



UNIVERSITI MALAYSIA SARAWAK

PROGRAMME SPECIFICATION

1. Name of the Award : Bachelor of Computer Science (Multimedia Computing)(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 : Multimedia Computing
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

	Full-Time		Part-Time	
	Long Semester	Short Semester	Long Semester	Short Semester
No of Weeks/Sem	14	-	-	-
No of Sems/Year	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 Gred B (Subject Grade Point, SGP 3.00) in Mathematics T, Further Mathematics T, or Computing, and minimum Gred C (SGP 2.00) in any other three subjects including *Pengajian Am*; or
 - KPM Matriculation / UM Science Foundation Studies / UiTM Foundation Studies (at least CGPA 2.00) with minimum Gred B (SGP 3.00) in Mathematics or Engineering Mathematics subjects, and minimum Gred C (SGP 2.00) in any other two subjects, 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 multimedia computing,
 - 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 Course	9	12	9.2
2	Faculty Core	17	50	38.5
3	Program Core	12	36	27.7
4	Industrial Training	1	12	9.2
5	Final Year Project I & II	2	8	6.2
6	Elective (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	TMN2093 – Computer System Administration and Management TMT2013 – Multimedia Programming TMT2033 – Introduction to Computer Graphics	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	TMP3613 – Interactive Multimedia Laboratory TMT3053 – Computer Game Design and Development TMT3073 – Data Visualization	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	TMI3053 – Human Computer Interaction TMT4053 – Multimodal Interaction Technology	3 3	TMT4073 – Digital Image Processing TMT4093 – Advanced Topics in Multimedia Computing	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. Mapping of PLOs to Courses : Appendix 1
17. Mapping of Teaching-Learning Taxonomy to Courses : Appendix 2
18. Mapping of Soft Skills to Courses : Appendix 3
19. Mapping of Student Learning Time to Courses : Appendix 4
20. Course Outlines : <http://programspect.unimas.my>
21. Career Prospects : Multimedia Programmer/Designer/Developer, Web-Based System Programmer/Designer/Developer, Animation and Mobile Content Designer/Developer.
22. Facilities Available : Hostels, Library/Resource Center, Student Interaction Room, Laboratories, Gymnasium, etc.

Matrix of Courses vs Programme Learning Outcome

Multimedia Computing Programme, FCSIT, UNIMAS

Appendix 1

Programme Learning Outcome

After graduating from this program, the students are able to:

1. Predominate the knowledge of multimedia computing,
2. Perform technical and programming skills in system design, development, configuration, and integration,
3. Manage communication skills,
4. Present creative and innovative solutions in relative to problems which need suitable scientific approach,
5. Build teamwork skills as well as social responsibility and skills,
6. Find and manage information and perform life-long learning,
7. Build and explore knowledge and skills in entrepreneurship,
8. Practise professionalism, value, attitude, and ethical behaviour, dan
9. Demonstrate leadership skills.

No	Sem	Course Code and Title	Credit	Programme Learning Outcome								
				1	2	3	4	5	6	7	8	9
University Courses												
1	Y1S1	PBI0011 Preparatory English 1	0			/	/		/			
2	Y1S1	TMX1010 End User Computing	0	/	/	/	/	/				
3	Y1S2	PBI0021 Preparatory English 2	0			/	/		/			
4	Y1S2	TMX2012 IT Tools for Knowledge Workers	2	/	/	/		/	/			
5	Y2S1	PBI1012 English for Professional Purposes	2			/			/			/
6	Y2S1	PBM2022 Malay Language	2			/			/		/	
7	Y2S1	SSX0012 Islamic and Asian Civilization	2			/		/			/	
8	Y2S2	SSX0022 Etnics Relations	2				/	/			/	
9	Y2S2	PBI1032 Academic Reading and Writing	2			/	/		/			
		Sub-Total	12	2	2	8	5	4	6	0	3	1
Core Courses												
10	Y1S1	TMC1833 Calculus	3	/	/	/	/	/				
11	Y1S1	TMC1813 Discrete Mathematics	3	/	/	/		/	/			
12	Y1S1	TMP1613 Multimedia Technology	3	/	/		/				/	/
13	Y1S1	TMC1413 Introduction to Programming	3	/	/	/	/	/				
14	Y1S1	TMC1233 Operating Systems	3	/	/	/	/	/				
15	Y1S1	TMC1213 Computer Architecture	3	/	/	/	/	/				
16	Y1S2	TMC1013 System Analysis and Design	3	/	/	/	/	/				
17	Y1S2	TMC1433 Data Structure and Algorithms	3	/	/	/	/	/				
18	Y1S2	TMC1853 Linear Algebra	3	/	/	/	/		/			
19	Y1S2	TMC1253 Communication and Computer Network	3	/	/	/	/	/				
20	Y2S1	TME2013 Software Engineering and Application Development	3	/	/	/	/	/				
21	Y2S1	TMC2033 Database Concept and Design	3	/	/		/	/	/			
22	Y2S1	TME2073 Intelligent Systems	3	/	/	/	/		/			
23	Y2S1	TMC2813 Introductory Statistics	3	/	/	/	/	/				

Matrix of Courses vs Programme Learning Outcome

Multimedia Computing Programme, FCSIT, UNIMAS

No	Sem	Course Code and Title	Credit	Programme Learning Outcome								
				1	2	3	4	5	6	7	8	9
24	Y2S2	TMT2033 Computer Graphics	3	/	/	/	/		/			
25	Y2S2	TMT2013 Multimedia Programming	3	/	/		/	/				/
26	Y2S2	TMN2093 Computer System Administration and Management	3	/	/	/	/	/				
27	Y2S2	TMC2413 Object Oriented Software Development	3	/	/	/	/	/				
28	Y3S1	TMP3113 Project Management	3	/	/	/	/			/		
29	Y3S1	TMP3613 Interactive Multimedia Laboratory	3	/	/		/	/				/
30	Y3S1	TMT3073 Data Visualization	3	/	/		/	/				/
31	Y3S1	TMC3012 Ethics and Professionalism	2	/	/	/		/			/	
32	Y3S1	TMT3053 Computer Game Design and Development	3	/	/		/	/			/	
33	Y3S1	TMC3613 Web Based System Development	3	/	/	/				/		/
34	Y3S2	TMY3912 Industrial Training	12	/	/		/	/	/			
35	Y4S1	TMI3053 Human Computer Interaction	3	/	/	/	/	/				
36	Y4S1	TMT4053 Multimodal Interaction Technology	3	/	/		/	/	/			
37	Y4S1	TMC4013 Technopreneurship and Product Development	3	/	/			/		/		/
38	Y4S1	TMP4913 Final Year Project I	3	/	/		/		/	/		
39	Y4S2	TMT4073 Digital Image Processing	3	/	/	/	/	/				
40	Y4S2	TMT4093 Advanced Topics in Multimedia Computing	3	/	/				/	/	/	
41	Y4S2	TMP4935 Final Year Project II	5	/	/		/		/	/		
		Sub-Total	106	32	32	20	27	23	10	6	4	6
Elective Courses												
42	Y1S2	XXXYY13 Elective Course 1	3				/	/	/			
43	Y2S2	XXXYY23 Elective Course 2	3				/	/	/			
44	Y4S1	XXXYY33 Elective Course 3	3				/	/	/			
45	Y4S2	XXXYY43 Elective Course 4	3				/	/	/			
		Sub-Total	12	0	0	0	4	4	4	0	0	0
		Total	130	34	34	28	36	31	20	6	7	7

Matrix of Courses vs Teaching-Learning Taxonomy
Multimedia Computing Programme, FCSIT, UNIMAS

No	Sem	Course Code & Title	Credit	Cognitive Domain						Psychomotor Domain							Affective Domain				
				Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation	Perception	Set	Guided Response	Mechanisms	Complex Overt	Adaptation	Origination	Receiving	Responding	Valuing	Organizing	Internalizing
				C1	C2	C3	C4	C5	C6	P1	P2	P3	P4	P5	P6	P7	A1	A2	A3	A4	A5
University Courses																					
1	Y1S1	PBI0011 Preparatory English 1	0	/	/	/				/	/	/					/	/	/		
2	Y1S1	TMX1010 End User Computing	0	/	/	/				/	/						/	/			
3	Y1S2	PBI0021 Preparatory English 2	0	/	/	/	/			/	/	/	/				/	/	/		
4	Y1S2	TMX2012 IT Tools for Knowledge Workers	2	/	/					/	/						/	/			
5	Y2S1	PBI1012 English for Professional Purposes	2	/	/	/	/			/	/	/	/				/	/	/		
6	Y2S1	PBM2022 Malay Language	2	/	/	/				/	/	/					/	/	/		
7	Y2S1	SSX0012 Islamic and Asian Civilization	2	/	/	/				/	/	/	/				/	/	/		
8	Y2S2	SSX0022 Ethnic Relations	2	/	/	/				/	/	/	/				/	/	/		
9	Y2S2	PBI1032 Academic Reading and Writing	2	/	/	/	/			/	/	/					/	/	/		
		Sub-Total	12	9	9	8	3			9	9	7	4				9	9	7		
Core Courses																					
10	Y1S1	TMC1833 Calculus	3	/	/	/				/	/						/	/			
11	Y1S1	TMC1813 Discrete Mathematics	3	/	/	/				/	/						/	/			
12	Y1S1	TMP1613 Multimedia Technology	3	/	/	/	/			/	/	/	/				/	/			
13	Y1S1	TMC1413 Introduction to Programming	3	/	/	/				/	/	/	/				/	/			
14	Y1S1	TMC1233 Operating Systems	3	/	/					/	/						/	/			
15	Y1S1	TMC1213 Computer Architecture	3	/	/					/	/	/	/				/	/	/		

Matrix of Courses vs Teaching-Learning Taxonomy
Multimedia Computing Programme, FCSIT, UNIMAS

No	Sem	Course Code & Title	Credit	Cognitive Domain						Psychomotor Domain							Affective Domain				
				Knowledge	Comprehension	Application	Analysis	Syntesis	Evaluation	Perception	Set	Guided Response	Mechanisme	Complex Overt	Adaptation	Origination	Receiving	Responding	Valuing	Organizing	Internalizing
				C1	C2	C3	C4	C5	C6	P1	P2	P3	P4	P5	P6	P7	A1	A2	A3	A4	A5
16	Y1S2	TMC1013 System Analysis and Design	3	/	/					/	/						/	/			
17	Y1S2	TMC1433 Data Structure and Algorithms	3	/	/	/				/	/	/	/				/	/	/		
18	Y1S2	TMC1853 Linear Algebra	3	/	/	/				/	/	/					/	/			
19	Y1S2	TMC1253 Communication and Computer Network	3	/	/					/	/	/	/				/	/	/		
20	Y2S1	TME2013 Software Engineering and Application Development	3	/	/	/	/			/	/	/	/				/	/			
21	Y2S1	TMC2033 Database Concept and Design	3	/	/					/	/	/	/				/	/	/		
22	Y2S1	TME2073 Intelligent Systems	3	/	/	/				/	/	/	/				/	/	/		
23	Y2S1	TMC2813 Introductory Statistics	3	/	/	/				/	/	/	/				/	/			
24	Y2S2	TMT2033 Computer Graphics	3	/	/	/				/	/	/	/				/	/	/	/	
25	Y2S2	TMT2013 Multimedia Programming	3	/	/					/	/	/	/	/	/	/	/	/	/	/	
26	Y2S2	TMN2093 Computer System Administration and Management	3	/	/	/				/	/	/					/	/	/		
27	Y2S2	TMC2413 Object Oriented Software Development	3	/	/	/	/			/	/	/	/				/	/	/		
28	Y3S1	TMP3113 Project Management	3	/	/	/	/			/	/	/	/				/	/	/	/	
29	Y3S1	TMP3613 Interactive Multimedia Laboratory	3	/	/	/				/	/	/	/	/	/	/	/	/	/		
30	Y3S1	TMT3073 Data Visualization	3	/	/	/	/			/	/	/	/				/	/	/		
31	Y3S1	TMC3012 Ethics and Professionalism	2	/	/	/	/			/	/	/	/	/			/	/	/		
32	Y3S1	TMT3053 Computer Game Design and Development	3	/	/	/	/			/	/	/	/	/	/	/	/	/	/		
33	Y3S1	TMC3613 Web Based System Development	3	/	/	/	/			/	/	/	/	/	/	/	/	/	/		

Matrix of Courses vs Teaching-Learning Taxonomy
Multimedia Computing Programme, FCSIT, UNIMAS

				Cognitive Domain						Psychomotor Domain							Affective Domain				
				Knowledge	Comprehension	Application	Analysis	Syntesis	Evaluation	Perception	Set	Guided Response	Mechanisme	Complex Overt	Adaptation	Origination	Receiving	Responding	Valuing	Organizing	Internalizing
No	Sem	Course Code & Title	Credit	C1	C2	C3	C4	C5	C6	P1	P2	P3	P4	P5	P6	P7	A1	A2	A3	A4	A5
34	Y3S2	TMY3912 Industrial Training	12	/	/	/	/	/		/	/	/	/	/	/		/	/	/		
35	Y4S1	TMI3053 Human Computer Interaction	3	/	/	/	/			/	/	/	/	/			/	/	/		
36	Y4S1	TMT4053 Multimodal Interaction Technology	3	/	/	/				/	/	/	/	/			/	/	/		
37	Y4S1	TMC4013 Technopreneurship and Product Development	3	/	/	/	/	/	/	/	/	/	/	/			/	/	/	/	
38	Y4S1	TMP4913 Final Year Project I	3	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
39	Y4S2	TMT4073 Digital Image Processing	3	/	/	/	/			/	/	/	/	/	/	/	/	/	/	/	
40	Y4S2	TMT4093 Advanced Topics in Multimedia Computing	3	/	/	/	/	/	/	/	/	/	/	/			/	/	/		
41	Y4S2	TMP4935 Final Year Project II	5	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
		Sub-Total	106	32	32	26	15	5	4	32	32	28	26	13	8	7	32	32	23	7	2
Elective Courses																					
42	Y1S2	XXXYY13 Elective Course 1	3	/	/	/				/	/	/	/				/	/	/		
43	Y2S2	XXXYY23 Elective Course 2	3	/	/	/				/	/	/	/				/	/	/		
44	Y4S1	XXXYY33 Elective Course 3	3	/	/	/				/	/	/	/				/	/	/		
45	Y4S2	XXXYY43 Elective Course 4	3	/	/	/				/	/	/	/				/	/	/		
		Sub-Total	12	4	4	4	0	0	0	4	4	4	4	0	0	0	4	4	4	0	0
		Total	130	45	45	38	18	5	4	45	45	39	34	13	8	7	45	45	34	7	2

Matrix of Courses vs Softskills (Kemahiran Insaniah)
Multimedia Computing Programme, FCSIT, UNIMAS

No	Sem	Course Code & Title	CS - Communication Skills								CT - Critical Thinking & Problem Solving Skills							TS - Teamwork Skills					LL - Lifelong Learning & Information Management Skills			ES - Entrepreneurship Skill				EM - Professional Ethics & Moral Skills			LS - Leadership Skills			
			1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	1	2	3	4	5	1	2	3	1	2	3	4	1	2	3	1	2	3	4
18	Y1S2	TMC1853 Linear Algebra	/	/	/					/	/	/										/	/													
19	Y1S2	TMC1253 Communication and Computer Network	/	/	/		/			/	/	/	/				/	/	/	/																
20	Y2S1	TME2013 Software Engineering and Application Development	/	/	/					/	/	/					/	/	/																	
21	Y2S1	TMC2033 Database Concept and Design								/	/	/	/	/			/	/	/	/		/	/	/												
22	Y2S1	TME2073 Intelligent Systems	/	/	/					/	/	/										/	/													
23	Y2S1	TMC2813 Introductory Statistics	/	/	/	/	/			/	/	/					/	/	/																	
24	Y2S2	TMT2033 Computer Graphics	/	/	/	/			/	/	/	/	/									/	/	/												
25	Y2S2	TMT2013 Multimedia Programming								/	/	/					/	/	/	/	/											/	/	/	/	
26	Y2S2	TMN2093 Computer System Administration and Management	/	/	/			/		/	/	/			/	/	/	/	/																	
27	Y2S2	TMC2413 Object Oriented Software Development	/	/	/					/	/	/					/	/	/																	
28	Y3S1	TMP3113 Project Management	/	/	/	/				/	/	/		/											/	/	/	/								
29	Y3S1	TMP3613 Interactive Multimedia Laboratory								/	/	/					/	/	/										/	/						
30	Y3S1	TMT3073 Data Visualization								/	/	/					/	/	/										/	/						
31	Y3S1	TMC3012 Ethics and Professionalism	/	/	/												/	/	/							/	/	/								
32	Y3S1	TMT3053 Computer Game Design and Development								/	/	/					/	/	/							/	/									
33	Y3S1	TMC3613 Web Based System Development	/	/	/		/	/																	/	/	/	/			/	/		/		

Notes (in BM, from Ministry of Higher Education):

CS1 - Kebolehan menyampaikan idea dengan terang, berkesan, dan dengan penuh keyakinan, secara lisan dan bertulis.

CS2 - Kebolehan mengamalkan kemahiran mendengar yang aktif dan memberikan maklum balas.

CS3 - Kebolehan membuat pembentangan secara jelas dengan penuh keyakinan dan bersesuaian dengan tahap pendengar.

CS4 - Kebolehan menggunakan teknologi dalam pembentangan.

CS5 - Kebolehan berunding dan mencapai persetujuan.

CS6 - Kebolehan berkomunikasi dengan peserta komunikasi yang berlainan budaya.

CS7 - Kebolehan mengembangkan kemahiran komunikasi perseorangan.

CS8 - Kebolehan menggunakan kemahiran bukan lisan.

CT1 - Kebolehan mengenalpasti dan menganalisis masalah dalam situasi kompleks dan kabur, serta membuat penilaian yang berjustifikasi.

CT2 - Kebolehan mengembang dan membaiki kemahiran berfikir seperti menjelas, menganalisis dan menilai perbincangan.

CT3 - Kebolehan mencari idea dan mencari penyelesaian alternatif.

CT4 - Kebolehan berfikir melangkaui batas.

CT5 - Kebolehan membuat keputusan yang berdasarkan bukti yang kukuh.

CT6 - Kebolehan bertahan serta memberikan perhatian sepenuhnya terhadap tanggungjawab yang diberikan.

CT7 - Kebolehan memahami dan menyesuaikan diri kepada budaya komuniti dan persekitaran kerja yang baharu.

TS1 - Kebolehan membina hubungan yang baik, berinteraksi dengan orang lain dan bekerja secara efektif bersama mereka untuk mencapai objektif yang sama.

TS2 - Kebolehan memahami dan mengambil peranan bersilih ganti antara ketua kumpulan dan ahli kumpulan.

TS3 - Kebolehan mengenal dan menghormati sikap, kelakuan, dan kepercayaan orang lain.

TS4 - Kebolehan memberikan sumbangan kepada perancangan dan menyelaraskan hasil usaha kumpulan.

TS5 - Bertanggungjawab terhadap keputusan kumpulan.

LL1 - Kebolehan mencari dan menguruskan maklumat yang relevan daripada pelbagai sumber.

LL2 - Kebolehan menerima idea baharu dan berkeupayaan untuk pembelajaran autonomi.

LL3 - Kebolehan mengembangkan minda ingin tahu dan dahagakan ilmu.

ES1 - Kebolehan mengenalpasti peluang perniagaan.

ES2 - Kebolehan merangka perancangan perniagaan.

ES3 - Kebolehan membina, meneroka, dan merebut peluang perniagaan dan pekerjaan.

ES4 - Kebolehan bekerja sendiri.

EM1 - Kebolehan memahami kesan ekonomi, alam sekitar, dan sosiobudaya dalam amalan profesional.

EM2 - Kebolehan menganalisis dan membuat keputusan dalam penyelesaian masalah berkaitan etika.

EM3 - Kebolehan mengamalkan sikap beretika, di samping mempunyai rasa tanggungjawab terhadap masyarakat.

LS1 - Pengetahuan tentang teori asas kepemimpinan.

LS2 - Kebolehan memimpin projek.

LS3 - Kebolehan memahami dan mengambil peranan bersilih ganti antara ketua pasukan dan anggota pasukan.

LS4 - Kebolehan menyelia anggota pasukan.

KIM merupakan kemahiran yang mesti dimiliki oleh setiap pelajar. Jika kemahiran ini tidak ada, pelajar dianggap tidak kompeten dalam elemen berkenaan.

KIT dianggap kemahiran yang memberi nilai tambah kepada pelajar. Jika kemahiran ini dimiliki oleh pelajar di samping KIM, pelajar dianggap mempunyai tahap kompeten cemerlang.

Student Learning Time (SLT)
Multimedia Computing Programme, FCSIT, UNIMAS

Appendix 4

No	Sem	Course Code & Title	Credit	Guided Learning Activities				Self-Learning Activities			Formal Assessment		Total SLT	Notional Credit (MQF)
				Instructor Centered Learning	Student Centered Learning			Non-Guided Learning / SCL e.g. manual, assignment, modul, etc.	Revision	Preparation for Assessment	Continuous Assessment	Final Assessment		
				Lecture	Tutorial	Lab	SCL Activities							
University Courses														
1	Y1S1	PBI0011 Preparatory English 1	0	28			6	8	14	16	6	2	80	2
2	Y1S1	TMX1010 End User Computing	0	28		24	2	14	28	19	2	3	120	3
3	Y1S2	PBI0021 Preparatory English 2	0	28			2	14	14	16	4	2	80	2
4	Y1S2	TMX2012 IT Tools for Knowledge Workers	2	28		24	2	14	28	17	4	3	120	3
5	Y2S1	PBI1012 English for Professional Purposes	2	28			1	14	14	16	4	3	80	2
6	Y2S1	PBM2022 Malay Language	2	28			1	14	14	16	4	3	80	2
7	Y2S1	SSX0012 Islamic and Asian Civilization	2	28			3	14	20	10	2	3	80	2
8	Y2S2	SSX0022 Etnics Relations	2	28			3	14	20	10	2	3	80	2
9	Y2S2	PBI1032 Academic Reading and Writing	2	28			1	14	14	16	4	3	80	2
		Sub-Total	12	252	0	48	21	120	166	136	32	25	800	20
Core Courses														
10	Y1S1	TMC1833 Calculus	3	36	14			6	42	15	4	3	120	3
11	Y1S1	TMC1813 Discrete Mathematics	3	34	12		1	8	40	21	4		120	3
12	Y1S1	TMP1613 Multimedia Technology	3	28		14		10	42	20	3	3	120	3
13	Y1S1	TMC1413 Introduction to Programming	3	28		28	1	2	42	14	2	3	120	3
14	Y1S1	TMC1233 Operating Systems	3	28	9	9	2	6	45	15	3	3	120	3
15	Y1S1	TMC1213 Computer Architecture	3	28	8	12	2	6	44	14	3	3	120	3
16	Y1S2	TMC1013 System Analysis and Design	3	28	14		4	20	24	22	5	3	120	3
17	Y1S2	TMC1433 Data Structure and Algorithms	3	28		28	1	2	42	14	2	3	120	3

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No	Sem	Course Code & Title	Credit	Guided Learning Activities				Self-Learning Activities			Formal Assessment		Total SLT	Notional Credit (MQF)
				Instructor Centered Learning	Student Centered Learning			Non-Guided Learning / SCL e.g. manual, assignment, modul, etc.	Revision	Preparation for Assessment	Continuous Assessment	Final Assessment		
					Lecture	Tutorial	Lab							
18	Y1S2	TMC1853 Linear Algebra	3	36	12			3	40	22	4	3	120	3
19	Y1S2	TMC1253 Communication and Computer Network	3	28	9	9	2	6	43	17	3	3	120	3
20	Y2S1	TME2013 Software Engineering and Application Development	3	28	14		4	10	42	16	3	3	120	3
21	Y2S1	TMC2033 Database Concept and Design	3	28	12	10		16	25	19	7	3	120	3
22	Y2S1	TME2073 Intelligent Systems	3	28	14		4	10	42	16	3	3	120	3
23	Y2S1	TMC2813 Introductory Statistics	3	34	13				51	15	4	3	120	3
24	Y2S2	TMT2033 Computer Graphics	3	28		14		10	42	20	3	3	120	3
25	Y2S2	TMT2013 Multimedia Programming	3	32		14		7	42	17	5	3	120	3
26	Y2S2	TMN2093 Computer System Administration and Management	3	28		24	2	6	36	19	2	3	120	3
27	Y2S2	TMC2413 Object Oriented Software Development	3	28	14		4	12	42	14	3	3	120	3
28	Y3S1	TMP3113 Project Management	3	28		4	10	24	18	30	3	3	120	3
29	Y3S1	TMP3613 Interactive Multimedia Laboratory	3	28		14		9	42	20	4	3	120	3
30	Y3S1	TMT3073 Data Visualization	3	28		14		10	42	19	4	3	120	3
31	Y3S1	TMC3012 Ethics and Professionalism	2	28			1	3	28	14	3	3	80	2
32	Y3S1	TMT3053 Computer Game Design and Development	3	28		14		8	42	20	5	3	120	3
33	Y3S1	TMC3613 Web Based System Development	3	28		14		10	42	20	3	3	120	3
34	Y3S2	TMY3912 Industrial Training	12	2						476	2		480	12
35	Y4S1	TMI3053 Human Computer Interaction	3	39			6	16	20	30	6	3	120	3
36	Y4S1	TMT4053 Multimodal Interaction Technology	3	28		14		7	42	22	4	3	120	3

Student Learning Time (SLT)
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No	Sem	Course Code & Title	Credit	Guided Learning Activities				Self-Learning Activities			Formal Assessment		Total SLT	Notional Credit (MQF)
				Instructor Centered Learning	Student Centered Learning			Non-Guided Learning / SCL e.g. manual, assignment, modul, etc.	Revision	Preparation for Assessment	Continuous Assessment	Final Assessment		
					Lecture	Tutorial	Lab							
37	Y4S1	TMC4013 Technopreneurship and Product Development	3	42			4	24	24	20	3	3	120	3
38	Y4S1	TMP4913 Final Year Project I	3	3						116	1		120	3
39	Y4S2	TMT4073 Digital Image Processing	3	28		14	2	7	42	20	4	3	120	3
40	Y4S2	TMT4093 Advanced Topics in Multimedia Computing	3	42			3	6	42	20	4	3	120	3
41	Y4S2	TMP4935 Final Year Project II	5	3						196	1		200	5
		Sub-Total	118	891	145	250	53	264	1110	1333	110	84	4240	106
Elective Courses														
42	Y1S2	XXXYY13 Elective Course 1	3	28	14			28	14	28	5	3	120	3
43	Y2S2	XXXYY23 Elective Course 2	3	28	14			28	14	28	5	3	120	3
44	Y4S1	XXXYY33 Elective Course 3	3	28	14			28	14	28	5	3	120	3
45	Y4S2	XXXYY43 Elective Course 4	3	28	14			28	14	28	5	3	120	3
		Sub-Total	130	112	56	0	0	112	56	112	20	12	480	12
		Total	130	1255	201	298	74	496	1332	1581	162	121	5520	138