COURSE MENU
CURICULLUM for BACHELOR OF COMPUTER SCIENCE (SOFTWARE ENGINEERING)
4 YEAR PROGRAMME, INTAKE 2021/2022

YEAR 1: SEMESTER 1			
Code	**Course**	**Credit**	**Pre-requisite**
SECI1013	Discrete Structure	3	
SECJ1013	Programming Technique I	3	
SECR1013	Digital Logic	3	
SECP1513	Technology & Information System	3	
UHMT1012	Graduate Success Attributes	2	
Malaysian Students			
UHIS1022	Philosophy and Current Issues	2	
UHMS1182	Appreciation of Ethics and Civilizations	2	
International Students			
UHMS1182	Appreciation of Ethics and Civilizations	2	
UHIS1022	Philosophy and Current Issues		
UHLM1012	Malaysia Language for Communication	2	
	TOTAL CREDIT	**18**	
	CUMULATIVE CREDITS	**18**	

YEAR 1: SEMESTER 2			
Code	**Course**	**Credit**	**Pre-requisite**
SECI1113	Computational Mathematics	3	
SECI1143	Probability & Statistical Data Analysis	3	
SECJ1023	Programming Technique II	3	SECJ1013
SECR2033	Computer Organisation and Architecture	3	SECR1013
UHLB1112	English Communication Skills	2	
UHIT2302	Science and Technology Thinking	2	
	TOTAL CREDIT	**16**	
	CUMULATIVE CREDITS	**34**	

YEAR 2: SEMESTER 1			
Code	**Course**	**Credit**	**Pre-requisite**
SECD2523	Database	3	
SECD2613	System Analysis and Design	3	
SECJ2013	Data Structure and Algorithm	3	SECJ1013 SECJ1023
SECR2213	Network Communications	3	
SECV2113	Human Computer Interaction	3	
UKQF2xx2	Service Learning Co-curriculum Elective	2	
	TOTAL CREDIT	**17**	
	CUMULATIVE CREDITS	**51**	

YEAR 2: SEMESTER 2			
Code	Course	Credit	Pre-requisite
SECJ2203	Software Engineering	3	
SECV2223	Web Programming	3	
SECR2043	Operating Systems	3	SECJ1033
SECJ2154	Object Oriented Programming	4	SECJ1023
UHLB2122	Academic Communication Skills	2	
Elective Courses - Choose 1 (3 Credits)			
SECJ2253	Requirements Engineering & Software Modelling	3	SECJ2203
SECJ2363	Software Project Management	3	
	TOTAL CREDIT	18	
	CUMULATIVE CREDITS	69	

YEAR 3: SEMESTER 1			
Code	Course	Credit	Pre-requisite
UHLB3132	Professional Communication Skills	2	
UHLx 1122	Foreign Language Elective	2	
UKQT 3001	Extracurricular Experiential Learning	1	
Elective Courses - Choose 4 (13 Credits)			
SECJ3104	Applications Development	4	SECV2223
SECJ3553	Artificial Intelligence	3	SECJ2013
SECJ3303	Internet Programming	3	SECJ2154 SECV2223
SECJ3323	Software Design & Architecture	3	SECJ2203
SECJ3603	Knowledge-Based & Expert Systems	3	SECJ3533
	TOTAL CREDIT	18	
	CUMULATIVE CREDITS	87	

YEAR 3: SEMESTER 2			
Code	Course	Credit	Pre-requisite
SECJ3032	Software Engineering Project I	2	80 credits SECJ3104
SECJ3203	Theory of Computer Science	3	SECI1013 SECJ2013
Elective Courses - Choose 4 (12 Credits)			
SECJ3343	Software Quality Assurance	3	SECJ2203, SECJ3323
SECJ3563	Computational Intelligence	3	SECJ3553
SECJ 3623	Mobile Application Programming	3	SECJ2154
SECJ3403	Special Topic in Software Engineering	3	
SECJ3483	Web Technology	3	SECJ2154 SECV2223
	TOTAL CREDIT	17	
	CUMULATIVE CREDITS	104	

YEAR 4: SEMESTER 1

Code	Course	Credit	Pre-requisite
SECJ4118	Industrial Training (HW)	8	92 credits CGPA >= 2.0
SECJ4114	Industrial Training Report	4	
	TOTAL CREDIT	**12**	
	CUMULATIVE CREDITS	**116**	

YEAR 4: SEMESTER 2			
Code	Course	Credit	Pre-requisite
SECJ4134	Software Engineering Project II	4	SECJ3032
SECD3761	Technopreneurship Seminar	1	
UBSS1032	Introduction to Entrepreneurship	2	
Uxxx 2xx2	Generic Skills/ Knowledge Enhancement Elective	2	
Elective Courses - Choose 2 (6 Credits)			
SECJ4383	Software Construction	3	SECJ2203
SECJ4423	Real-Time Software Engineering	3	SECJ2203
SECJ4463	Agent-Oriented Software Engineering	3	SECJ2203 SECJ2154
SECH5xx3/ SECD5xx3/ SECS5xx3	PRISMS Elective 1	3	
SECH5xx3/ SECD5xx3/ SECS5xx3	PRISMS Elective 2	3	
	TOTAL CREDIT	**15**	
	CUMULATIVE CREDITS	**131**	

PRISMS Elective Courses

The 5000 level courses indicate elective courses that are equivalent to core courses at master's level. Please refer to the handout on UTM's Bachelor-Master Integration Program (PRISMS) for further details, including eligibility. Please also consult your academic advisor for better clarification.

    i.   SCSJ4383 Software Construction
    ii.   SCSJ4423 Real-Time Software Engineering
    iii.   SCSJ4463 Agent-Oriented Software Engineering
    iv.   SECH5213 Cryptography Engineering
    v.   SECH5223 Digital Forensics and Social Engineering
    vi.   SECH5233 Information Security Risk and Governance
    vii.   SECH5243 Network and Internet Security
    viii.   SECH5253 Secure Software Engineering
    ix.   SECH5323 Law, Investigation & Ethics
    x.   SECH5333 Information Security Management System
    xi.   SECH5343 Secure Software Development
    xii.   SECH5353 Cyber Threat Intelligence
    xiii.   SECH5413 Security Architecture & Model
    xiv.   SECS5213 Advanced Theory of Computer Science
    xv.   SECS5233 Advanced Artificial Intelligence and Algorithms
    xvi.   SECD5213 Advanced Analytics for Data Science