UNIVERSITI MALAYSIA SARAWAK

PROGRAMME SPECIFICATION

1.	Name of the Award	: Bachelor of Computer Science (Software Engineering)(Hons)
2.	Credit Value	: 130
3.	Type of Award	: Single Major
4.	Awarding Institution	: Faculty of Computer Science and Information Technology, Universiti Malaysia Sarawak (UNIMAS)
5.	Field of Study	: Software Engineering
6.	Language of Instruction	: English
7.	Mode of Study	: Full-Time
8.	Mode of Delivery	: Lecture, tutorial, laboratory, individual/group work, case study, presentation, industrial training, and final year project.
9.	Method of Delivery	: Conventional
10.	Duration of Study	:

	Full-Time		Part-Time	
	Long Semester	Short Semester	Long Semester	Short Semester
No of Weeks/Sems	14	-	-	-
No of Sems/Years	2	-	-	-
No of Years	4 (max. 6)		-	

11. Entry Requirements :

   i. Pass in Sijil Pelajaran Malaysia (SPM)/equivalent with at least Credit in Bahasa Melayu/Malaysian Language, Mathematics, and English Language/English 1119 subjects (or July papers);

   ii. Pass in:

- Sijil Tinggi Persekolahan Malaysia (STPM, at least CGPA 2.00) with minimum Grade C (Subject Grade Point, SGP 2.00) in *Pengajian Am* and in any other three subjects including Mathematics T, Further Mathematics T, or Computing; or

- KPM Matriculation / UM Science Foundation Studies / UiTM Foundation Studies (at least CGPA 2.00) with minimum Grade C (SGP 2.00) in any three subjects including Mathematics or Engineering Mathematics; or

- Diploma or others in relevant fields which are recognized by the Malaysian government and approved by IHL Senate.

   iii. At least Band 1 in Malaysian University English Test (MUET).

| 12. | Programme Objectives | : | This program is aimed for : |

i. Producing graduates who are founded in the core knowledge of computer science,

ii. Bearing graduates who can think critically and possess high ability to solve problem,

iii. Equipping graduates by showing noble professionalism, value and ethics as well as moral,

iv. Producing graduates who can demonstrate knowledge sharing ability and obtain latest information and skills,

v. Bringing out graduates who have leadership ability and high knack in themselves, and

vi. Producing pro-active graduates who are sensitive to the needs of community from time to time.

| 13. | Programme Learning Outcomes (PLOs) | : | After graduating from this program, the students are able to: |

i. Predominate the knowledge of software engineering,

ii. Perform technical and programming skills in system design, development, configuration, and integration,

iii. Manage communication skills,

iv. Present creative and innovative solutions in relative to problems which need suitable scientific approach,

v. Build teamwork skills as well as social responsibility and skills,

vi. Find and manage information and perform life-long learning,

vii. Build and explore knowledge and skills in entrepreneurship,

viii. Practise professionalism, value, attitude, and ethical behaviour, and

ix. Demonstrate leadership skills.

14. Classification of Subjects :

No	Course Type	No of Courses	Credit	Credit Percentage
1	Generic Courses	9	12	9.2
2	Faculty Core Courses	17	50	38.5
3	Program Core Courses	12	36	27.7
4	Industrial Training	1	12	9.2
5	Final Year Project I & II	2	8	6.2
6	Elective Courses (from other faculties)	4	12	9.2
	Total	45	130	100

15.   Programme Structure   :

(a)   First Year Courses

Component	Semester 1		Semester 2	
	Subject	Credit	Subject	Credit
Generic Course	**TMX1010** – End User Computing * **PBI0011** – Preparatory English 1 **	0 0	**TMX2012** – IT Tools for Knowledge Workers **PBI0021** – Preparatory English 2 **	2 0
Faculty Core Course	**TMC1213** – Computer Architecture **TMC1233** – Operating Systems **TMC1413** – Introduction to Programming **TMC1813** – Discrete Mathematics **TMC1833** – Calculus **TMP1613** – Multimedia Technology	3 3 3 3 3 3	**TMC1013** – System Analysis and Design **TMC1253** – Communication and Computer Network **TMC1433** – Data Structure and Algorithms **TMC1853** – Linear Algebra	3 3 3 3
Elective Course			Elective Course I	3
Total	**8**	**18**	**7**	**17**

*   IT Strengthening Course – will be exempted if students passed the IT Proficiency Test (UPIT) which is usually held during early Semester 1.

**   Preparatory English Courses – will be exempted if students get Band 4 and above in Malaysian University English Test (MUET).

(b)   Second Year Courses

Component	Semester 1		Semester 2	
	Subject	Credit	Subject	Credit
Generic Course	**SSX0012** – Islamic and Asian Civilization **PBI1012** – English for Professional Purposes **PBM2022** – Malaysian Language	2 2 2	**SSX0022** – Ethnic Relations **PBI1032** – Academic Reading and Writing	2 2
Faculty Core Course	**TMC2033** – Database Concept and Design **TMC2813** – Introductory Statistics	3 3	**TMC2413** – Object Oriented Software Development	3
Programme Core Course	**TME2013 –** Software Engineering and Application Development **TME2073** – Intelligent Systems	3 3	**TME2093** – Domain and Requirement Analysis **TME2113** – Logic Programming **TMT2013** – Multimedia Programming	3 3 3
Elective Course			Elective Course II	3
Total	**7**	**18**	**7**	**19**

(c) Third Year Courses

Component	Semester 1		Semester 2	
	Subject	Credit	Subject	Credit
Faculty Core Course	**TMC3012** – Ethics and Professionalism **TMC3613** – Web Based System Development **TMP3113** – Project Management	2 3 3	**TMY3912** – Industrial Training	12
Programme Core Course	**TMI3033** – Expert Systems **TMN3053** – System Programming **TMP3413** – Software Engineering Laboratory	3 3 3		
Total	**6**	**17**	**1**	**12**

(d) Fourth Year Courses

Component	Semester 1		Semester 2	
	Subject	Credit	Subject	Credit
Faculty Core Course	**TMC4013** – Technopreneurship and Product Development **TMP4913** – Final Year Project I	3 3	**TMP4935** – Final Year Project II	5
Programme Core Course	**TME4013 –** Formal Methods **TMI3053** – Human Computer Interaction	3 3	**TME4033** – Software Quality **TMN4093** – Advanced Topics in Software Engineering	3 3
Elective Courses	Elective Course III	3	Elective Course IV	3
Total	**5**	**15**	**4**	**14**
TOTAL	**26**	**68**	**19**	**62**

In addition, during semester breaks (December and May-June), the faculty also offers special programs and IT certification courses, such as 3P Program, CISCO, Oracle, Infosys, and Satyam, to increase knowledge and skills of the students.

16. Career Prospects : Programmer, System Analyst, Project Manager, Research Officer, System Designer/Developer, and any other Computer Science or Information Technology (ICT) related jobs.

17. Facilities Available : Hostels, Library/Resource Center, Student Interaction Room, Laboratories, Gymnasium, etc.