

Curriculum Structure for Bachelor of Civil Engineering with Honours (261 and above)

YEAR 1					
SEMESTER 1					
No.	Course Code	Course Title	18.5*/18	Pre-requisite	Co-requisite
			Cr		
			Hrs		
1	CVLA 1231	Building Services and Smart Systems	2		
2	CVLA 1291	Civil Engineering Drawing	2		
3	CVLA 1332	Civil Engineering Materials	3		
4	CVLA 1361	Geology and Soil Mechanics	3		
5	ECEE 1352	Engineering Programming	3		
6	MATH 1311	Engineering Mathematics	3		
7	UNGS 1213	Tawhidic Epistemology and Islamic Worldview	2		
8	TQTD 1002	Tilawah Al-Qur'an 1*	0.5	TPT and/or Pre-Tilawah	

*For Muslim Students Only

SEMESTER 2					
No.	Course Code	Course Title	16.5*/16	Pre-requisite	Co-requisite
			Cr		
			Hrs		
1	CVLA 1312	Statics and Dynamics for Civil Engineers	3		
2	CVLA 1333	Construction Technology	3	CVLA 1332	
3	CVLA 1381	Engineering Survey	3		
4	MATH 1322	Vector Calculus	3	MATH 1311	
5	LEED 1201	Academic English for Sustainability	2	LEED 1011/ 1012/1013/1014 /Exit EPT	
6	LQAD 1113/ LQAD 1131	Arabic for Understanding Ibadah I* / Arabic for Effective Communication I**	1	APT	
7	TQTD 2002	Tilawah Al-Qur'an 2*	0.5	TPT / TQTD 1002	
8	CCUB 1000	Usrah	1		

*For Muslim Students Only **For Non-Muslim Students Only

YEAR 2					
SEMESTER 3					
No.	Course Code	Course Title	16/17**	Pre-requisite	Co-requisite
			Cr		
			Hrs		
1	CVLA 2192	Civil Engineering Laboratory 1	1	CVLA 1332	CVLA 2341 CVLA 2311
2	CVLA 2311	Strength of Materials	3	CVLA 1312	
3	CVLA 2341	Fluid Mechanics	3	CVLA 1312	
4	CVLA 2371	Highway Engineering	3	CVLA 1381	
5	MATH 2312	Differential Equations	3	MATH 1311	
6	MPUG 3112 / MPUG 3142	Aspirasi Negara Bangsa (for Malaysian) / Malaysian Citra (for Non-Malaysian)	2		
7	LQAD 2123/ LQAD 2232	Arabic for Understanding Ibadah II* / Arabic for Effective Communication II**	1 / 2**	APT or LQAD 1113 / LQAD 1131	

*For Muslim Students Only

**For Non-Muslim Students Only

SEMESTER 4					
No.	Course Code	Course Title	18	Pre-requisite	Co-requisite
			Cr		
			Hrs		
1	CVLA 2193	Civil Engineering Laboratory 2	1	CVLA 1361	CVLA 2342
2	CVLA 2313	Theory of Structures	3	CVLA 2311	
3	CVLA 2342	Hydraulics	3	CVLA 2341	
4	CVLA 2343	Water Resources and Hydrology	3	CVLA 2192	
5	CVLA 2362	Geotechnical Engineering	3	CVLA 1361	
6	MATH 2331	Statistics and Numerical Methods	3	MATH 1311	
7	MPUG 3122/ UNGS 3122	Falsafah dan Cabaran Semasa (for Malaysian) / Philosophy and Contemporary Challenges (for non-Malaysian)	2		

YEAR 3					
SEMESTER 5					
No.	Course Code	Course Title	17	Pre-requisite	Co-requisite
			Cr		
			Hrs		
1	CVLA 3194	Civil Engineering Laboratory 3	1	CVLA 2311	CVLA 3314
2	CVLA 3233	Sustainable Infrastructure	2	CVLA 1231 CVLA 1333	
3	CVLA 3312	Reinforced Concrete Design 1	3	CVLA 2311	
4	CVLA 3314	Structural Analysis	3	CVLA 2313	
5	CVLA 3363	Foundation Engineering	3	CVLA 2362	
6	CVLA 3372	Traffic Engineering	3	CVLA 2371	
7	LMBD 3204/ MPUG 3152/ MPUG 3162	Bahasa Melayu Kerjaya (Sains dan Teknologi) / Bahasa Melayu Komunikasi (Nusantara) / Bahasa Melayu Komunikasi***	2		

***For Other International Students Only

SEMESTER 6					
No.	Course Code	Course Title	14	Pre-requisite	Co-requisite
			Cr		
			Hrs		
1	CVLA 3195	Civil Engineering Laboratory 4	1	CVLA 2371	CVLA 3351
2	CVLA 3253	Urban Stormwater Management	2	CVLA 2343	CVLA 3300
3	CVLA 3292	Contract and Estimation	2	CVLA 1333 CVLA 1291	
4	CVLA 3300	Integrated Design Project 1	3	CVLA 3233	
5	CVLA 3322	Reinforced Concrete Design 2	3	CVLA 3312 CVLA 3314	
6	CVLA 3351	Environmental Engineering	3	CVLA 2343	
SHORT SEMESTER					
No.	Course Code	Course Title	5	Pre-requisite	Co-requisite
			Cr		
			Hrs		
1	CVLA 3510	Engineering Industrial Training	5	3rd year standing	

YEAR 4					
SEMESTER 7					
No.	Course Code	Course Title	16	Pre-requisite	Co-requisite
			Cr		
			Hrs		
1	CVLA 4334	Construction Economics and Management	3	CVLA 1333 CVLA 3292	
2	CVLA 4391	Final Year Project 1	3	CVLA 3194	
3	CVLA 4300	Integrated Design Project 2	3	CVLA 3300	
4	CVLA 4323	Steel and Timber Structural Design	3	CVLA 3312	
5	CCSS 3000	Skill	1	CCUB 1000	
6	GENE 4302	Engineering Ethics, Safety and Sustainability	3		

SEMESTER 8					
No.	Course Code	Course Title	16	Pre-requisite	Co-requisite
			Cr		
			Hrs		
1	CVLA 4272	Transportation Engineering	2	CVLA 3372	
2	CVLA 4392	Final Year Project 2	3	CVLA 4391	
3	CVLA 43xx	Engineering Elective 1	3		
4	CVLA 43xx	Engineering Elective 2	3		
5	GENE 4210	Technology Entrepreneurship	2	CVLA 3300	
6	MPUG 3132	Integrity and Anti-Corruption	2		
7	CCLF 2000	Leadership and Family Management	1	CCUB 1000	

TOTAL CREDIT HOURS:
137

LIST OF ENGINEERING ELECTIVE COURSES

The engineering elective courses are organised into three main streams, namely *Structural and Construction Engineering*, *Water and Environmental Engineering* and *Geotechnical and Transportation Engineering*. Students are **required** to take at least **two** **electives** from the **same stream**.

Table 1: Engineering Elective Courses for Civil Engineering Programme

No	Course Code	Course Title	Cr	Pre-requisite	Co-requisite
			Hrs		
1	CVLA 4315	Finite Element for Structural Analysis	3	CVLA 3314	
2	CVLA 4324	Analysis and Design of Tall Buildings	3	CVLA 3322	
3	CVLA 4325	Prestressed Concrete Design	3	CVLA 3312	
4	CVLA 4335	Industrialised Building System	3	CVLA 3233	
5	CVLA 4337	Advanced Concrete Technology	3	CVLA 3233	
6	CVLA 4346	Advanced Hydraulics	3	CVLA 2342	
7	CVLA 4347	Coastal Engineering	3	CVLA 2342	
8	CVLA 4348	River Engineering	3	CVLA 2342	
9	CVLA 4353	Solid Waste Engineering	3	CVLA 3351	
10	CVLA 4364	Advanced Geotechnical Engineering	3	CVLA 3363	
11	CVLA 4365	Ground Improvement Engineering	3	CVLA 3363	
12	CVLA 4373	Pavement Engineering	3	CVLA 3372	
13	CVLA 4374	Traffic Management	3	CVLA 3372	

Free Electives Offered

No	Course Code	Course Title	Cr	Pre-requisite	Co-requisite
			Hrs		
1	CVLA 1332	Civil Engineering Materials	3		
2	CVLA 1333	Construction Technology	3		