

## CURRICULUM STRUCTURE

Students are required to complete a minimum of 120 credits to graduate with a Bachelor of Information Technology (Game Technology) with Honours. The programme components as follows:

<b>BACHELOR'S DEGREE INFORMATION TECHNOLOGY)</b> <b>Minimum Graduating Credits – 120</b>		
<b>Component</b>	<b>Code</b>	<b>Credits</b>
<i>Mata Pelajaran Umum</i> (MPU) Modules	W	14
Core Modules	P	33
Specialisation	K	42
Final Year Project	P	6
Industrial Training	P	12
Free Modules	E	13
<b>Total</b>		<b>120</b>

### **MATA PELAJARAN UMUM (MPU) MODULES (14 credits)**

- BTMW 4012 Technology Entrepreneurship (Keusahawanan Teknologi)
- \*BLHW 1702 Islamic and Asian Civilizations (Tamadun Islam dan Tamadun Asia – TITAS)
- \*\*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\* - - - - Co-Curriculum I (Kokurikulum I)
- BKK\* - - - - Co-Curriculum II (Kokurikulum II)
- \*BLHW 1942 Malaysia Studies (International)
- \*\*BLHW 2752 Malaysian Culture (International)

### **CORE MODULES (33 credits)**

- 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 2313 Human-Computer Interaction (Interaksi Komputer-Manusia)
- BITP 1323 Database (Pangkalan Data)
- BITS 1123 Computer Organization and Architecture (Organisasi dan Senibina Komputer)
- BITS 1313 Data Communication and Networking (Komunikasi Data dan Rangkaian)
- BITS 1213 Operating System (Sistem Pengoperasian)
- BITE 1513 Programming Fundamentals (Asas Pengaturcaraan)
- BITS 3423 Information Technology Security (Keselamatan Teknologi Maklumat)
- BITU 2913 Workshop I (Bengkel I)

## **SPECIALISATION MODULES (42 credits)**

BITE 1613	2D Game Development (Pembangunan Permainan Komputer 2 Dimensi)
BITE 2633	Audio Video Production for Game (Produksi Audio dan Video Permainan Komputer)
BITE 2613	Interactive 3D Animation (Animasi 3D Interaktif)
BITE 1523	Computer Game Programming (Pengaturcaraan Permainan Komputer)
BITE 2123	Artificial Intelligence for Games (Kepintaran Buatan untuk Permainan Komputer)
BITE 1713	Game Architecture (Senibina Permainan Komputer)
BITE 2513	Game Engine Development I (Pembangunan Enjin Permainan I)
BITE 3713	Multi-platform Game (Permainan Komputer Pelbagai Platform)
BITE 1723	Game Design Principle (Prinsip Rekabentuk Permainan Komputer)
BITE 2523	Web Game Development (Pembangunan Permainan Web)
BITE 3613	Game Project Management (Pengurusan Projek Pembangunan Permainan Komputer)
BITE 2623	3D Game Development (Pembangunan Permainan Komputer 3 Dimensi)
BITE 3513	Game Engine Development II (Pembangunan Enjin Permainan II)
BITU 3923	Workshop II (Bengkel II)

## **FINAL YEAR PROJECT (6 credits)**

BITU 3973	Final Year Project I (Projek Sarjana Muda I)
BITU 3983	Final Year Project II (Projek Sarjana Muda II)

## **INDUSTRIAL TRAINING (12 credits)**

BITU 3926	Industrial Training (Latihan Industri)
BITU 3946	Industrial Training Report (Laporan Latihan Industri)

## **FREE MODULES (13 credits)**

BITE 3523	Game Physics (Fizik Permainan Komputer)
BITE 3723	Game Mechanics (Mechanics Permainan Komputer)
BITE 3623	Motion Graphics (Grafik Bergerak)
BITE 3633	Game Play (Game Play)
BITS 3333	Multimedia Networking (Rangkaian Multimedia)
BLHC 4032	Critical and Creative Thinking (Pemikiran Kritis dan Kreatif)
***BLHL - - - -	Third Language (Bahasa Ketiga)
***BLHL 1012	Bahasa Melayu Komunikasi (International)
BLHH 1032	Industrial Psychology and Organization (Psikologi Industri dan Organisasi)
BLHC 4012	Organizational Communication (Komunikasi Organisasi)
BLHC 4022	Negotiation Skills (Kemahiran Perundingan)

## CURRICULUM STRUCTURE PER SEMESTER

### Year One (Semester I)

Course Code	Course Name	Component Modules	Contact Hours		Credit	Pre-requisite
			Lecture	Lab		
BITI 1213	Linear Algebra and Discrete Mathematics <i>Aljabar Linear dan Matematik Diskrit</i>	Core	2	2	3	
BITE 1513	Programming Fundamentals <i>Asas Pengaturcaraan</i>	Core	2	2	3	
BITS 1213	Operating System <i>Sistem Pengoperasian</i>	Core	2	2	3	
BITS 1123	Computer Organization and Architecture <i>Organisasi dan Senibina Komputer</i>	Core	2	2	3	
BITE 1723	Game Design Principle <i>Prinsip Rekabentuk Permainan Komputer</i>	Specialisation	2	2	3	
BLH- ---2	Elective I <i>Elektif I</i>	Free	2	2	2	
<b>Total</b>					<b>17</b>	

### Year One (Semester II)

Course Code	Course Name	Component Modules	Contact Hours		Credit	Pre-requisite
			Lecture	Lab		
BLHW 1702	Islamic and Asian Civilizations* <i>Tamadun Islam dan Tamadun Asia*</i>	MPU	2	0	2	
BLHW 1442	English for Academic Purposes <i>Bahasa Inggeris untuk Tujuan Akademik</i>	MPU	2	0	2	
BITI 1223	Calculus and Numerical Methods <i>Kalkulus dan Kaedah Berangka</i>	Core	2	2	3	
BITP 1323	Database <i>Pangkalan Data</i>	Core	2	2	3	
BITE 1523	Computer Game Programming <i>Pengaturcaraan Permainan Komputer</i>	Specialisation	2	2	3	
BITE 1613	2D Game Development <i>Pembangunan Permainan Komputer 2 Dimensi</i>	Specialisation	2	2	3	
<b>Total</b>					<b>16</b>	

Note: International Student only. \*BLHW 1942 Malaysian Studies

### Year Two (Semester I)

Course Code	Course Name	Component Modules	Contact Hours		Credit	Pre-requisite
			Lecture	Lab		
BLHW 2712	Ethnic Relations** <i>Hubungan Etnik**</i>	MPU	2	0	2	
BLHW 2452	Academic Writing <i>Penulisan Akademik</i>	MPU	2	0	2	BLHW 1442
BKK- ---1	Co-Curriculum I* <i>Ko-kurikulum I*</i>	MPU	0	3	1	
BITU 2913	Workshop 1 <i>Bengkel 1</i>	Core	1**		3	
BITS 1313	Data Communication and Networking <i>Komunikasi Data dan Rangkaian</i>	Core	2	2	3	
BITE 1713	Game Architecture <i>Senibina Permainan Komputer</i>	Specialisation	2	2	3	
BITE 2513	Game Engine Development I <i>Pembangunan Enjin Permainan I</i>	Specialisation	2	2	3	
BLH- ---2	Elective II*** <i>Elektif II</i>	Free	1	2	2	
<b>Total</b>					<b>19</b>	

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

Note: International Student Only. \*\*BLHW 2752 Malaysian Culture and \*\*\* BLHL 1012 Bahasa Melayu Komunikasi

\*\* Average official contact hours per week

### Year Two (Semester II)

Course Code	Course Name	Component Modules	Contact Hours		Credit	Pre-requisite
			Lecture	Lab		
BKK- ---1	Co-Curriculum II* <i>Ko-kurikulum II*</i>	MPU	0	3	1	
BITM 2313	Human Computer Interaction <i>Interaksi Komputer-Manusia</i>	Core	2	2	3	
BITI 2233	Statistic and Probability <i>Statistik dan Kebarangkalian</i>	Core	2	2	3	
BITE 2633	Audio Video Production for Game <i>Produksi Audio dan Video Permainan Komputer</i>	Specialisation	2	2	3	
BITE 2613	Interactive 3D Animation <i>Animasi 3D Interaktif</i>	Specialisation	2	2	3	
BITE 2123	Artificial Intelligence for Games <i>Kepintaran Buatan untuk Permainan Komputer</i>	Specialisation	2	2	3	
BIT- ---3	Elective III <i>Elektif III</i>	Free	2	2	3	
<b>Total</b>					<b>19</b>	

\* 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 Modules	Contact Hours		Credit	Pre-requisite
			Lecture	Lab		
BLHW 3462	English for Professional Interaction <i>Bahasa Inggeris untuk Interaksi Profesional</i>	MPU	2	0	2	BLHW 2452
BITU 3923	Workshop II <i>Bengkel II</i>	Specialisation	1**		3	BITU 2913
BITE 3513	Game Engine Development II <i>Pembangunan Enjin Permainan II</i>	Specialisation	2	2	3	
BITE 3713	Multi-platform Game <i>Permainan Komputer Pelbagai Platfom</i>	Specialisation	2	2	3	
BITE 2523	Web Game Development <i>Pembangunan Permainan Web</i>	Specialisation	2	2	3	
BIT- ---3	Elective IV <i>Elektif IV</i>	Free	2	2	3	
<b>Total</b>					<b>17</b>	

Note for Professional Certification: BITM 2130 Web Developer Professional Certificate (*Persijilan Profesional Pembangun Web*)

\*\* 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>	MPU	2	0	2	
BITS 3423	Information Technology Security <i>Keselamatan Teknologi Maklumat</i>	Core	2	2	3	
BITU 3973	Final Year Project I <i>Projek Sarjana Muda I</i>	Final Year Project	1**		3	BITU 3923
BITE 3613	Game Project Management <i>Pengurusan Projek Pembangunan Permainan Komputer</i>	Specialisation	2	2	3	
BITE 2623	3D Game Development <i>Pembangunan Permainan Komputer 3 Dimensi</i>	Specialisation	2	2	3	
BIT- ---3	Elective V <i>Elektif V</i>	Free	2	2	3	
<b>Total</b>					<b>17</b>	

\*\* Average official contact hours per week

### Year Three (Special Semester)

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

\*\* Average official contact hours per week

### Year Four (Semester I)

Course Code	Course Name	Component Modules	Duration (weeks)	Credit	Pre-requisite
BITU3926	Industrial Training <i>Latihan Industri</i>	Industrial Training	24	6	BITU 3983
BITU3946	Industrial Training Report <i>Laporan Latihan Industri</i>	Industrial Training	24	6	BITU 3983
<b>Total</b>				<b>12</b>	

Note: pre-requisite (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		
BITE 3523	Game Physics <i>Fizik Permainan Komputer</i>	2	2	3	
BITE 3723	Game Mechanics <i>Mechanics Permainan Komputer</i>	2	2	3	
BITE 3623	Motion Graphics <i>Grafik Bergerak</i>	2	2	3	
BITE 3633	Game Play <i>Game Play</i>	2	2	3	
BITS 3333	Multimedia Networking <i>Rangkaian Multimedia</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	Kemahiran Perundingan <i>Negotiation Skills</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

**\*\*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