

Faculty/School	Faculty of Chemical and Energy Engineering
Program Name	Master in Bioprocess Engineering
Program Code	METB
Mode of Program	Taught Course
Academic Session/ Semester	2025/2026-1

COURSE MENU

University General Courses (Choose 1 ONLY)		
Course Code	Course Name	Credit
UHMS6013	Seminar on Global Development, Economic and Social Issues	3
UHS6013	Philosophy of Science and Civilization	3
UHPS6013	Dynamics of Leadership	3
UHMZ6023	Malaysia Society and Culture	3
UECS6023	Introduction to Technopreneurship	3
UHLM6013	Bahasa Malaysia Penulisan Ilmiah	3
UBSS6023	Business Ethics, Responsibility and Sustainability	3
UBSS6013	Organizational Behavior and Development	3
UECS6013	IT Project Management	3
UMJJ6013	Basic Japanese Language & Culture	3
URTS6013	Environmental Ethics	3

Core Faculty Courses (Compulsory)		
Course Code	Course Name	Credit
METU1013	Research Methodology	3

Core Courses (Compulsory)		
Course Code	Course Name	Credit
METB1103	Biotechnology for Engineers	3
METB1113	Industrial Bio-processing	3
METB1123	Facilities and Infrastructures in Bioprocess Engineering	3
METB1133	Advanced Bio-Product Development	3
METB1143	Digital Transformation in the Process Industry	3

Elective Courses (Choose 3 only)		
Course Code	Course Name	Credit
METK1123	Computational Methods in Chemical Engineering	3
METW1243	Process Safety and Loss Prevention	3
METW1273	Human Factors	3
METT1043	Product Formulation	3
METT1033	Herbal Processing	3
METT2023	Nutraceutical and Functional Food	3
METE1213	Renewable Energy	3

Project (Compulsory)		
Course Code	Course Name	Credit
METB1154	Master Project 1	4
METB1166	Master Project 2	6

Prerequisite (mandatory attendance)(Only one or both)*		
Course Code	Course Name	Credit
METB3133	Bioreactor Design & Analysis	3 (HW)
METB3213	Biochemistry	3 (HW)

**prerequisite course METB3133 for non-engineering background students and METB3213 non-biotechnology background students*

**Programme Coordinator : Dr Nur Hidayah Zainan
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PROGRAM STRUCTURE

COURSES OFFERED FOR NEW INTAKE STUDENTS SESSION 2025/2026 SEMESTER 1

SYLLABUS	COURSE CODE	SEMESTER	SECTION	DAY & TIME	LECTURER'S NAME & CONTACT NO : (Email & HP no.)
University General Courses	<i>Student MUST refer to SPS Website https://sps.utm.my/academic-related-resources/ for the University General Courses schedule</i>				
Core Faculty Course	METU1013	1	01	Friday 8.00 am – 11.00 am	Assoc. Prof. Dr. Zainul Akmar Zakaria zainulakmar@utm.my 012-6270423
Core Courses	METB1103	1	01	Monday 8.00 am – 11.00 am	Prof. Dr. Hesham Ali Metwally el-Enshasy hesham@utm.my 011-17739884
	METB1133	1	01	Tuesday 8.00 am – 11.00 am	Assoc. Prof. Ts. Dr. Harisun Ya'akob harisun@utm.my 012-7830020
	METB1113	1	01	Thursday 2.00 pm – 5.00 pm	Dr. Lee Ting Hun leetinghun@utm.my 019-7539346
Elective Course	<i>Student can refer to other programs that offers elective courses (as listed in the study plan)</i>				
Project	-				