

Module Code	CE7T01
Module Name	T1: Transportation
ECTS Weighting¹	5 ECTS
Semester taught	Semester 1
Module Coordinator/s	Prof. Bidisha Ghosh (bghosh@tcd.ie) Lecturer(s): Prof. Margaret O'Mahony (Margaret.omahony@tcd.ie) Prof. Brian Caulfield (brian.caulfield@tcd.ie)
<u>Module Learning Outcomes</u> with reference to the <u>Graduate Attributes</u> and how they are developed in discipline	<p>On successful completion of this module, students should be able to:</p> <p>LO1. Develop an overview of transportation and traffic engineering. LO2. Develop an understanding of queuing models and traffic paradoxes. LO3. Discuss and design the layout of a traffic junction. LO4. Design and evaluate fixed-time traffic signal plan of a junction. LO5. Implement land-use models to manage traffic demand. LO6. Develop knowledge and understanding of urban transportation Management policies. LO7. Evaluate the impact of public transport policies.</p> <p>Graduate Attributes: levels of attainment To act responsibly - Enhanced To think independently - Enhanced To develop continuously - Introduced To communicate effectively - Enhanced</p>
Module Content	The students will be given an introduction to transportation engineering, covering traffic flow theory, queuing theory, traffic paradoxes, junction design and traffic signal designing. The module will also cover urban transportation policies, land-use modelling and public transport quality and benchmarking.

¹ [TEP Glossary](#)

Teaching and Learning Methods

- Core content via lecture(direct).
- Research paper and case study based group discussion.
- Individual Assignments.

Assessment Details² Please include the following: <ul style="list-style-type: none"> • Assessment Component • Assessment description • Learning Outcome(s) addressed • % of total • Assessment due date 	Assessment Component	Assessment Description	LO Addressed	% of total	Week due	
			Continuous Assessment		50%	
			Take Home Examination		50%	

Reassessment Requirements

100% Take Home Examination

Contact Hours and Indicative Student Workload²

Contact hours: 27 lectures Directed learning 15 hours
Independent Study (preparation for course and review of materials):
Independent Study (preparation for assessment, incl. completion of assessment): 26 hours assignments

Recommended Reading List

Module Pre-requisite

Module Co-requisite

Module Website

Are other Schools/Departments involved in the delivery of this

No

² [TEP Guidelines on Workload and Assessment](#)

module? If yes, please provide details.

Module Approval Date

Approved by

Academic Start Year

1st September 2020

Academic Year of Date

2020/2021