

CURRICULUM STRUCTURE

Students are required to complete a minimum of 120 credits to graduate with a Bachelor of Computer Science (Database Management). 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
BLHW 2712	Ethnic Relations
BLHW 1442	English for Academic Purposes
BLHW 2452	Academic Writing
BLHW 3462	English for Professional Interaction
BTMW 4012	Technology Entrepreneurship
BLHL 1012	Bahasa Melayu I (International)
BLHW 1942	Malaysian Studies (International)
BLHW 2752	Malaysian Culture (International)
BKK* - - - -	Co-Curriculum I
BKK* - - - -	Co-Curriculum II

CORE MODULES (45 credits)

BITI 1213	Linear Algebra and Discrete Mathematics
BITI 1223	Calculus and Numerical Methods
BITI 2233	Statistics and Probability
BITP 1113	Programming Technique
BITP 1123	Data Structure and Algorithm
BITM 2313	Human Computer Interaction
BITP 1323	Database
BITP 3113	Object Oriented Programming
BITP 2213	Software Engineering
BITS 1123	Computer Organization and Architecture
BITS 1213	Operating System
BITS 1313	Data Communication and Networking
BITM 1113	Multimedia System
BITI 1113	Artificial Intelligence
BITU 2913	Workshop I

SPECIALISATION (30 credits)

BITP 2313	Database Design / <i>Rekabentuk Pangkalan Data</i>
BITP 2323	Database Administration/ <i>Pentadbiran Pangkalan Data</i>
BITP 3363	Data Warehousing and Business Intelligence/ <i>Penggudangan Data dan Kepintaran Perniagaan</i>
BITP 3353	Multimedia Database/ <i>Pangkalan Data Multimedia</i>
BITS 3433	Information Technology and Database Security/ <i>Keselamatan Teknologi Maklumat dan Pangkalan Data</i>
BITP 2223	Software Requirement and Design / <i>Keperluan dan Rekabentuk Perisian</i>
BITP 3223	Software Project Management / <i>Pengurusan Projek Perisian</i>
BITP 3223	Database Programming / <i>Pengurusan Projek Perisian</i>
BITU 3923	Workshop II / <i>Bengkel II</i>
BITP 3483	Geography Information System / <i>Sistem Maklumat Geografi</i>

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
BITU 3946	Industrial Training Report

FREE MODULES (13 credits)

BITP 3233	Strategic Information System Planning / <i>Perancangan Strategik Sistem Maklumat -</i>
BITS 2313	Local Area Network / <i>Rangkaian Komputer Setempat</i>
BITP 3523	Advanced Database Administration / <i>Pentadbiran Pangkalan Data Lanjutan</i>
BITI 2223	Machine Learning / <i>Pembelajaran Mesin</i>
BITP 3253	Software Validation and Verification / <i>Validasi dan Verifikasi Perisian</i>
BITP 3423	Special Topic in Software Engineering / <i>Topik Khas Kejuruteraan Perisian</i>
BITS 2513	Internet Technology / <i>Teknologi Internet</i>
BITM 2113	Web Application Development / <i>Pembangunan Aplikasi Web</i>
BLHC 4032	Critical and Creative Thinking / <i>Pemikiran Kritis dan Kreatif</i>
BLHL ---2	Third Language / <i>Bahasa Ketiga</i>
BLHC 4022	Negotiation Skills/ <i>Kemahiran Perundingan</i>
BLHH 1032	Industrial Psychology and Organization / <i>Psikologi Industri dan Organisasi</i>
BLHC 4012	Organizational Communication / <i>Komunikasi Organisasi</i>

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	

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	
BITS 1213	Operating System <i>Sistem Pengoperasian</i>	P	2	2	3	
BITM 2313	Human Computer Interaction <i>Interaksi Komputer-Manusia</i>	P	2	2	3	
BITP 2313	Database Design <i>Rekabentuk Pangkalan Data</i>	K	2	2	3	BITP 1323
BITP 3223	Database Programming / Pengaturcaraan Pangkalan Data	K	2	2	3	BITP 1323, BITP1113
Total					18	

* Average official contact hours per week

Professional Certificate course will be conducted in this semester

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
BITP 3113	Object Oriented Programming <i>Pengaturcaraan Berorientasi Objek</i>	P	2	2	3	
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 2323	Database Administration/ <i>Pentadbiran</i> Pangkalan Data	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

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
BITU 3923	Workshop II <i>Bengkel II</i>	K	1**		3	BITU 2913
BITS 3423	Information Technology and Database Security <i>Keselamatan Teknologi Maklumat dan Pangkalan Data</i>	K	2	2	3	
BITP 3223	Software Project Management <i>Pengurusan Projek Perisian</i>	K	2	2	3	
BITP 3363	Data Warehousing and Business Intelligence/ <i>Penggudangan Data dan Kepintaran Perniagaan</i>	K	2	2	3	
BITP 3483	Geography Information System / <i>Sistem Maklumat Geografi</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 3353	Multimedia Database/ <i>Pangkalan Data Multimedia</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 3233	Strategic Information System Planning <i>Perancangan Strategik Sistem Maklumat</i>	2	2	3	
BITS 2313	Local Area Network <i>Rangkaian Area Setempat</i>	2	2	3	
BITP 3523	Advanced Database Administration / <i>Pentadbiran Pangkalan Data Lanjutan</i>	2	2	3	
BITI 2223	Machine Learning / <i>Pembelajaran Mesin</i>	2	2	3	
BITP 3253	Software Validation and Verification / <i>Validasi dan Verifikasi Perisian</i>	2	2	3	
BITP 3423	Special Topic in Software Engineering / <i>Topik Khas Kejuruteraan Perisian</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