

Module Code	CE7T02
Module Name	T2 – Transport Modelling and Planning
ECTS Weighting¹	5 ECTS
Semester taught	Semester 1
Module Coordinator/s	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. Evaluate transport networks using the four stage model. LO2. Discuss how transport networks are designed. LO3. Apply discrete choice models to transportation problems. LO4. Understand how activity based transport models link into the traditional four stage model. LO5. Appreciate the links between land use and transport planning. LO6. Design and plan public transport routes. LO7. Model the interactions between transport and emissions.</p> <p>Graduate Attributes: levels of attainment To act responsibly - Not embedded To think independently - Enhanced To develop continuously - Attained To communicate effectively - Enhanced</p>
Module Content	<p>This module is an optional module which runs in the first semester. A comprehensive overview of the different approaches to modelling transportation networks is provided in this module, equipping students with a variety of tools for examining transportation problems. This module covers the following topics: data, four stage transport modelling (including trip generation, distribution, modal split and assignment; user and social equilibrium), discrete choice modelling, activity based models, transport and land use planning, public transport planning.</p>

Teaching and Learning Methods

- Core content via lecture (direct)
- Individual Assignments

Assessment Details²

Please include the following:

- Assessment Component
- Assessment description
- Learning Outcome(s) addressed
- % of total
- Assessment due date

Assessment Component	Assessment Description	LO Addressed	% of total	Week due
	Assignment		30%	
	Examination [3 hours] online		70%	
Reassessment	Examination [3 hours] online		100%	

Reassessment Requirements

Contact Hours and Indicative Student Workload²

Contact hours: Lectures 27 hours

Independent Study (preparation for course and review of materials):

Directed learning 15 hours

Independent Study (preparation for assessment, incl. completion of assessment):

Assignments 26 hours

Recommended Reading List

Module Pre-requisite

Module Co-requisite

Module Website

**Are other Schools/Departments
involved in the delivery of this module?
If yes, please provide details.**

Module Approval Date

Approved by

Academic Start Year 1st September 2024

Academic Year of Date 2024/2025