

**USM**UNIVERSITI
SAINS
MALAYSIAPUSAT PENGAJIAN
KEJURUTERAAN
AWAM
SCHOOL OF CIVIL ENGINEERINGTEACHING PLAN
EAL431/2 - HIGHWAY DESIGN
Semester 1 2020/2021**a) Time & Place**

Lecturer time/place	Activity
9:00am-11:00am (Tuesday), DK11	Lecture

b) Lecturer(s)

No	Lecturer/Tutor	Email	Teaching load (Hour)	
			Lecture	Tutorial
1	MOHD ROSLI BIN MOHD HASAN, DR. (MRMH) (CM)	cerosli@usm.my	16	
2	ZUL FAHMI BIN MOHAMED JAAFAR, DR. (ZFMJ)	cezuljaafar@usm.my	12	

c) Course Mapping

No.	Course Outcome	PO (SCE)	LT (SCE)	SS	Assessment	CP	CA	KP	OE	S
CO1	Able to apply the appropriate design concepts, principles in highway geometric design and road safety audit	PO1	C1 C2 C3		Examination Test (13) Assignment (3) Project (32)	CP1 CP2		KP3 KP4		
CO2	Able to design elements in highway geometry that covers horizontal, vertical alignments, cross section and junctions according to standards	PO3	C1 C2 C3 C4 C5 C6	CTPS3	Examination Test (13) Assignment (3) Project (32)	CP1 CP2		KP5		

PO: Programme Outcome; LT: Learning Taxonomy; SS: Soft Skills; CP: Complex Problem; CA: Complex Activities; KP: Knowledge Profile; OE: Open Ended; S: Sustainability; SCE: School of Civil Engineering

d) Course Distribution

Coursework	60%	Examination	40%
i. Test	20%		
ii. Assignment	20%		
iii. Project	20%		

e) Teaching Plan

Week	Session	Date	Lecturer / Contact Hour	Topics	Assessment
1	1	13-10-2020	MRMH (2)	Introduction to highway geometric design	Project 1 (CP1,CP2)
2	1	20-10-2020	MRMH (2)	Horizontal alignment	Assignment 1 (CP1,CP2)
3	1	27-10-2020	MRMH (2)	Horizontal alignment	
4	1	03-11-2020	MRMH (2)	Horizontal alignment	
5	1	10-11-2020	ZFMJ (2)	Vertical alignment	
6	1	17-11-2020	ZFMJ (2)	Vertical alignment	Test 1 (CP1,CP2)
7	1	24-11-2020	ZFMJ (2)	Vertical alignment	
8	MID-SEMESTER BREAK				
9	1	08-12-2020	ZFMJ (2)	Cross section	
10	1	15-12-2020	ZFMJ (2)	At-grade intersection	Assignment 2
11	1	22-12-2020	ZFMJ (2)	At-grade intersection	
12	1	29-12-2020	MRMH (2)	Grade separated interchange	
13	1	05-01-2021	MRMH (2)	Road safety audit	
14	1	12-01-2021	MRMH (2)	Road safety audit	
15	1	19-01-2021	MRMH (2)	Road safety audit	Test 2 (CP1,CP2)
16	Revision week				
17	Final Exam Week				