
PROGRAMME INFORMATION

PROGRAMME NAME

Programmes (Malay/English)

- Ijazah Sarjana Muda Teknologi Kejuruteraan Mekanikal (Sistem Pertanian) Dengan Kepujian
- Bachelor of Mechanical Engineering Technology (Hons.) (Agricultural Systems) with Honours

PROGRAMME DESCRIPTION

The programme aims to generate engineering technologist who are competent and possess a sound and balanced skill in integrating biological engineering and management principles. The course are delivered based on practical approach that covers basic and applied engineering principles of economics and business management in the agricultural and related industries. The students are also exposed to agra-industrial know-how through courses and skills that are applicable in many related industries. The final semester of the programme is dedicated to the industrial training activity attaching the students to relevant industries mainly to enhance their capability and skill in accordance to the market needs.

PROGRAMME OBJECTIVES (PO)

CODE	PROGRAMME EDUCATIONAL OBJECTIVES
PEO 01	Engineering technology graduates engaged in the field of mechanical engineering technology as demonstrated through career advancement.
PEO 02	Engineering technology graduates who are members and contribute to professional society.
PEO 03	Engineering technology graduates embracing in life-long learning or pursuing continuing education opportunities.
PEO 04	Engineering technology graduates who are technopreneurs.

PROGRAMME LEARNING OUTCOME (PO)

CODE	PROGRAMME OUTCOMES
PO 01	Apply knowledge of mathematics, science, engineering fundamentals and an engineering specialisation to defined and applied engineering procedures, processes, systems or methodologies.
PO 02	Identify, formulate, research literature and analyse broadly-defined engineering problems reaching substantiated conclusions using analytical tools appropriate to their discipline or area of specialisation
PO 03	Design solutions for broadly-defined engineering technology problems and contribute to the design of systems, components or processes to meet specified needs with appropriate consideration for public health and
PO 04	Conduct investigations of broadly-defined problems; locate, search and select relevant data from codes, data bases and literature, design and conduct experiments to provide valid conclusions.
PO 05	Select and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling, to broadly-defined engineering problems, with an understanding of the limitations.
PO 06	Function effectively as an individual, and as a member or leader in diverse technical teams.
PO 07	Communicate effectively on broadly-defined engineering activities with the engineering community and with society at large, by being able to comprehend and write effective reports and design documentation,
PO 08	Demonstrate understanding of the societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to engineering technology practice and solutions to broadly-defined engineering
PO 09	Understand and commit to professional ethics and responsibilities and norms of engineering technology practice.
PO 10	Demonstrate knowledge and understanding of engineering management principles and apply these to one's own work, as a member and leader in a team and to manage projects in multidisciplinary
PO 11	Understand the impact of engineering technology solutions of broadly-defined engineering problems in societal and environmental context and demonstrate knowledge of and need for sustainable development.
PO 12	Recognize the need for, and have the ability to engage in independent and life-long learning in specialist technologies.

PROGRAMME DETAIL

- Four (4) years (Semester I & II)
- Eight (8) semesters including 1 semester for industrial Training
- Each semester (14 weeks of Teaching n Learning)
- Mid-Term Test (Usually week 7th)
- Final Examination (At the end of semester)
- Six (6) months of Industrial Training at the end of study
- National Education Code (NEC): NEC 521 Mechanics and Metal Works
- MQF level: 6
- Graduating credit: 143

ADMISSION FEES

- Semester 1 - RM 2,200
- Consecutive semesters - RM 1,410

PROGRAMME STRUCTURE

MONTH	SEP-JAN	FEB-JUN
YEAR	FIRST	
SEMESTER	I	II
DISCIPLINE CORE (110)	PDT176/2 Computer Aided Drafting	PDT181/3 Engineering Mechanics
	PDT177/2 Applied Chemistry	PDT182/3 Electronics Application In Agriculture
	PDT178/2 Applied Biology	PDT133/2 Workshop Technology
	PDT179/3 Agricultural Economics	PDT184/4 Agricultural Production Systems
	PDT180/3 Engineering Science	
COMMON CORE (15)	PQT111/3 Mathematics For Engineering Technology I	PQT112/3 Mathematics For Engineering Technology II
UNIVERSITY REQUIRED (18)	UVW410/2 University Malay Language	UVW201/2 English For General Communication Or UVW XXX/2 Option Subject
	UVA101/0 Preparatory English	UUW322/2 Thinking Skills
	UZWXXX/1 Co-Curriculum	UZWXXX/1 Co-Curriculum
CREDIT	18	20

SEP-JAN	FEB-JUN
SECOND	
I	II
PDT204/3 Applied Strength Of Materials	PDT107/2 Computer Aided Design
PDT277/3 Applied Thermodynamics	PDT278/2 Geodetics Engineering
PDT279/4 Principle Of Agronomy	PDT281/3 Instrumentations And Control
PDT280/2 Fundamentals Of Agribusiness Accounting And Finance	PDT282/3 Applied Fluid Mechanics
	PDT283/2 Agribusiness Management
	PDT284/2 Agro-Ecosystem And Sustainability
PQT213/3 Mathematics For Engineering Technology III	
UUW130/2 Philosophy And Current Issues\	PUW122/2 Skill And Technology In Communication
UVW312/2 English For Technical Communication	UUW224/2 Engineering Entrepreneurship
19	18

SEP-JAN	FEB-JUN
THIRD	
1	II
PDT376/3 Farm Power And Machinery	PDT313/4 Final Year Project 1
PDT377/3 Applied Heat And Mass Transfer	PDT382/3 Controlled Environment Agriculture
PDT378/2 Precision Agriculture Technology	PDT383/3 Renewable Energy
PDT379/3 Water Resource Management	PDT384/3 Food Technology
PDT380/3 Automations In Agricultural Systems	ELECTIVE I/3
PTT333/3 Engineering Technology Management	PTT444/3 Engineering Technologist In Society
UUW131/2 Appreciation Of Ethics And Civilization	
19	19

SEP-JAN	FEB-JUN
THIRD	
I	II
PDT413/6 Final Year Project 2	PIT404/12 Industrial Training
PDT477/3 Post-Harvest Technology	
PDT478/3 Agricultural Waste Management And Utilization Eng.	
ELECTIVEII/3	
ELECTIVE III/3	
18	12

Elective I	Elective II	Elective III
PDT385/3 BIOMATERIAL ENGINEERING	PDT479/3 BIO-RENEWABLE SYSTEMS	PDT481/3 ADVANCES IN AGROTECHNOIOLOGY
PDT386/3 INTEGRATED AGROSYSTEMS	PDT480/3 FOOD PROCESSING ENGINEERING	PDT482/3 FOOD AND HERBAL CROP PRODUCTION TECHNOLOGY

***NOTES:**

MUET Band 2 : UVA101/0 Preparatory English > UVW 201/2 English for General Communication > UVW312/2 English for Technical Communication, *Option Subject is NOT COMPULSORY

MUET Band 3 : UVW 201/2 English for General Communication > UVW312/2 English for Technical Communication, *Option Subject is NOT COMPULSORY

MUET Band 4 and above : UVW312/2 English for Technical Communication, *Option Subject is COMPULSORY

CREDIT TRANSFER/EXEMPTION

Credit Exemption is defined as an exemption from registration and study of a course prescribed for a programme, based on the course taken by the student before being accepted into the university programme, as approved by the Dean of a School/ Dean of Academic Management. Credit Exemption is given to students who have obtained at least a C in certain courses, according to the grading system of the University and subject to the terms and conditions set by the university. Credit Exemption is given to students who have taken a course that is the same as, or contain at least 80% similarities to a course for which exemption is applied. Two or more courses can also be combined for the purpose of credit exemption for one course offered at UniMAP. Credit exemption for certain courses depend on the list of courses approved by the respective School and has been approved by the Senate.

GENERAL ADMISSION REQUIREMENT

PROGRAMME UR6521002 ENTRY REQUIREMENTS:

GENERAL REQUIREMENTS:

MATRICULATION

- Pass in Sijil Pelajaran Malaysia (SPM) / equivalent with credit in Bahasa Melayu / Bahasa Malaysia or Bahasa Melayu / Bahasa Malaysia July Paper;
- and Pass in KPM Matriculation / UM Asasi Sains / UiTM Asasi with a minimum CGPA of 2.00;
- and Obtain at least Level 1 (Band 1) in the Malaysian University English Test (MUET);
- and Meet the specific requirements of the programme.

STPM

- Pass in Sijil Pelajaran Malaysia (SPM) / equivalent with credit in Bahasa Melayu / Bahasa Malaysia or Bahasa Melayu / Bahasa Malaysia July Paper and pass Sejarah/History (SPM 2013 and above);
- and Pass in Sijil Tinggi Pelajaran Malaysia (STPM) with a minimum CGPA of 2.00 and at least obtain: Grade C for General Studies;
- and Grade C in 2 (two) other subjects;
- and Obtain at least Level 1 (Band 1) in the Malaysian University English Test (MUET);
- and Meet the specific requirements of the programme

SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS (STEM)

- Pass in Sijil Pelajaran Malaysia (SPM) / equivalent with credit in Bahasa Melayu / Bahasa Malaysia or Bahasa Melayu / Bahasa Malaysia July Paper;
- and Obtain at least a Jayyid Grade in Sijil Tinggi Agama Malaysia (STAM);
- and Obtain at least Level 1 (Band 1) in the Malaysian University English Test (MUET);
- and Meet the specific requirements of the programme.

DIPLOMA

- Pass in Sijil Pelajaran Malaysia (SPM) / equivalent with credit in Bahasa Melayu / Bahasa Malaysia or Bahasa Melayu / Bahasa Malaysia July Paper and pass Sejarah/History (SPM 2013 and above);
- and Possess a diploma or other qualifications recognised by the Malaysian Government and approved by the university Senate;
- or Passed Sijil Tinggi Persekolahan Malaysia (STPM) 2016 or before with at least CGPA 2.00 with Gred C in three (3) subjects including Pengajian Am;
- or Passed Matriculation / Asasi 2016 or before with at least CGPA of 2.00;
- or Passed GCE A-Level with at least 9 points/International Baccalaureate Diploma with at least 24 points and other equivalent qualification recognized by Malaysia Government or approved by the University Senate
- and Obtain at least Level 1 (Band 1) in the Malaysian University English Test (MUET);
- and Meet the specific requirements of the programme.

SPECIFIC ADMISSION REQUIREMENT (FOR ENG., ENG. TECH., TECH. AND DIPLOMA, IF ANY)

MATRICULATION

- Fulfilling General University Requirements and Programme Specific Requirements Obtained at least Gred C (2.00) at Matriculation Programme / Asasi for the subjects below: i) Mathematics, and ii) One (1) of the following subjects: Physics, Engineering Physics, Chemistry Engineering Chemistry Candidates using Chemistry / Engineering Chemistry qualification at Matriculation / Foundation must obtain at least Grade E in Physics subject at SPM level.
- and Possess at least Tahap 2 (Band 2) in Malaysian University English Test (MUET)
- and Candidates who is not colour blind and disable to perform practical work with difficulty.

STPM

- Fulfilling General University Requirements and Programme Specific Requirements
- Obtained at least Gred C (NGMP 2.00) at STPM for the subjects below:
- Physics / Chemistry / Biology;
- And Mathematics T / Further Mathematics T
- Candidates who choose to use Chemistry / Biology from STPM for qualification must obtained at least a credit in Physics at SPM level
- and Possess at least Tahap 2 (Band 2) in Malaysian University English Test (MUET)
- and Candidates who is not colour blind and disable to perform practical work with difficulty.

DIPLOMA

- Fulfilling General University Requirements and Programme Specific Requirements
- Possessed Diploma from public university/Polytechnic or other equivalent qualification recognized by Malaysian Government or approved by the University Senate with at least CGPA 2.50 in the following areas: 521 - Mechanics and Metal Work 525 - Motor Vehicle, Ships and Aircraft 527 - Material Engineering 540 - Manufacturing and Processing (Broad Programs).
- Note: Credit exemption is subjected to the consideration and approval of the university.
- or Graduate from STPM/Matriculation/Asasi (2016 or before) Admission requirement is following the STPM/Matriculation/Asasi in the current year.
- or Possessed at least Grade C (3 Marks) at A-level in the following subjects: i) Mathematics ii) Physics iii) One of the following subject: Chemistry/Further Mathematics/Biology
- and Possessed at least Grade 4 at International Baccalaureate (IB) in the following subjects: i) Mathematics ii) Physics iii) One of the following subject: Chemistry/Further Mathematics/Biology
- and Possess at least Tahap 2 (Band 2) in Malaysian University English Test (MUET)
- and Candidates who is not colour blind and disable to perform practical work with difficulty.

DOCUMENTS FOR ADMISSION

Documents to be prepared

- Copy of application via online
- Copy of MyKad OR Copy of Birth of Certificate / Surat Akuan Sumpah (if MyKad is lost)
- School Certificate/Surat Akuan
- Employer's Declaration (if any)
- Copy of Diploma Certificate
- Copy of STPM Certificate
- Copy of SPM Certificate
- Copy of all Academic's Transcript
- Copy of MUET Certificate
- Copy of Letter of endorsement graduated
- Copy of Bahasa Melayu / Matematik July (if any)
- Copy of MQA OR Malaysian Qualifications Register (MQR) proof
- Academic Fee

CAREER PROSPECT

Graduates can seek employment in Mechanical and Agriculture industry that can work together with researcher, plant researcher, site managers and other engineers.

Mechanical Engineering technology activities include the application, testing, manufacturing, field services engineering as well as development and utilisation of latest mechanical and production of tools, machines as well as their products. Hence, this department is committed to prepare the students for a wide range of technological challenges in this exciting field through highest-quality educational programmes.

The primary goal is to provide students with a solid technical foundation which enable to readily adapt to a wide variety of careers within the existing engineering field.

PROSPECT JOB TITLE

The degree programme in mechanical engineering technology prepares graduates for various possible in manufacturing, sport technology, agricultural and other technical industries which include:

- Production or process engineer / technologist
- Product engineer / technologist
- Service engineers / technologist
- Quality engineer / technologist
- R & D engineer / technologist
- Agro-based production engineer / technologist
- Agro-based SM / R & D
- Agra-based sales / technical services
- Maintenance and service industries
- Electronic packaging / metal / polymer / materials processing industries
- Automotive industries