

3. STUDY SCHEME

CURRICULUM STRUCTURE 2016-2020 BACHELOR OF MECHANICAL ENGINEERING Department of Mechanical and Manufacturing Engineering Faculty of Engineering, Universiti Putra Malaysia					
FIRST SEMESTER			SECOND SEMESTER		
CODE	COURSE	CREDIT	CODE	COURSE	CREDIT
YEAR 1					
ECC3001	Engineering Mathematics I	3(3+0)	ECC3002	Engineering Mathematics II	3(3+0)
EMM3103	Statics	3(3+0)	EMM3104	Dynamics	3(3+0)
EMM3122	Engineering Materials	3(3+0)	EMM3126	An Introduction to Programming Language	3(1+2)
EMM3518	Computer Aided Engineering Drawing	3(1+2)	EMM3409	Strength of Materials I	3(3+0)
PRT2008	Agriculture and Man	2(2+0)	EMM3806	Mechanical Engineering Laboratory I	1(0+1)
QKXXXX	Credited Co-curriculum	1(0+1)	BBI2423	Academic Interaction and Presentation	3(2+1)
			QKXXXX	Credited Co-curriculum	1(0+1)
TOTAL		15	TOTAL		17
YEAR 2					
EMM3132	Applied Engineering Mathematics and Statistics	3(3+0)	EEE3100	Electrical and Electronics Technology	3(2+1)
EMM3213	Thermodynamics I	3(3+0)	EMM3214	Thermodynamics II	3(3+0)
EMM3305	Fluid Mechanics I	3(3+0)	EMM3306	Fluid Mechanics II	3(3+0)
EMM3410	Strength of Materials II	3(3+0)	EMM3610	Engineering Economic Analysis	3(3+0)
EMM3808	Mechanical Engineering Laboratory II	1(0+1)	EMM3722	Manufacturing Technology and Processes	3(3+0)
BBI2424	Academic Writing	3(2+1)	EMM3810	Mechanical Engineering Laboratory III	1(0+1)
			SKP2204	Ethnic Relations	2(2+0)
TOTAL		16	TOTAL		18
YEAR 3					
EMM3520	Instrumentation and Control	3(3+0)	ECV3001	Engineers and Society	3(2+1)
EMM3506	Engineering Design I	3(2+1)	EMM3508	Engineering Design II	3(1+2)
EMM3524	Mechanics of Machines	3(3+0)	EMM3528	Mechanical Vibrations	3(3+0)
EMM3612	Engineering Project Management	3(3+0)	EMM3526	Computer Aided Engineering	3(1+2)
EMM3614	Industrial Safety and Health	3(3+0)	EMM3706	Production Planning and Automation Systems	3(3+0)
EMM3812	Mechanical Engineering Laboratory IV	1(0+1)	EMM3814	Mechanical Engineering Laboratory V	1(0+1)
TOTAL		16	TOTAL		16
YEAR 4					
EMMXXXX	Elective I ²	3(3+0)	EMMXXXX	Elective III ²	3(3+0)
EMMXXXX	Elective II ²	3(3+0)	EMM4949B	Bachelor's Project	4(0+4)
EMM4901	Industrial Training ¹	5(0+5)	SKP2101	Malaysian Nationhood	3(3+0)
EMM4946	Integrated Design	3(0+3)	SKP2203	Islamic Civilisation and Asian Civilisation	2(2+0)
EMM4949A	Bachelor's Project	2(0+2)			
TOTAL		16	TOTAL		12
GRAND TOTAL OF THE CREDITS					126

SELECTION OF THE ELECTIVE COURSES

Students are free to choose three elective courses from any of the elective courses offered in the final year of study. Proposal selection of elective courses are as follows:

FIRST SEMESTER			SECOND SEMESTER		
CODE	COURSE	CREDIT	CODE	COURSE	CREDIT
EMM4214	Heat Transfer	3(3+0)	EMM4208	Internal Combustion Engine	3(3+0)
EMM4404	Fabrication and Characterisation of Composite Materials	3(3+0)	EMM4212	Building Environment and Services	3(3+0)
EMM4512	Finite Element Method in Engineering Analysis	3(3+0)	EMM4302	Tribology	3(3+0)
EMM4608	Industrial Management	3(3+0)	EMM4412	Advanced Engineering Materials	3(3+0)
EMM4710	Tooling Engineering	3(3+0)	EMM4606	Total Quality Control	3(3+0)
EMM4718	Human Responses to Vibration	3(3+0)	EMM4706	Manufacturing System Design	3(3+0)

NOTE

¹ EMM4901 Industrial Training run for 10 weeks during the semester break in Second Semester, Year 3.

² Elective courses EMMXXXX can be chosen by the students.