

YEAR 4: SEMESTER 2			
Code	Course	Credit	Pre-requisite
SECV4134	Graphics and Multimedia Software Project II	4	SECV3032
SECD3761	Technopreneurship Seminar	1	
UBSS1032	Introduction to Entrepreneurship	2	
<i>Elective Courses - Choose 2 (6 Credits)</i>			
SECV4213	Computer Games Development	3	SECJ1013
SECV4233	Advanced Computer Graphics	3	SECV2213
SECV4273	Introduction to Speech Recognition	3	SECJ1023
Malaysian Students			
UHMS1182	Penghayatan Etika dan Peradaban	2	
	TOTAL CREDIT	15/13	
	CUMULATIVE CREDITS	131	

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.

NO.	CODE	COURSE	CREDIT EARNED (JKD)	CREDIT COUNT-ED (JKK)	TICK (√) IF PASSED
COMPUTER SCIENCE COURSES					
CORE COURSES (74 CREDITS)					
1	SECI1013	Discrete Structure	3	3	
2	SECJ1013	Programming Technique I	3	3	
3	SECR1013	Digital Logic	3	3	
4	SECP1513	Technology & Information System	3	3	
5	SECI1113	Computational Mathematics	3	3	
6	SECI1143	Probability & Statistical Data Analysis	3	3	
7	SECJ1023	Programming Technique II	3	3	
8	SECR1033	Computer Organisation and Architecture	3	3	
9	SECD2523	Database	3	3	
10	SECD2613	System Analysis and Design	3	3	
11	SECJ2013	Data Structure and Algorithm	3	3	
12	SECR2213	Network Communications	3	3	
13	SECV2113	Human Computer Interaction	3	3	
14	SECJ2203	Software Engineering	3	3	

15	SECV2223	Web Programming	3	3	
16	SECR2043	Operating Systems	3	3	
17	SECJ2154	Object Oriented Programming	4	4	
18	SECV3032	Graphics and Multimedia Software Project I	2	2	
19	SECJ3203	Theory of Computer Science	3	3	
20	SECV4118	Industrial Training	8	HL	
21	SECV4114	Industrial Training Report	4	4	
22	SECV4134	Graphics and Multimedia Software Project II	4	4	
23	SCSD3761	Technopreneurship Seminar	1	1	
ELECTIVES COURSES (34 CREDITS)					
24	SECV2213	Fundamental of Computer Graphics	3	3	
25	SECJ2363	Software Project Management	3	3	
26	SECV3104	Applications Development	4	4	
27	SECJ3553	Artificial Intelligence	3	3	
28	SECV3113	Geometric Modelling	3	3	
29	SECV3213	Fundamental of Image Processing	3	3	
30	SECJ3263	Mobile Application Programming	3	3	
31	SECV3223	Multimedia Data Processing	3	3	
32	SECJ3563	Computational Intelligence	3	3	
33	SECV3263	Multimedia Web Programming	3	3	
34	SECV3233	Data Visualisation	3	3	
35	SECV3123	Real-time Computer Graphics	3	3	
36	SECV4213	Computer Games Development	3	3	
37	SECV4233	Advanced Computer Graphics	3	3	
38	SECV4273	Introduction to Speech Recognition	3	3	
TOTAL CREDIT OF COMPUTER SCIENCE COURSES			108	100	
(a)					
UNIVERSITY GENERAL COURSES					
Kluster 1: Penghayatan Falsafah, Nilai & Sejarah					
(Faculty of Social Sciences and Humanities)					
1	UHS1022	Falsafah dan Isu Semasa	2	2	
2	UHMS1182	Penghayatan Etika dan Peradaban	2	2	
3	UHLM1012	Malaysia Language for Communication (for International Students only)	2	2	
Kluster 2: Kemahiran Insaniah (Soft Skills)					
1	UHMT1012	Graduate Success Attributes	2	2	
Kluster 3: Perluasan Ilmu					
1	UHIT2302	The Thought of Science and Technology	2	2	

2	UHMS1172	Malaysia Dynamic (for Malaysian Students only)	2	2	
	UHMS1022	Malaysian Studies 3 (for International Students only)			
Kluster 4: Kokurikulum Pembelajaran Servis					
1	UKQF2xx2	Service Learning Co-curriculum Elective	2	2	
2	UKQT3001	Extracurricular Experiential Learning	1	1	
Kluster 5: Kemahiran Bahasa (Language Skill) (Language Academy, Faculty of Social Sciences and Humanities)					
1	UHLB1122	English Communication Skills	2	2	
2	UHLB2122	Academic Communication Skills	2	2	
3	UHLB3132	Professional Communication Skills	2	2	
4	UHLx 1112	Foreign Language Elective	2	2	
Kluster 6: Keusahawanan					
1	UBSS1032	Introduction to Entrepreneurship	2	2	
TOTAL CREDIT of UNIVERSITY GENERAL COURSES (c)			23	23	
TOTAL CREDIT TO GRADUATE (a + b + c)			131	123	
OTHER COMPULSORY COURSES					
Professional Skills Certificate (PSC) (UTMSPACE/ School)					
1	GLL 1001	How to Get Your Self Employed			
2	GLL 1029	ISO 9001:2008 Quality Management System Requirement			
3	GLL 1040	Occupational Safety, Health and Environment			
4	GLL 1041	How to Manage Your Personal Finance			
Test of English Communication Skill (TECS) (Language Academy, Faculty of Social Sciences and Humanities)					
1	TECS 1001	Oral Interaction			
2	TECS 1002	Writing			

COURSE SYNOPSIS

CORE COURSES

SECI1013 Discrete Structure

This course introduces students to the principles and applications of discrete structure in the field of computer science. The topics that are covered in this course are set theory, proof techniques, relations, functions, recurrence relations, counting methods, graph theory, trees and finite automata. At the end of the course, the students should be able to use set theory, relations and functions to solve computer science problems, analyze and solve problems using recurrence relations and counting methods, apply graph theory and trees in real world problems and use deterministic finite automata finite state machines to model electronic devices and problems.