UR6521003

Bachelor of Mechanical Engineering Technology (Agricultural Systems) with Honours

Programme Educational Objective (PEO)

PEO 1	Engineering technology graduates engaged in the field of mechanical engineering technology as demonstrated through career advancement.
PEO 2	Engineering technology graduates who are members and contribute to professional society.
PEO 3	Engineering technology graduates embracing in life-long learning or pursuing continuing education opportunities.
PEO 4	Engineering technology graduates who are technopreneurs.

Programme Outcomes (PO)

PO1	Knowledge: Apply knowledge of mathematics, science, engineering fundamentals and an engineering specialization to defined and applied engineering procedures, processes, systems, or methodologies.
PO2	Identify, formulate, research literature and analyze broadly-defined engineering problems reaching substantiated conclusions using analytical tools appropriate to their discipline or area of specialization.

PO3	Design/development of solutions: 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 safety, cultural, societal, and environmental considerations.
PO4	Investigation: 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.
PO5	Modern Tool Usage: 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 their limitations.
PO6	The Engineer and Society: 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 problems.
PO7	Environment and Sustainability: 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.
PO8	Ethics: Understand and commit to professional ethics and responsibilities and norms of engineering technology practice.
PO9	Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse technical teams.
PO10	Communications: 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, make effective presentations, and give and receive clear instructions.

PO11	Project Management and Finance: Demonstrate knowledge an 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 environments.
PO12	Life-Long Learning: Recognize the need for professional and have the ability to engage in independent and life-long learning in specialist technologist.

YEAR	FIRST		SECOND		THIRD		FOURTH	
SEMESTER	I	II	III	IV	V	VI	VII	VIII
DISCIPLINE CORE (107)	MMK10103 Sains Bahan *[Material Science]*	MMK10303 Asas Elektrik dan Elektronik *[Basic Electrical and Electronic]*	MMK20103 Termodinamik *[Thermodynamics]*	MMK21203 Pemindahan Haba *[Heat Transfer]*	MMK34103 Automasi dalam Sistem Pertanian *[Automations in Agricultural Systems]*	MMK31204 Projek Tahun Akhir 1 *[Final Year Project 1]*	MMK41206 Projek Tahun Akhir 2 *[Final Year Project 2]*	MMK49912 Latihan Industri [*Industrial Training*]
	MMK10203 Statik & Dinamik *[Static and Dynamic]*	MMK11203 Mekanik Bendalir *[Fluid Mechanics]*	MMK20203 Kekuatan Bahan *[Strength of Materials]*	MMK24103 Pneumatic and Hydraulic Systems *[Pneumatic and Hydraulic Systems]*	MMK11403 Pengurusan Projek *[Project Management]*	MMK34203 Projek Rekabentuk Pertanian *[Agricultural Design project]*	MMK44103 Jentera dan Kuasa Ladang *[Farm Power and Machinery]*	
	MMK10403 Grafik Kejuruteraan *[Engineering Graphics]*	MMK11603 Reka Bentuk Berbantu Komputer *[Computer Aided Design]*	MMK21103 Kejuruteraan Berbantu Komputer *[Computer Aided Engineering]*	MMK24203 Instrumentation and Control *[Instrumentation and Control]*	MMK11103 Kawalan Kualiti *[Quality Control]*	MMK31103 Keselamatan & Ergonomik *[Ergonomic and Safety]*	MMK45103 Kejuruteraan Pengurusan dan Penggunaan Sisa Pertanian *[Agricultural waste Management and utilization Eng.]*	
	MMK10502 Teknologi Bengkel *[Workshop Technology]*	MMK11502 Teknologi Pembuatan *[Manufacturing Technology]*	MMK11302 Pengaturcaraan Komputer *[Computer Programming]*	MMK25202 Kejuruteraan Tanah *[Soil Engineering]*	MMK35103 Teknologi Lepas Tuai *[Post-Harvest Technology]*	Elektif I/3 *[Elective I/3]*	Elektif II/3 *[Elective II/3]*	

	MMK15102 Biologi Gunaan *[Applied Biology]*	MMK15202 Pengenalan Kepada Pertanian *[Introduction to Agriculture]*	MMK25102 Teknologi Pengeluaran Tanaman Ladang *[Plantation Crop Production Technology]*	MMK25303 Teknologi Pengeluaran Penternakan dan Akuakultur *[Livestock and Aquaculture Production technology]*				
				MMK25402 Teknologi Pengeluaran Tanaman Makanan *[Food Crop Production Technology]*				
107	13	13	13	16	12	13	15	12
COMMON CORE (15)	SQM11103 Matematik Untuk Teknologi Kejuruteraan I *[Mathematics for Engineering Technology I]*	SQM11203 Matematik Untuk Teknologi Kejuruteraan II *[Mathematics for Engineering Technology II]*	SQM21303 Matematik Untuk Teknologi Kejuruteraan III *[Mathematics for Engineering Technology III]*		MMK30103 Pengurusan Teknologi Kejuruteraan *[Engineering Technology Management]*	MMK31303 Teknologi Kejuruteraan Dalam Masyarakat *[Engineering Technologist in Society]*		
15	3	3	3		3	3		
University Requirement Courses (20)	SMB41002 Bahasa Melayu Universiti *[University Malay Language]*	SMB20102 Bahasa Inggeris Komunikasi Umum atau *[English for General Comunication or]* SMB0XX02 Subjek Pilihan *[Option Subject]*	SMB31202 Bahasa Inggeris Untuk Komunikasi Teknikal *[English for Technical Communication]*	SMU12202 Kemahiran Komunikasi dan Teknologi *[Skill and Technology in Comunication]*	SMU13102 Penghayatan Etika dan Peradaban *[Appreciation of Ethics and Civilization]*	SMU13002 Falsafah dan Isu Semasa *[Philosophy and Current Issues]*		
	SMZ XXX01 Ko-Kurikulum *[Co-Curriculum]*	SMZ XXX01 Ko-Kurikulum *[Co-Curriculum]*		SMU22402 Keusahawanan Kejuruteraan *[Engineering Entrepreneurship]*	SMU32202 Kemahiran Berfikir *[Thinking Skills]*			

	SMB10102 Bahasa Inggeris Persediaan *[Preparatory English]* (Uncredited)*							
18	3	3	2	4	4	2		
140	19	19	18	20	19	18	15	12
Elective I : MMK35203 Teknologi Pertanian Tepat *[Precision Farming Technology]* OR MMK35303 Tenaga Diperbaharui dalam Sistem Pertanian *[Renewable Energy in Agriculture Systems]* **Elective II : MMK45203 Persekitaran Terkawal untuk Pertanian *[Controlled Environment for Agriculture]* OR MMK45303Kejuruteraan Pemprosesan Makanan *[Food Processing Engineering]***								