

Module Details	
Module Title	Advanced Steel And Concrete Design
Module Code	CSE6011-B
Academic Year	2020/1
Credits	20
School	Department of Civil and Structural Engineering
Subject Area	Civil and Structural Engineering
FHEQ Level	FHEQ Level 6
Pre-requisites	N/A
Co-requisites	N/A

Contact Hours	
Type	Hours
Lectures	36
Tutorials	4
Directed Study	156

Availability	
Occurrence	Location / Period
BDA	University of Bradford / Academic Year

Module Aims
To introduce advanced principles/ concept for design and analysis of steel and concrete structures and their constructability. To understanding the modes of failure in structures and how to design against the risks. To enrich student?s creativity and ability to design structures in steel and concrete.

Outline Syllabus
N/A

Learning Outcomes	
Outcome Number	Description
1	Design steel framed buildings for robustness and sway stability; understanding the modes of failure and how to design against risks.
01	Design steel framed buildings for robustness and sway stability; understanding the modes of failure and how to design against risks.
02	Design of multi-storey unbraced steel framed structures and joints;
03	Design of steel-concrete composite structures;
04	Design of reinforced concrete flat slabs;
05	Design of prestressed concrete elements;
06	Design of slender reinforced concrete columns

Learning, Teaching and Assessment Strategy
The concepts, principles and theories related to advanced steel and concrete design are given in interactive lectures with worked examples. In terms of directed study, students are encouraged to study the lecture note and solve the tutorial sheet given and the end of each topic and submitted the tutorial sheet for formative feedback. The module is assessed through 2 exams which take place at the end of semester 1 and semester 2.

Mode of Assessment				
Type	Method	Description	Length	Weighting
Summative	Examination - Open Book	Designing steel structures (Sem 1)	2 hour	50%
Summative	Examination - Open Book	Designing reinforced concrete structures (Sem 2)	2 hour	50%

Reading List
To access the reading list for this module, please visit https://bradford.rl.talis.com/index.html

Please note:

This module descriptor has been published in advance of the academic year to which it applies. Every effort has been made to ensure that the information is accurate at the time of publication, but minor changes may occur given the interval between publishing and commencement of teaching. Upon commencement of the module, students will receive a handbook with further detail about the module and any changes will be discussed and/or communicated at this point.

