

CURRICULUM STRUCTURE

Students are required to complete a minimum of 120 credits to graduate with a Bachelor of Computer Science (Software Development). The programme components as follows:

BACHELOR'S DEGREE COMPUTER SCIENCE) Minimum Graduating Credits – 120		
Component		Credits
Name	Code	
Mata Pelajaran Umum (MPU) Modules	W	14
Core Modules	P	45
Specialisation	K	30
Final Year Project	P	6
Industrial Training	P	12
Free Modules	E	13
Total		120

MATA PELAJARAN UMUM (MPU) MODULES (14 credits)

BLHW 1702	Islamic and Asian Civilizations / <i>Tamadun Islam dan Tamadun Asia</i>
BLHW 2712	Ethnic Relations / <i>Hubungan Etnik</i>
BLHW 1442	English for Academic Purposes / <i>Bahasa Inggeris untuk Tujuan Akademik</i>
BLHW 2452	Academic Writing / <i>Penulisan Akademik</i>
BLHW 3462	English for Professional Interaction / <i>Bahasa Inggeris untuk Komunikasi Profesional</i>
BTMW 4012	Technology Entrepreneurship <i>Keusahawanan Teknologi</i>
BLHL 1012	Bahasa Melayu I (International)
BLHW 1942	Malaysian Studies (International)
BLHW 2752	Malaysian Culture (International)
BKK* - - - -	Co-Curriculum I / <i>Ko-kurikulum I</i>
BKK* - - - -	Co-Curriculum II / <i>Ko-kurikulum II</i>

CORE MODULES (45 credits)

BITI 1213	Linear Algebra and Discrete Mathematics / <i>Aljabar Linear dan Matematik Diskrit</i>
BITI 1223	Calculus and Numerical Methods / <i>Kalkulus dan Kaedah Berangka</i>
BITI 2233	Statistics and Probability / <i>Statistik dan Kebarangkalian</i>
BITP 1113	Programming Technique / <i>Teknik Pengaturcaraan</i>
BITP 1123	Data Structure and Algorithm / <i>Struktur Data dan Algoritma</i>
BITM 2313	Human Computer Interaction / <i>Interaksi Komputer-Manusia</i>
BITP 1323	Database / <i>Pangkalan Data</i>
BITP 3113	Object Oriented Programming / <i>Pengaturcaraan Berorientasikan Objek</i>
BITP 2213	Software Engineering / <i>Kejuruteraan Perisian</i>
BITS 1123	Computer Organization and Architecture / <i>Organisasi dan Senibina Komputer</i>
BITS 1213	Operating System / <i>Sistem Pengoperasian</i>
BITS 1313	Data Communication and Networking / <i>Organisasi dan Senibina Komputer</i>
BITM 1113	Multimedia System / <i>Sistem Multimedia</i>

BITI 1113 Artificial Intelligence
BITU 2913 Workshop I

SPECIALISATION (30 credits)

BITP 2223 Software Requirement and Design / *Keperluan dan Rekabentuk Perisian*
BITP 2313 Database Design / *Rekabentuk Pangkalan Data*
BITP 3253 Software Verification and Validation / *Validasi dan Verifikasi Perisian*
BITP 3223 Software Project Management / *Pengurusan Projek Perisian*
BITP 2113 Algorithm Analysis / *Analisa Algoritma*
BITP 3123 Distributed Application Development/ *Pembangunan Aplikasi Teragih*
BITP 3423 Special Topic in Software Engineering / *Topik Khas Kejuruteraan Perisian*
BITS 3423 Information Technology Security / *Keselamatan Teknologi Maklumat*
BITU 3923 Workshop II / *Bengkel II*
BITP 3453 Mobile Application Development / *Pembangunan Aplikasi Mudah Alih*

FINAL YEAR PROJECT (6 credits)

BITU 3973 Final Year Project I
BITU 3983 Final Year Project II

INDUSTRIAL TRAINING (12 credits)

BITU 3926 Industrial Training / *Latihan Industri*
BITU 3946 Industrial Training Report / *Laporan latihan Industri*

FREE MODULES (13 credits)

BITP 2323 Database Administration / *Pentadbiran Pangkalan Data*
BITP 3233 Strategic Information System Planning / *Perancangan Strategik Sistem Maklumat*
BITP 3473 Formal Methods / *Kaedah Formal*
BITP 3443 Enterprise Application Development / *Pembangunan Aplikasi Enterprise*
BITP 3483 Geography Information System/ *Sistem Maklumat Geografi*
BITM 1123 Interactive Media Authoring
BITS 2313 Local Area Network / *Rangkaian Komputer Setempat*
BITI 2213 Knowledge Based System/ *Sistem berasaskan Pengetahuan*
BITS 2513 Internet Technology / *Teknologi Internet*
BITM 2113 Web Application Development / *Pembangunan Aplikasi Web*
BLHC 4032 Critical and Creative Thinking / *Pemikiran Kritis dan Kreatif*
BLHL ---2 Third Language / *Bahasa Ketiga*
BLHC 4022 Negotiation Skills/ *Kemahiran Perundingan*
BLHH 1032 Industrial Psychology and Organization / *Psikologi Industri dan Organisasi*
BLHC 4012 Organizational Communication / *Komunikasi Organisasi*

CURRICULUM STRUCTURE PER SEMESTER

Year One (Semester I)

Course Code	Course Name	Component Code	Contact Hours		Credit	Pre-requisite
			Lecture	Lab		
BLHW 1442	English for Academic Purposes <i>Bahasa Inggeris untuk Tujuan Akademik</i>	W	2	0	2	
BKK- ---1	Co-Curriculum I* <i>Ko-kurikulum I*</i>	W	0	3	1	
BITP 1113	Programming Technique <i>Teknik Pengaturcaraan</i>	P	2	2	3	
BITI 1213	Linear Algebra and Discrete Mathematics <i>Aljabar Linear dan Matematik Diskrit</i>	P	2	2	3	
BITS 1123	Computer Organization and Architecture <i>Organisasi dan Senibina Komputer</i>	P	2	2	3	
BITM 1113	Multimedia System <i>Sistem Multimedia</i>	P	2	2	3	
B--- ---2	Elective I <i>Elektif I</i>	E	2	0	2	
Total					17	

* This course can be taken in any semester. Please refer to Co-curriculum unit before register

Year One (Semester II)

Course Code	Course Name	Component Code	Contact Hours		Credit	Pre-requisite
			Lecture	Lab		
BLHW 1702	Islamic and Asian Civilizations* <i>Tamadun Islam dan Tamadun Asia*</i>	W	2	0	2	
BLHW 2712	Ethnic Relations** <i>Hubungan Etnik**</i>	W	2	0	2	
BKK- ---1	Co-Curriculum II*** <i>Ko-kurikulum II*</i>	W	0	3	1	
BITP 1123	Data Structure and Algorithm <i>Struktur Data dan Algoritma</i>	P	2	2	3	BITP 1113
BITI 1223	Calculus and Numerical Methods <i>Kalkulus dan Kaedah Berangka</i>	P	2	2	3	
BITP 2213	Software Engineering <i>Kejuruteraan Perisian</i>	P	2	2	3	
BITP 1323	Database <i>Pangkalan Data</i>	P	2	2	3	BITP 1113
Total					17	

***This course can be taken in any semester. Please refer to Co-curriculum unit before register

For International Students, replaced with:

*BLHW 1742 Malaysian Studies

**BLHW 2752 Malaysian Culture

Year Two (Semester I)

Course Code	Course Name	Component Code	Contact Hours		Credit	Pre-requisite
			Lecture	Lab		
BITU 2913	Workshop 1 <i>Bengkel 1</i>	P	1*		3	BITP 1113
BITI 2233	Statistic and Probability <i>Statistik dan Kebarangkalian</i>	P	2	2	3	
BITP 3113	Object Oriented Programming <i>Pengaturcaraan Berorientasi Objek</i>	P	2	2	3	
BITS 1213	Operating System <i>Sistem Pengoperasian</i>	P	2	2	3	
BITP 2113	Algorithm Analysis <i>Analisa Algoritma</i>	K	2	2	3	
BITP 2313	Database Design <i>Rekabentuk Pangkalan Data</i>	K	2	2	3	
Total					18	

* Average official contact hours per week

Year Two (Semester II)

Course Code	Course Name	Component Code	Contact Hours		Credit	Pre-requisite
			Lecture	Lab		
BLHW 2452	Academic Writing <i>Penulisan Akademik</i>	W	2	0	2	BLHW 1442
BITI 1113	Artificial Intelligence <i>Kepintaran Buatan</i>	P	2	2	3	
BITS 1313	Data Communication and Networking <i>Komunikasi Data dan Rangkaian</i>	P	2	2	3	
BITP 2223	Software Requirement and Design <i>Keperluan dan Rekabentuk Perisian</i>	K	2	2	3	
BITP 3253	Software Verification and Validation <i>Validasi dan Verifikasi Perisian</i>	K	2	2	3	
BITP 3123	Distributed Application Development <i>Pembangunan Aplikasi Teragih</i>	K	2	2	3	
B--- ---2	Elective II <i>Elektif II</i>	E	2	0	2	
Total					19	

* This course can be taken in any semester. Please refer to Co-curriculum unit before register
Professional Certificate course will be conducted in this semester

Year Three (Semester I)

Course Code	Course Name	Component Code	Contact Hours		Credit	Pre-requisite
			Lecture	Lab		
BLHW 3462	English for Professional Interaction <i>Bahasa Inggeris untuk Komunikasi Profesional</i>	W	2	0	2	BLHW 2452
BITM 2313	Human Computer Interaction <i>Interaksi Komputer-Manusia</i>	P	2	2	3	
BITU 3923	Workshop II <i>Bengkel II</i>	K	1**		3	BITU 2913
BITS 3423	Information Technology Security <i>Keselamatan Teknologi Maklumat</i>	K	2	2	3	
BITP 3223	Software Project Management <i>Pengurusan Projek Perisian</i>	K	2	2	3	
BITP 3453	Mobile Application Development <i>Pembangunan Aplikasi Mudah Alih</i>	K	2	2	3	
Total					17	

* This course can be taken in any semester. Please refer to Co-curriculum unit before register

** Average official contact hours per week

Year Three (Semester II)

Course Code	Course Name	Component Code	Contact Hours		Credit	Pre-requisite
			Lecture	Lab		
BTMW 4012	Technology Entrepreneurship <i>Keusahawanan Teknologi</i>	W	2	0	2	
BITU 3973	Final Year Project I <i>Projek Sarjana Muda I</i>	P	1*		3	BITU 3923
BITP 3423	Special Topic in Software Engineering <i>Topik Khas Kejuruteraan Perisian</i>	K	2	2	3	
BIT- ---3	Elective III <i>Elektif III</i>	E	2	2	3	
BIT- ---3	Elective IV <i>Elektif IV</i>	E	2	2	3	
BIT- ---3	Elective V <i>Elektif V</i>	E	2	2	3	
Total					17	

* Average official contact hours per week

Year Three (Special Semester)

Course Code	Course Name	Component Code	Contact Hours		Credit	Pre-requisite
			Lecture	Lab		
BITU 3983	Final Year Project II <i>Projek Sarjana Muda II</i>	P	1*		3	BITU 3973
Total					18	

* Average official contact hours per week

Year Four (Semester I)

Course Code	Course Name	Component Code	Duration (weeks)	Credit	Pre-requisite
BITU 3926	Industrial Training <i>Latihan Industri</i>	P	24	6	BITU 3983
BITU 3946	Industrial Training Report <i>Laporan Latihan Industri</i>	P	24	6	BITU 3983
Total				12	

Note: pre-requisite for BITU 3926 (completed all subjects)

Free Modules

Below is the list of elective courses that can be selected as part of the curriculum. Students need to choose a minimum of **THREE** (3) courses with **THREE** (3) credits **AND TWO** (2) courses with **TWO** (2) credits, to complete at least 13 credits.

List of elective courses offered can be changed from time to time in accordance with industry needs.

Course Code	Course Name	Contact Hours		Credit	Pre-requisite
		Lecture	Lab		
BITP 2323	Database Administration <i>Pentadbiran Pangkalan Data</i>	2	2	3	
BITP 3233	Strategic Information System Planning <i>Perancangan Strategik Sistem Maklumat</i>	2	2	3	
BITP 3473	Formal Methods <i>Kaedah Formal</i>	2	2	3	
BITP 3443	Enterprise Application Development <i>Pembangunan Aplikasi Enterprise</i>	2	2	3	
BITP 3483	Geography Information System <i>Sistem Maklumat Geografi</i>	2	2	3	
BITM 1123	Interactive Media Authoring <i>Pengarang Media Interaktif</i>	2	2	3	
BITS 2313	Local Area Network <i>Rangkaian Area Setempat</i>	2	2	3	
BITI 2213	Knowledge Based System <i>Sistem Berasaskan Pengetahuan</i>	2	2	3	
BITS 2513	Internet Technology <i>Teknologi Internet</i>	2	2	3	

BITM 2113	Web Application Development <i>Pembangunan Aplikasi Web</i>	2	2	3	
BLHC 4032	Critical and Creative Thinking* <i>Pemikiran Kritis dan Kreatif*</i>	2	0	2	
BLHL ---2	Third Language** <i>Bahasa Ketiga**</i>	1	2	2	
BLHC 4022	Negotiation Skills <i>Kemahiran Perundingan</i>	2	0	2	
BLHH 1032	Industrial Psychology and Organization <i>Psikologi Industri dan Organisasi</i>	2	0	2	
BLHC 4012	Organizational Communication <i>Komunikasi Organisasi</i>	2	0	2	

*For International Students, replaced with BLHL 1012 Malay Language I

**Third Language Courses

Code	Course Name	Contact Hours		Credit
		Lecture	Lab	
BLHL 1112	Arabic I	1	2	2
BLHL 1212	Mandarin I	1	2	2
BLHL 1312	Japanese I	1	2	2
BLHL 1412	Germany I	1	2	2
BLHL 1512	France I	1	2	2
BLHL 1612	Korean	1	2	2
BLHL 1712	Turkey	1	2	2