

UR6521002

Bachelor of Mechanical Engineering Technology (Machining) 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 specialisation to defined and applied engineering procedures, processes, systems or methodologies.
PO2	Problem Analysis: Identify, formulate, research literature and analyse broadly-defined engineering problems reaching substantiated conclusions using analytical tools appropriate to their discipline or area of specialisation.
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 the 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 Teamwork: Function effectively as an individual, and as a member or leader in diverse technical teams.
PO10	Communication: 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 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 environments.
PO12	Lifelong learning: Recognize the need for, and have the ability to engage in independent and life-long learning in specialist technologies.

CURRICULUM STRUCTURE BACHELOR OF MECHANICAL ENGINEERING TECHNOLOGY (MACHINING) WITH HONOURS, SESSION 2022/2023				
YEAR	FIRST	SECOND	THIRD	FOURTH

SEMESTER	1	2	3	4	5	6	7	8
DISCIPLINE CORE & ELECTIVE COURSES (107 CREDITS)	MMK10103 Material Science	MMK11203 Fluid Mechanics	MMK11603 Computer Aided Design	MMK21103 Computer Aided Engineering	MMK32303 Geometric, Dimensioning & Tolerance	MMK31204 Final Year Project I	MMK41206 Final Year Project II	MMK49912 Industrial Training
	MMK10203 Statics & Dynamics	MMK11502 Manufacturing Technology	MMK20203 Strength of Materials	MMK11403 Project Management	MMK32403 Jigs & Fixtures Design	MMK31103 Ergonomic & Safety	Elective II	
	MMK10403 Engineering Graphics	MMK11103 Quality Control	MMK20103 Thermodynamics	MMK11302 Computer Programming	MMK32502 Sustainable Machining	MMK33104 Machining Project	Elective III	
	MMK10502 Workshop Technology	MMK10303 Basic Electrical & Electronic	MMK22104 Conventional Machining	MMK21203 Heat Transfer	MMK32603 Computer Aided Manufacturing	MMK32703 Advanced Machining Technology		
		MMK12103 Theory in Machining		MMK22203 CNC Technology	MMK32103 Manufacturing Economics	Elective I		
COMMON CORE COURSES (15 CREDITS)	SMQ11103 Mathematics For Engineering Technology I	SMQ11203 Mathematics For Engineering Technology II	SMQ21303 Mathematics For Engineering Technology III				MMK31303 Engineering Technologist in Society	
							MMK30103 Engineering Technology Management	
UNIVERSITY REQUIREMENT COURSES (18 CREDITS)	SMU13002 Philosophy & Current Issues	SMB10102 Preparatory English	SMB20102 English For General Communication		SMU12202 Communication Skills And Technology			
	SMB41002 University Malay Language			SMU22402 Engineering Entrepreneurship	SMU13102 Appreciation of Ethics And Civilization	SMU32202 Thinking Skills		
	SMZXXX01 Co-Curricular Activity	SMZXXX01 Co-Curricular Activity		SMB31202 English For Technical Communication	SMB0XX02 Option Subject (Foreign Language)			
TOTAL CREDITS (140 CREDITS)	19	16	18	18	20	19	18	12

Elective I : MMK33103 Elective A, MMK33203 Elective B, MMK33303 Elective C.
Elective II : MMK43403 Elective D, MMK43503 Elective E, MMK43603 Elective F.
Elective III : MMK43703 Elective G, MMK43803 Elective H,

1. Compulsory to students with MUET 2.5 and below (local students) or TOEFL 4.5/IELTS 4.0 and below (international students). SMB10102 Preparatory English is an Audit course.
2. Exemption to students with MUET 4.0 and above (local students) or TOEFL 8.0/IELTS 5.5 and above (international students) but need to replace the course by registering a two credits Optional Course.
3. International students other than Indonesia, Singapore and Brunei need to register the SMB11002 Basic Malay Language