

CURRICULUM STRUCTURE

Students are required to complete a minimum of 120 credits to graduate with a Bachelor of Computer Science (Computer Security). 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)

- BTMW 4012 Technology Entrepreneurship (*Keusahawanan Teknologi*)
 *BLHW 1702 Islamic and Asian Civilizations (*Tamadun Islam dan Tamadun Asia*)
 **BLHW 2712 Ethnic Relations (*Hubungan Etnik*)
 BLHW 1442 English for Academic Purposes (*Bahasa Inggeris untuk Tujuan Akademik*)
 BLHW 2452 Academic Writing (*Penulisan Akademik*)
 BLHW 3462 English for Professional Interaction (*Bahasa Inggeris untuk Interaksi Profesional*)
 BKK* ---1 Co-Curriculum I (*Ko-kurikulum I*)
 BKK* ---1 Co-Curriculum II (*Ko-kurikulum II*)
 *BLHW 1942 Malaysian Studies (International)
 **BLHW 2752 Malaysian Culture (International)

CORE MODULES (45 credits)

- BITI 1113 Artificial Intelligence (*Kepintaran Buatan*)
 BITI 1213 Linear Algebra and Discrete Mathematics (*Aljabar Linear dan Matematik Diskrit*)
 BITI 1223 Calculus and Numerical Methods (*Kalkulus Dan Kaedah Berangka*)
 BITI 2233 Statistic and Probability (*Statistik dan Kebarangkalian*)
 BITM 1113 Multimedia System (*Sistem Multimedia*)
 BITM 2313 Human-Computer Interaction (*Interaksi Komputer-Manusia*)
 BITP 1113 Programming Technique (*Teknik Pengaturcaraan*)
 BITP 1123 Data Structure and Algorithm (*Struktur Data dan Algorithma*)
 BITP 1323 Database (*Pangkalan Data*)
 BITP 2213 Software Engineering (*Kejuruteraan Perisian*)

BITP 3113	Object Oriented Programming (<i>Pengaturcaraan Berorientasikan Objek</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>Komunikasi Data dan Rangkaian</i>)
BITU 2913	Workshop I (<i>Bengkel I</i>)

SPECIALISATION (30 credits)

BITU 3923	Workshop II (<i>Bengkel II</i>)
BITS 2343	Computer Network (<i>Rangkaian Komputer</i>)
BITS 2413	Network Security Infrastructure and Design (<i>Infrastruktur dan Rekabentuk Keselamatan Komputer</i>)
BITS 2523	Cyber Law and Security Policy (<i>Perundangan Siber dan Polisi Keselamatan</i>)
BITS 2423	Physical Security and Electronic Surveillance (<i>Keselamatan Fizikal dan Pengawasan Elektronik</i>)
BITS 3353	Network Security Administration and Management (<i>Pengurusan dan Pentadbiran Keselamatan Rangkaian</i>)
BITS 3363	Network Security Project Management (<i>Pengurusan Projek Keselamatan Rangkaian</i>)
BITS 3463	Cryptography Application and Information Theory (<i>Aplikasi Kriptografi dan Teori Informasi</i>)
BITS 3523	Computer Audit and Risk Management (<i>Audit Komputer dan Pengurusan Risiko</i>)
BITS 3613	Hacking Techniques and Prevention (<i>Teknik Pencegahan dan Penggodaman</i>)

FINAL YEAR PROJECT (6 credits)

BITU 3973	Final Year Project I (<i>Projek Sarjana Muda I</i>)
BITU 3983	Final Year Project II (<i>Projek Sarjana Muda II</i>)

INDUSTRIAL TRAINING (12 credits)

BITU 3926	Industrial Training (<i>Latihan Industri</i>)
BITU 3946	Industrial Training Report (<i>Laporan Latihan Industri</i>)

FREE MODULES (13 credits)

BITS 3443	Digital Forensics (<i>Forensik Digital</i>)
BITS 3453	Malware Analysis and Digital Investigation (<i>Analisa Malware dan Penyiasatan Digital</i>)
BITS 3473	Watermarking and Steganography (<i>Tetinta Cair dan Steganografi</i>)
BITS 3513	TCP/IP Programming (<i>Pengaturcaraan TCP/IP</i>)
BITS 3533	Wireless Network and Mobile Computing (<i>Rangkaian Tanpa Wayar dan Komputeran Mudah Alih</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>)
***BLHL 1012	Bahasa Melayu I (International)
BLHH 1032	Industrial Psychology and Organization (<i>Psikologi Industri dan Organisasi</i>)
BLHC 4012	Organizational Communication (<i>Komunikasi Organisasi</i>)
BLHC 4022	Negotiation Skills (<i>Kemahiran Perundingan</i>)

CURRICULUM STRUCTURE PER SEMESTER

Year One (Semester I)

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 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	
BITI 1213	Linear Algebra and Discrete Mathematics <i>Aljabar Linear dan Matematik Diskrit</i>	P	2	2	3	
BITP 1113	Programming Technique <i>Teknik Pengaturcaraan</i>	P	2	2	3	
BITM 1113	Multimedia System <i>Sistem Multimedia</i>	P	2	2	3	
BITS 1123	Computer Organization and Architecture <i>Organisasi dan Senibina Komputer</i>	P	2	2	3	
Total					17	

* For International Students, replaced with BLHW 1742 Malaysian Studies

** 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		
BITI 1223	Calculus and Numerical Methods <i>Kalkulus dan Kaedah Berangka</i>	P	2	2	3	
BITP 1123	Data Structure and Algorithm <i>Struktur Data dan Algoritma</i>	P	2	2	3	BITP 1113
BITS 1313	Data Communication and Networking <i>Komunikasi Data dan Rangkaian</i>	P	2	2	3	
BITM 2313	Human Computer Interaction <i>Interaksi Komputer-Manusia</i>	P	2	2	3	
BITP 1323	Database <i>Pangkalan Data</i>	P	2	2	3	
BIT- ---3	Elective I <i>Elektif I</i>	E	2	0	2	
Total					17	

Year Two (Semester I)

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
BKK- ---1	Co-Curriculum II* <i>Ko-kurikulum II*</i>	W	0	3	1	
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	
BITI 1113	Artificial Intelligence <i>Kepintaran Buatan</i>	P	2	0	2	
BITS 1213	Operating System <i>Sistem Pengoperasian</i>	P	2	2	3	
BITS 2343	Computer Network <i>Rangkaian Komputer</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 Two (Semester II)

Course Code	Course Name	Component Code	Contact Hours		Credit	Pre-requisite
			Lecture	Lab		
BITP 3113	Object Oriented Programming <i>Pengaturcaraan Berorientasi Objek</i>	P	2	2	3	
BITP 2213	Software Engineering <i>Kejuruteraan Perisian</i>	P	2	2	3	
BITS 2423	Physical Security and Electronic Surveillance <i>Keselamatan Fizikal dan Pengawasan Elektronik</i>	K	2	2	3	BITS 2313
BITS 2413	Network Security Infrastructure and Design <i>Infrastruktur dan Rekabentuk Keselamatan Komputer</i>	K	2	2	3	BITS 2313
BITS 2523	Cyber Law and Security Policy <i>Perundangan Siber dan Polisi Keselamatan</i>	K	2	2	3	
BIT- ---3	Elective II <i>Elektif II</i>	E	2	2	3	
Total					18	

Year Three (Semester I)

Course Code	Course Name	Component Code	Contact Hours		Credit	Pre-requisite
			Lecture	Lab		
BLHW 2712	Ethnic Relations* <i>Hubungan Etnik*</i>	W	2	0	2	
BITU 3923	Workshop II <i>Bengkel II</i>	K	1**		3	BITU 2913
BITS 3353	Network Security Administration and Management <i>Pengurusan dan Pentadbiran Keselamatan Rangkaian</i>	K	2	2	3	
BITS 3363	Network Security Project Management <i>Pengurusan Projek Keselamatan Rangkaian</i>	K	2	2	3	
BITS 3463	Cryptography Application and Information Theory <i>Aplikasi Kriptografi dan Teori Informasi</i>	K	2	2	3	
BIT- ---3	Elective III <i>Elektif III</i>	E	2	2	3	
Total					17	

* For International Students, replaced with BLHW 2752 Malaysian Culture

** Average official contact hours per week

Year Three (Semester II)

Course Code	Course Name	Component Modules	Contact Hours		Credit	Pre-requisite
			Lecture	Lab		
BTMW 4012	Technology Entrepreneurship <i>Keusahawanan Teknologi</i>	W	2	0	2	
BLHW 3462	English for Professional Interaction <i>Bahasa Inggeris untuk Komunikasi Profesional</i>	W	2	0	2	BLHW 2452
BITS 3523	Computer Audit and Risk Management <i>Audit Komputer dan Pengurusan Risiko</i>	K	2	2	3	
BITS 3613	Hacking Techniques and Prevention <i>Teknik Pencegahan dan Penggodaman</i>	K	2	2	3	
BITU 3973	Final Year Project I <i>Projek Sarjana Muda I</i>	P	1*		3	BITU 3923
BIT- ---3	Elective IV <i>Elektif IV</i>	E	2	2	3	
B--- ---2	Elective V <i>Elektif V</i>	E	2	0	2	
Total					18	

* 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					3	

* Average official contact hours per week

Note for Professional Certification: BITS 2620 Security Professional Certificate Preparation (*Persediaan Sijil Profesional Keselamatan*) offered during Year 3 - short semester.

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		
BITS 3513	TCP/IP Programming <i>Pengatucaraan TCP/IP</i>	2	2	3	BITP 1113
BITS 3453	Malware Analysis and Digital Investigation <i>Analisa Malware dan Penyiasatan Digital</i>	2	2	3	BITS 3443
BITS 3533	Wireless Network and Mobile Computing <i>Rangkaian Tanpa Wayar dan Komputeran Mudah Alih</i>	2	2	3	BITS 1313
BITS 3473	Watermarking and Steganography <i>Tetinta Cair dan Steganografi</i>	2	2	3	BITS 3463
BITS 2513	Internet Technology <i>Teknologi Internet</i>	2	2	3	
BITS 3443	Digital Forensics <i>Forensik Digital</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