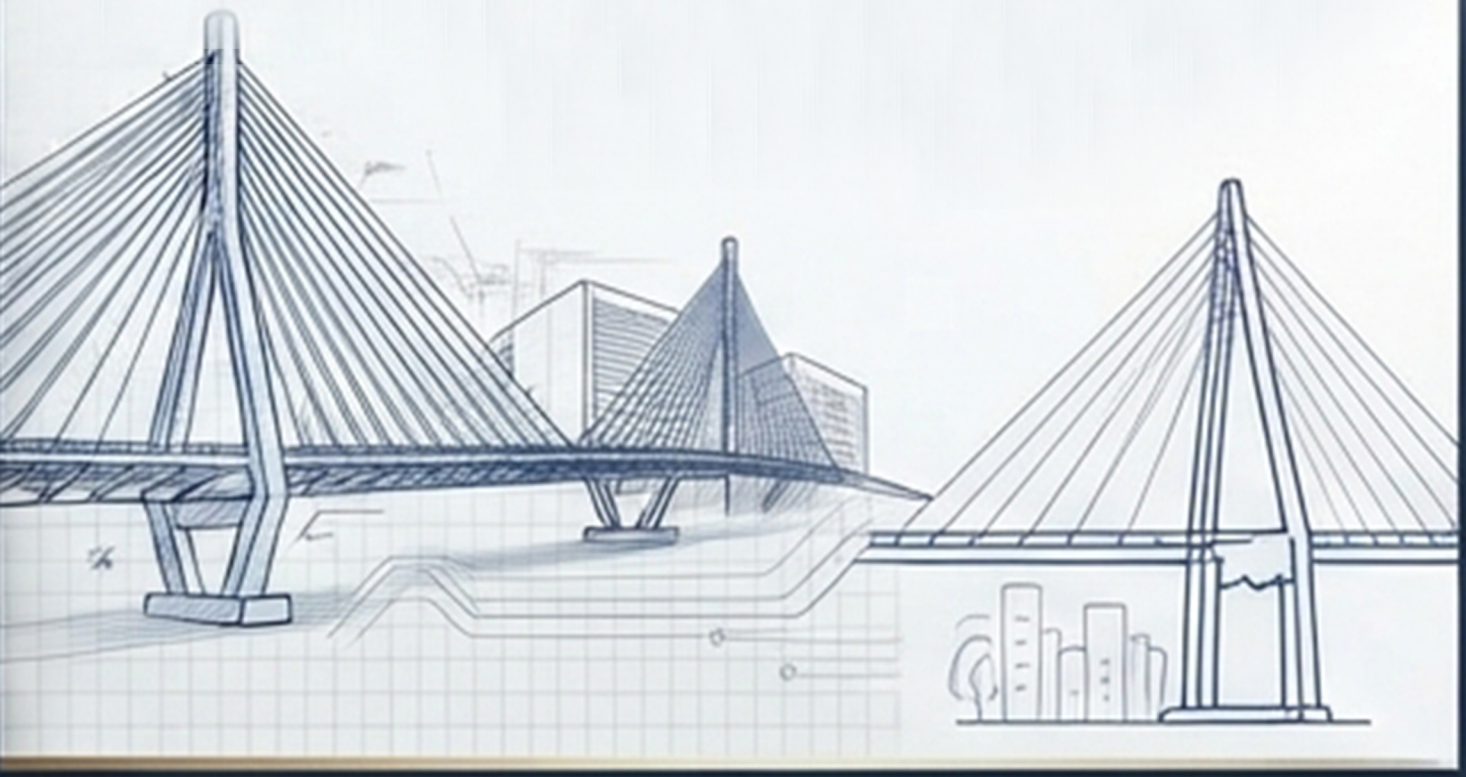
# FACULTY OF ENGINEERING

## STUDENT HANDBOOK

2026-2027



IMPACT | BUILD | DESIGN | INNOVATE

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**FOREWORD BY THE DEAN**

Welcome to the Faculty of Engineering!

It is with great pleasure that I warmly welcome you to our faculty, where your journey as an engineer begins. We are committed to a vibrant learning environment that nurtures creativity, critical thinking, collaboration, and responsibility to society and the environment. Remember: "Indeed, the later part will be better for you than the former" (Surah Ad-Duha 93:4)—early semesters may feel tough, but steady effort will lead to stronger skills, better results, and clearer direction.

Engineering is more than a profession—it is a calling to shape the future and improve lives. Our faculty will provide the tools, resources, and guidance to help you excel academically and professionally.

Embrace every opportunity: learn actively, question boldly, innovate, and engage with your professors, peers, and the wider community. Take part in extracurricular and leadership activities to enrich your experience and broaden your perspective.

Your journey will include challenges—but every challenge is a chance to grow. "For indeed, with hardship comes ease. Indeed, with hardship comes ease" (Surah Al-Inshirah 94:5–6). With determination, resilience, and the support of our community, I am confident you will emerge ready to make a meaningful impact as future engineers.

Thank you for choosing the Faculty of Engineering as your home of learning. We are proud to have you with us and excited to see you learn, lead, and achieve great things.

Best wishes for a successful and inspiring journey ahead!

**Prof Ir Dr Abdullah bin Hj Yassin**
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**FACULTY OF ENGINEERING**

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**UNIMAS VISION**

A leading global university for a sustainable future

**UNIMAS MISSION**

To enhance the social and economic impacts. on the global community through the pursuit of excellence in teaching, research and strategic engagement.

**UNIMAS CORE VALUES**

**Exemplary**

We continuously strive to become role models to others through outstanding conducts. in both professional and personal contexts.

**Collegiality**

We value unity. We collaborate and cooperate towards achieving collective goals for the betterment of the University.

**Integrity**

We uphold accountability and fully commit to exceptional work ethic.

**Tenacity**

We do not give in to hardships. We practice persistence and resilience in managing and solving challenges.

**Equity**

We embrace differences and work towards a safe environment that values, respects. and offers fair opportunities to everyone in our community.

## FACULTY VISION

A leading global engineering faculty for sustainable future.

## FACULTY MISSION

To provide quality engineering education through excellence in teaching, research and development by scholarly faculty members and to improve society and economic impacts through innovative knowledge.

## FACULTY OBJECTIVES

To ensure all activities are appropriate to the development and advancement of new technologies and the future, relevant to the development of the country and in line with efforts to improve professionalism. All this is done by offering various opportunities in engineering education, training and services through the application of scholarship and knowledge in strategic and innovative ways to improve the quality of the nation's culture and prosperity of its citizens.

## FACULTY HISTORY

The Faculty of Engineering is one of eleven faculties in UNIMAS and was formed on 30th December 1993. It began by offering two undergraduate programmes—Civil Engineering and Electronics and Telecommunications Engineering—with its first student intake in July 1994.

The Mechanical Engineering and Manufacturing programme was introduced in 1996, followed by the Electronics and Computer Engineering programme in May 2000. These additions reflected the Faculty's commitment to expanding engineering education and responding to the evolving technological and industrial needs of the nation.

In 2008, the Department of Chemical Engineering and Energy Sustainability was established to support the growing demand for skilled professionals in chemical engineering, energy and sustainability-related fields.

In 2014, The Department of Electronic Engineering has been rebranded as Department of Electrical and Electronic Engineering following the endorsement to offer Bachelor of Engineering (Hons.) Electrical and Electronics Engineering starting Semester 1, 2014/2015.

Since its establishment, the Faculty has continued to strengthen its teaching, research and industry engagement across the major engineering disciplines of Civil Engineering, Mechanical and Manufacturing Engineering, Electrical and Electronic Engineering, and Chemical Engineering and Energy Sustainability. Today, the Faculty remains committed to producing competent engineering graduates, advancing innovative research and contributing to sustainable societal and economic development.

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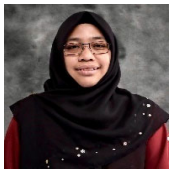
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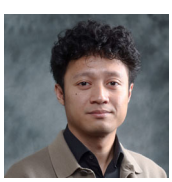
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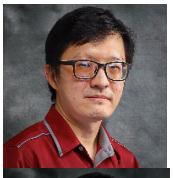
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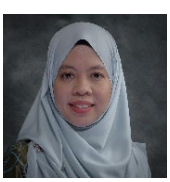
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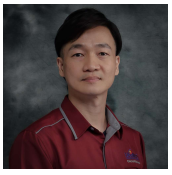
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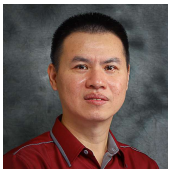
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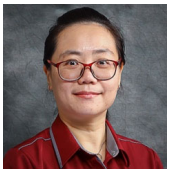
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## ACADEMIC STRUCTURE

Each programme at UNIMAS has been designed in accordance with the curriculum that is based on individual development as an autonomous citizen but working together in the community.

## CORE COURSE

The courses provide knowledge and skills specializing in a particular field required for a programme. Each programme not only focuses on the theory and practice of specialization, but also on technology and management.

## GENERAL EDUCATION COURSES (MPU)

General Education Courses (Mata Pelajaran Pengajian Umum – MPU) are compulsory university courses that form part of the requirements for an undergraduate degree. These courses support the development of well-rounded graduates by strengthening their understanding of national identity, ethical values, integrity and social responsibility, while developing entrepreneurial, digital and practical skills.

Students are required to complete a total of 12 credit hours of MPU courses under the applicable MPU-U1, MPU-U2, MPU-U3 and MPU-U4 categories, as prescribed by the University. Certain course requirements differ for Malaysian and international students. The list of MPU courses is provided in the relevant section of this handbook.

## UNIVERSITY ELECTIVE COURSES (KEU)

Courses from other faculties that provide opportunities for students to explore another area of study beside its own specialization, to the extent that is meaningful and satisfying. Minimum requirement is 6 credits

University Elective Courses (Kursus Elektif Universiti – KEU) broaden students' knowledge beyond their area of specialisation and encourage interdisciplinary learning. These courses form part of the curriculum requirements for all undergraduate academic programmes at UNIMAS.

From the 2026/2027 academic session onwards, students are required to complete six (6) credits of University Elective Courses. Students must select courses offered outside their own programme to gain exposure to other disciplines and develop a broader range of knowledge and skills.

Any changes to or withdrawal from registered University Elective Courses are subject to the University's existing procedures. Students who transfer to another programme may carry forward successfully completed University Elective Courses through credit transfer with grade.

## PPD1041 SOFTS.KILLS AND BASIC VOLUNTEERISM

PPD1041 Soft Skills and Basic Volunteerism is a compulsory university course designed to develop students' personal, social and academic skills while promoting the spirit of volunteerism.

The course supports first-year undergraduate students in adapting to university life and building confidence in managing their studies. It emphasises personal development, academic writing, information literacy, career awareness and professional conduct in collaborative settings.

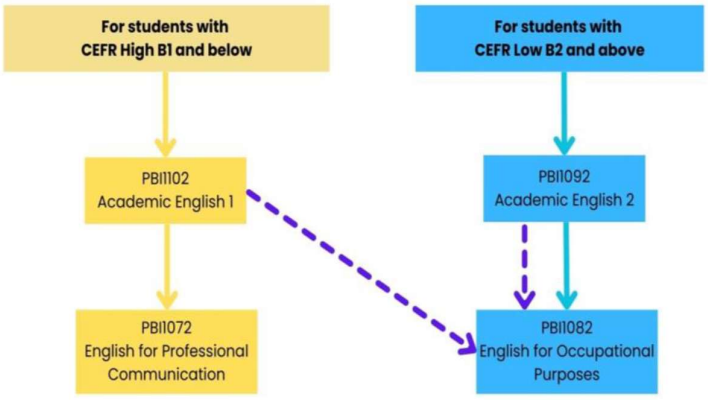
## PBI : ENGLISH COURSES

English courses which aim to improve students' English proficiency in both writing and oral presentation for more effective communication. The English courses are segmented for these MUET results:

| | |
|---|---|
| ***For Malaysian*** | |
| **MUET BAND 1.0– 3.5** ***IELTS: 4.0-5.0*** | PBI1102 Academic English I<br>PBI1072 English for Professional Communication |
| **MUET BAND 4.0 – 6.0** ***IELTS: 5.5-9.0*** | PBI1092 Academic English 2<br>PBI1082 English for Occupational Purposes |
| ***For non-Malaysian*** | |
| **CEFR B1 and below** | PBI1102- Academic English I<br>PBI1072 – English for Professional Communication |
| **CEFR B2 and above** | PBI1092 - Academic English II<br>PBI1082 - English for Occupational Purposes |

UNIMAS
UNIVERSITI MALAYSIA SARAWAK
FACULTY OF EDUCATION, LANGUAGE & COMMUNICATION

# ENGLISH COURSES STRUCTURE FOR 2024/2025 INTAKE ONWARDS




**Note**

- International students with conditional offer must pass PBI0040 Intensive English Language Programme and/or obtain CEFR High B1 and above.

----→ Only for medical students

## Penyetaraan Ujian-Ujian Kompetensi Bahasa Inggeris

| English Competency | | CEFR Basic A1 & A2 | CEFR Low B1 | CEFR Mid B1 | CEFR High B1 | CEFR Low B2 | CEFR Mid B2 | CEFR High B2-C1 |
|---|---|---|---|---|---|---|---|---|
| MUET | | Band 1 to 2.5 | Band 3.0 | Band 3.0 | Band 3.5 | Band 4.0 | Band 4.0 | Band 4.5-5+ |
| IELTS | | * | 4.0 | 4.5 | 5.0 | 5.5 | 6.0 | 6.5-9.0 |
| TOEFL | iBT | * | 0-31 | 32-34 | 35-45 | 46-59 | 60-78 | 79-120 |
| | Essentials (Online) | * | 5-6.0 | 6.5-7 | 7.5 | 8 | 8.5-9 | 9.5-12 |
| Pearson Test of English | | * | 36-42 | 43-46 | 47-50 | 51-58 | 59-62 | 63-90 |
| Cambridge English Qualifications and Tests | **CEQT 1** - B1 Preliminary, B2 First, C1 Advanced, C2 Proficiency | * | 140-146 | 147-153 | 154-159 | 160-168 | 169-175 | >176 |
| | **CEQT 2** - Linguaskill Online | * | 140-146 | 147-153 | 154-159 | 160-168 | 169-175 | >176 |
| | **CEQT 3** - Occupational English Test (OET) (Conventional/Online) | * | * | * | * | 200-249 | 250-299 | >300 |
| *Lain-lain* ** | *Lain-lain* ** | - | - | - | - | - | - | - |

*International students with conditional offer must pass PBI0040 Intensive English Language Programme and/or obtain CEFR High B1 and above.

***Pelajar antarabangsa yang berasal daripada negara yang menggunakan Bahasa Inggeris sebagai bahasa rasmi ATAU Pelajar antarabangsa yang menggunakan kelayakan akademik bahasa pengantar sepenuhnya dan bercadang untuk melanjutkan pengajian ke peringkat lebih tinggi di Malaysia. (Pelajar yang jatuh dibawah item lain-lain** perlu mengambil kursus PBI1102 dan PBI1072.*

Latest amendments

## PBM : BAHASA MELAYU COURSES

Bahasa Melayu courses for communication: -

PBM2072 BM (for Malaysian)
PBM2082 BM Advanced Malay Language for Communication (for non-Malaysian)

## PRE-REQUISITES & REQUISITES

**PRE-REQUISITES** are courses which must be PASSED as a condition before registering for a specific course.
**REQUISITES** = courses which must be TAKEN as a condition before registering for a specific course

***Example:*** KNF1013 Engineering Mathematics I is a pre-requisite for KNF1023 Engineering Mathematics II. (The students must PASS KNF1013 before they are allowed to register for KNF1023)

## COURSE REGISTRATION

Registration for all courses must be done on time and within a specific period.
(Refer to Undergraduate Studies Division)

## PROGRAMME DURATION

Minimum Semesters = 8 semesters (4 years)
Maximum Semesters = 14 semesters (upon Year of Admission)

## CREDIT TRANSFER (WITHOUT GRADE)

Credit Transfer is applicable for equivalent course credits and 80% course contents. in the course. The result to be used for the transfer of credit without grade must be obtained within the recent **FIVE** (5) years. The allowed course content to be equated must be not more than two courses if to be combined, and the total credit without grade must be not less than the course credit value to be equated. The course applied for the transfer of credit must be part of a Certified Accreditation academic programme recognized by EAC and MQA.

Minimum grade for transfer is **Grade B** and must be supported by the Programme Coordinator / Head of Department before subject to approval by the Faculty Dean.

Credit Exemption /Transfer may be done in two (2) categories as follows:

a) Vertical - Credit and Course Exemption from lower to higher level, i.e., accredited/ recognised Diploma to Bachelor degree. A maximum Credit and Course Exemption of 30% of the total programme credits is allowed.
b) Horizontal - Credit Transfer between accredited/recognised programmes of same level, i.e., from Bachelor to Bachelor degree. A maximum Credit Transfer of 50% of the total programme credits is allowed.

Total credit exemption and transfer should not exceed 50%.

Transfer of credit without grade will NOT be allowed in the event of the following cases:

a) All courses in a Foundation/ Matriculation level to a Bachelor's Degree programme.
b) Industrial Training is not eligible for transfer of credit.
c) General Education Subject courses (MPU) at a Diploma level except for the following courses under U1 MPU cluster:
   (i) Philosophy and Current Issue/ Falsafah dan Isu Semasa
   (ii) Ethical Appreciation and Civilisation/ Penghayatan Etika dan Peradaban

## CREDIT TRANSFER (WITH GRADE)

Subjected to approval from Faculty/ Centre, Transfer of Credit with Grade by student, will only be allowed for the following situation:

a) For students. currently undertaking programmes in UNIMAS:

(i) Student switching study programme in UNIMAS.
(ii) Student undertaking the mobility programme.

b) For students currently undertaking programmes at other IHL:
   (i) Students from other IHL who are continuing their studies in UNIMAS at the same level and programme.
   (ii) Students from other IHL who are continuing their studies in UNIMAS at the same level but a different programme.

For Transfer of Credit Application, it must be based on subject-to-subject mapping and the following general regulation must be complied with:

a) The minimum grade requirement for the requested course for transfer of credit is Grade C;
b) The course content equivalent must not be less than 80%;
c) The allowed course content to be equated must be not more than two courses if to be combined, and the total credit without grade must be not less than the course credit value to be equated;
d) For University Elective Courses, transfer of credit with grade will only be considered if the said course is part of the listed University Elective courses under a different cluster/ programme from the student's programme; and
e) Students. who switch universities; therefore, the transfer of credit is subjected to the student residential year regulation, at least after a year of undertaking the programme at UNIMAS.

Grade obtained by the previous course is given to the approved course for transfer of credit. The grade is then used for the calculation of CGPA of the affected student following course of studies.

Transfer of Credit with Grade IS NOT ALLOWED for students. who have been dismissed from their studies due to academic failure and henceforth continuing their studies in a same/different programme.

## PROGRAMME ACCUMULATED CREDIT

All students. must undertake the following remedial courses:

- Soft Skills and Basic Entrepreneurship course
- Preparatory English Course 1 and Preparatory English Course 2 for students. with MUET Band 2

For students. undertaking any uniform body courses by fulfilling the Uniform Body Course Training 1, 2 and 3 with a total of three (3) credit are exempted from taking Soft Skills and Basic Entrepreneurship and Credited Co-Curriculum Course. Students. may opt to continue their Uniform Body training 4, 5 and 6 in order to qualify them for commissioning. However, students. who do not fulfil the three (3) credit hours must undertake either one of the following: Soft Skills; Basic Entrepreneurship or Credited Co-Curriculum Course.

Scoring and grade will be awarded to all listed courses mentioned above except for Soft Skills and Basic Entrepreneurship which are graded with a Pass/Fail.

## COURSE GRADING AND PASS REQUIREMENTS

The overall mark for a course is calculated based on the continuous assessment mark (carry mark) and the final examination mark, according to the prescribed assessment weightings. If a student does not sit for the final examination, the overall course mark will still be calculated using these weightings.

The minimum passing grade differs according to the course category. For engineering courses, students must obtain at least Grade C to pass; Grade C− and below are considered a fail. For Mata Pelajaran Pengajian Umum (MPU) and University Elective (KEU) courses, the minimum passing grade is C−.

**Grading Scale and Achievement Standards for Engineering Courses**

The following table presents the grading scale, grade points and achievement standards applicable to engineering courses.

| Grade | Score Range | Grade Point | Core Course Achievement Standards |
|---|---|---|---|
| A | 80-100 | 4.00 | **Excellent** |
| A- | 75-79 | 3.67 | |
| B+ | 70-74 | 3.33 | **Credit** |
| B | 65-69 | 3.00 | |
| B- | 60-64 | 2.67 | **Good** |
| C+ | 55-59 | 2.33 | |
| C | 50-54 | 2.00 | **Pass** |
| C- | 45-49 | 1.67 | **Fail** |
| D | 40-44 | 1.00 | |
| F | < 40 | 0.00 | |

For a course repeated following a failure, the highest grade obtained across all attempts will be taken into account.

## PROGRAMME EDUCATIONAL OBJECTIVES (PEO)

Programme Educational Objectives are broad statements that describe quality that are supposed to be acquired by the graduates upon graduation and after a few years of employment.

## PROGRAMME LEARNING OUTCOMES (PLO)

Programme Outcomes are statements that describe what students are expected to know and be able to perform or attain by the time of graduation. These relate to the skills, knowledge, and behaviour that students acquired upon completion of the programme.

IMPORTANT: For engineering students, all ELEVEN (11) Programme Learning Outcomes must be achieved before graduation in compliance with the requirement from the Engineering Accreditation Council (EAC). Students who do not achieve all complete 11 PLOs will have to sit for supplementary remedial assessments before their completion of studies for graduation purposes.

## ACADEMIC ADVISOR

A student (Mentee) is assigned to an Academic Advisor (Mentor) at the beginning of their studies in UNIMAS. The Academic Advisor shall advise the students on various matters as well as the monitor the academic performances of the student.

The Academic Advisor responsibilities also include:

- Set appointments with mentees at least two times per semester
- Monitor academic progress and development of the mentees
- Provide guidance and offer advices to mentees with problems
- Refer mentees to counsellors in case of extended problems
- Assist mentees to make decisions with regards to academic and career planning
- Retain a good relationship with mentee for an effective implementation of ACAD system
- Allow mentees to “Print Examination Slip” in the ACAD system after end of semester meetings

## 1.0 BACHELOR OF CIVIL ENGINEERING WITH HONOURS PROGRAMME

The Bachelor of Civil Engineering with Honours programme at UNIMAS aims to develop highly competent and technically proficient engineers equipped to meet the nation's growing demands in civil infrastructure. Civil engineering plays a pivotal role in planning, designing, constructing, and operating a wide range of critical structures such as buildings, bridges, wharves, dams, power stations, highways, railways, airports, and water distribution systems. Additionally, it addresses essential systems like solid waste management, wastewater treatment, and flood mitigation.

The programme's primary objective is to produce graduates capable of integrating various fields within civil engineering to drive the country's rapid economic and industrial growth. By equipping students with both technical expertise and professional responsibility, the programme fosters the development of forward-thinking engineers who are ready to lead and innovate in their respective fields.

## 2.0 PROGRAMME EDUCATIONAL OBJECTIVES

| | |
|---|---|
| PEO 1 | Practice professionalism, ethics and responsibility of Civil engineering profession |
| PEO 2 | Broaden knowledge, skills and abilities through lifelong learning and continuously improve competency, to be abreast with technology advancement |
| PEO 3 | Engage with government and industry, domestically or globally to contribute to engineering community and beyond |

## 3.0 PROGRAMME LEARNING OUTCOMES

Upon completion of this programme, the students are expected to:

| | |
|---|---|
| PLO 1 | Engineering Knowledge - Apply knowledge of mathematics, natural science, computing and engineering fundamentals, and an engineering specialization as specified in WK1 to WK4 respectively to develop solutions to complex Civil Engineering problems |
| PLO 2 | Problem Analysis - Identify, formulate, research literature and analyze complex Civil Engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences with holistic considerations for sustainable development (WK1 to WK4) |
| PLO 3 | Design/Development of Solutions – Design creative solutions for complex Civil Engineering problems and design systems, components or processes to meet identified needs with appropriate consideration for public health and safety, whole-life cost, net zero carbon as well as resource, cultural, societal, and environmental considerations as required (WK5) |
| PLO 4 | Investigation - Conduct investigation of complex Civil Engineering problems using research methods including research-based knowledge, design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusions (WK8) |
| PLO 5 | Tool Usage - Create, select and apply, and recognize limitation of appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling, to complex Civil Engineering problems (WK2 and WK6) |
| PLO 6 | The Engineer and the World – Analyze and evaluate sustainable development impacts to: society, the economy, sustainability, health and safety, legal frameworks, and the environment, in solving complex Civil Engineering problems (WK1, WK5, and WK7) |
| PLO 7 | Ethics - Apply ethical principles and commit to professional ethics and norms of engineering practice and adhere to relevant national and international laws. Demonstrate an understanding of the need for diversity and inclusion (WK9) |
| PLO 8 | Individual and Collaborative Team Work - Function effectively as an individual, and as a member or leader in diverse and inclusive teams and in multidisciplinary, face-to-face, remote and distributed settings (WK9) |

| | |
|---|---|
| PLO 9 | Communication - Communicate effectively and inclusively on complex Civil Engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations, taking into account cultural, language, and learning differences |
| PLO 10 | Project Management and Finance - Apply knowledge and understanding of Civil Engineering management principles and economic decision-making and apply these to one's own work, as a member and leader in a team, and to manage projects in multidisciplinary environments |
| PLO 11 | Lifelong Learning - Recognise the need for, and have the preparation and ability for i) independent and life-long learning ii) adaptability to new and emerging technologies and iii) critical thinking in the broadest context of technological change (WK8) |

**4.0 MAIN COMPONENTS AND SPECIALIZATIONS OF THE PROGRAMME**

The Bachelor of Civil Engineering with Honours programme offers a dynamic and comprehensive curriculum designed to prepare students for the multifaceted challenges of modern civil engineering. Through a combination of theoretical knowledge and practical application, students are equipped with the skills to excel in diverse specializations within the field. The program features five core modules:

[i] Structural Engineering and Materials
In this module, students explore the design and construction of structures such as bridges, buildings, and power stations. Emphasis is placed on the use of materials like steel, timber, and concrete, alongside collaboration with architects to ensure that the structures are not only visually impressive but also safe, functional, and durable.

[ii] Geotechnical Engineering
This specialization provides students with an in-depth understanding of the Earth's subsurface structures, which are foundational to civil engineering projects such as buildings, tunnels, retaining walls, pipelines, and dams. Students learn to assess soil strength and geological properties to ensure structural safety, stability, and cost-effectiveness in design and construction.

[iii] Water and Wastewater Engineering
This specialization addresses the analysis and management of water resources. Students learn to design key water systems, including reservoirs, dams, water distribution networks, and wastewater treatment plants. The module also tackles the unique challenges of river and coastal engineering, focusing on sustainable water management and infrastructure.

[iv] Highway and Transportation Engineering
Students in this module focus on the planning, design, and management of transportation systems. This includes roadways, highways, and other transportation infrastructure, with the goal of ensuring safe, efficient, and sustainable movement of people and goods. Emphasis is placed on creating transportation solutions that meet economic, environmental, and social demands.

[v] Building and Construction Engineering
Focusing on the end-to-end management of engineering projects, this module covers everything from the initial planning stages to project completion. Students gain expertise in managing construction workflows, adhering to project specifications, and maintaining timelines and budgets. They also learn to adapt to the evolving demands of the construction process to ensure the efficient use of resources.

Each of these specializations equips students with the necessary knowledge and practical skills to contribute to solving both local and global civil engineering challenges. The program is designed to foster critical thinking, innovation, and professional competence, preparing graduates for leadership roles in the civil engineering industry.

# CURRICULUM STRUCTURE

**YEAR 1 SEMESTER 1**

| | | | |
|---|---|---|---|
| **CORE** | KNS1183 Mathematics for Civil Engineering 1 | | 3 credits |
| | KNS1122 Engineering Drawing | | 2 credits |
| | KNS1142 Civil Engineering Materials | | 2 credits |
| | KNS1152 Civil Engineering Management | | 2 credits |
| | KNS1133 Engineering Mechanics | | 3 credits |
| **MPU, GENERIC, REMEDIAL, ELECTIVE** | PBI1102 Academic English 1<br>(MUET 1.0-3.5 or IELTS 4.0-5.0)<br>PBI1092 Academic English 2<br>(MUET 4.0-6.0 or IELTS 5.5-9.0) | | 2 credits |
| | MPU31102 Nation State Aspirations /<br>MPU3142 Malay Language for Communication 2 (non-Malaysian) | | 2 credits |
| | PPD1041 Soft Skill and Basic Volunteerism | | 1 credit |

**YEAR 1 SEMESTER 2**

| | | | |
|---|---|---|---|
| **CORE** | KNS1193 Mathematics for Civil Engineering 2 | Requisite: KNS1183 | 3 credits |
| | KNS1163 Strength of Materials | Requisite: KNS1133 | 3 credits |
| | KNS1173 Engineering Survey | | 3 credits |
| | KNS1112 Engineering Geology | | 2 credits |
| | KNS1482 Engineering Programming | | 2 credits |
| **MPU, GENERIC, REMEDIAL, ELECTIVE** | PBI1072 English for Professional Communication<br>(MUET 3.0-3.5 or IELTS. 4.0-5.0)<br>PBI1082 English for Occupational Purposes<br>(MUET 4.0-6.0 or IELTS. 5.5-9.0) | | 2 credits |
| | MPU3432 / MPU3442 / MPU3452 / MPU3462 / MPU3472 / MPU3482 / MPU3492 / MPU34102 – Co-curricular | | 2 credits |
| | MPU3332 National Heritage /<br>MPU3352 Government and Administration in Malaysia /<br>MPU3362 Introduction to Organization Behaviour in Malaysia /<br>MPU3162 Integrity and Anti-Corruption<br>MPU3342 Culture and Ethnicity in Malaysia (non-Malaysian) | | 2 credits |

**YEAR 2 SEMESTER 1**

| | | | |
|---|---|---|---|
| **CORE** | KNS2193 Environmental Engineering and Sustainability | | 3 credits |
| | KNS2203 Theory of Structure | Requisite: KNS1163 | 3 credits |
| | KNS2113 Fluid Mechanics | | 3 credits |
| | KNS2223 Soil Mechanics | | 3 credits |
| | KNS2171 Fluid and Soil Mechanics Laboratory | | 1 credit |
| **MPU, GENERIC, REMEDIAL, ELECTIVE** | PBM2072 Malay Language<br>PBM2082 Advanced Malay Communication (non-Malaysian) | | 2 credits |
| | MPU3222 Foundation of Entrepreneurship Inculturation | | 2 credits |

**YEAR 2 SEMESTER 2**

| | | | |
|---|---|---|---|
| **CORE** | KNS2233 Structural Analysis | Requisite: KNS2203 | 3 credits |
| | KNS2213 Hydraulics | Requisite: KNS2113 | 3 credits |
| | KNS2253 Geotechnical Engineering | Requisite: KNS2123 | 3 credits |

| | | | |
|---|---|---|---|
| | KNS2181 Geotechnical Engineering and Hydraulics Laboratory | | 1 credit |
| | KNS2243 Numerical Methods and Statistics | Requisite: KNS1193 | 3 credits |
| **MPU, GENERIC, REMEDIAL, ELECTIVE** | MPU3382 AI and Digital Trends | | 2 credits |
| | MPU31112 Philosophy and Current Issues / MPU31122 Citra Malaysia (non-Malaysian) | | 2 credits |

**YEAR 3 SEMESTER 1**

| | | | |
|---|---|---|---|
| **CORE** | KNS3343 Engineering Hydrology* | Requisite: KNS2213 | 3 credits |
| | KNS3363 Foundation Engineering * | Requisite: KNS2253 | 3 credits |
| | KNS3393 Highway Engineering* | | 3 credits |
| | KNS3353 Construction Technology* | Requisite: KNS1152 | 3 credits |
| | KNS3422 Reinforced Concrete Design 1 | Requisite: KNS2233 | 2 credits |
| **MPU, GENERIC, REMEDIAL, ELECTIVE** | KEU 01 University Elective Course 1 | | 3 credits |

**YEAR 3 SEMESTER 2**

| | | | |
|---|---|---|---|
| **CORE** | KNS3383 Water and Wastewater Engineering* | | 3 credits |
| | KNS3373 Project Management | Requisite: KNS3353 | 3 credits |
| | KNS3403 Traffic Engineering* | | 3 credits |
| | KNS3083 Ethics in Civil Engineering | | 3 credits |
| | KNS3753 Reinforced Concrete Design 2* | Requisite: KNS3422 | 3 credits |
| **MPU, GENERIC, REMEDIAL, ELECTIVE** | KEU 02 University Elective Course 2 | | 3 credits |

**YEAR 3 INTERSESSION**

| | | | |
|---|---|---|---|
| **CORE** | KNF3065 Industrial Training | | 5 credits |

**YEAR 4 SEMESTER 1**

| | | | |
|---|---|---|---|
| **CORE** | KNS4053 Water Resources Engineering | Requisite: KNS3343 | 3 credits |
| | KNS4012 Final Year Project 1 | | 2 credits |
| | KNS4062 Integrated Design Project 1 | Pre-requisite: Any two (2) from seven (7) of Year 3 Core Courses (*) | 2 credits |
| | KNS4033 Structural Steel Design | Requisite: KNS2233 | 3 credits |
| | KNS4xx3 Elective 1 | | 3 credits |

**YEAR 4 SEMESTER 2**

| | | | |
|---|---|---|---|
| **CORE** | KNS4024 Final Year Project 2 | Pre-requisite: KNS4222 | 4 credits |
| | KNS4043 Engineering Economy | | 3 credits |
| | KNS4073 Integrated Design Project 2 | Pre-requisite: KNS4062 | 3 credits |
| | KNS4xx3 Elective 2 | | 3 credits |

## TOTAL CREDITS FOR GRADUATION = 136

| **PROGRAMME ELECTIVE COURSES** |
|---|
| KNS4083 Introduction to Bridge Engineering |
| KNS4093 Structural Timber Design |
| KNS4103 Discrete Element Modelling in Geotechnics (Prerequisite: KNS1482 and KNS3363) |
| KNS4113 Advanced Pavement Engineering |
| KNS4123 Introduction to Earthquake Engineering |
| KNS4133 Finite Element Method in Civil Engineering |
| KNS4143 Building Information Modelling (BIM) in Design and Construction |
| KNS4153 Energy Management |
| KNS4163 Water for a Sustainable Future |
| KNS4173 Urban Transportation System and Planning |
| KNS4183 Environmental Impact Assessment and Waste Management |
| KNS4203 River and Coastal Engineering |
| KNS4213 Housing Technology |
| KNS4243 Geo-Environmental Engineering |
| KNS4353 Concrete Technology |
| KNS4363 Hydraulics Structures |
| KNS4553 Soil Dynamics |
| KNS4583 Pre-stressed Concrete Design |

## 1.0 BACHELOR OF ELECTRICAL AND ELECTRONICS WITH HONOURS PROGRAMME

Electrical and Electronics Engineering is an important professional field in Malaysia where it has been identified as the catalytic activities of public or private sector needs in electrical and electronics industries that can contribute to the national economy. With this programme, it is hoped that it can accommodate the shortage of professionals in this field.

## 2.0 PROGRAMME EDUCATIONAL OBJECTIVES

| | |
|---|---|
| PEO 1 | Apply the knowledge and skills in their respective careers globally to contribute to a sustainable future. |
| PEO 2 | Uphold professionalism and ethics in the Engineering profession to contribute to society. |
| PEO 3 | Practice leadership and management skills in addressing global challenges. |

## 3.0 PROGRAMME LEARNING OUTCOMES

Upon completion of this programme, the students. are expected to:

| | |
|---|---|
| PLO 1 | Apply knowledge of mathematics, natural science, computing and engineering fundamentals, and an engineering specialization as specified in WK1 to WK4 respectively to develop solutions to complex Electrical and electronics engineering problems |
| PLO 2 | Identify, formulate, research literature and analyze complex Electrical and electronics engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences with holistic considerations for sustainable development (WK1 to WK4). |
| PLO 3 | Design creative solutions for complex Electrical and electronics engineering problems and design systems, components or processes to meet identified needs with appropriate consideration for public health and safety, whole-life cost, net zero carbon as well as resource, cultural, societal, and environmental considerations as required (WK5). |
| PLO 4 | Conduct investigation of complex Electrical and electronics engineering problems using research methods including research-based knowledge, including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusions (WK8) |
| PLO 5 | Create, select and apply, and recognize limitation of appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling, to complex Electrical and electronics engineering problems, (WK2 and WK6). |
| PLO 6 | Analyze and evaluate sustainable development impacts to: society, the economy, sustainability, health and safety, legal frameworks, and the environment, in solving complex Electrical and electronics engineering problems (WK1,WK5,and WK7). |
| PLO 7 | Apply ethical principles and commit to professional ethics and norms of Electrical and electronics engineering practice and adhere to relevant national and international laws. Demonstrate an understanding of the need for diversity and inclusion (WK9) |
| PLO 8 | Function effectively as an individual, and as a member or leader indiverse and inclusive teams and in multidisciplinary, face-to-face, remote and distributed settings (WK9). |
| PLO 9 | Communicate effectively and inclusively on complex Electrical and electronics engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations, taking into account cultural, language, and learning differences. |

| | |
|---|---|
| PLO 10 | Apply knowledge and understanding of engineering management principles and economic decision-making and apply these to one's own work, as a member and leader in a team, and to manage projects in multidisciplinary environments. |
| PLO 11 | Recognise the need for, and have the preparation and ability for i) independent and life-long learning ii) adaptability to new and emerging technologies and iii) critical thinking in the broadest context of technological change (WK8). |

**4.0 CONCEPT OF THE PROGRAMME**

Sarawak State Government has announced a new economic corridor, Sarawak Corridor of Renewable Energy (SCORE) which is based along the coast from Tanjung Manis to Samalaju. UNIMAS as a centre of research and development of human resource in the country, has been called to intensify the human capital development especially in the field of electrical and electronics engineering to accommodate skilled workers and professionals. Electrical and Electronics Engineering programme is offered in order to produce graduates that meet the needs of manpower in power generation sector, power distribution and transmission sector, and other sectors in the field of Electrical and Electronic Engineering.

## CURRICULUM STRUCTURE

**YEAR 1 SEMESTER 1**

| | | | |
|---|---|---|---|
| **CORE** | KNR1773 Circuit Theory I | | 3 credits |
| | KNR1783 Electrical Instrumentation | | 3 credits |
| | KNR1793 Object Oriented Programming | | 3 credits |
| | KNF1753 Engineering Mathematics I | | 3 credits |
| | KNR1802 Measurement and Instrumentation | | 2 credits |
| **MPU, GENERIC, REMEDIAL, ELECTIVE** | PBI1102 Academic English 1<br>(MUET 1.0-3.5 or IELTS 4.0-5.0)<br>PBI1092 Academic English 2<br>(MUET 4.0-6.0 or IELTS 5.5-9.0) | | 2 credits |
| | PBM2072 Bahasa Melayu<br>PBM2082 Bahasa Melayu Komunikasi Lanjutan<br>(non-Malaysian) | | 2 credits |
| | PPD1041 Soft skills and Basic Volunteerism | | 1 credit |

**YEAR 1 SEMESTER 2**

| | | | |
|---|---|---|---|
| **CORE** | KNR1813 Circuit Theory II | | 3 credits |
| | KNR1823 Digital Electronics | | 3 credits |
| | KNR1833 Analog Electronics | | 3 credits |
| | KNF1763 Engineering Mathematics II | requisite: KNF1753 | 3 credits |
| | KNR1842 Engineering Design Foundation | | 2 credits |
| **MPU, GENERIC, REMEDIAL, ELECTIVE** | PBI1072 English for Professional Communication<br>(MUET 3.0-3.5 or IELTS. 4.0-5.0)<br>PBI1082 English for Occupational Purposes<br>(MUET 4.0-6.0 or IELTS. 5.5-9.0)<br>PBI1122 Preparatory English 2* (MUET 1.0-2.5) | | 2 credits |
| | MPU3432 / MPU3442 / MPU3452 / MPU3462 / MPU3472 / MPU3482 / MPU3492 / MPU34102 – Co-curricular | | 2 credits |

**YEAR 2 SEMESTER 1**

| | | | |
|---|---|---|---|
| **CORE** | KNR2773 Signals & Systems | | 3 credits |
| | KNR2783 Safety and Health in Engineering | | 3 credits |
| | KNR2793 Electrical Engineering Technology | | 3 credits |
| | KNF2763 Engineering Mathematics 3 | Requisite: KNF1763 | 3 credits |
| | KNR2802 Analog and Digital Electronic Application | | 2 credits |
| **MPU, GENERIC, REMEDIAL, ELECTIVE** | MPU3192 Appreciation of Ethics and Civilisation<br>MPU3142 Malay Language for Communication 2 (non-Malaysian) | | 2 credits |
| | MPU3222 Foundation of Entrepreneurship Inculturation | | 2 credits |

**YEAR 2 SEMESTER 2**

| | | | |
|---|---|---|---|
| **CORE** | KNR2813 Telecommunication Engineering Principles | | 3 credits |
| | KNR2153 Electrical Machines | | 3 credits |
| | KNR2823 Electromagnetic Theory | | 3 credits |
| | KNR2833 Numerical Methods and Statistics | Requisite: KNF2763 | 3 credits |
| | KNR2843 Computer Systems Architecture | | 3 credits |
| **MPU, GENERIC, REMEDIAL, ELECTIVE** | MPU3182 Philosophy and Current Issues | | 2 credits |
| | MPU3332 National Heritage /<br>MPU3352 Government and Administration in Malaysia /<br>MPU3362 Introduction to Organization Behaviour in Malaysia /<br>MPU3372 Integrity and Anti-Corruption<br>MPU3342 Culture and Ethnicity in Malaysia (non-Malaysian) | | 2 credits |

**YEAR 3 SEMESTER 1**

| | | | |
|---|---|---|---|
| **CORE** | KNR3843 Control System Engineering I | | 3 credits |
| | KNR3783 Microprocessor | | 3 credits |
| | KNR3513 Power System Analysis | | 3 credits |
| | KNR3792 Electrical Laboratory I | | 2 credits |
| **MPU, GENERIC, REMEDIAL, ELECTIVE** | KEU 01 – University Elective Course 1 | | 3 credits |
| | KEU 02 – University Elective Course 2 | | 3 credits |

**YEAR 3 SEMESTER 2**

| | | | |
|---|---|---|---|
| **CORE** | KNR3803 Power Electronics | | 3 credits |
| | KNR3773 Control System Engineering II | Requisite: KNR3843 | 3 credits |
| | KNR3812 Electrical Laboratory II | | 2 credits |
| | KNR3822 Integrated Design Project I | | 2 credits |
| | KNR3xx3 Elective 1 | | 3 credits |
| | KNR3xx3 Elective 2 | | 3 credits |

**YEAR 3 SEMESTER INTERSESSION**

| | | | |
|---|---|---|---|
| **CORE** | KNF3065 Industrial Training | | 5 credits |

**YEAR 4 SEMESTER 1**

| | | | |
|---|---|---|---|
| **CORE** | KNR4703 Engineering Management | | 3 credits |
| | KNR4712 Final Year Project I | | 2 credits |

| | | | |
|---|---|---|---|
| | KNR4723 Integrated Design Project II | Pre-requisite: KNR3822 | 3 credits |
| | KNR4xx3 Elective | | 3 credits |
| | KNR4692 Engineering Ecthics | | 2 credits |

**YEAR 4 SEMESTER 2**

| | | | |
|---|---|---|---|
| **CORE** | KNR4733 High Voltage Technology | | 3 credits |
| | KNR4744 Final Year Project II | | 4 credits |
| | KNR4xx3 Elective | | 3 credits |
| **MPU, GENERIC, REMEDIAL, ELECTIVE** | KEU 03 – University Elective Course 3 | | 3 credits |

TOTAL CREDITS FOR GRADUATION = 138 (142*)

**PROGRAMME ELECTIVE COURSES**

**3rd YEAR**

**(ELECTRICAL OPTIONS)**
KNR3833 Power System Protection
KNR3483 Power Quality and Reliability

**(ELECTRONIC OPTIONS)**
KNR3693 Digital Signal Processing
KNR3703 Microelectronics

**4th YEAR**

**(POWER)**
KNR4753 Renewable Energy Technology
KNR4763 Energy Economics and Planning
KNR4773 Electrical Power Transmission and Distribution

**(TELECOMMUNICATION)**
KNR4783 Optical Fiber Communication
KNR4793 Wireless Telecommunication System
KNR4803 Microwave and Antenna Technology
KNR4813 Data and Computer Networking

**(COMPUTER)**
KNR4823 VLSI Design
KNR4833 Embedded System Design
KNR4843 Machine Learning
KNR4853 Image Processing

## 1.0 BACHELOR OF MECHANICAL ENGINEERING WITH HONOURS PROGRAMME

Work force in the field of Mechanical Engineering is extremely required. This is in accordance with its position as one of the oldest, biggest and widest field of studies in developed countries. This field of engineering covers a wide scope of specialization, not limited to energy, advanced materials, systems design, robotics, thermo-fluid mechanics and advanced manufacturing. These research areas are important for the development of industries and technologies. Malaysia as a developing nation requires graduates in the field of Mechanical Engineering to ensure continuous development to achieve a strong economic and industrial growth in the future.

This programme aims to produce graduates who can face challenges and changes in science and technology, with critical thinking and higher problem-solving skills. This programme also aims to equip graduates with attributes that include professionalism, ethics and moral values; in addition to the graduates capable of applying engineering knowledge. Finally, this programme aims to produce graduates with leadership skills, proactive and sensitive to society's needs and forward looking to support nation's growth through research and development.

## 2.0 PROGRAMME EDUCATIONAL OBJECTIVES

| | |
|---|---|
| PEO 1 | Uphold the professionalism and ethics of the Mechanical Engineering profession in national and/or international area |
| PEO 2 | Enhance knowledge by practicing independence and lifelong learning in order to contribute to the advancement of the profession through involvement in research and development activities |
| PEO 3 | Promote multicultural harmony and unity amongst different races and cultures through involvement in the technical and/or non-technical societies |

## 3.0 PROGRAMME LEARNING OUTCOMES

Upon completion of this programme, the students. are expected to:

| | |
|---|---|
| PLO 1 | Apply knowledge of mathematics, natural science, computing and engineering fundamentals, and an engineering specialization as specified in WK1 to WK4 respectively to develop solutions to complex mechanical engineering problems (WK1-WK4). |
| PLO 2 | Identify, formulate, research literature and analyze complex mechanical engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences with holistic considerations for sustainable development (WK1 to WK4). |
| PLO 3 | Design creative solutions for complex mechanical engineering problems and design systems, components or processes to meet identified needs with appropriate consideration for public health and safety, whole-life cost, net zero carbon as well as resource, cultural, societal, and environmental considerations as required (WK5). |
| PLO 4 | Conduct investigation of complex mechanical engineering problems using research methods including research-based knowledge, including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusions (WK8). |
| PLO 5 | Create, select and apply, and recognize limitations of appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling, to complex mechanical engineering problems, (WK2 and WK6). |
| PLO 6 | Analyze and evaluate sustainable development impacts to society, the economy, sustainability, health and safety, legal frameworks, and the environment, in solving complex mechanical engineering problems (WK1, WK5, and WK7). |

| | |
|---|---|
| PLO 7 | Apply ethical principles and commit to professional ethics and norms of mechanical engineering practice and adhere to relevant national and international laws. Demonstrate an understanding of the need for diversity and inclusion (WK9). |
| PLO 8 | Function effectively as an individual, and as a member or leader in diverse and inclusive teams and in multidisciplinary, face-to-face, remote and distributed settings (WK9). |
| PLO 9 | Communicate effectively and inclusively on complex mechanical engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations, taking into account cultural, language, and learning differences. |
| PLO 10 | Apply knowledge and understanding of engineering management principles and economic decision-making and apply these to one's own work, as a member and leader in a team, and to manage projects in multidisciplinary environments. |
| PLO 11 | Recognise the need for and have the preparation and ability for i) independent and life-long learning ii) adaptability to new and emerging technologies and iii) critical thinking in the broadest context of technological change (WK8). |

***Knowledge and Attitude Profile**

**WK1** – A systematic, theory-based understanding of the natural sciences applicable to the discipline and awareness of relevant social sciences.

**WK2** - Conceptually-based mathematics, numerical analysis, data analysis, statistics and formal aspects of computer and information science to support detailed analysis and modelling applicable to the discipline.

**WK3** – A systematic, theory-based formulation of engineering fundamentals required in the engineering discipline.

**WK4** – Engineering specialist knowledge that provides theoretical frameworks and bodies of knowledge for the accepted practice areas in the engineering discipline; much is at the forefront of the discipline.

**WK5** – Knowledge, including efficient resource use, environmental impacts, whole-life cost, re-use of resources, net zero carbon, and similar concepts, that supports engineering design and operations in a practice area.

**WK6** – Knowledge of engineering practice (technology) in the practice areas in the engineering discipline.

**WK7** – Knowledge of the role of engineering in society and identified issues in engineering practice in the discipline, such as the professional responsibility of an engineer to public safety and sustainable development.

**WK8** – Engagement with selected knowledge in the current research literature of the discipline, awareness of the power of critical thinking and creative approaches to evaluate emerging issues.

**WK9** – Ethics, inclusive behaviour and conduct. Knowledge of professional ethics, responsibilities, and norms of engineering practice. Awareness of the need for diversity by reason of ethnicity, gender, age, physical ability etc with mutual understanding and respect, and of inclusive attitudes.

## 4.0 CONCEPT OF THE PROGRAMME

The department offers programme in Mechanical Engineering including elements of Manufacturing Engineering which equips engineers in the following fields:

**(i) Mechanical Engineering**

Careers as Mechanical Engineer are diverse which includes conducting research, giving advice and designing machineries, plants. and industrial equipment. They are also responsible for the development of industrial systems, ensuring that the systems function, as well as maintaining the systems. Mechanical Engineers also conduct research and give consultations on materials' technology and processes, as well as certain maintenance procedures. Mechanical engineers could practice in sectors that include technology, manufacturing and process, mechanical system design, metal fabrication, rubber and plastic, automotive, electrical and electronic and oil and gas.

**(ii) Manufacturing Engineering**

Careers as Manufacturing Engineer are also diverse and highly demanded by the manufacturing industry. Manufacturing Engineers have a high level of technical expertise and skills, which they utilize to plan, design, setup, modify, optimize and monitor manufacturing processes. Amongst others, a Manufacturing Engineer could work in quality planning and control section, industrial safety, maintenance or design new systems and processes in local or international companies.

# CURRICULUM STRUCTURE (UW6521001) - COHORT 2026/2027

**YEAR 1 SEMESTER 1**

| | | | |
|---|---|---|---|
| CORE | KNJ1013 Statics | | 3 credits |
| | KNJ1162 Engineering Drawing | | 2 credits |
| | KNP1151 Workshop Practice | | 1 credit |
| | KNJ1143 Engineering Materials | | 3 credits |
| | KNJ1103 Engineering Mathematics 1 | | 3 credits |
| MPU, GENERIC, REMEDIAL, ELECTIVE | PBI1102 Academic English 1<br>(MUET 1.0-3.5 or IELTS. 4.0-5.0)<br>PBI1092 Academic English 2<br>(MUET 4.0-6.0 or IELTS. 5.5-9.0) | | 2 credits |
| | MPU31102 Aspirasi Negara Bangsa<br>*(Malaysian)<br>MPU3142 Malay Language for Communication 2<br>**(non-Malaysian) | | 2 credits |
| | PPD1041 Soft skills and Basic Volunteerism | | 1 credit |
| | | **TOTAL** | **17 credits** |

**YEAR 1 SEMESTER 2**

| | | | |
|---|---|---|---|
| CORE | KNJ1173 Dynamics | Pre-requisite: KNJ1013 | 3 credits |
| | KNJ1182 Engineering Programming | | 2 credits |
| | KNJ1131 Engineering Laboratory 1 | Requisite: KNJ1013 | 1 credit |
| | KNJ1062 Electrical Engineering Technology | | 2 credits |
| | KNJ1033 Thermodynamics I | | 3 credits |
| | KNJ1193 Engineering Mathematics 2 | Pre-requisite: KNJ1103 | 3 credits |
| MPU, GENERIC, REMEDIAL, ELECTIVE | PBI1072 English for Professional Communication<br>(MUET 3.0-3.5 or IELTS. 4.0-5.0)<br>PBI1082 English for Occupational Purposes<br>(MUET 4.0-6.0 or IELTS. 5.5-9.0)) | | 2 credits |

| | | | |
|---|---|---|---|
| | PBI1122 Preparatory English 2* (MUET 1.0-2.5) | | |
| | MPU31X2 Philosophy and Current Issues *(Malaysian)<br>MPU31122 Citra Malaysia **(non-Malaysian) | | 2 credits |
| | | **TOTAL** | **18 credits** |

**YEAR 2 SEMESTER 1**

| | | | |
|---|---|---|---|
| CORE | KNJ2013 Solid Mechanics I | Pre-requisite: KNJ1013 | 3 credits |
| | KNJ2093 Thermodynamics II | Requisite: KNJ1033 | 3 credits |
| | KNJ2053 Fluid Mechanics I | | 3 credits |
| | KNJ2211 Engineering Laboratory 2 | Requisite: KNJ1173 | 1 credit |
| | KNJ2023 Engineering Mathematics 3 | Pre-requisite: KNJ1193 | 3 credits |
| | KNJ2222 Analysis of Mechanics and Machines | Requisite: KNJ1173 | 2 credits |
| MPU, GENERIC, REMEDIAL, ELECTIVE | MPU3162 Integrity & Anti-Corruption | | 2 credits |
| | PBM2072 Bahasa Melayu *(Malaysian)<br>PBM2082 Bahasa Melayu Komunikasi Lanjutan **(non-Malaysian) | | 2 credits |
| | | **TOTAL** | **19 credits** |

**YEAR 2 SEMESTER 2**

| | | | |
|---|---|---|---|
| CORE | KNJ2033 Engineering Economy & Finance | | 3 credits |
| | KNJ2103 Fluid Mechanics II | Requisite: KNJ2053 | 3 credits |
| | KNJ2201 Engineering Laboratory 3 | Requisite: KNJ2093 | 1 credit |
| | KNJ2133 Solid Mechanics II | Requisite: KNJ2013 | 3 credits |
| | KNJ2272 Electronics and Microprocessors | Requisite: KNJ1062 | 2 credits |
| | KNJ2042 Numerical Methods | Requisite: KNJ2023 & KNJ1182 | 2 credits |
| MPU, GENERIC, REMEDIAL, ELECTIVE | MPU3222 Foundation of Entrepreneurship Inculturation | | 2 credits |
| | MPU34X2 – Co-curricular (choose any from U4 category) | | 2 credits |
| | | **TOTAL** | **18 credits** |

**YEAR 3 SEMESTER 1**

| | | | |
|---|---|---|---|
| CORE | KNJ3013 Engineering Ethics | | 3 credits |
| | KNP3413 Manufacturing Technology | | 3 credits |
| | KNP3453 Engineering Design 1 | Pre-requisite: KNJ2013<br>Requisite: KNJ1162 | 3 credits |
| | KNJ3402 Instrumentation and Measurement | | 2 credits |
| | KNJ3391 Engineering Laboratory 4 | Requisite: KNJ2053 | 1 credit |
| MPU, GENERIC, REMEDIAL, ELECTIVE | KEU 01 – University Elective Course 1 | | 3 credits |
| | MPU3382 Artificial Intelligence and Digital Trends | | 2 credits |
| | | **TOTAL** | **17 credits** |

**YEAR 3 SEMESTER 2**

| | | | |
|---|---|---|---|
| CORE | KNJ3463 Finite Element Analysis (FEA) | | 3 credits |
| | KNP3443 Robotics and Automation | | 3 credits |
| | KNJ3053 Heat Transfer | Requisite: KNJ1033<br>Requisite: KNJ2053 | 3 credits |
| | KNP3433 Engineering Design 2 | Requisite: KNP3453 | 3 credits |
| MPU, GENERIC, REMEDIAL, ELECTIVE | KEU 02 – University Elective Course 2 | | 3 credits |
| | | **TOTAL** | **15 credits** |

**YEAR 3 SEMESTER INTERSESSION**

| | | | |
|---|---|---|---|
| CORE | KNF3065 Industrial Training | | 5 credits |
| | | **TOTAL** | **5 credits** |

**YEAR 4 SEMESTER 1**

| | | | |
|---|---|---|---|
| CORE | KNJ4722 Final Year Project I | | 2 credits |
| | KNP4654 Integrated Design | Requisite: KNP3433 | 4 credits |
| | KNJ4613 Mechanical Vibration | | 3 credits |
| | KNJ4643 Control Engineering | | 3 credits |
| | KNJ/KNP4xx2 Elective A | | 2 credits |
| | | **TOTAL** | **14 credits** |

**YEAR 4 SEMESTER 2**

| | | | |
|---|---|---|---|
| CORE | KNJ4734 Final Year Project 2 | Pre-requisite: KNJ4722 | 4 credits |
| | KNP4693 Quality Control & Reliability | | 3 credits |
| | KNP4703 Engineering Management | | 3 credits |
| | KNJ/KNP4xx2 Elective B | | 2 credits |
| | | **TOTAL** | **12 credits** |

**TOTAL CREDITS FOR GRADUATION = 135**

| **PROGRAMME ELECTIVE COURSES** | | |
|---|---|---|
| **ELECTIVE A** | | |
| KNP4592 | Manufacturing Modelling and Simulation | |
| KNJ4102 | Characterisation of Materials | |
| KNJ4302 | Computational Fluid Dynamics | Requisite: KNJ1033 & KNJ2103 |
| KNP4682 | Operations Research | Requisite: KNJ2033 |
| KNJ4742 | Engineering Statistics | |
| KNP4112 | Manufacturing System I | |
| **ELECTIVE B** | | |
| KNJ4122 | Engineering Optimisation Methods | Requisite: KNJ1182 |
| KNP4022 | Manufacturing System 2 | Requisite: KNP4112 |
| KNJ4622 | Internal Combustion Engine | Requisite: KNJ2093 |
| KNJ4312 | Tribology | |
| KNJ4672 | Energy Resources and Management | Requisite: KNJ2033 |
| KNJ4632 | Polymer and Composite | Requisite: KNJ1143 |

## 1.0 BACHELOR OF CHEMICAL ENGINEERING WITH HONOURS PROGRAMME

This programme offers chemical engineering courses which are focusing more on the specialization in energy engineering application and natural resources which are abundance in our country. Natural resources such as oil, gas, fossil, agricultural products. biochemistry as well as renewable energy have the potential to be utilized and developed for the benefit of the country. In order to solve the problems in energy management and pollution which is related to these natural resources processes namely air, water and environmental pollution, require the latest knowledge in engineering. In line with country rapid development, more chemical engineers are needed to cater for the inadequacy of this profession.

## 2.0 PROGRAMME EDUCATIONAL OBJECTIVES

The goal of this programme is to produce future engineer who is skilful, efficient and high calibre based on the department programme objectives as follows:

| | |
|---|---|
| PEO 1 | Graduates are able to uphold the professionalism of the Chemical Engineering career in national or multinational organisation. |
| PEO 2 | Graduates achieve career advancement through independent, life-long learning and Chemical Engineering related activities. |
| PEO 3 | Graduates practice leadership and management skills in workplace for sustainable society. |

## 3.0 PROGRAMME LEARNING OUTCOMES

Upon completion of this programme, the students. are expected to:

| | |
|---|---|
| PLO 1 | Apply knowledge of mathematics, natural science, computing and engineering fundamentals, and an engineering specialization as specified in WK1 to WK4 respectively to develop solutions to complex Chemical Engineering problems |
| PLO 2 | Identify, formulate, research literature and analyze complex Chemical Engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences with holistic considerations for sustainable development (WK1 to WK4) |
| PLO 3 | Design creative solutions for complex Chemical Engineering problems and design systems, components or processes to meet identified needs with appropriate consideration for public health and safety, whole-life cost, net zero carbon as well as resource, cultural, societal, and environmental considerations as required (WK5) |
| PLO 4 | Conduct investigation of complex Chemical Engineering problems using research methods including research-based knowledge, including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusions (WK8) |
| PLO 5 | Create, select and apply, and recognize limitation of appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling, to complex Chemical Engineering problems, (WK2 and WK6) |
| PLO 6 | Analyze and evaluate sustainable development impacts to: society, the economy, sustainability, health and safety, legal frameworks, and the environment, in solving complex Chemical Engineering problems (WK1,WK5,and WK7) |
| PLO 7 | Apply ethical principles and commit to professional ethics and norms of Chemical Engineering practice and adhere to relevant national and international laws. Demonstrate an understanding of the need for diversity and inclusion (WK9); |
| PLO 8 | Function effectively as an individual, and as a member or leader indiverse and inclusive teams and in multidisciplinary, face-to-face, remote and distributed settings (WK9) |

| | |
|---|---|
| PLO 9 | Communicate effectively and inclusively on complex Chemical Engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations, taking into account cultural, language, and learning differences. |
| PLO 10 | Apply knowledge and understanding of engineering management principles and economic decision-making and apply these to one's own work, as a member and leader in a team, and to manage projects in multidisciplinary environments. |
| PLO 11 | Recognise the need for, and have the preparation and ability for i) independent and life-long learning ii) adaptability to new and emerging technologies and iii) critical thinking in the broadest context of technological change (WK8). |

**4.0 CONCEPT OF THE PROGRAMME**

This programme offers specialization in chemical engineering field. Chemical Engineering is an important professional field which has been acknowledged as the catalyst to the public and private sector activities or to the needs of the chemical industry sectors which contributes to the economy of the country.

## CURRICULUM STRUCTURE

**YEAR 1 SEMESTER 1**

| | | | |
|---|---|---|---|
| **CORE** | KNC1573 Fluid Mechanics | | 3 credits |
| | KNC1583 Engineering Physical Chemistry | | 3 credits |
| | KNC1592 Engineering Drawing | | 2 credits |
| | KNC1482 Engineering Mathematics 1 | | 2 credits |
| | KNC1602 Introduction to Chemical Engineering | | 2 credits |
| **MPU, GENERIC, REMEDIAL, ELECTIVE** | PBI1102 Academic English 1<br>(MUET 1.0-3.5 or IELTS. 4.0-5.0)<br>OR<br>PBI1092 Academic English 2<br>(MUET 4.0-6.0 or IELTS. 5.5-9.0) | | 2 credits |
| | PPD1041 Soft Skills & Basic Volunteerism | | 1 credit |
| | MPU31X2 Aspirasi Negara Bangsa OR<br>MPU3142 Bahasa Melayu Komunikasi<br>(non-Malaysian) | | 2 credits |

**YEAR 1 SEMESTER 2**

| | | | |
|---|---|---|---|
| **CORE** | KNC1052 Engineering Programming | | 2 credits |
| | KNC1613 Engineering Organic Chemistry | | 3 credits |
| | KNC1623 Thermodynamics 1 | | 3 credits |
| | KNC1631 Chemical Engineering Laboratory 1 | | 1 credit |
| | KNC1492 Engineering Mathematics 2 | Pre-requisite: KNC1482 | 2 credits |
| | KNC1503 Mass Balance | | 3 credits |
| **MPU, GENERIC, REMEDIAL, ELECTIVE** | PBI1072 English for Professional Communication<br>(MUET 1.0-3.5 or IELTS. 4.0-5.0)<br>OR<br>PBI1082 English for Occupational Purposes<br>(MUET 4.0-6.0 or IELTS. 5.5-9.0) | | 2 credits |
| | PBM2072 Bahasa Melayu<br>OR<br>PBM2082 Bahasa Melayu Komunikasi Lanjutan<br>(non-Malaysian) | | 2 credits |
| | MPU3432 / MPU3442 / MPU3452 / MPU3462 / MPU3472 / MPU3482 / MPU3492 / MPU34102 – Co-curricular | | 2 credits |

**YEAR 2 SEMESTER 1**

| | | | |
|---|---|---|---|
| **CORE** | KNC2113 Thermodynamics 2 | Requisite: KNC1623 | 3 credits |
| | KNC2123 Heat and Mass Transfer | | 3 credits |
| | KNC2873 Analytical Chemistry | | 3 credits |
| | KNC2641 Chemical Engineering Laboratory 2 | | 1 credit |
| | KNC2513 Energy Balance | Requisite: KNC1503 | 3 credits |
| **MPU, GENERIC, REMEDIAL, ELECTIVE** | Kursus Elektif Universiti 1 | | 3 credits |
| | MPU3222 Asas Pembudayaan Keusahawanan | | 2 credits |

**YEAR 2 SEMESTER 2**

| | | | |
|---|---|---|---|
| **CORE** | KNC2093 Material and Polymer Engineering | | 3 credits |
| | KNC2153 Transport Process | | 3 credits |
| | KNC2523 Unit Operations 1 | | 3 credits |
| | KNC2653 Numerical Methods and Statistics | Pre-requisite: KNC1492 | 3 credits |
| **MPU, GENERIC, REMEDIAL, ELECTIVE** | MPU31X2 Falsafah & Cabaran Semasa OR MPU31X2 Citra Malaysia (non-Malaysian) | | 2 credits |
| | MPU31X2 Kursus Integriti & Anti Rasuah | | 2 credits |
| | MPU3382 AI and Digital Trends | | 2 credits |

**YEAR 3 SEMESTER 1**

| | | | |
|---|---|---|---|
| **CORE** | KNC3671 Chemical Engineering Laboratory 3 | | 1 credit |
| | KNC3203 Chemical Reaction Process | | 3 credits |
| | KNC3663 Process Instrumentation and Control | | 3 credits |
| | KNC3683 Engineering Management | | 3 credits |
| | KNC3533 Unit Operations 2 | | 3 credits |
| | KNC3743 Process Modelling and Simulation | | 3 credits |
| **MPU, GENERIC, REMEDIAL, ELECTIVE** | Kursus Elektif Universiti 2 | | 3 credits |

**YEAR 3 SEMESTER 2**

| | | | |
|---|---|---|---|
| **CORE** | KNC3701 Chemical Engineering Laboratory 4 | | 1 credit |
| | KNC3712 Engineering Economics | | 2 credits |
| | KNC3723 Process Integration and Optimisation | | 3 credits |
| | KNC3733 Occupational Safety and Health | | 3 credits |
| | KNC3753 Integrated Design Project 1 | | 3 credits |
| | KNC3763 Engineering Ethics | | 3 credits |

**YEAR 3 SEMESTER INTERSESSION**

| | | | |
|---|---|---|---|
| **CORE** | KNF3065 Industrial Training | | 5 credits |

**YEAR 4 SEMESTER 1**

| | | | |
|---|---|---|---|
| **CORE** | KNC4763 Environmental Engineering | | 3 credits |
| | KNC4773 Energy Resources and Applications | | 3 credits |
| | KNC4312 Energy and Environmental Management | | 2 credits |
| | KNC4782 Final Year Project 1 | | 2 credits |
| | KNC4794 Integrated Design Project 2 | Pre-requisite: KNC3753 | 4 credits |
| **MPU, GENERIC, REMEDIAL, ELECTIVE** | | | |

**YEAR 4 SEMESTER 2**

| | | | |
|---|---|---|---|
| **CORE** | KNC4293 Quality Control and Reliability | | 3 credits |
| | KNC4804 Final Year Project 2 | Pre-requisite: KNC4782 | 4 credits |
| | KNC4xx3 Elective Course 1 | | 3 credits |
| | KNC4xx3 Elective Course 2 | | 3 credits |
| **MPU,** | | | |

| | | | |
|---|---|---|---|
| **GENERIC, REMEDIAL, ELECTIVE** | | | |

TOTAL CREDITS FOR GRADUATION = 139

| **PROGRAMME ELECTIVE COURSES** |
|---|
| KNC4813 Polymer for Engineering Application |
| KNC4823 Biodiesel and Fuel Cell for Transportation |
| KNC4833 Natural Gas Engineering |
| KNC4843 Sustainability in Energy Industry |
| KNC4853 Multiphase Systems |
| KNC4863 Water Engineering |

## MATA PELAJARAN PENGAJIAN UMUM (MPU) COURSES

| | |
|---|---|
| MPU-U1 | MPU31102 Aspirasi Negara Bangsa (ANB) (for Malaysian)<br>MPU31112 Citra Malaysia – (for non-Malaysian)<br>MPU3182 Philosophy and Current Issues (for Malaysian)<br>MPU3142 Malay Language for Communication 2 (for non-Malaysian)<br>MPU3162 Integrity and Anti-Corruption (KIAR) |
| MPU-U2 | MPU3222 Foundation of Entrepreneurship Inculturation |
| MPU-U3 | MPU3382 AI and Digital Trends |
| MPU-U4 | MPU3432 Credited Co-curricular (Initiative and Innovation) |
| | MPU3442 Credited Co-curricular (Culture) |
| | MPU3452 Credited Co-curricular (Leadership) |
| | MPU3462 Credited Co-curricular (Volunteerism) |
| | MPU3472 Credited Co-curricular (Entrepreneurship) |
| | MPU3482 Credited Co-curricular (Community Service) |
| | MPU3492 Credited Co-curricular (Sports.) |
| | MPU34102 Credited Co-curricular (Public Speaking) |
| | Uniformed Bodies |

## UNIVERSITY ELECTIVE COURSES

| FACULTY | COURSE CODE & NAME | SEMESTER OFFERED |
|---|---|---|
| FACULTY OF SOCIAL SCIENCES & HUMANITIES | SSU1013 Basics of Social Science | SEM 1 & 2 |
| | SSU1023 Basics of Anthropology and Sociology | SEM 1 & 2 |
| | SSU1033 Introduction to Psychology | SEM 1 & 2 |
| | SSU1053 Introduction to Social Interaction | SEM 1 & 2 |
| | SSU1063 Democracy and Digital Society | SEM 1 & 2 |
| | | |
| FACULTY OF APPLIED AND CREATIVE ARTS. | GKU1013 Drama dan Teater Moden Melayu | SEM 1 |
| | GKU1033 Fotografi Digital dan Imejan Media | SEM 1 |
| | GKU1043 Sejarah Sinema Malaysia | SEM 1 |
| | GKU1053 Sejarah Drama dan Teater | SEM 2 |
| | GKU1063 Pengenalan Kepada Asas Muzik | SEM 2 |
| | GKU1083 Pengenalan Pengarahan Pentas | SEM 2 |
| | GKU1093 Asas Lukisan Figura | SEM 2 |
| | | |
| FACULTY OF BUILT ENVIRONMENT | BEU1013 Building Anatomy and Basic Estimating | SEM 1 |
| | BEU1023 Creative Sketches | SEM 1 |
| | BEU1033 Fundamentals of the Built Environment | SEM 2 |
| | | |
| FACULTY OF ENGINEERING | KNU1013 Introduction to Green Technology | SEM 1 |
| | KNU 1033 Energy, Environment and Society | SEM 1 |
| | KNU1073 Introduction to Solar Photovoltaic System | SEM 1 |
| | KNU 1053 Safety Management in Workplace | SEM 2 |
| | KNU1023 Engineers in Society | SEM 2 |
| | KNU1103 Introduction to Hydro Power System | SEM 2 |
| | KNU1093 Water Resources in Community Development | SEM 1 & 2 |
| | | |
| FACULTY OF RESOURCE SCIENCE AND TECHNOLOGY | STU1033 Aquatic Science and Daily Life | SEM 1 & 2 |
| | STU1013 Introduction to Biotechnology | SEM 1 & 2 |
| | STU1043 Introduction to Plant Physiology | SEM 1 & 2 |
| | STU2063 Ecotourism Industry in Malaysia | SEM 1 & 2 |
| | STU2073 Natural Resource Managements. | SEM 1 & 2 |

| FACULTY | COURSE CODE & NAME | SEMESTER OFFERED |
|---|---|---|
| | | |
| FACULTY OF MEDICINE AND HEALTH SCIENCES | MDU1123 Introduction to Learning Disablities | SEM 1 |
| | MDU1033 Healthy Lifestyle | SEM 1 |
| | MDU1043 Introduction to Medical Entomology | SEM 2 |
| | MDU1073 Introduction to Biomedical Physiology | SEM 1 |
| | MDU1083 Introduction to Health and Behavior | SEM 1 & 2 |
| | MDU1013 Basic First Aid | SEM 2 |
| | MDU1023 Introduction to Medical Genetics | SEM 2 |
| | MDU1053 Introduction to Medical Parasitology | SEM 1 |
| | MDU1133 Introduction to Community-Based Health Promotion | SEM 1 |
| | | |
| FACULTY OF COGNITIVE SCIENCES AND HUMAN DEVELOPMENT | KMU1063 Introduction to Mental Health | SEM 1 |
| | KMU1053 Theories and Concepts.: Human Computer Interaction | SEM 1 |
| | KMU1023 Introduction to Human Resource Development | SEM 2 |
| | KMU1013 Helping Relationship | SEM 1 & 2 |
| | KMU1073 Introduction to Sport Psychology | 2 |
| | KMU1083 Fundamental Theories of Crime | 1 |
| | | |
| FACULTY OF COMPUTER SCIENCE AND INFORMATION TECHNOLOGY | TMU1013 Introduction to Computer Technologies | SEM 1 & 2 |
| | TMU1023 Ethics in Information Technology | SEM 1 & 2 |
| | TMU1043 Multimedia Technology | SEM 1 & 2 |
| | TMU1053 Mathematics in Daily Life | SEM 1 & 2 |
| | TMU1063 Artificial Intelligence Fundamental | SEM 1 & 2 |
| | | |
| FACULTY OF ECONOMICS AND BUSINESS | EBU1063 Smart Money Management | SEM 1 & 2 |
| | EBU 2043 Introduction to Intellectual Property | SEM 1 & 2 |
| | EBU 1023 Managing Small Business Accounts. | SEM 1 & 2 |
| | EBU 1053 Online Business Management | SEM 1 & 2 |
| | EBU1033 Malaysian Economics Environments. | SEM 1 & 2 |
| | | |
| FACULTY OF LANGUAGE AND COMMUNICATION | PBU1133 Arabic Language Level 1 | SEM 1 & 2 |
| | PBU2143 Arabic Language Level 2 | SEM 1 & 2 |
| | PBU3153 Arabic Level 3 | SEM 1 & 2 |
| | PBU1043 Japanese Language Level 1 | SEM 1 & 2 |
| | PBU2053 Japanese Language Level 2 | SEM 1 & 2 |
| | PBU3063 Japanese Level 3 | SEM 1 & 2 |
| | PBU1073 French Level 1 | SEM 1 & 2 |
| | PBU2083 French Level 2 | SEM 1 & 2 |
| | PBU3093 French Level 3 | SEM 1 & 2 |
| | PBU1103 Mandarin Level 1 | SEM 1 & 2 |
| | PBU2113 Mandarin Level 2 | SEM 1 & 2 |
| | PBU3123 Mandarin Level 3 | SEM 1 & 2 |
| | PBU0033 Iban Language for Communication | SEM 1 & 2 |

## ENGLISH COURSES – INTENSIVE LANGUAGE PROGRAMME (ILP) INTERNATIONAL STUDENTS.

| | |
|---|---|
| GRADE C+ AND C | PBI1112 Preparatory English I (Compulsory Remedial English for Band 1&2)<br>PBI1122 Preparatory English II (Compulsory Remedial English for Band 1&2)<br>* Prerequisite for PBI1102 & PBI1072 |
| GRADE B+ | PBI1102 Academic English I<br>PBI1072 English for Professional Communication |
| GRADE A & A- | PBI1092 Academic English 2<br>PBI1082 English for Occupational Purposes |

## ENGLISH COURSES – IELTS. INTERNATIONAL STUDENTS.

| | |
|---|---|
| 4.0-5.0 | PBI1102 Academic English I<br>PBI1072 English for Professional Communication |
| 5.5-9.0 | PBI1092 Academic English 2<br>PBI1082 English for Occupational Purposes |

**International students with conditional offer must pass PBI0040 Intensive English Language Programme and/or obtain CEFR High B1 and above.*

## UNIFORMED BODIES / BADAN BERUNIFORM

| CODE/KOD | COURSE NAME / NAMA KURSUS | |
|---|---|---|
| MPU34112 | Military Training 1 | Latihan Ketenteraan Darat 1 |
| PPA1102 | Military Training 2 | Latihan Ketenteraan Darat 2 |
| PPA2112 | Military Training 3 | Latihan Ketenteraan Darat 3 |
| PPA2122 | Military Training 4 | Latihan Ketenteraan Darat 4 |
| PPA3132 | Military Training 5 | Latihan Ketenteraan Darat 5 |
| PPA3142 | Military Training 6 | Latihan Ketenteraan Darat 6 |
| | | |
| MPU34122 | Air Force Training 1 | Latihan Ketenteraan Udara 1 |
| PPB1072 | Air Force Training 2 | Latihan Ketenteraan Udara 2 |
| PPB2082 | Air Force Training 3 | Latihan Ketenteraan Udara 3 |
| PPB2092 | Air Force Training 4 | Latihan Ketenteraan Udara 4 |
| PPB3102 | Air Force Training 5 | Latihan Ketenteraan Udara 5 |
| PPB3112 | Air Force Training 6 | Latihan Ketenteraan Udara 6 |
| | | |
| MPU34142 | Civil Defence Training 1 | Latihan Pertahanan Awam 1 |
| PPJ1102 | Civil Defence Training 2 | Latihan Pertahanan Awam 2 |
| PPJ2112 | Civil Defence Training 3 | Latihan Pertahanan Awam 3 |
| PPJ2122 | Civil Defence Training 4 | Latihan Pertahanan Awam 4 |
| PPJ3132 | Civil Defence Training 5 | Latihan Pertahanan Awam 5 |
| PPJ3142 | Civil Defence Training 6 | Latihan Pertahanan Awam 6 |
| | | |
| MPU34132 | Police Training 1 | Latihan Kepolisan 1 |
| PPP1102 | Police Training 2 | Latihan Kepolisan 2 |
| PPP2112 | Police Training 3 | Latihan Kepolisan 3 |
| PPP2122 | Police Training 4 | Latihan Kepolisan 4 |
| PPP3132 | Police Training 5 | Latihan Kepolisan 5 |
| PPP3142 | Police Training 6 | Latihan Kepolisan 6 |

# ETIKA PAKAIAN PELAJAR UNIVERSITI MALAYSIA SARAWAK

## Pakaian Pelajar Lelaki

1. Setiap pelajar hendaklah **berpakaian kemas, sopan dan bersesuaian dengan keadaan sepertimana yang diarahkan oleh pihak Universiti** (berseluar panjang dengan berbaju kemeja atau kemeja-T atau pakaian kebangsaan masing-masing yang sesuai).
2. **Berambut pendek, kemas dan tidak mencecah kolar baju.** Fesyen rambut tidak keterlaluan dan perlu bersesuaian serta kemas.
3. **Memakai pakaian sukan** yang sesuai semasa bersukan atau berekreasi.
4. **Memakai kasut** yang sesuai. Pemakaian selipar dan sandal adalah dilarang.
5. **Tidak memakai** perhiasan perempuan atau pakaian menyerupai perempuan.
6. **Mempamerkan kad pelajar** semasa urusan rasmi

## Pakaian Pelajar Perempuan

1. Setiap pelajar **hendaklah berpakaian kemas dan sopan bersesuaian dengan keadaan sepertimana yang diarahkan oleh pihak Universiti** (pakaian kebangsaan, blaus atau pakaian etnik masing-masing yang sesuai dan tidak menjolok mata. Pakaian mestilah tidak ketat/sendat/jarang/singkat serta tidak menunjukkan bentuk tubuh badan).
2. **Memakai kain atau skirt** yang labuhnya hendaklah di bawah paras lutut.
3. **Memakai seluar** yang bersesuaian, bersih dan sopan.
4. **Memakai alat solek, aksesori** dan **pewangi** secara sederhana.
5. **Memakai kasut** yang sesuai.
6. **Mempamerkan kad pelajar** semasa urusan rasmi

## Tempat Penguatkuasaan Peraturan Berpakaian

1. Menghadiri kuliah, tutorial dan amali.
2. Menggunakan Perpustakaan Tun Abdul Rahman Ya'kub (PeTARY).
3. Membuat urusan di Fakulti/Institut/Pusat/Bahagian.
4. Menghadiri majlis rasmi Universiti di dalam dan di luar kampus.
5. Menduduki peperiksaan dan ujian.
6. Berada di sekitar kampus atau tempat yang wajar berpakaian demikian.
7. Menjalani Latihan Industri.



FORMAL



TIDAK FORMAL



PAKAIAN SUKAN



PAKAIAN DI DALAM MAKMAL



CONTOH RAMBUT LELAKI DAN RAMBUT WANITA

**NOTA PENTING :** Setiap pelajar adalah tertakluk kepada Peraturan Berpakaian Pelajar yang ditetapkan oleh Universiti ketika berada di dalam kampus.Penguatkuasan peraturan berpakaian pelajar adalah dibawah Kaedah-Kaedah Universiti Malaysia Sarawak (Tatatertib Pelajar-Pelajar) 1999 serta pindaan-pindaannya.

**KALENDAR AKADEMIK PENGAJIAN IJAZAH SARJANA MUDA SESI 2026/2027**
**(ACADEMIC CALENDAR FOR UNDERGRADUATE STUDIES SESSION 2026/2027)**

| Aktiviti /*Activity* | SEMESTER 1 | |
|---|---|---|
| | **Tarikh** | **Catatan** |
| **Pendaftaran Pelajar Baharu**<br>*(**New Student** Registration)*<br>***Online Registration*** | **1 Sep 2026 – 11 Sept 2026**<br>11 hari / *11 days)* | |
| **Pendaftaran Kolej Kediaman Pelajar Baharu**<br>*(Residential College Registration)* | **12 Sept 2026 – 13 Sept 2026**<br>(2 hari/*2 days)* | |
| **Minggu Aluan Pelajar**<br>*(Student's Orientation Week) /*<br>**Hari Bersama Fakulti** | **14 Sept 2026 – 18 Sept 2026**<br>*(*5 hari/*5 days)* | **16 September 2026**<br>***(16 September 2026)***<br>• Hari Malaysia (*Malaysia Day*) |
| **Pendaftaran *Online* Pelajar Semasa**<br>***(Returning Student's** Registration)*<br>***Online Registration*** | **14 Sept 2026 – 20 Sept 2026**<br>*(*7 hari/*7 days)* | |
| **Pendaftaran Kolej Kediaman Pelajar Semasa**<br>*(Returning Student's Residential College Registration)* | **19 Sept 2026 – 20 Sept 2026**<br>*(*2 hari/*2 days)* | |
| **Perkuliahan**<br>***(Lectures)*** | **21 Sept 2026 – 8 Nov 2026**<br>(7 minggu/7 *weeks)* | **10 Oktober 2026**<br>***(10 October 2026)***<br>• Hari Jadi TYT Sarawak *(Sarawak Governor's Birthday)*<br><br>**8 November 2026**<br>***(8 November 2026)***<br>• Hari Deepavali (Semenanjung Malaysia sahaja) |
| **Cuti Pertengahan Semester 1** | **9 Nov 2026 – 15 Nov 2026**<br>(1 minggu/1 *weeks)* | |
| **Perkuliahan** | **16 Nov 2026- 3 Jan 2027**<br>(7 minggu/7 *weeks)* | **25 Disember 2026**<br>***(25 December 2026)***<br>• Hari Krismas *(Christmas)*<br><br>**1 Januari 2027**<br>***(1 January 2027)***<br>Cuti Tahun Baharu 2026 *(New Year)* |
| **Minggu Ulangkaji**<br>*(Revision Week)* | **4 Jan 2027 – 10 Jan 2027**<br>(7 hari/ *7 days*) | |
| **Minggu Peperiksaan**<br>*(Examination Week)* | **11 Jan 2027 – 31 Jan 2027**<br>(3 minggu/ *3 weeks*) | |
| **Cuti Semester 1**<br>*(Semester Break)* | **1 Feb 2027 – 28 Feb 2027**<br>(4 minggu/ *4 weeks*) | **6 & 7 Feb 2027**<br>***(6 & 7 Feb 2027)***<br>• Tahun Baru Cina *(Chinese New Year)* |

| Aktiviti /*Activity* | SEMESTER 2 | |
|---|---|---|
| | **Tarikh** | **Catatan** |
| **Pendaftaran *Online* Pelajar Semasa**<br>**(***Returning Student 's Registration/Online Semester Registration)* | **24 Feb 2027 – 26 Feb 2027**<br>*(*3 hari/3 *days)* | |
| **Pendaftaran Kolej Kediaman Pelajar Semasa**<br>*(Returning Student's Residential College Registration)* | **27 Feb 2027 – 28 Feb 2027**<br>*(*2 hari/*2 days)* | |
| **Perkuliahan**<br>***(Lectures)*** | **1 Mac 2027 – 18 April 2027**<br>(7 minggu/ *7 weeks)* | **10 & 11 Mac 2027** ***(10 & 11 March 2027)***<br>• Hari Raya Aidilfitri *(Eid Mubarak)*<br>(Tertakluk kepada pindaan tarikh yang diumumkan)<br><br>**26 Mac 2027** ***(26 March 2027)***<br>• *Good Friday* |
| **Cuti Pertengahan Semester 2**<br>(Mid-Semester Break) | **19 Apr 2027 – 25 Apr 2027**<br>(7 hari/ *7 days)* | |
| **Perkuliahan**<br>***(Lectures)*** | **26 Apr 2027 – 13 Jun 2027**<br>(7 minggu/ *7 weeks)* | **1 Mei 2027** ***(1 May 2027)***<br>• Cuti Hari Pekerja *(Labour Day)*<br><br>**17 Mei 2027** ***(17 May 2027)***<br>• Hari Raya Aidiladha *(Eid Al-Adha)*<br>(Tertakluk kepada pindaan tarikh yang diumumkan)<br><br>**20 Mei 2027 (*20 May 2027*)**<br>• Hari Wesak *(Wesak Day)*<br><br>**1 & 2 Jun 2027** ***(1&2 June 2027)***<br>• Hari Gawai *(Gawai Day)*<br><br>**6 Jun 2027** ***(6 June 2027)***<br>• Awal Muharam<br><br>**7 Jun 2027** ***(7 June 2027)***<br>• Hari Keputeraan YDP Agong *(Agong's Birthday)* |
| **Minggu Ulangkaji**<br>*(Revision Week)* | **14 Jun 2027 – 20 Jun 2027**<br>*(*7 hari/ *7 days)* | |
| **Minggu Peperiksaan**<br>*(Examination Week)* | **21 Jun 2027 – 11 Jul 2027**<br>(3 minggu/ *3 weeks)* | |
| **Cuti Panjang**<br>*(Long Break)* | **12 Jul 2027 – 12 Sept 2027**<br>*(*9 minggu/ *9 weeks)* | **22 Julai 2027** ***(22 July 2027)***<br>Hari Sarawak *(Sarawak Day)* |

| *Aktiviti /*Activity | ANTARSESI | |
|---|---|---|
| | **Tarikh** | **Catatan** |
| **Pendaftaran Pelajar Semasa**<br>*(Returning Student 's Registration) Online Semester Registration* | **12 Jul 2027 – 18 Jul 2027**<br>(1 minggu/ *1 weeks*) | |
| **Perkuliahan**<br>*(Lectures)* | **12 Jul 2027 – 5 Sept 2027**<br>(8 minggu/ *8 weeks*) | |
| **Latihan Industri** | **12 Jul 2027 – 19 Sept 2027**<br>(10 minggu/ *10 weeks*) | |

**Nota: Pindaan dengan Kelulusan Senat Bil 3/2026 ke-241 bertarikh 4 Mei 2026**

Disediakan oleh:
**Pusat Pengajian Prasiswazah Universiti Malaysia Sarawak**

