SEELH Elective Courses for PRISM (CHOOSE MAXIMUM 4)			
Code	Course	Credit	Pre-requisite
SEEL 5193	Advanced Analog CMOS IC Design	3	
SEEM 5753	Advanced Instrumentation and Measurement	3	
SEEM 5713	Artificial Intelligence and Applications	3	
SEEM 5703	Control Systems Engineering	3	
SEET 5313	Communications and Computer Networks	3	
SEET 5513	Sustainable Design, Engineering and Management	3	
SEET 5423	Wireless Communication Systems	3	
SEET 5523	Internet of Things Technology	3	

PRISMS ELECTIVE COURSES

For students who intend to enroll into PRISMS programme, refer to the PRISMS Section for a list of related elective courses associated with the postgraduate programmes.

Requirements

Students who are eligible to apply for PRISMS are those with academic qualification who are in Year 3 Semester 2 with cumulative average grade value of CGPA 3.3 and above. Students can apply for PRISMS in Year 3 Semester 2 through the Program Integrasi Sarjana Muda-Sarjana (PRISMS) application form and must be recommended by the Academic Advisor, approved by the Program Director and certified by the Chair of School or Dean of Faculty.

GRADUATION CHECKLIST

To graduate, students must pass all the stated courses in this checklist. It is the responsibility of the students to ensure that all courses are taken and passed. Students who do not complete any of the course are not allowed to graduate.

Bachelor of Electronic Engineering with Honours - SEELH

NO.	CODE	COURSE	CREDIT EARNED (JKD)	CREDIT COUNTED (JKK)	TICK (√) IF PASSED
BACHELOR OF ENGINEERING (ELECTRICAL - ELECTRONICS)					
1.	SEEE 1012	Introduction to Electrical Engineering	2	2	
2.	SEEE 1013	Electrical Circuit Analysis	3	3	
3.	SEEE 1022	Introduction to Scientific Programming	2	2	
4.	SEEE 1073	Electronic Devices and Circuits	3	3	
5.	SEEE 1223	Digital Electronics	3	3	
6.	SEEE 2073	Signal and Systems	3	3	
7.	SEEE 2133	Electronic Instrumentation & Measurement	3	3	
8.	SEEE 2263	Digital Systems	3	3	
9.	SEEE 2423	Fundamentals of Electrical Power Systems	3	3	
10.	SEEE 2523	Electromagnetic Field Theory	3	3	
11.	SEEE 2742	2nd year Electronic Design Lab	2	2	
12.	SEEE 3133	System Modelling & Analysis	3	3	
13.	SEEE 3143	Control System Design	3	3	
14.	SEEE 3223	Microprocessor	3	3	
15.	SEEE 3263	Electronic System	3	3	
16.	SEEE 3533	Communication Principles	3	3	
17.	SEEE 3732	Common 3rd year Laboratory	2	2	
18.	SEEE 4012	Professional Engineering Practice	2	2	
19.	SEEL 3742	Specialized 3rd year Laboratory	2	2	
20.	SEEL 4223	Digital Signal Processing I	3	3	
21.	SEEL 4723	Capstone Project	3	3	
22.	SEEL 4812	Final Year Project Part I	2	2	
23.	SEEL 4824	Final Year Project Part II	4	4	
24.	SEEL 4926	Practical Training	6	HL	
25.	SEMU 2113	Engineering Science	3	3	

26.	SEE* ***3	Field Core 1	3	3	
27.	SEE* ***3	Field Core 2	3	3	
28.	SEE* 4**3 / SEE*5**3	Field Elective 1 / PRISMS Elective 1	3	3	
29.	SEE* 4**3 / SEE*5**3	Field Elective 2 / PRISMS Elective 2	3	3	
30.	SEE* 4**3 / SEE*5**3	Field Elective 3 / PRISMS Elective 3	3	3	
31.	SEE* 4**3 / SEE*5**3	Field Elective 4 / PRISMS Elective 4	3	3	
32.	SEE* 4**3	Field Elective 5	3	3	
33.	SEE* ***3	Field Elective 6	3	3	
34.	SECP 1103	C Programming Techniques	3	3	
35.	SHMS 4542	Engineering Management	2	2	
		TOTAL CREDIT OF ENGINEERING COURSES (a)	**101**	**95**	
MATHEMATICS COURSES (Faculty of Science)					
1.	SSCE 1693	Engineering Mathematics I	3	3	
2.	SSCE 1793	Differential Equations	3	3	
3.	SSCE 1993	Engineering Mathematics II	3	3	
4.	SSCE 2193	Engineering Statistics	3	3	
5.	SSCE 2393	Numerical Methods	3	3	
		TOTAL CREDIT OF MATHEMATICS COURSES (b)	**15**	**15**	
UNIVERSITY GENERAL COURSES					
Cluster 1: Appreciation of Philosophy, Value and History (Faculty of Social Sciences and Humanities)					
1.	UHMS 1182	Appreciation of Ethics and Civilizations (for Local Students)	2	2	
	UHIS 1022 OR UHMS 1182	Philosophy and Current Issues (for International Students) OR Appreciation of Ethics and Civilizations (for International Students			
2.	UHIS 1022	Philosophy and Current Issues (for Local Students)	2	2	
	UHLM 1012	Malay Language 2 (for International Students)			
Cluster 2: Generic Skills					

1.	UHMT 1012	Graduate Success Attributes	2	2	
2.	UBSS 1032	Introduction to Entrepreneurship	2	2	
Cluster 3: Knowledge Enhancement					
1.	UHIT 2302	The Thought of Science and Technology	2	2	
Cluster 4: Co-Curriculum and Service Learning					
1.	UKQF 2**2	Elective of Co-Curricular Service Learning	2	2	
2.	UKQT 3001	Extracurricular Experiential Learning (ExCEL)	1	1	
Cluster 5: Language Skills (Language Academy, Faculty of Social Sciences and Humanities)					
1.	UHLB 1112	English Communication Skills	2	2	
2.	UHLB 2122	Academic Communication Skills	2	2	
3.	UHLB 3132	Professional Communication Skills	2	2	
4.	UHL* 1112	Elective Of Foreign Language	2	2	
		TOTAL CREDIT of UNIVERSITY GENERAL COURSES (c)	**21**	**21**	
		TOTAL CREDIT TO GRADUATE (a + b + c)	**137**	**131**	
OTHER COMPULSORY COURSES - PROFESSIONAL SKILLS CERTIFICATE (PSC). • **Students are required to enrol and pass FIVE (5) PSC courses, in order to be eligible to graduate.** • **Please refer to page FE 8 in the UG Academic Handbook, for more information about PSC courses.**					
COMPULSORY PSC COURSES (Enroll all 4 courses)					
1	GSPX XXXX	Design Thinking for Entrepreneur			
2	GSPX XXXX	Talent and Competency Management			
3	GSPX XXXX	Faculty Engineering Safety Pass (FESP) *MODULE 1 - compulsory for SKM, SKT and SKE students* *MODULE 2 – compulsory for SKA, SC, SKBSK students*			
4	GSPX XXXX	English Communication Skills for Graduating Students (ECS)			
ELECTIVE PSC COURSE (Choose 1 only)					
1	GSPX XXXX	Data Analytics for Organization			
2	GSPX XXXX	Writing			

3	GSPX XXXX	Construction Measurement (Mechanical & Electrical Works)	
4	GSPX XXXX	Professional Ethics and Integrity	
5	GSPX XXXX	More elective courses to be added in future	

COURSE SYNOPSIS

SEEE 1012 : INTRODUCTION TO ELECTRICAL ENGINEERING

This course serves as a general introduction to electrical engineering programmes offered by the School of Electrical Engineering (SEE), Universiti Teknologi Malaysia (UTM). Students undertaking this course will be exposed to attributes of electrical engineers from both academic and practical points of view. Soft skills and knowledge that are necessary in the engineering world will be introduced to the students. The students will have a clearer understanding on the responsibilities of electrical engineers to the society. By exploring contemporary issues, the students would be able to suggest sustainable solutions to the mankind and its environment.

SEEE 1013 : ELECTRICAL CIRCUIT ANALYSIS

This course introduces students to the basic laws, methods of analysis and theorems for direct current, DC and alternating current, AC circuit, such as, Ohms Law, Kirchhoff's Current and Voltage Laws, Mesh and Nodal Analysis and Thevenin's and Norton's Theorems. Based on these, the students are expected to be able to solve for variables in any given DC and AC electric circuits. The students also exposed to the steady-state electrical circuit. Afterwards, the relevant concepts in transient circuit analysis for first and second order circuit are taught to the students. With the knowledge learned, the student would be able to apply the basic laws, theorem and methods of analysis for solving completely with confidence various problems in circuit analysis.

SEEE 1022 : INTRODUCTION TO SCIENTIFIC PROGRAMMING

This course introduces the fundamentals of scientific programming languages and techniques used by engineers to solve engineering problems. Students will be introduced to common scientific programming languages and their comparative advantages and disadvantages. Emphasis is placed on fundamentals of programming, program design, verification and visualization. The goal is to provide the students with the skills in scientific computing, tools, techniques that can be used to solve their own engineering problems. Students will learn to implement algorithms using high level programming language (e.g. MATLAB, Mathematica, FORTRAN). The programming skills acquired in this course will allow students to go beyond what is available in pre-packaged analysis tools, and code their own custom data processing, analysis and visualization for any engineering problem.