

# Programme Structure

## Bachelor of Civil Engineering

Courses	Content	Credit Hours
University Courses	GIG1012: Philosophy and Current Issues* / GLT1017: Basic Malay Language**	2
	GIG1013: Appreciation of Ethics and Civilization	2
	GIG1003: Basic Entrepreneurship Enculturation	2
	GLTXXXX: English Communication Programme †	4
	University Elective Courses (Student Holistic Empowerment)	8
	Co-Curriculum	2
<b>Sub-total Credit Hours</b>		<b>20</b>
Faculty Courses	Faculty Core Courses	12
<b>Sub-total Credit Hours</b>		<b>12</b>
Department Courses	Department Core Courses	96
	Department Elective Courses	15
<b>Sub-total Credit Hours</b>		<b>111</b>
<b>Total Credit Hours</b>		<b>143</b>

\* Compulsory for local students.

\*\* Compulsory for international students.

† Students are required to complete the courses based on their English Proficiency qualification (MUET/IELTS/TOEFL), as stipulated in the respective PATH on page 29.

# Academic Planner

## Intake Session 2023/2024

YEAR 1						
CODE	COURSE	S1	S2	SS	TOTAL CREDIT	PRE-REQUISITE
<b>UNIVERSITY COURSES</b>						
GIG1012 / GLT1017	Philosophy And Current Issues* / Basic Malay Language**	2				
GIG1003	Basic Entrepreneurship Enculturation	2				
GLTXXXX	English Communication I	2				
GIG1013	Appreciation of Ethics and Civilisations		2			
GLTXXXX	English Communication II		2			
Sub-total Credit Hours		6	4		10	
<b>UNIVERSITY ELECTIVE COURSES (STUDENT HOLISTIC EMPOWERMENT)</b>						
Cluster 1	Thinking Matters: Mind and Intellect		2			
Sub-total Credit Hours			2		2	
<b>FACULTY COURSES</b>						
KIX1001	Engineering Mathematics 1	3				
KIX1002	Engineering Mathematics 2		3			
Sub-total Credit Hours		3	3		6	
<b>DEPARTMENT CORE COURSES</b>						
KIA1002	Engineering Mechanics	3				
KIA1003	Civil Engineering Materials	3				
KIA1006	Civil Engineering Drawing And CAD	3				
KIA1004	Mechanics Of Materials		3			
KIA1005	Engineering Survey		3			
KIA1007	Programming And Information System		3			
Sub-total Credit Hours		9	9		18	
<b>TOTAL CREDIT HOURS</b>		<b>18</b>	<b>18</b>	<b>0</b>	<b>36</b>	

\* Compulsory for local students.

\*\* Compulsory for international students.

YEAR 2						
CODE	COURSE	S1	S2	SS	TOTAL CREDIT	PRE-REQUISITE
<b>UNIVERSITY ELECTIVE COURSES (STUDENT HOLISTIC EMPOWERMENT)</b>						
Cluster 2	Emotional, Physical And Spiritual Intelligence: Heart, Body & Soul	2				
Cluster 3	Technology/Artificial Intelligence And Data Analytics: I-Techie	2				
Cluster 4	Global Issues And Community Sustainability: Making The World A Better Place		2			
Sub-total Credit Hours		4	2		6	
<b>FACULTY COURSES</b>						
KIX2005	Law, Ethics And Sustainability For Engineers		3			
Sub-total Credit Hours			3		3	
<b>DEPARTMENT CORE COURSES</b>						
KIA2001	Theory Of Structures	3				KIA1002 and KIA1004
KIA2003	Fluid Mechanics	3				
KIA2010	Soil Mechanics I	3				
KIA2011	Pavement Engineering	2				
KIA2013	Principles Of Environmental Engineering	3				
KIA2005	Water Resources		3			
KIA2012	Reinforced Concrete Design I		3			
KIA2014	Soil Mechanics II		2			
KIA2015	Surveying Fieldwork		2			KIA1005
KIA2016	Highway Engineering		3			
Sub-total Credit Hours		14	13		27	
<b>TOTAL CREDIT HOURS</b>		<b>18</b>	<b>18</b>		<b>36</b>	

YEAR 3						
CODE	COURSE	S1	S2	SS	TOTAL CREDIT	PRE-REQUISITE
<b>UNIVERSITY COURSES</b>						
	Co-Curriculum		2			
Sub-total Credit Hours			2		2	
<b>FACULTY COURSES</b>						
KIX2006	Engineering Economics And Project Management	3				
Sub-total Credit Hours		3			3	
<b>DEPARTMENT CORE COURSES</b>						
KIA3001	Statistics And Numerical Techniques	3				
KIA3002	Structural Steel Design	3				KIA1002 and KIA1004
KIA3010	Geotechnical Engineering	3				KIA2010
KIA3011	Open Channel Hydraulics	3				KIA2003
KIA3016	Structural Analysis	3				KIA2001
KIA3003	Traffic Engineering		3			
KIA3006	Foundation Engineering		3			
KIA3012	Reinforced Concrete Design II		3			KIA2012
KIA3013	Water Supply And Sewerage		2			KIA2003
KIA3014	Fundamentals Of Sustainability In Civil Engineering		2			
KIA3015	Construction Management And Technology		3			
KIA3008	Industrial Training			5		
Sub-total Credit Hours		15	16	5	36	
<b>TOTAL CREDIT HOURS</b>		<b>18</b>	<b>18</b>	<b>5</b>	<b>41</b>	

YEAR 4						
CODE	COURSE	S1	S2	SS	TOTAL CREDIT	PRE-REQUISITE
<b>DEPARTMENT CORE COURSES</b>						
KIA4001	Final Year Project (P)	3P	3+3			
KIA4018	Integrated Design Project I	2				
KIA4020	Engineers And Society	2				
KIA4035	Prestressed Concrete Design	2				
KIA4019	Integrated Design Project II		3			KIA4018
Sub-total Credit Hours		6	9		15	
<b>DEPARTMENT ELECTIVE COURSES</b>						
KIAXXXX	ELECTIVE COURSE I	3				
KIAXXXX	ELECTIVE COURSE II	3				
KIAXXXX	ELECTIVE COURSE III	3				
KIAXXXX	ELECTIVE COURSE IV		3			
KIAXXXX	ELECTIVE COURSE V		3			
Sub-total Credit Hours		9	6		15	
<b>TOTAL CREDIT HOURS</b>		<b>15</b>	<b>15</b>		<b>30</b>	

# Co-curricular Courses

---

The list of co-curricular courses available is as follows:

CODE	COURSE
GKA1001	Attach@Industry
GKI1001	Independent Research
GKK1001	Community Services
GKP1001	Talent Development
GKS1001	Volunteerism
GPU1001	Entrepreneurship

# Student Holistic Empowerment Courses

---

The Student Holistic Empowerment (SHE) courses are categorized into four (4) clusters:

CLUSTER	COURSE
CLUSTER 1:	Thinking Matters: Mind and Intellect
CLUSTER 2	Emotional, Physical and Spiritual Intelligence: Heart, Body & Soul
CLUSTER 3	Technology/Artificial Intelligence and Data Analytics: I-Techie
CLUSTER 4	Global Issues And Community Sustainability: Making The World A Better Place

Note:

**ALL STUDENTS ARE REQUIRED TO REGISTER ONE (1) COURSE FROM EACH CLUSTER**

The list of Co-Curricular and SHE courses offered for each semester could be found through the following link:

<https://citra.um.edu.my/list-of-university-courses>