

4.0 STUDY SCHEME

STUDY SCHEME BY SEMESTER									
BACHELOR OF ENGINEERING (ELECTRICAL AND ELECTRONICS) 2011 – 2015									
Department of Electrical and Electronic Engineering Faculty of Engineering, Universiti Putra Malaysia									
C – Credit Hours, L – Lecture, P – Practical									
First Semester					Second Semester				
CODE	COURSE	C	L	P	CODE	COURSE	C	L	P
Year 1									
ECC 3001	Engineering Mathematics I	3	3	0	ECC 3002	Engineering Mathematics II	3	3	0
EEE 3101	Electrical And Electronic Principles	3	3	0	EEE 3102	Semiconductor Devices	3	3	0
EEE 3103	Computer Programming	4	3	1	EEE 3105	Digital Circuits	3	3	0
SKP 2101	Malaysian Nationhood	3	3	0	EEE 3902	Electrical And Electronics Laboratory I	1	0	1
PRT 2008	Agriculture and Man	2	2	0	SKP 2203	Islamic Civilization and Asian Civilization	2	2	0
Q** ****	Credited Curriculum ¹	1	0	1	BBI 2420	Oral Interaction Skill	3	2	1
					Q** ****	Credited Curriculum ¹	1	0	1
		16	14	2			16	13	3
Year 2									
ECC 3003	Engineering Mathematics III	3	3	0	SKP 2204	Ethnic Relations	2	2	0
EEE 3106	Electric Circuits	3	3	0	EEE 3109	Applied Electromagnetism	3	3	0
EEE 3107	Analog Systems	4	3	1	EEE 3201	Microprocessor Technology	4	3	1
EEE 3108	Digital Systems	4	3	1	EEE 3401	Control Systems	3	3	0
BBI 2421	General Writing Skills	3	2	1	EEE 3502	Communications Engineering	4	3	1
		17	14	3			16	14	2
Year 3									
ECC 3004	Engineering Statistics	3	3	0	EEE 3104	Instrumentation and Measurement	3	3	0
ECC 3202	Computer Architecture	3	3	0	EEE 3202	Microelectronic Principles	3	3	0
EEE 3302	Power Electronics	3	3	0	EEE 3304	Power System Analysis	3	3	0
EEE 3313	Electrical Machines And Drives	3	3	0	EEE 3501	Signal Processing	3	3	0
EEE 3402	Industrial Control Electronics	3	3	0	EEE 3909	Electronic System Design	1	0	1
EEE 3904	Electrical Power Engineering Laboratory	1	0	1	EEE 390*	Restricted Elective Laboratory ²	1	0	1
EEE 3905	Control Engineering Laboratory I	1	0	1	MGM 3180	Basic Entrepreneurship	3	2	1
		17	15	2			17	14	3
Year 4									
EEE 4901	Industrial Training ³	5	0	5	ECC 4204	Internet Computing	3	3	0
EEE 4999A	Final Year Academic Project	2	0	2	EEE 4999B	Final Year Academic Project	4	0	4
EEE 4307	Electrical Power Generation And Utilisation	3	3	0	EEE ****	Technical Elective IV ⁴	3	3	0
EEE ****	Technical Elective I ⁴	3	3	0	E** ****	Technical Elective V ⁴	3	3	0
EEE ****	Technical Elective II ⁴	3	3	0	ECV 3001	Engineers And Society	3	2	1
EEE ****	Technical Elective III ⁴	3	3	0					
		19	12	7			16	11	5
							Total Credit (Courses)	129	
							Industrial training	5	
							Total Overall Credit	134	

^{1,2,3,4} Note: Refer to next page

RESTRICTED ELECTIVE COURSE

A Microelectronic Engineering Option

First Semester					econd Semester				
CODE	COURSE	C	L	P	CODE	COURSE	C	L	P
EEE 4203	Vlsi Systems Design	3	3	0	EEE 4204	Integrated Circuit Fabrication Technology	3	3	0
EEE 4205	Microsystems and Sensors	3	3	0	EEE 4207	Testing and Reliability Engineering	3	3	0
EEE 4206	Analog Integrated Circuit Design	3	3	0	EEE 4208	Advanced Semiconductor Devices	3	3	0
					ECC 4504	Radio Frequency and Microwave Techniques	3	3	0

B Power Engineering Option

First Semester					econd Semester				
CODE	COURSE	C	L	P	CODE	COURSE	C	L	P
EEE 3305	Power System Protection	3	3	0	EEE 4308	Industrial Drives	3	3	0
EEE 3306	Electrical Wiring Design	3	3	0	EEE 4310	High Voltage Engineering	3	3	0
EEE 4311	Electric Power Quality	3	3	0	EEE 4309	Power System Operation and Control	3	3	0

C Control Engineering Option

First Semester					econd Semester				
CODE	COURSE	C	L	P	CODE	COURSE	C	L	P
EEE 4403	Control System Design	3	3	0	EEE 4404	Intelligent Control System	3	3	0
EEE 4406	Industrial Process Control	3	3	0	EEE 4405	Embedded Control System	3	3	0
EEE 4407	Multivariable Control Systems	3	3	0	ECC 4304	Autonomous Robots	3	3	0

RESTRICTED ELECTIVE LABORATORY COURSE

Second Semester				
CODE	COURSE	C	L	P
EEE 3906	Microelectronics Laboratory	1	0	1
EEE 3907	Power System And Machine Laboratory	1	0	1
EEE 3908	Control Engineering Laboratory II	1	0	1

Note:

¹ Credited Cocurriculum may be taken at any semester during the duration of study

² For Elective Laboratory course, choose one (1) from three (3) Elective Laboratory.

³ Industrial Traning is carried out at least for 10 weeks after the sixth (6) semester during inter semester break.

⁴ For Elective Technical Course, choose five (5) courses.