

## Detailed Teaching Plan

Lecture No.	Unit No	Topics to be covered	Planned Date	Execution Date	Remarks
		<b>Unit 1- Road Traffic Characteristics</b>			
1	1	1.1 Traffic engineering- Definition, objects, scope	10/9/24	18/9/24	
2		1.2 Relationship between speed, volume and density of traffic	11/9/24	18/9/24	
3		1.3 Road user's characteristics- physical, mental, emotional factors.	12/9/24	19/9/24	
4		1.4 Vehicular characteristics- width, length, height, weight, speed, efficiency of breaks.	12/9/24	19/9/24	
5		1.5 Road characteristics - gradient, curve of a road,	13/9/24	20/9/24	
6		Design speed, friction between road and tyre surface.	18/9/24	24/9/24	
7		1.6 Reaction time - factors affecting reaction time.	19/9/24	24/9/24	
8		PIEV Theory.	19/9/24	25/9/24	
		<b>Unit 2- Traffic Studies</b>			
9	2	2.1 Traffic volume study – manual count, automatic count,	20/9/24	26/9/24	
10		Intrusive methods, non intrusive methods,	21/9/24	27/9/24	
11		Types of volume counts, representation and analysis of	25/9/24	27/9/24	
12		2.2 Necessity of Origin and Destination study and its methods.	26/9/24	11/10/24	
13		2.3 Speed studies - Spot speed studies, and its presentation ,	27/9/24	31/10/24	
14		Time mean speed, space mean speed,	27/9/24	31/10/24	
15		Journey speed and travel time survey, delay/queuing survey.	1/10/24	9/10/24	
		<b>Unit 3- Road Signs ,Traffic Markings and Intersection Design</b>			
16	3	3.1 Traffic control devices –definition, necessity, types.	3/10/24	17/10/24	
17		Road signs - definition, objects of road signs.	3/10/24	17/10/24	
18		3.2 Classification as per IRC: 67- Mandatory or Regulatory, Cautionary or warning, informatory signs,	4/10/24	17/10/24	
19		Location of cautionary or warning sign in urban and non-urban areas	8/10/24	21/10/24	
20		Points to be considered while designing and erecting road signs,	9/10/24	22/10/24	
21		Traffic markings- definition, classification,	15/10/24	23/10/24	
22		Carriage way, kerb, object marking and reflector markers.	16/10/24	24/10/24	

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	3.3 Intersection at grade, grade separated intersection, rotary intersection,	17/10/24	24/10/24	
24	Various forms of intersection, unchannelized and channelized intersection. Design factors of rotary intersection,	17/10/24	25/10/24	
25	Requirements of intersection at grade, sight distance at intersection.	18/10/24	25/10/24	
26	3.4 Grade separated intersections, advantages, grade separation structures,	22/10/24	5/11/24	
27	Grade separated intersection with interchange facilities	23/10/24	5/11/24	
28	Types - flyovers- partial and full Cloverleaf pattern, Diamond intersection, Trumpet type	24/10/24	6/11/24	
	<b>Unit 4- Intersection Control</b>			
29	4.1 Properties of effective traffic control device and factors considered for traffic control devices,	24/10/24	8/11/24	
30	conflicts points at intersection, types of intersection control.	25/10/24	11/11/24	
31	4.2 Traffic signals- Definition, Types, Traffic control signals, pedestrian signals.	5/11/24	14/11/24	
32	Types of traffic control signals - Fixed time, manually operated, traffic actuated signals and location of signals.	6/11/24	14/11/24	
33	Factors to be considered of installation of traffic signals.	8/11/24	27/11/24	
34	4.3 Terms commonly used in design of traffic signal time, vehicle and pedestrian movement and phase numbering, signal timing policies and process, objective of signal time.	12/11/24	28/11/24	
35	4.4 Signal timing at isolated intersection - Yellow Change Interval,	13/11/24	28/11/24	
36	Cycle Length of Fixed Signals, Minimum Green Time for Pedestrian Movement.	14/11/24	29/11/24	
37	4.5 Actuated Traffic Signals, Terms associated with actuated signals, Types of Actuated Signals,	19/11/24	30/11/24	
38	<b>Unit 5- Highway Safety</b>			
39	5.1 Road Accidents, causes of road accidents,	20/11/24	4/12/24	
40	Strategic Highway Safety Plans, definition of terms in highway safety management.	21/11/24	4/12/24	

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