

Institute/College Name:	Darbhanga College of Engineering.
Program Name:	B.Tech (CE, 7 th semester).
Course Code:	011739
Course Name:	Traffic Engineering
Lecture/Tutorial(per week):	3/0
Course Credits:	03
Course Co-coordinator Name:	Mr. Prashant Kumar

1. Scope and Objectives of the Course

The course serves as an introduction to the field of Traffic Engineering. It covers fundamentals such as Traffic survey speed, Journey and Delay Surveys, Vehicles Volume counts, O-D survey. Use of Photographic Technique in Traffic survey, Elements of Parking survey Analysis and Interpretation of Traffic Studied Statistical Methods of Traffic Engineering, Speed studies, Traffic forecasting Traffic Controls; Traffic signs, Road marking , Traffic signals Highway capacity analysis for rural roads and urban roads Traffic Regulations, Regulation of traffic, Design of controlled and uncontrolled intersections Traffic safety; Road accidents , Causes and Prevention, Street Lighting and Traffic management.

Course Outcomes

CO1-Outline the introduction to traffic engineering and establish an understanding of survey speed, Journey and Delay Surveys, Vehicles Volume counts, O-D survey.

CO2-Define and comprehend key concepts related to the use of Photographic Technique in Traffic survey, Elements of Parking survey Analysis and Interpretation of Traffic Studied Statistical Methods of Traffic Engineering.

CO3-Apply a range of common techniques, such as Speed studies, Traffic forecasting Traffic Controls; Traffic signs, Road marking , Traffic signals Highway capacity analysis for rural roads and urban roads Traffic Regulations, Regulation of traffic.

CO4-Solve an engineering design problem in the design of controlled and uncontrolled intersections.

CO5-Apply and evaluate traffic safety; Road accidents , Causes and Prevention, Street Lighting and Traffic management.

2. Textbooks

TB1: "Traffic Engineering" by [William R. McShane](#).

3. Reference Books

RB1: "TRANSPORT PLANNING AND TRAFFIC ENGINEERING BY C A O'FLAHERTY"

Other readings and relevant websites

S.No	Link of Journals, Magazines, websites and Research Papers
1.	http://nptel.ac.in/courses/105101008/

2. Course Plan

Lecture Number	Date of Lecture	Topics	Web Links for video lectures	Text Book / Reference Book / Other reading material	Page numbers of Text Book(s)
1-6				TB1, RB1	1-59
		Introduction, traffic survey speed, Journey and Delay Surveys, Vehicles Volume counts, O-D survey.	http://nptel.ac.in/courses/105101008/		
Assignment 1					
7-14				TB1, RB1	73-152
		Use of Photographic Technique in Traffic survey, Elements of Parking survey Analysis and Interpretation of Traffic Studied Statistical Methods of Traffic Engineering.		http://nptel.ac.in/courses/105101002/	
Assignment 1					
15-22				TB1, RB1	164-286
		Speed studies, Traffic forecasting Traffic Controls; Traffic signs, Road marking , Traffic signals Highway capacity analysis for rural roads and urban roads Traffic Regulations, Regulation of traffic.	http://nptel.ac.in/courses/105101008/		
Assignment 2					
23-30				TB1, RB1	296-330
		Design of controlled and uncontrolled intersections.		http://nptel.ac.in/courses/105101008/	

Mid-Semester Exam (Syllabus covered from 1-24 lectures)					
31-36				TB1, RB1	340-358
		Traffic safety; Road accidents , Causes and Prevention, Street Lighting and Traffic management.		http://nptel.ac.in/courses/105101008/	

3. Evaluation Scheme:

Component 1	Mid Semester Exam	20
Component 2	Assignment Evaluation	10
Component 3**	End Term Examination**	70
	Total	100

** The End Term Comprehensive examination will be held at the end of semester. The mandatory requirement of 75% attendance in all theory classes is to be met for being eligible to appear in this component.

SYLLABUS

Topics	No of lectures	Weightage*
Introduction, traffic survey speed, Journey and Delay Surveys, Vehicles Volume counts, O-D survey.	6	16.67%
Use of Photographic Technique in Traffic survey, Elements of Parking survey Analysis and Interpretation of Traffic Studied Statistical Methods of Traffic Engineering.	8	22.22%
Speed studies, Traffic forecasting Traffic Controls; Traffic signs, Road marking , Traffic signals Highway capacity analysis for rural roads and urban roads Traffic Regulations, Regulation of traffic.	8	22.22%
Design of controlled and uncontrolled intersections.	8	22.22%
Traffic safety; Road accidents , Causes and Prevention, Street Lighting and Traffic management.	6	16.67%
TOTAL		100%

* Weightages are based on the mid-term exam and not end semester exam since the question paper is set by Aryabhata Knowledge University, Patna

This Document is approved by:

Designation	Name	Signature
Course Coordinator	Mr. Prashant Kumar	
H.O.D	Mr. Shyam Sundar Choudhary	
Principal	Dr. Achintya	
Date		

Evaluation and Examination Blue Print:

Internal assessment is done through quiz tests, presentations, assignments and project work. Examination rules and regulations are uploaded on the student's portal. Evaluation is a very transparent process and the answer sheets of mid-term exam and internal assessment assignments are returned back to the students.

The components of evaluations alongwith their weightage followed by the University is given below

Mid-term exam	20%
Assignments/Quiz Tests/Seminars	10%
End term examination	70%