PROCESS PLANT<br>MANAGEMENT)  | SENIOR LECTURER     |
| 13.        | MOHD ZULKHAIRI BIN ABDUL RAHIM<br>(Dr)                | PhD (CHEMISTRY)                                  | SENIOR LECTURER     |
| 14.        | MR. MUHAMMAD SHARIR BIN ABDUL<br>RAHMAN               | MASTER OF CHEMICAL ENGINEERING                   | LECTURER            |
| 15.        | SHARIFAH MARIAM BINTI SAYED<br>HITAM (Ts. Dr.)        | PhD (BIOPROCESS ENGINEERING)                     | SENIOR LECTURER     |

## **CHEMICAL ENGINEERING SECTION**

**SL: STUDY LEAVE**

| <b>NO.</b> | <b>NAME</b>   | <b>HIGHEST QUALIFICATION</b>          | <b>DESIGNATION</b>  |
|------------|---|---------------------------------------|---------------------|
| 1.         | NOOR AINA BINTI MOHD NAZRI (Dr.)<br>(Head of Section) | PhD IN ENGINEERING (GAS)              | SENIOR LECTURER     |
| 2.         | WONG CHEE SIEN (Dr.)                                  | PhD (BIOPROCESS ENGINEERING)          | SENIOR LECTURER     |
| 3.         | CHIN LIP HAN (Dr.)                                    | PhD (CHEMICAL ENGINEERING)            | SENIOR LECTURER     |
| 4.         | CHONG YUAN FOONG (IR.)                                | BACHELOR OF ENGINEERING<br>(CHEMICAL) | SPECIALIST          |
| 5.         | FARRA WAHIDA BINTI SHAARANI (Dr.)                     | PhD (CHEMICAL PROCESS<br>ENGINEERING) | SENIOR LECTURER     |
| 6.         | MS. NOR NABIHA BINTI MD ZAN                           | MASTER (ENGINEERING SCIENCE)          | LECTURER            |
| 7.         | RAPIDAH BINTI OTHMAN (Dr)                             | PhD (CHEMICAL ENGINEERING)            | SENIOR LECTURER     |
| 8.         | SITI NURUL ATIKAH BINTI ABD HALIM<br>(Dr.)            | PhD (CHEMICAL ENGINEERING)            | SENIOR LECTURER     |
| 9.         | YUHANEES BINTI MOHAMED YUSOF<br>(Dr.)                 | PhD (APPLIED SCIENCE)                 | SENIOR LECTURER     |
| 10.        | SUZANA BINTI WAHIDIN (Assoc. Prof.<br>Dr)             | PhD (BIOPROCESSING ENGINEERING)       | ASSOCIATE PROFESSOR |

## **STUDENT DEVELOPMENT SECTION**

**SL: STUDY LEAVE**

| <b>NO.</b> | <b>NAME</b>   | <b>HIGHEST QUALIFICATION</b>                | <b>DESIGNATION</b>  |
|------------|---|---|---------------------|
| 1.         | MS. INTAN NORJAHAN BINTI AZMAN<br>(Head of Section) | MASTER OF ARTS IN ENGLISH LANGUAGE          | LECTURER            |
| 2.         | ANISAH BAHYAH AHMAD (Dr.)                           | PhD (ISLAMIC CIVILIZATION)                  | SENIOR LECTURER     |
| 3.         | AZMAN BIN YUSOF (Assoc. Prof. Dr.)                  | PhD (PHILOSOPHY AND CIVILIZATION STUDIES)   | ASSOCIATE PROFESSOR |
| 4.         | AZU FARHANA BINTI ANUAR                             | MASTER OF ARTS (ENGLISH COURSE)             | LECTURER            |
| 5.         | MS. MARIATI BINTI MOHD SALLEH                       | MASTER OF EDUCATION                         | LECTURER            |
| 6.         | MS. NOORHAYATI BINTI SAHARUDDIN                     | MASTER OF ARTS IN ENGLISH LANGUAGE          | SENIOR LECTURER     |
| 7.         | MS. ROSIAH BINTI OTHMAN                             | MASTER OF CORPORATE COMMUNICATION           | LECTURER            |
| 8.         | MS. SA'ADIAH BINTI HUSSIN                           | MASTER OF SCIENCE (CORPORATE COMMUNICATION) | SENIOR LECTURER     |

## **IIP SECTION**

**SL: STUDY LEAVE**

| <b>NO.</b> | <b>NAME</b>                    | <b>HIGHEST QUALIFICATION</b>      | <b>DESIGNATION</b> |
|------------|--------------------------------|-----------------------------------|--------------------|
| 1.         | ABD RAZAK BIN HAJI MOHD YUSOFF | MASTER OF BUSINESS ADMINISTRATION | LECTURER           |
| 2.         | NORAZMI BIN OMAR               | MASTER OF BUSINESS ADMINISTRATION | LECTURER           |

# Bachelor of Food Safety and Quality Technology

## PROGRAMME EDUCATIONAL OBJECTIVES (PEO)

|      |  |
|------|--|
| PEO1 | UniKL graduates who are knowledgeable, competent and innovative, which will contribute towards the requirement of human capital in food safety and quality.            |
| PEO2 | UniKL graduates who are effective leaders with teamwork skills, as well as verbal and non-verbal interpersonal communication skills to support their role in industry. |
| PEO3 | UniKL graduates who are committed towards the importance of lifelong learning and continuous improvement..   |
| PEO4 | UniKL graduates who are professional, ethical and socially responsible.  |
| PEO5 | UniKL graduates who are capable of embarking on business and technopreneurial activities.  |

## PROGRAMME LEARNING OUTCOMES (PLO)

|      |   |
|------|---|
| PLO1 | <b>Knowledge:</b> Apply the knowledge of technology fundamental to broadly-defined procedures, processes, systems and methodologies in food safety and quality  |
| PLO2 | <b>Practical Skills and High Technology:</b> Propose and employ current tools and techniques to resolve broadly-defined problems.   |
| PLO3 | <b>Analytical, Critical Thinking and Scientific Approach:</b> Demonstrate deep investigation and significant thinking abilities to solve broadly defined problems in the field of food safety and quality.  |
| PLO4 | <b>Communication Skills:</b> Communicate effectively and flexibly in oral and written language for social, academic and professional purposes.  |
| PLO5 | <b>Social and Responsibility in Society and Technologist Community:</b> Illustrate the understanding of corresponding issues related to the society and the subsequent responsibilities to the broadly-defined food safety and quality technology practices.. |
| PLO6 | <b>Lifelong learning and information management:</b> Acknowledge the requirement of professional establishment and to employ independent continuing learning in food safety and quality specialist technologists.   |
| PLO7 | <b>Technopreneurship and Management Skills:</b> Illustrate consciousness of management and technopreneurship routine in real perspective  |
| PLO8 | <b>Ethics and Professionalism:</b> Illustrate ethical awareness and professionalism.  |
| PLO9 | <b>Teamwork and Leadership:</b> Illustrate leadership character, mentoring and work efficiently in diverse teams  |

# PROGRAMME STRUCTURE

| <b>INSTITUTE</b>                       |         | UNIVERSITI KUALA LUMPUR KAMPUS CWGN MALAYSIAN INSTITUTE OF CHEMICAL AND BIOENGINEERING TECHNOLOGY |   |        |
|--|---------|---|---|--------|
| <b>PROGRAMME</b>                       |         | BACHELOR OF FOOD SAFETY AND QUALITY TECHNOLOGY  |   |        |
| <b>Intake From Semester</b>            |         | 2021/2022-1   | <b>Until Sem</b> 2022/2023-1                                |        |
| <b>Total Credits to Graduate (TCG)</b> |         | 120   | <b>No. of Semester</b> 6                                    |        |
| YEAR                                   | SEM NO. | CODE  | NAME  | CREDIT |
| 1                                      | 1       | 1   | CQB10103 ENGLISH FOR TECHNOLOGIST                           | 3      |
|  |         | 2   | CQB10203 INTRODUCTION TO FOOD SAFETY AND QUALITY TECHNOLOGY | 3      |
|  |         | 3   | CQB10803 ANALYTICAL AND ORGANIC CHEMISTRY                   | 3      |
|  |         | 4   | CQB19203 MATHEMATICS 1                                      | 3      |
|  |         | 5   | MPU3113 HUBUNGAN ETNIK                                      | 3      |
|  |         | 6   | MPU3123 TAMADUN ISLAM & TAMADUN ASIA (TITAS)                | 3      |
|  |         | 7   | MPU3143 BAHASA MELAYU KOMUNIKASI 2                          | 3      |
|  |         | 8   | MPU3173 PENGAJIAN MALAYSIA 3                                | 3      |
|  |         | 9   | MPU3333 ISU-ISU KONTEMPORARI MUSLIM DI MALAYSIA             | 3      |
|  |         | 10  | MPU3343 CULTURE AND LIFESTYLE IN MALAYSIA 2                 | 3      |
|  | 2       | 11  | CQB10303 FOOD PRODUCT MANUFACTURING                         | 3      |
|  |         | 12  | CQB10403 GLOBAL FOOD SECURITY                               | 3      |
|  |         | 13  | CQB10503 MICROBIOLOGICAL FOOD SAFETY                        | 3      |
|  |         | 14  | CQB10603 FOOD ANALYSIS AND SENSORY EVALUATION               | 3      |
|  |         | 15  | CQB10703 ENGINEERING STATISTIC                              | 3      |
|  |         | 16  | CQB10903 INDUSTRIAL SAFETY & HEALTH                         | 3      |
|  |         | 17  | MPU3242 INNOVATION MANAGEMENT                               | 2      |
| 2                                      | 3       | 18  | CQB20103 FOOD SAFETY AND PACKAGING TECHNOLOGY               | 3      |
|  |         | 19  | CQB20203 FOOD SAFETY AND LEGISLATION                        | 3      |
|  |         | 20  | CQB20303 SUPPLY CHAIN MANAGEMENT SYSTEM                     | 3      |
|  |         | 21  | CQB20403 FOOD INGREDIENTS                                   | 3      |
|  |         | 22  | CQB20503 HALAL MANAGEMENT SYSTEM                            | 3      |
|  |         | 23  | CQB21103 PROCESS INSTRUMENTATION & CONTROL                  | 3      |
|  |         | 24  | MPU34102 INTEGRITI & ANTI-RASUAH 2                          | 2      |
|  |         | 25  | MPU3412 CAREER GUIDANCE 2                                   | 2      |
|  |         | 26  | MPU3422 COMMUNITY SERVICE 2                                 | 2      |
|  |         | 27  | MPU3432 CULTURE 2   | 2      |
|  |         | 28  | MPU3442 RAKAN MASJID 2                                      | 2      |
|  |         | 29  | MPU3452 SISWA SISWI BOMBA DAN PENYELAMAT 2                  | 2      |
|  |         | 30  | MPU3462 KOR SISWA SISWI PERTAHANAN AWAM 2                   | 2      |
|  |         | 31  | MPU3472 SPORTS MANAGEMENT 2                                 | 2      |
|  |         | 32  | MPU3482 PERSONAL FINANCIAL MANAGEMENT 2                     | 2      |
|  |         | 33  | MPU3492 ASKAR WATANIAH                                      | 2      |
|  | 4       | 34  | CQB20603 FOOD SAFETY TOXICOLOGY                             | 3      |
|  |         | 35  | CQB20703 HAZARD ANALYSIS CRITICAL CONTROL POINT (HACCP)     | 3      |
|  |         | 36  | CQB20804 FOOD QUALITY AND STANDARD                          | 4      |
|  |         | 37  | CQB20903 FOOD PRODUCT DESIGN AND DEVELOPMENT                | 3      |
|  |         | 38  | CQB21003 FOOD WASTE MANAGEMENT SYSTEM                       | 3      |
| 2                                      | 4       | 39  | WBB20103 TECHNOPRENEURSHIP                                  | 3      |
| 3                                      | 5       | 40  | CQB30110 APPLIED FOOD PRODUCT MANUFACTURING                 | 10     |
|  |         | 41  | CQB39810 INDUSTRIAL FINAL YEAR PROJECT                      | 10     |
|  | 6       | 42  | CQB30206 APPLIED FOOD QUALITY AND STANDARD                  | 6      |
|  |         | 43  | CQB30306 APPLIED HALAL MANAGEMENT SYSTEM                    | 6      |
|  |         | 44  | CQB30406 APPLIED FOOD PRODUCT DESIGN AND DEVELOPMENT        | 6      |
|  |         | 45  | CQB30506 APPLIED FOOD SAFETY AND LEGISLATION                | 6      |
|  |         | 46  | CQB30606 APPLIED SUPPLY CHAIN MANAGEMENT SYSTEM             | 6      |
|  |         | 47  | CQB30706 APPLIED INDUSTRIAL SAFETY AND HEALTH               | 6      |
|  |         | 48  | MPU3213 BAHASA KEBANGSAAN A                                 | 3      |
|  |         | 49  | WIB31008 INDUSTRIAL TRAINING                                | 8      |

## SUMMARY TOTAL NUMBER OF SUBJECTS UNDER CATEGORIES :

| CATEGORIES | TOTAL |
|------------|-------|
| MPU        | 18    |
| ELECTIVE   | 5     |
| UCS        | 1     |
| CORE       | 24    |
| INTRA      | 1     |



NATIONAL REQUIREMENT

**MPU 3113 HUBUNGAN ETNIK**  
**MPU 3173 PENGAJIAN MALAYSIA 3**  
**MPU 3123 TAMADUN ISLAM & TAMADUN ASIA (TITAS)**  
**MPU 3143 BAHASA MELAYU KOMUNIKASI 2**  
**MPU 3333 ISU-ISU KONTEMPORARI MUSLIM DI**  
**MALAYSIA/**  
**MPU 3343 CULTURE AND LIFESTYLE IN MALAYSIA**  
**MPU 3242 INNOVATION MANAGEMENT**  
**MPU3412 CAREER GUIDANCE 2**  
**MPU3422 COMMUNITY SERVICE 2**  
**MPU3432 CULTURE 2**  
**MPU3442 RAKAN MASJID 2**  
**MPU3452 SISWA-SISWI BOMBA DAN PENYELAMAT 2**  
**MPU3462 SISWA-SISWI PERTAHANAN AWAM 2**  
**MPU3472 SPORTS MANAGEMENT 2**

**MPU 3113 Hubungan Etnik****Synopsis:**

Kursus ini membincangkan konsep asas, latar belakang dan realiti sosial masa kini hubungan etnik di Malaysia dari perspektif kesepaduan sosial. Tujuan kursus ini ialah memberikan kesedaran dan penghayatan dalam menguruskan kepelbagaian ke arah pengukuhan negara bangsa. Pengajaran dan pembelajaran akan dilaksanakan dalam bentuk pembelajaran berasaskan pengalaman melalui aktiviti individu, berpasukan dan semangat kesukarelaan. Pada akhir kursus ini, pelajar diharapkan dapat mengamalkan nilai-nilai murni, mempunyai jati diri kebangsaan dan menerima kepelbagaian sosio-budaya etnik di Malaysia.

**Learning Outcomes:**

Upon completion of this course students should be able to:

1. Menghuraikan isu dan cabaran dalam konteks hubungan etnik di Malaysia
2. Menilai kepentingan jati diri kebangsaan dan kesukarelaan dalam pelbagai konteks ke arah mewujudkan warganegara yang bertanggungjawab
3. Membina dan memupuk hubungan dan interaksi sosial pelbagai etnik

**MPU 3173 Pengajian Malaysia 3****Synopsis:**

This unit focuses on the history and politics, the constitution of Malaysia, community and solidarity, development and other issues of national concern. The objective of this unit is to produce students who understand the socio-cultural society, the process of nation-building and political structure in Malaysia as well as to appreciate the role of Malaysia at the international level.

**Learning Outcomes:**

Upon completion of this course students should be able to:

1. Describe and discuss the diversity of society
2. Explain the importance of Malaysia's identity towards nurturing the spirits of university
3. Build social relationship and interaction among students

**MPU 3123 Tamadun Islam & Tamadun Asia (TITAS)****Synopsis:**

Kursus ini membincangkan ilmu ketamadunan yang meliputi pengenalan ilmu ketamadunan, perkembangan dan interaksi ketamadunan dalam tamadun Islam, Melayu, China, India serta isu ketamadunan kontemporari dalam Tamadun Islam dan Tamadun Asia. Kursus ini bertujuan memberi kefahaman mengenai setiap elemen tersebut dan implikasi terhadap proses pembangunan negara. Selain itu, perbincangan dan perbahasan dalam kursus ini turut berperanan dalam usaha melahirkan pelajar yang mengetahui warisan sejarah negara, memupuk nilai murni, mempunyai jati diri kebangsaan dan menghargai kepelbagaian.

**Learning Outcomes:**

Upon completion of this course students should be able to:

1. Menghuraikan peranan nilai ketamadunan dalam pembentukan sistem nilai masyarakat Malaysia.
2. Mempamerkan kebolehan komunikasi sosial dalam kepelbagaian lanskap budaya.
3. Membahaskan elemen ketamadunan dengan isu kemasyarakatan semasa.

### **MPU 3143 Bahasa Melayu Komunikasi 2**

#### **Synopsis:**

Kursus ini melatih pelajar antarabangsa untuk berkomunikasi dalam bahasa Melayu asas yang meliputi situasi kehidupan harian. Pelajar akan diperkenalkan dengan pertuturan dan penulisan bahasa Melayu mudah. Pengajaran dan pembelajaran akan dilaksanakan dalam bentuk kuliah, tutorial, tugas dan pengalaman pembelajaran pelajar di dalam dan di luar kelas. Pada akhir kursus ini, pelajar diharapkan dapat berkomunikasi dan menggunakan ayat mudah dengan berkesan.

#### **Learning Outcomes:**

Upon completion of this course students should be able to:

1. Menerangkan kandungan teks penuh yang menggunakan ayat mudah dan ayat berlapis
2. Bertutur dalam pelbagai situasi dengan menggunakan ayat mudah dan ayat berlapis
3. Menyusun idea secara kreatif dan sistematik dalam penulisan karangan pendek

### **MPU 3333 Isu-Isu Kontemporari Muslim Di Malaysia**

#### **Synopsis:**

Kursus ini memberikan pengetahuan berkaitan isu-isu kontemporari yang melingkari masyarakat Islam di Malaysia. Sejarah dan perkembangan Islam, ideologi dan fahaman yang mempengaruhi umat Islam turut dikupas dalam kursus ini, Isu-isu yang berkaitan dengan kepenggunaan, institusi keluarga dan masyarakat turut diperbincangkan. begitu juga sains dan teknologi serta masa depan Islam dan implikasinya diperjelaskan dengan sandaran dalil wahyu dan realiti semasa.

#### **Learning Outcomes:**

Upon completion of this course students should be able to:

1. Menerangkan sejarah dan aspek-aspek perkembangan Islam di Malaysia
2. Menghuraikan realiti isu-isu yang melingkungi umat Islam di Malaysia
3. Melaksanakan tanggungjawab dan kewajipan beragama demi masa depan masyarakat Islam dalam konteks semasa

**MPU 3343 Culture And Lifestyle In Malaysia****Synopsis:**

The main objective of this course is to expose students to the rich culture and lifestyle in Malaysia. This is to foster and instill national unity. It will introduce various cultures to the local as well as the international students. This course will help to bridge the gap among students as well as further develop the understanding and respect for Malaysian culture and lifestyle.

**Learning Outcomes:**

Upon completion of this course students should be able to:

1. Compare acceptable cultural practices, norms and lifestyle in Malaysia
2. Organize program on cultural values, ethnicity and lifestyle in Malaysia
3. Analyse information on cultural and lifestyle issues

**MPU3242 Innovation Management****Synopsis:**

This course is to help students to understand the complex process of innovation which depends on people and their interactions; to stimulate new thinking rather than prescribe some definitive methodology; to understand the issues involved in being an innovator and the culture for supporting innovation; understand the critical issues that organizations need to develop to support innovation; to be able to develop a marketing strategic planning and able to do qualitative and quantitative market analysis; to understand the process of product development and market testing; and to understand commercialization strategy i.e. marketing mix and future plan. These teaching components would benefit the students in becoming future entrepreneurs.

**Learning Outcomes:**

Upon completion of this course students should be able to:

1. Explain the importance of innovation in organisation
2. Analyse the different types of innovation, products classes and the impact to the industry.
3. Distinguish the steps in the innovation process
4. Assess the key challenges to innovation.
5. Develop a viable innovative project.

**MPU 3412 Career Guidance 2****Synopsis:**

This course is one of the co-curriculum modules offered to develop well-rounded individuals through involvement in social and community activities. Specifically, it enables students to understand the importance of career planning. It also promotes soft skills that can be applied in their future careers. Apart from that, it creates a better understanding about potential employer's expectations in job hunt.

**Learning Outcomes:**

Upon completion of this course students should be able to:

1. Identify their personality types towards career & leadership
2. Determine ways in managing stress in the workplace

3. Demonstrate awareness of real work environment and the industry
4. Outline their future career and targets

### **MPU 3422 Community Service 2**

#### **Synopsis:**

This course is one the co-curriculum modules offered to develop well-rounded individuals through involvement in high impact social and community activities. Specifically, it aims to develop interest among the students to participate in community service programmes. It also enables student to understand the importance of performing community service and the ways to implement the programmes and activities. Besides that, it provides better understanding to the students on the values, ethics and benefits of carrying out community service programmes.

#### **Learning Outcomes:**

Upon completion of this course students should be able to:

1. Organize and participate in large scale/ high impact community service programmes and activities
2. Apply knowledge learnt in course in community service programmes and activities
3. Demonstrate entrepreneurship skills in community service programmes and activities
4. Explain the values, ethics and benefits of participating in community service programmes and activities.

### **MPU 3432 Culture 2**

#### **Synopsis:**

This course is one of the co-curriculum modules offered to develop well-rounded individuals through involvement in social and community activities. Specifically, it aims to develop students' personality and social interaction skills, as well as foster closer relationships among the students in the university through the organization of and participation in cultural activities.

#### **Learning Outcomes:**

Upon completion of this course students should be able to:

1. Apply knowledge gained in planning and organizing a cultural event
2. Demonstrate appropriate skills in organising a culture event
3. Evaluate the effectiveness of the management of a cultural event.

**MPU3442 Rakan Masjid 2****Synopsis:**

This course is one of the co-curriculum modules offered to develop well-rounded individuals through involvement in social and community activities. Specifically, it aims to give exposure to students on managing mosque effectively and implementing various activities related to the mosque. This is to enable students to play their role in developing the ummah through the mosque.

**Learning Outcomes:**

Upon completion of this course students should be able to:

1. Explain about the importance of religious programmes implemented in Malaysia
2. Practice activities in relation to significant events in Islam
3. Recognise the functions of agencies/bodies relevant to the development of Islam in Malaysia

**MPU3452 Siswa Siswi Bomba & Penyelamat 2****Synopsis:**

This course is one of the co-curriculum modules offered to develop well-rounded individuals through involvement in social and community activities. Specifically, it gives exposure on the introduction to Malaysian Fire and Rescue Department, foot marching technique, fire rescue, ascending and descending technique and basic emergency aid.

**Learning Outcomes:**

Upon completion of this course students should be able to:

1. Organize a project (theory and practically about BOMBA activities)
2. Communicate and demonstrate leadership and team skills through BOMBA activities (rescue, fire rescue and first aid)
3. Apply appropriate fundamental knowledge of rescue, fire rescue and first aid.

**MPU3462 Pasukan Siswa-Siswi Pertahanan Awam 2****Synopsis:**

This course is one of the co-curriculum modules offered to develop well-rounded individuals through involvement in social and community activities. Specifically, it gives exposure on the introduction on the instruction to Malaysian Civil Defense Force, foot marching technique, fire rescue, ascending and descending technique and basic emergency aid.

**Learning Outcomes:**

Upon completion of this course students should be able to:

1. Communicate and demonstrate leadership and team skills through BOMBA activities (rescue, fire rescue and first aid).
2. Participate actively in Project (theory and practically about JPAM activities).
3. Apply appropriate fundamental of rescue, fire rescue and first aid.

UNIVERSITY REQUIREMENT

**CQB10103 English For Technologist**

**WIB31008 Industrial Training**

### **CQB10103 English for Technologist**

#### **Synopsis:**

This course aims to familiarise students to technical vocabulary and language functions used in their field of study. Students also need to utilise proper writing principles and mechanics of technical communication in writing reports. In addition to that, students present their ideas and opinions using appropriate presentation techniques.

#### **Learning Outcomes:**

Upon completion of this course students should be able to:

1. Describe equipment and processes related to their field of study using appropriate language
2. Produce a report with its necessary components i.e. trend analysis & referencing
3. Present information orally

### **WIB31008 Industrial Training**

#### **Synopsis:**

This course is aimed at exposing students to real industrial environment and the opportunity to practice the knowledge and skills acquired during their academic years.

#### **Learning Outcomes:**

Upon completion of this course students should be able to:

1. Apply the skills and knowledge that they have gained throughout their academic years in the companies that they are attached to.
2. Explain new knowledge and skills acquired during Industrial attachment
3. Handle and perform specific task with minimum supervision and achieve the companies' expectation.
4. Display safety and health practices in industry.
5. Show good analytical and problem solving skills.
6. Demonstrate the ability to work in team either as a leader or team member and good communication skills.



## **COMMON CORE**

### **WBB20103 Technopreneurship**

### **WBB20103 Technopreneurship**

#### **Synopsis:**

The module will enhance student's knowledge and skills in business planning, financial management, business operations and marketing. The focus will be on attributes on Technopreneurs, searching for viable opportunities, taking into considerations the trends and new challenges in the business world; and gathering the resources necessary to convert a viable opportunity into a successful business.

#### **Learning Outcomes:**

Upon completion of this course students should be able to:

1. Describe business environment and management within the scope of the course
2. Estimate operation capacity and material requirement planning
3. Prepare sale forecast and financial projection statement.
4. Develop a viable business plan and be involved in entrepreneurship activities.

## **DISCIPLINE CORE**

**CQB10203 Introduction To Food Science And Technology**  
**CQB10803 Analytical and Organic Chemistry**  
**CQB19203 Mathematics 1**  
**CQB10303 Food Product Manufacturing**  
**CQB10503 Microbiological Food Safety**  
**CQB10603 Food Analysis And Sensory Evaluation**  
**CQB10703 Engineering Statistic**  
**CQB10903 Industrial Safety & Health**  
**CQB20103 Food Safety And Packaging Technology**  
**CQB20203 Food Safety And Legislation**  
**CQB20303 Supply Chain Management System**  
**CQB20403 Food Ingredients**  
**CQB20503 Halal Management System**  
**CQB21103 Process Instrumentation & Control**  
**CQB20603 Food Safety Toxicology**  
**CQB20703 Hazard Analysis Critical Control Point (HACCP)**  
**CQB20804 Food Quality And Standard**  
**CQB20903 Food Product Design And Development**  
**CQB21003 Food Waste Management System**  
**CQB30110 Applied Food Product Manufacturing**  
**CQB39810 Industrial Final Year Project**  
**CQB30206 Applied Food Quality And Standard**  
**CQB30306 Applied Halal Management System**  
**CQB30406 Applied Food Product Design And Development**  
**CQB30506 Applied Food Safety And Legislation**  
**CQB30606 Applied Supply Chain Management System**  
**CQB30706 Applied Industrial Safety And Health**

**CQB10203 Introduction To Food Science And Technology****Synopsis:**

This course aimed to provide students the basic knowledge and understanding of food science and technology.

**Learning Outcomes:**

1. Discover the science and technology of the nature of food, its processing and preservation technique
2. Discuss on related issue regarding food science and technology
3. Work with team member in planning and performing scientific inquiry

**CQB10303 Food Product Manufacturing****Synopsis:**

This course will provide students with the theoretical and practical aspects of food product manufacturing. This syllabus covers manufacturing of selected food commodities and the quality control of the finished products. Students also require to identify and providing solution in certain aspects of problems related to food manufacturing processes while adopting the Internet of Thing (IoT) and entrepreneurial elements.

**Learning Outcomes:**

1. Identify theoretical aspect of food product manufacturing
2. Apply quality control in the food product manufacturing processes
3. Solve with team member in certain aspects of problems related to food product manufacturing processes

**CQB10503 Microbiological Food Safety****Synopsis:**

This course aimed to provide the students with understanding of the basic function, activity, classification of microorganisms, microbiological quality of food products and food safety. The student will also obtain a good understanding of laboratory practices in food microbiology.

**Learning Outcomes:**

1. Examine and explain the theories and concepts of microorganisms in relationship with the factors that influence microbial growth, microorganisms in foods, food spoilage and food borne diseases.
2. Observe, predict, conduct, interpret and analyzed results of analysis in food microbiology.
3. Collaborate with team members in planning and performing a scientific inquiry.

**CQB10603 Food Analysis And Sensory Evaluation****Synopsis:**

This course will provide the principles of chemical and instrumental analysis of food and sensory evaluation. The course will cover the application of quantitative and qualitative analysis used in the physical, chemical and instrumental examination of food products. A special emphasis is placed on the evaluation of methods and interpretation of results. An overview of the physiological and psychological foundations of sensory functions, methods for sensory testing and fundamentals application of statistical approach for data analysis will be part of this course.

**Learning Outcomes:**

1. Apply the appropriate principles and procedures for food analysis and sensory evaluation.
2. Conduct experiment using appropriate food analysis and sensory evaluation approach to guide product development and assure quality of food.
3. Discuss with team members in planning, performing and reporting a scientific inquiry/assignment related to food analysis and sensory.

**CQB10903 Industrial Safety & Health**

**Synopsis:**

This course discusses the occupational safety, control method (to develop and implement appropriate control techniques for personal and workplace safety), chemical safety, health concept, biohazard level and control.

**Learning Outcomes:**

1. Perform analyses of risk related to occupational safety and health and comparing with statutory laws.
2. Analyze types of hazard related to workplace, appropriate control measures and risks associated with it.
3. Explain safety and health issues at workplace by comparing to Malaysian laws and regulations.

**CQB20103 Food Safety And Packaging Technology**

**Synopsis:**

To provide students with the principles and application of packaging materials in food industry as well as packaging regulation and labelling requirement in line with Malaysia and International Standard. In order to prepare our students to meet the changing demands of the industry especially food packaging industry, Additive Manufacturing elements is incorporate in the course through mini project.

**Learning Outcomes:**

1. Explain the functions of packaging and differentiate the material properties of various packaging raw materials as well as the final package in food industry.
2. Demonstrate the appropriate techniques and methods for some types of food packaging materials.
3. Create innovative food packaging prototype by adopting additive manufacturing and entrepreneurship element in compliance with Malaysian Food Act and International Standard.
4. Report with team members regarding current issues in food packaging industry.

**CQB20203 Food Safety And Legislation**

**Synopsis:**

This course covers the principles related to food laws, standard and legislation, food safety and management system, hazard risk in food ingredients, self inspection system and enforcement that is widely used and endorsed in Malaysia and internationally by industry, regulatory and consumer groups.

**Learning Outcomes:**

1. Identify the risks of food hazards by outline the laws regarding the use of ingredients and additives required for the production of a product.

2. Evaluating the responsibilities of employers and employees have according to current food safety legislation which relates to food premises.
3. Collaborate with team members in planning, performing and reporting a scientific inquiry related to food safety and legislation.

### **CQB20303 Supply Chain Management System**

#### **Synopsis:**

This course covers various aspects of food supply chains in detail; to cover food supply chain from farm to fork, taking into consideration the various challenges and supporting mechanisms to make sure that the food reaching the plates is safe. It will also look into the technology and current practices in the food industry to ensure the movement of materials meeting required specification.

#### **Learning Outcomes:**

1. Classify the function of different entities in the food supply chain network.
2. Solving the operational challenges that are relevant for the efficient movement of the supply chain network.
3. Organise report with team members regarding issues in food supply chain management system.

### **CQB20403 Food Ingredients**

#### **Synopsis:**

The course will present principles and utilization of food ingredients. The regulations and practice, differences in additive usage in other countries. The students will be exposed to various aspects of food ingredients, the properties of food with emphasis on the chemical basis of the food quality attributes of flavor, texture, color, nutrition, and chemical safety. Flavour, colour and food additives are important aspects of food processing from consumer acceptability point of view. Standards have been laid down for type and concentration of food additives.

#### **Learning Outcomes:**

1. Outline the ingredient and additives commonly found in food and explain the advantages and disadvantages of these additives.
2. Evaluate the contributions and the limitations of food ingredient and food additives in our food supply.
3. Discuss with team members in planning, performing and reporting a scientific inquiry/ assignment related to food analysis.

### **CQB20503 Halal Management System**

#### **Synopsis:**

The course will present principles and application of halalan toyyiban food concept in Syarie, halal and haram food source, slaughtering technique, food chain, halal food processing concept, ingredient and halal food additive, halal and quality system, hygiene and food sanitation, JAKIM certification procedure, Malaysian Standards related to Halal eg. MS1500:2009 guidelines, analysis and halal food confirmation, Regulation and halal food act, government agency role to improve halal food – incentive and measure. The regulations and practice, current issue and halal food industries overview.

#### **Learning Outcomes:**

1. Outline halal guidelines and its implementation according to Islamic law for food industry
2. Perform analysis for the determination of non-halal substances with team members
3. Discuss the current issues regarding halal as a system and practices in the food industry

**CQB21103 Process Instrumentation & Control****Synopsis:**

This course introduces various aspects on fundamental of instrumentation, process control, industrial control system, control strategies and its applications in the industries.

**Learning Outcomes:**

1. Differentiate various types of process instrumentation and control system based on real applications in chemical industries.
2. Perform practical session and provide valid conclusion based on results, graphs and controller tuning data obtained.
3. Analyse understanding towards the importance of employing appropriate process instrumentation and control in chemical industries.

**CQB20603 Food Safety Toxicology****Synopsis:**

The subject is designed to provide students with an interactive overview to the general principles of food toxicology, with emphasis on different types of foodborne toxicants and the adverse effects of these food toxicants on humans. It furnishes students with analytical skills and conceptual framework to understand and assess food safety assurance strategies, especially regarding their importance within food-related industries.

**Learning Outcomes:**

1. Relate of potentially toxic constituents present in food products
2. Analyze with team members regarding current issue in food toxicology
3. Demonstrate the appropriate techniques and methods for determination toxin in food

**CQB20703 Hazard Analysis Critical Control Point (HACCP)****Synopsis:**

Students will be demonstrating the GMP and HACCP implementation in food industries. The guide a practical to the introduction of Prerequisite and HACCP programs will be presented. Enforcement Good Manufacturing Practice essential prerequisites for transition to the implementation of HACCP methodology will be discussed adequately. HACCP Plan, Internal Audit, Quality assurance and quality control, basic quality problems of food products and to present some statistical quality control tools with applications in the food industry, as well as to cover up-to-date topics of QC/QA as they relate to food industry and government relations.

**Learning Outcomes:**

1. Produce HACCP manuals based on the principles, methodologies, techniques and tools of MS 1480:2007 (HACCP)
2. Perform internal audit for GMP and HACCP in premise
3. Display the ability of self-directed learning and reflective practice in the work place through the development of a model HACCP plan for food industry among team members

**CQB20804 Food Quality And Standard****Synopsis:**

This course will introduce concept of quality assurance and quality control and its importance in food industry. This will include the current development and technology in practice that are inline with the local and global authorities standard. Students can expect to learn troubleshooting common problems arise in food industry with statistical quality control tools and other related measures. The course will relate prior knowledge on types of hazard or contaminant (physical, chemical, microbiological) as well as statistical and sensory evaluation for ensuring products meeting set quality.

**Learning Outcomes:**

1. Evaluate the importance of quality assurance and quality control in food manufacturing
2. Integrate suitable food quality standards and practices for production of safe food products
3. Demonstrate the ability for self- directed learning and practice related to food quality and standard through practical, project and manual development.

**CQB20903 Food Product Design And Development****Synopsis:**

This course is intended to familiarize students with the product implementation stage of food product development including preliminary product description, prototype development, product testing and the formal presentation of a new product development. Students will learn the importance of teamwork, product specification, food formulation, food ingredient technology, ingredient interaction and how to conduct and terminate a project in an orderly manner. Students incorporate the principles taught in the food science and Technology core courses and apply them to the theoretical and practical considerations of commercial food product development. Teams of students will complete real food product development projects solicited from the food industry.

**Learning Outcomes:**

1. Construct ideas that may lead to the development of a new product.
2. Recognise problems that are amendable to the new product commercialization.
3. Collaborate with team members in planning and conducting an event to exhibit newly developed food products.
4. Propose a prototype or design of a new product to be commercialized.

**CQB21003 Food Waste Management System****Synopsis:**

This course will equip students with the fundamental knowledge in waste management system for food processing. It will introduce students to the relevant issues that related to management of food waste system. This include basic principle in legal, characterization, handling, collection, storage and processing. Therefore, the goal of the course is to provide sufficient exposure to fundamental of food waste management system and current practice in the industry.

**Learning Outcomes:**

1. Describe the principle of food waste management system
2. Perform an investigation food processing waste management system problems using data from relevant sources
3. Collaborate with team members in interpreting practical waste management problems associated with food process operations



**CQB30110 Applied Food Product Manufacturing****Synopsis:**

This course will provide students with the theoretical and practical aspects of food product manufacturing. This syllabus covers manufacturing of selected food commodities and the quality control of the finished products. Students also require to identify and providing solution in certain aspects of problems related to food manufacturing processes while adopting the Internet of Thing (IoT) and entrepreneurial elements.

**Learning Outcomes:**

1. Explain theoretical aspect of food product manufacturing
2. Display good quality control practice in the food product manufacturing processes
3. Solve problems related to food product manufacturing processes

**CQB30206 Applied Food Quality And Standard****Synopsis:**

This course will emphasize on the importance of quality assurance and quality control, quality problems of food products and to present some statistical quality control tools with applications in the food industry, as well as to cover up-to-date topics of QA/QC as they relate to food industry and government relations. Knowledge of quality control and their industrial application through physical, chemical, microbiological, statistical and sensory methods will be evaluated.

**Learning Outcomes:**

1. Explain the importance of quality assurance and quality control in food manufacturing
2. Relate food quality standards and practices in the production of safe food products
3. Demonstrate the ability for self- directed learning and practice in the work place through practical or assignment related to food quality and Standard

**CQB30306 Applied Halal Management System****Synopsis:**

The objective of this course is to produce competent Halal Executives equipped with knowledge and technological advances to serves the dynamic industrial sectors and regulatory and other government bodies relevant to Halal activities. This course provides a comprehensive and hands-on professional course on Halal Management System and a compulsory certificate in becoming a competent Halal Executive in Halal industry as required by JAKIM. The professional certificate-embedded course is recognized by Halal Professional Board (HPB), JAKIM.

**Learning Outcomes:**

1. Develop Halal manual and Halal Assurance System file for the halal certification
2. Perform online Halal application and mock internal halal audit
3. Demonstrate Halal Procedure and Process in obtaining the halal certification from JAKIM, Malaysia

**CQB30406 Applied Food Product Design And Development****Synopsis:**

This course is intended to familiarize students with the product implementation stage of food product development including preliminary product description, prototype development, product testing and the formal presentation of a new product development. Students will learn the importance of teamwork, product specification, food formulation, food ingredient technology, ingredient interaction and how to conduct and terminate a project in an orderly manner. Students incorporate the principles

taught in the food science and Technology core courses and apply them to the theoretical and practical considerations of commercial food product development. Teams of students will complete real food product development projects solicited from the food industry.

**Learning Outcomes:**

1. Develop new potential products for open market and food service sector
2. Recognise problems that are amendable to the new product commercialization
3. Propose product specification for new products that follow food related certification requirement

**CQB30506 Applied Food Safety And Legislation**

**Synopsis:**

This course covers the principles related to food laws, standard and legislation, food safety and management system, hazard risk in food ingredients, self inspection system and enforcement that is widely used and endorsed in Malaysia and internationally by industry, regulatory and consumer groups.

**Learning Outcomes:**

1. Categorize the risks of food hazards by outline the laws regarding the use of ingredients and additives required for the production of a product.
2. Demonstrate related skills according to food safety legislation
3. Reporting a scientific inquiry related to food safety and legislation

**CQB30606 Applied Supply Chain Management System**

**Synopsis:**

This course covers various aspects of food supply chains in detail; to cover food supply chain from farm to fork, taking into consideration the various challenges and supporting mechanisms to make sure that the food reaching the plates is safe.

**Learning Outcomes:**

1. Categorize the different entities in the food supply chain
2. Construct idea in solving the operational challenges that relevant for the efficient operation of the chain
3. Identify issues in food supply chain management system

**CQB30706 Applied Industrial Safety And Health**

**Synopsis:**

This course discusses the occupational safety, control method (to develop and implement appropriate control techniques for personal and workplace safety), chemical safety, health concept, biohazard level and control.

**Learning Outcomes:**

1. Perform analyses of risk related to occupational safety and health and comparing with statutory laws.
2. Analyze types of hazard related to workplace, appropriate control measures and risks associated with it.
3. Explain safety and health issues at workplace by comparing to Malaysian laws and regulations

**Who to See For Advice**

|    | ISSUES  | WHO TO SEE                          |
|----|---|-------------------------------------|
| 1. | Could not adapt with the teaching style of a lecturer   | Lecturer concern / Head of Section  |
| 2. | Concern about labs, workshops, classrooms (safety, comfort, lack of equipment, lack of components, lack of practical, etc)  | Lecturer concern / Head of Section  |
| 3. | Non-academic related problems that may affect academic achievement such as financial, family, social, emotional, spiritual, cannot get along with colleagues, cannot focus on study in the hostel due to environment, etc | Academic Advisor/Counsellor         |
| 4. | Weak in certain subjects, pre-requisites  | Lecturer concern / Academic Advisor |
| 5. | Academic related problems (study plan, add subject, drop subject, quit, etc)  | Academic Advisor                    |