

Module Code	CE7S04
Module Name	S4 – Bridge Engineering
ECTS Weighting¹	5 ECTS
Semester taught	Semester 2
Module Coordinator/s	Professor Alan O’Connor (alan.oconnor@tcd.ie)
Module Learning Outcomes with reference to the Graduate Attributes and how they are developed in discipline	<p>On successful completion of this module, students should be able to:</p> <p>LO1. Aesthetics of Bridge Design. LO2. Bridge Loading. LO3. Introduction to Concrete Bridge Design. LO4. Preliminary Scheme Design. LO5. Computer Modelling and Analysis of Bridges. LO6. Design of Cable Supported Bridges. LO7. Concrete Bridge Durability. LO8. Risk Assessment and Whole Life Optimisation.</p> <p>Graduate Attributes: levels of attainment To act responsibly - Introduced To think independently - Enhanced To develop continuously - Enhanced To communicate effectively - Enhanced</p>
Module Content	To provide an understanding of bridge design, modelling, construction, maintenance and whole life management.

Teaching and Learning Methods Lectures, tutorials, coursework.

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
		Coursework		100%	

Reassessment Requirements Coursework 100%

Contact Hours and Indicative Student Workload²	Contact hours: 33
	Independent Study (preparation for course and review of materials): 35
	Independent Study (preparation for assessment, incl. completion of assessment): 40

Recommended Reading List Reading lists will be provided by each lecturer on the course.

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	1 st September
Academic Year of Date	2020/2021