

STUDY SCHEME 2011-2015
BACHELOR OF ENGINEERING (PROCESS AND FOOD)

Department of Process and Food Engineering
Faculty of Engineering, Universiti Putra Malaysia

C – Credit Hour, L_e – Lecture, L – Laboratory

First Semester					Second Semester				
CODE	COURSES	C	L _e	L	CODE	COURSES	C	L _e	L
Year 1									
EPF 3101	Introduction to Process and Food Industries	2	2	0	EPF 3401	Food Engineering Fluid Mechanics	3	3	0
EPF 3102	Basic Principle of Calculations for Process Engineers	2	2	0	ECC 3002	Engineering Mathematics II	3	3	0
ECC 3001	Engineering Mathematics I	3	3	0	EMM 3108	Strength of Material I	3	2	1
EMM 3102	Statics	2	2	0	BBI 2420	Oral Interactive Skills	3	2	1
EPF 3103	Biology for Engineers	3	3	0	SKP 2203	Asian and Islamic Civilisation	2	2	0
SKP 2101	Malaysian Nationhood	3	3	0	EPF 3602	Engineering Properties of Biological Material	2	2	0
Q** ****	Credited Co-curriculum ¹	1	0	1	Q** ****	Credited Co-curriculum ¹	1	0	1
		16	15	1			17	14	3
Year 2									
					EPF 3404	Process Heat Transfer	3	3	0
EPF 3402	Chemical Engineering Thermodynamics	4	4	0	EPF 3406	Mass Transfer Operations	3	3	0
EPF 3202	Physical Unit Operations	3	3	0	EPF 3301	Computer Programming for Process Engineers	3	2	1
ECC 3003	Engineering Mathematics III	3	3	0	EPF 3104	Food Process Engineering Laboratory I	1	0	1
EEE 3100	Electrical and Electronic Technology	3	2	1	BBI 2421	General Writing Skills	3	2	1
FST 3107	Introduction to Food Chemistry	3	2	1	SKP 2204	Ethnic Relation	2	2	0
EAB 3008	Computer Aided Engineering Drafting	2	1	1	PRT 2008	Agriculture and Man	2	2	0
		18	15	3			17	14	3
Year 3									
EPF 3801	Reaction Kinetics and Reactor Design	3	3	0	EPF 4301	Process Modeling and Simulation	3	3	0
EPF 3304	Process Control and Instrumentation	3	3	0	EPF 3502	Safety and Health in Processing Industries	3	3	0
MGM 3180	Basic Entrepreneurship	3	2	1	EPF 3106	Food Process Engineering Laboratory III	1	0	1
EPF 3105	Food Process Engineering Laboratory II	1	0	1	EAB 3000	Workshop Management and Practice	1	0	1
ECC 3004	Engineering Statistics	3	3	0	EPF 4801	Process Equipment Design	3	3	0
EPF 3501	Waste Treatment and Utilisation	3	3	0	EPF 4802	Process Plant Design	3	3	0
					ECV 3001	Engineer and Society	3	2	1
		16	14	2			17	14	3
Year 4									
EPF 4901	Industrial Training ²	5	0	5	EPF 4999B	Final Year Academic Project	4	0	4
EPF 4999A	Final Year Academic Project	2	0	2	EMM 3602	Industrial Management I	3	3	0
EPF 3107	Safe Food Processing	3	3	0	EPF 4***	Option Course III	3	3	0
EPF 4803	Process and Food Plant Design Project	2	0	2	EPF 4***	Technical Elective Course	3	3	0
EPF 4***	Option Course I	3	3	0	EPF 3701	Packaging Engineering	3	3	0
EPF 4***	Option Course II	3	3	0					
		18	9	9			16	12	4

NOTA :

¹ Credited co-curriculum can be taken at any semester throughout the study period.

² Industrial training is conducted for 10 weeks during semester break of Second Semester, Year 3.

Total Overall Credits

135

**OPTION AND TECHNICAL ELECTIVE COURSES
BACHELOR OF ENGINEERING (PROCESS AND FOOD)**

Option courses were developed to fulfil the needs of the Process and Food Engineering programme objectives in order to prepare the graduates to work in the relevant industries at the international level or to prepare them in the research and development of process and food engineering. Students may choose the courses based on the options offered. These options were offered based on the niche area identified in the process and food engineering industry.

During their fourth year of study, it is compulsory for the students to choose one of the two options and one of the seven technical elective courses offered. The suggested options and elective technical courses offered are as follows:

FOOD ENGINEERING OPTION

FOOD ENGINEERING OPTION									
First Semester					Second Semester				
CODE	COURSE	K	S	A	CODE	COURSE	K	S	A
EPF 4702	Fabricated Food Technology	3	3	0	EPF 4703	Food Engineering Systems	3	3	0
EPF 4708	Food Engineering Operations	3	3	0					

BIO-MATERIAL PROCESS ENGINEERING OPTION

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First Semester					Second Semester				
CODE	COURSE	K	S	A	CODE	COURSE	K	S	A
EPF 4601	Plantation Crops Processing	3	3	0	EPF 4603	Bio-Material Processing Systems	3	3	0
EPF 4602	Bio-Material Polymer Technology	3	3	0					

TECHNICAL ELECTIVE

TECHNICAL ELECTIVE									
First Semester					Second Semester				
CODE	COURSE	K	S	A	CODE	COURSE	K	S	A
					EPF 4604	Advanced Processing Systems	3	3	0
					EPF 4605	Pharmaceutical Technology	3	3	0
					EPF 4704	Food Extrusion Technology	3	3	0
					EPF 4606	Microbial Process Engineering	3	3	0
					EPF 4705	Powder Technology	3	3	0
					EPF 4706	Rice Processing	3	3	0
					EPF 4707	Palm Oil Processing	3	3	0