

# PROGRAMME STRUCTURE: BACHELOR OF CIVIL ENGINEERING

## CURRICULUM STRUCTURE

SESSION 2020/2021  
(SEPTEMBER INTAKE)

Course	Content	Credit Hours
<b>University Courses</b>	• Information Literacy	2
	• Philosophy & Current Issues (PIS)* /	2
	• Basic Malay Language**	
	• Ethics Appreciation & Civilization (PEP)	2
	• Basic Entrepreneurship Culture	2
	• Social Engagement	2
	• English for Communication Programme	6
	<b>Elective Course from Other Faculties</b> <b>Co-Curriculum</b>	4 2
	<b>Sub-Total Credit Hours</b>	<b>22</b>
<b>Faculty Courses</b>	• Faculty Core Courses	22
	• Faculty Elective Course	2
	<b>Sub-Total Credit Hours</b>	<b>24</b>
<b>Programme Courses</b>	• Programme Core Courses	91
	• Programme Elective Courses	6
	<b>Sub-Total Credit Hours</b>	<b>97</b>
<b>TOTAL CREDIT HOURS</b>		<b>143</b>

**Notes:**

\*Compulsory for Local students.

\*\* Compulsory for International students.

Students are required to take a minimum of 6 credits of English course based on English Proficiency qualification (MUET/IELTS/TOEFL).

# ACADEMIC PLANNER

## BACHELOR OF CIVIL ENGINEERING SESSION 2020/2021

YEAR 1						
CODE	COURSE	S1	S2	SS	TOTAL	PRE-REQUISITE
UNIVERSITY COURSES						
GIG 1012	Philosophy & Current Issues (PIS)*	2			9	
GLT 1017	Basic Malay Language**					
GIG 1013	Ethics Appreciation & Civilization (PEP)		2			
GIG 1004	Information Literacy		2			
GLT 10XX	English for Communication Programme 1	3				
<b>Sub-total</b>		<b>5</b>	<b>4</b>	<b>0</b>	<b>9</b>	
FACULTY CORE COURSES						
KIX 1001	Engineering Mathematics I	3			8	
KIX 1002	Engineering Mathematics II		3			
KIX 1003	Thinking and Communication Skills		2			
<b>Sub-total</b>		<b>3</b>	<b>5</b>	<b>0</b>	<b>8</b>	
PROGRAMME CORE COURSES						
KIA 1001	Drawing for Civil Engineers & Computer Programming	3			15	
KIA 1002	Engineering Mechanics	3				
KIA 1003	Civil Engineering Materials	3				
KIA 1004	Mechanics of Materials		3			
KIA 1005	Engineering Survey		3			
<b>Sub-total</b>		<b>9</b>	<b>6</b>	<b>0</b>	<b>15</b>	
<b>Total</b>		<b>17</b>	<b>15</b>	<b>0</b>	<b>32</b>	

**Notes:**

\*Compulsory for Local students.

\*\* Compulsory for International students.

Students are required to take a minimum of 6 credits of English course based on English Proficiency qualification (MUET/IELTS/TOEFL).

**BACHELOR OF CIVIL ENGINEERING  
SESSION 2020/2021**

YEAR 2						
CODE	COURSE	S1	S2	SS	TOTAL	PRE-REQUISITE
<b>UNIVERSITY COURSES</b>						
GLT 10XX	English for Communication Programme 2	3				
GIG 1003	Basic Entrepreneurship Culture	2				
GIG 1005	Social Engagement		2			
	Co-curriculum	2				
	Elective Courses (other faculty)	2	2			
<b>Sub-total</b>		<b>9</b>	<b>4</b>	<b>0</b>		
<b>FACULTY CORE COURSES</b>						
KIX 2002	Engineering Economics Analysis		3			
<b>Sub-total</b>		<b>0</b>	<b>3</b>	<b>0</b>		
<b>PROGRAMME CORE COURSES</b>						
KIA 2001	Theory of Structure	3				KIA1002, KIA1004
KIA 2002	Soil Mechanics	3				
KIA 2003	Fluid Mechanics	3				
KIA 2004	Reinforced Concrete Design		3			KIA1002, KIA1004
KIA 2005	Water Resources		3			
KIA 2006	Environmental Engineering and Sustainability		3			
KIA 2007	Laboratory A (Structures and Materials)		1			
KIA 2008	Laboratory B (Water and Environmental Engineering)		1			
KIA 2009	Survey Camp			2		KIA1005
<b>Sub-total</b>		<b>9</b>	<b>11</b>	<b>2</b>	<b>22</b>	
<b>Total</b>		<b>18</b>	<b>18</b>	<b>2</b>	<b>38</b>	

**BACHELOR OF CIVIL ENGINEERING  
SESSION 2020/2021**

YEAR 3						
CODE	COURSE	S1	S2	SS	TOTAL	PRE-REQUISITE
<b>UNIVERSITY COURSES</b>						
	-					
<b>Sub-total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>FACULTY CORE COURSES</b>						
KIX 2001	Integrated Design I	2				
KIX 2003	Law and Ethics in Engineering		2			
KIX 2004	Engineering Project Management	3				
KIX 3001	Integrated Design II		4			KIX2001
<b>Sub-total</b>		<b>5</b>	<b>6</b>	<b>0</b>	<b>11</b>	
<b>PROGRAMME CORE COURSES</b>						
KIA 3001	Statistics and Numerical Techniques	3				
KIA 3002	Structural Steel Design	3				
KIA 3003	Traffic Engineering	3				
KIA 3004	Construction Management and Technology	3				
KIA 3005	Hydraulics		3			KIA2003
KIA 3006	Foundation Engineering		3			KIA2002
KIA 3007	Laboratory C (Geotechnics and Transportations)	1				
KIA 3008	Industrial Training			5		
KIA 3009	Structural Analysis		3			KIA2001
KIA 3010	Geotechnical Engineering		3			KIA2002
<b>Sub-total</b>		<b>13</b>	<b>12</b>	<b>5</b>	<b>30</b>	
<b>Total</b>		<b>18</b>	<b>18</b>	<b>5</b>	<b>41</b>	

**BACHELOR OF CIVIL ENGINEERING  
SESSION 2020/2021**

YEAR 4						
CODE	COURSE	S1	S2	SS	TOTAL	PRE-REQUISITE
<b>UNIVERSITY COURSES</b>						
	-					
<b>Sub-total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>FACULTY ELECTIVE COURSES</b>						
	Elective Faculty	2				
<b>Sub-total</b>		<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	
<b>PROGRAMME CORE COURSES</b>						
KIA 4001	Final Year Project	3P	3			Have completed a minimum of 80 credits
KIA 4002	Capstone Design Project		3			Have completed a minimum of 90 credits
KIA 4003	Advanced Reinforced Concrete Design	3				KIA2004
KIA 4004	Highway Engineering	3				
<b>Sub-total</b>		<b>9</b>	<b>6</b>	<b>0</b>	<b>15</b>	
<b>PROGRAMME ELECTIVE COURSES</b>						
KIA/KID 40XX	Elective 1	3				
KIA/KID 40XX	Elective 2	3				
KIA/KID 40XX	Elective 3		3			
KIA/KID 40XX	Elective 4		3			
KIA/KID 40XX	Elective 5		3			
<b>Sub-total</b>		<b>6</b>	<b>9</b>	<b>0</b>	<b>15</b>	
<b>Total</b>		<b>17</b>	<b>15</b>	<b>0</b>	<b>32</b>	
<b>TOTAL CREDIT</b>					<b>143</b>	

**LIST OF FACULTY ELECTIVE COURSE#:**

CODE	COURSE	CREDIT
KIX3002	Engineering Entrepreneurship	2
KIX3003	Sustainable Engineering	2

**LIST OF PROGRAMME ELECTIVE COURSES#:**

CODE	COURSE	CREDIT
<b>Structural and Material</b>		
KIA 4005	Advanced Structural Steel	3
KIA 4006	Timber Design	3
KIA 4007	Wind and Earthquake Engineering	3
KIA 4008	Bridge Engineering	3
KIA 4009	Concrete Engineering and Technology	3
KIA 4010	Special Concrete	3
KIA 4011	Prestressed Concrete Design	3
<b>Soil, Geotechnical Engineering and Transport</b>		
KIA 4012	Rock Engineering	3
KIA 4013	Ground Improvements	3
KIA 4014	Air Traffic Management	3
KIA 4015	Transportation and Highway Planning	3
<b>Water and Environmental Engineering</b>		
KID 4003	Water Supply Engineering	3
KID 4005	Advanced Hydrology Engineering	3
KID 4006	Surface Water Quality Engineering	3
KID 4007	Environmental Health Engineering	3
KID 4008	Environmental Impact Assessment	3
KID 4009	Solid & Hazardous Waste Management	3
KID 4010	Environmental Risk Management	3
KID 4011	Environmental Management System	3
KID 4012	Occupational, Safety and Health	3
KID 4013	Air Pollution and Control	3
KID 4014	Contaminant Transport	3
<b>Mathematics, Survey, and Management</b>		
KIA 4016	GIS for Civil Engineering	3
KIA 4017	Quantitative Techniques in Construction Management	3

# The list of courses offered is subject to change.

## GRADUATION REQUIREMENT CHART

### BACHELOR OF CIVIL ENGINEERING

CODE	COURSE	CREDIT	PASSING GRADE
<b>UNIVERSITY COURSES</b>			
GIG 1012	Philosophy & Current Issues (PIS)*	2	C
GLT 1017	Basic Malay Language**		
GIG 1013	Ethics Appreciation & Civilization (PEP)*	2	C
GIG 1006	Introduction to Malaysia**		
GIG 1003	Basic of Entrepreneurship Culture	2	C
GIG 1004	Information Literacy	2	C
GIG 1005	Social Engagement	2	C
GLT 10XX	English for Communication Programme	6	C
	Elective Course from Other Faculties	4	C
	Co-Curriculum	2	c
<b>Sub-total Credit Hours</b>		<b>22</b>	
<b>FACULTY CORE COURSES</b>			
KIX 1001	Engineering Mathematics I	3	C
KIX 1002	Engineering Mathematics II	3	C
KIX 1003	Thinking and Communication Skills	2	C
KIX 2001	Integrated Design I	2	C
KIX 2002	Engineering Economic Analysis	3	C
KIX 2003	Law and Ethics in Engineering	2	C
KIX 2004	Engineering Project Management	3	C
KIX 3001	Integrated Design II	4	C
<b>Sub-total Credit Hours</b>		<b>22</b>	
<b>FACULTY ELECTIVE COURSES</b>			
	List of Faculty Elective Courses#: KIX3002 – Engineering Entrepreneurship KIX3003 – Sustainable Engineering #subject to changes.	2	C
<b>Sub-total Credit Hours</b>		<b>2</b>	
<b>PROGRAMME CORE COURSES</b>			
KIA 1001	Drawing for Civil Engineers & Computer Programming	3	C
KIA 1002	Engineering Mechanics	3	C
KIA 1003	Civil Engineering Materials	3	C
KIA 1004	Mechanics of Materials	3	C
KIA 1005	Engineering Survey	3	C
KIA 2001	Theory of Structure	3	C
KIA 2002	Soil Mechanics	3	C
KIA 2003	Fluid Mechanics	3	C
KIA 2004	Reinforced Concrete Design	3	C
KIA 2005	Water Resources	3	C
KIA 2006	Environmental Engineering and Sustainability	3	C
KIA 2007	Laboratory A (Structures and Materials)	1	C
KIA 2008	Laboratory B (Survey, Water & Soil)	1	C
KIA 2009	Survey Camp	2	C
KIA 3001	Statistics and Numerical Techniques	3	C
KIA 3002	Structural Steel Design	3	C
KIA 3003	Traffic Engineering	3	C

KIA 3004	Construction Management and Technology	3	C
KIA 3005	Hydraulics	3	C
KIA 3006	Foundation Engineering	3	C
KIA 3007	Laboratory C (Transportations, Geotechnics, Water, Environmental & Structure)	1	C
KIA 3008	Industrial Training	5	C
KIA 3009	Structural Analysis	3	C
KIA 3010	Geotechnical Engineering	3	C
KIA 4001	Final Year Project	6	C
KIA 4002	Capstone Design Project	3	C
KIA 4003	Advanced Reinforced Concrete Design	3	C
KIA 4004	Highway Engineering	3	C
<b>Sub-total Credit Hours</b>		<b>82</b>	
<b>PROGRAMME ELECTIVE COURSES</b>			
KIA/KID 40XX	Elective 1	3	C
KIA/KID 40XX	Elective 2	3	C
KIA/KID 40XX	Elective 3	3	C
KIA/KID 40XX	Elective 4	3	C
KIA/KID 40XX	Elective 5	3	C
<b>Sub-total Credit Hours</b>		<b>15</b>	
<b>TOTAL CREDIT</b>		<b>143</b>	