BACHELOR OF COMPUTER SCIENCE (HONOURS)

PROGRAMME BACKGROUND
Bachelor of Computer Science (Honours) is a 3.5 years study programme, designed specifically to equip students with knowledge, skills and experience via integrated education in computing. Graduates in this field will gain insights, skills and expertise in computing, covering four areas namely data management, software quality, cyber security, and digital business. Each course available in the programme is in accordance with the standards set by the Malaysian Qualifications Agency (MQA). In this programme, students are exposed to problem solving and decision-making to deal with the industrial revolution 4.0 and meet the needs of the computer industry.
MQA ACCREDITATION REF. NUMBER
MQA/FA6478
JPT REF. NUMBER
JPT/BPP(U)1000-801/117JLD.5(57)(R/481/6/0694)
LEVEL OF STUDY
Bachelor's Degree / MQF – Level 6
MODE OF STUDY
Conventional
TEACHING MODE
Lecture, Tutorial, Practical, Project and Industrial Training
STUDY SCHEME
Full-Time
STUDY DURATION
3 Years 6 Months
TOTAL CREDIT HOURS TO GRADUATE
121 Credit Hours
MEDIUM OF INSTRUCTION
Malay and English

ENTRY REQUIREMENTS

i. Passed the Matriculation program or Basic Course or equivalent with a minimum CGPA of 2.00 or passed STPM or equivalent with a minimum grade C (NGMP 2.00) in any 2 subjects and credit in the following subjects at SPM level or equivalent;
   (a) Additional Mathematics; or
   (b) Mathematics and one of the subjects of Science, Technology or Engineering.

Note:
- Candidates for category i (b) need to take Mathematics proficiency subjects with topics appropriate to the field of Computer Science and Software Engineering at the beginning of the study.
- Students must pass the Mathematics proficiency subject as a prerequisite before being allowed to take the relevant core courses. However, this ruling does not prevent students from taking other courses either core or non-core which does not require the Mathematics proficiency subject.
- Credit for the Mathematics proficiency subject is an additional credit to the core subject and can be taken into account for the purpose of graduate credit.
- Mathematics proficiency subject requirements can be excluded if the Matriculation program or Basic Course or its equivalent offers Mathematics subjects and its achievement is equivalent to/ more than the SPM Mathematics subject credit requirements;

  Or

ii. Passed STPM in Science or equivalent stream, with a minimum of Grade C (NGMP 2.00) in one subject of Mathematics and one subject of Science/ ICT; or
iii. Diploma in Computer Science or Software Engineering or Information Technology or Information Systems or equivalent with a minimum CGPA of 2.50; or
iv. Any Diploma in Science and Technology with a minimum CGPA of 2.50

Note:
- Candidates for categories (iii) and (iv) with a CGPA below 2.50 but more than 2.00 may be admitted subject to a rigorous internal evaluation process of the HEP.

CAREER PROSPECTS
Upon completing the Bachelor of Computer Science (Honours) programme, graduates have several options: i. Join the workforce either in the private or government sector and they are qualified to be professionals such as software developer, software test engineer, software engineer, software architect, programming analyst, systems developer; ii. Proceed with Master of Computer Science programme; or iii. Proceed with professional certificates such as CompTIA, Ts (MBOT), CCNA, CCNP and others.
CONTACT
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PROGRAMME STRUCTURE

SEMESTER 1

NO	COURSE CODE	COURSE NAME	CLASSIFICATION	CREDIT HOURS
1	MPU3122 / MPU3142	Islamic and Asian Civilisations* / Malay Language for Communication 2**	MPU	2
2	MPU3222 / MPU3212	Critical and Creative Thinking* / National Language A**	MPU	2
3	MPU3312	Islamic Concepts	MPU	2
4	BBA1052 / BBA1062 / BBA1072 / BBA1142	English Proficiency I / English Proficiency II / English Proficiency III / Advanced English I	University Compulsory	2
5	PPU6022	English Academic Writing	University Compulsory	2
6	WKU6011	Quranic Recitation and Memorisation	University Compulsory	1
7	WKU6033	Organisational Behaviour	University Compulsory	3
8	KSC6013	Programming I / Structured Programming	Core	3
9	KSC6383	Computer Architecture and Operating System	Core	3
			TOTAL	**20**

***Note*:**
***For Local Student** ***For International Student**

SEMESTER 2

NO	COURSE CODE	COURSE NAME	CLASSIFICATION	CREDIT HOURS
1	MPU3112 / MPU3172	Ethnic Relations* / Malaysian Studies 3**	MPU	2
2	BBA1062 / BBA1072 / BBA1142 / BBA1152	English Proficiency II / English Proficiency III / Advanced English I / Advanced English II	University Compulsory	2
3	KSC6083	System Analysis and Design	Core	3
4	KSC6133	Programming II / Object Oriented Programming ***Prerequisite : KSC6013 – Programming I / Structured Programming***	Core	3
5	KSC6353	Cloud Computing ***Prerequisite : KSC6013 – Programming I / Structured Programming***	Core	3
6	MTK6073	Discrete Structure	Core	3
7	RKS6013	Data Communication and Networking	Core	3
			TOTAL	**19**

Note:
****For Local Student** ****For International Student***

SEMESTER 3

NO	COURSE CODE	COURSE NAME	CLASSIFICATION	CREDIT HOURS
1	MPU3402 / MPU3412 / MPU3422 / MPU3432 / MPU3442 / MPU3452 / MPU3462 / MPU3472 / MPU3482 / MPU3492	Malaysian Civil Defence Department / Recreational Adventure (Kayaking) / Introduction to Sports Science and Coaching / Hosting and Basic Event Management / Basics of Swimming and Water Rescue / Basics of Handicraft (Labu Sayong) / Basics of the Art of Photography / Basics of Video Making / Basics of Taekwando / Basics of Sport Silat	MPU ***Note : Choose 1 course only***	2
2	KSC6043	Web Programming / Advanced Programming ***Prerequisite : KSC6133 – Programming II / Object Oriented Programming***	Core	3
3	KSC6103	Data Structure and Algorithm Analysis	Core	3
4	KSC6123	Database Management System	Core	3
5	KSC6233	Software Engineering	Core	3
6	MTK6113	Probability and Statistics	Core	3

7	RKS6033	Internet and Security	Core	3
			TOTAL	**20**

SEMESTER 4

NO	COURSE CODE	COURSE NAME	CLASSIFICATION	CREDIT HOURS
1	IST6073	Management Information System	Core	3
2	IST6133	Artificial Intelligence ***Prerequisite : MTK6113 – Probability & Statistics; KSC6103 – Data Structure and Algorithm Analysis***	Core	3
3	KSC6093	Human Computer Interaction	Core	3
4	KSC6343	Project Management in Information Technology ***Prerequisite : MTK6113 – Probability & Statistics; KSC6103 – Data Structure and Algorithm Analysis***	Core	3
5	xxxx	Elective I	Elective	3
6	xxxx	Specialisation I	Specialisation	3
			TOTAL	**18**

SEMESTER 5

NO	COURSE CODE	COURSE NAME	CLASSIFICATION	CREDIT HOURS
1	CSE6043	Embedded System	Core	3
2	IST6123	Mobile Application Development ***Prerequisite : RKS6013 – Data Communication and Networking***	Core	3
3	KOM6363	Final Year Project I / Research Method ***Prerequisite : KSC6083 – System Analysis and Design; KSC6123 – Database Management System***	Core	3
4	KSC6363	Ethics and Professional Issues	Core	3
5	xxxx	Elective II	Elective	3
6	xxxx	Specialisation II	Specialisation	3
			TOTAL	**18**

SEMESTER 6

NO	COURSE CODE	COURSE NAME	CLASSIFICATION	CREDIT HOURS
1	KOM6373	Final Year Project II / Final Year Project Development	Core	3
2	KSC6153	Distributed Computing ***Prerequisite : KSC6013 – Programming I / Structured Programming; KSC6383 – Computer Architecture & Operating System***	Core	3

3	xxxx	Elective III	Elective	3
4	xxxx	Elective IV	Elective	3
5	xxxx	Elective V	Elective	3
6	xxxx	Specialisation III	Specialisation	3
			TOTAL	**18**

SEMESTER 7

NO	COURSE CODE	COURSE NAME	CLASSIFICATION	CREDIT HOURS
1	KOM6018	Industrial Training	Core	8
			TOTAL	**8**

ELECTIVE SELECTION			
ELECTIVE IN MULTIMEDIA		**ELECTIVE IN MARKETING**	
COURSE CODE/ NAME	**CREDIT HOURS**	**COURSE CODE/ NAME**	**CREDIT HOURS**
DAV6123 – Video Technology and Audio Editing	3	MKT6023 – Understanding Consumer	3
DKF6013 – Design Theories	3	MKT6043 – Marketing Channels	3
DKF6043 – Digital Photography	3	MKT6083 – Integrated Marketing Communication	3
DKF6093 – Creative Studies	3	MKT6093 – Relationship Marketing	3
DKF6103 – Multimedia Technology	3	MKT6113 – Service Marketing	3

Note:
Student need to choose one (1) elective from the options

SPECIALISATION SELECTION	COURSE CODE/ NAME	SEMESTER	PREREQUISITE	CREDIT HOURS
SPECIALISATION IN SOFTWARE QUALITY	CSE6013 – Software Design and Architecture	4	KSC6083 – System Analysis and Design; KSC6233 – Software Engineering	3
	CSE6023 – Software Testing and Quality Assurance	5	-	3
	CSE6033 – Software Metrics and Models	6	-	3
SPECIALISATION IN DIGITAL BUSINESS	IST6093 – Internet Marketing	4	-	3
	IST6043 – E-Commerce	5	-	3

	KSC6163 – Knowledge Management	6	-	3
SPECIALISATION IN CYBER SECURITY	RKS6083 – Computer Forensic	4	-	3
	RKS6093 – Penetration Testing and Ethical Hacking	5	-	3
	RKS6113 – Information Security Management	6	-	3
SPECIALISATION IN DATA MANAGEMENT	IST6113 – Big Data Analytic	4	KSC6133 – Programming II / Object Oriented Programming; MTK6113 – Probability and Statistics	3
	KSC6213 – Data Mining	5	KSC6013 – Programming I / Structured Programming; IST6133 – Artificial Intelligence	3
	KSC6373 – Data Visualization	6	KSC6013 – Programming I / Structured Programming	3

Note:
Student need to choose one (1) specialisation from the options

SUMMARY

SEMESTER	CREDIT HOURS
SEMESTER 1	**20**
SEMESTER 2	**19**
SEMESTER 3	**20**
SEMESTER 4	**18**
SEMESTER 5	**18**
SEMESTER 6	**18**
SEMESTER 7	**8**
TOTAL CREDIT HOURS	**121**