Module Descriptor Form

Civil and Environmental Engineering

CL135 - Engineering And Society

Module Code	CL135	**Module Title**	Engineering And Society				
Module Registrar	Murray, Dr Michael						
Other Staff Involved							
Credit Weighting	10	**Semester**	1	**Elective**	Yes	**Academic Level**	1
Pre-requisites							
Required for							

Module Format and Delivery (hours):

Lectures	Tutorials	Assignments	Labs	Private Study	Total
22	10	20	0	48	100

Educational Aim

This module aims to:

The aims are to introduce students to the role of global civil engineering practice and the contribution to society through examining both historical and contemporary issues of civil engineering practice and the professions.

Syllabus

This module will teach the following:

- History of the civil engineering profession (people, projects, place)
- The construction industry- roles, responsibilities, and interaction with society.
- Construction technology and the life cycle of buildings and infrastructure.
- Professional Ethics / Health & Safety / Environmental & Diversity issues.
- Developing an appreciation of risk through examining failures in structures.
- Lifelong learning / Metacognition / Reflective Writing

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Learning Outcomes

On Completion of the module, the student is expected to be able to:

LO: 1	Describe the practice of the civil engineering sector and the various disciplines involved related to their future careers within the industry.
LO: 2	Identify the processes and technologies employed in civil engineering through case studies (including failures) and construction site visits
LO: 3	Explain the importance of Professionalism (Ethical behaviour / Health and Safety legislation/ Environmental Issues / Diversity) related to civil engineers' practice.
LO: 4	Demonstrate an understanding of Information Literacy, knowledge acquisition (explicit& tacit) & personal / peer group learning / Continuing Professional Development (CPD) and metacognition whilst studying at university.

(UK SPEC suggests no more than 4 learning outcomes per module. Statements must be broad and be syllabus free and link in with the intended learning outcomes on the programme specifications.)

Assessment of Learning Outcomes - Criteria

Learning Outcome: **1**

	Criteria
1	C1 Review a topical issue in civil engineering based on cited references.
2	C2 Identify strategic challenges facing the profession and outline a strategy to address these.

Learning Outcome: **2**

	Criteria
1	C1 Describe the technology used in a civil engineering project based on a review of articles on recent projects.
2	C2 Describe construction processes used in civil engineering based on a site visit.

Learning Outcome: **3**

	Criteria
1	C1 Appreciate the need for ethical behaviour & practice related to a professional membership of a relevant institution
2	C2 Develop an understanding and awareness of the importance of occupational health and safety.
3	C3 Identify key environmental issue for civil engineering practice.
4	C4 Appreciate the need for diversity in civil engineering operating within a global environment

Learning Outcome: **4**

	Criteria
1	C1 Develop skills for professional technical and academic writing.
2	C2 Discuss the techniques for proper CV writing and profile building
3	C3 Understand the role of metacognition & reflective practice in learning.

Assessment Method(s) Including Percentage Breakdown and Duration of Exams

To Pass the module, students need to gain a summative mark of: 40%

Description	Semester	Start Week	Duration	Weight	Submission Week	Linked Criteria
Book Reading Jigsaw Reflective Report	1	1		25%	4	LO 1: C1, C2 LO 2: C1, C2 LO 3: C1, C2, C3, C4 LO 4: C1, C2, C3
International Group Construction Technol	1	1		20%	7	LO 1: C1 LO 2: C1, C2 LO 3: C1, C4
Group Bridge Rich Picture	1	1		20%	9	LO 1: C1 LO 2: C1 LO 3: C2, C3
Curriculum Vitae & Cover Letter	1	1		35%	11	LO 4: C1, C2, C3

Principles of Assessment Feedback

PRINCIPLE 1. ASSESSMENT AND FEEDBACK PRACTICES PROMOTE EFFECTIVE STUDENT LEARNING- All four coursework's are Assessments for learning (Afl) and involve collaborative peer working & assessment. Coursework's 1-3 require active participation and deployment of intrapersonal communication skills.

PRINCIPLE 2. ASSESSMENT AND FEEDBACK PRACTICES ARE APPROPRIATE, FAIR, AND TRANSPARENT-Given that the module is for first-year year students in transition to university the LO's and assessment criteria require evidence linked to the bottom tier of Blooms taxonomy (Knowledge-comprehension-application) and require students to develop professional level standards of information mining consistent with life-long learners.

PRINCIPLE 3. ASSESSMENT AND FEEDBACK PRACTICES ARE CLEARLY COMMUNICATED TO STUDENTS AND STAFF-Assessment guidance, and feedback policy will be communicated to students on week 1. The registrar is open to consultation with students (as partners, vis-à-vis HEA Guidance) regarding the assessment requirements and weightings.

PRINCIPLE 4. ASSESSMENT AND FEEDBACK PRACTICES ARE CONTINUOUSLY REVIEWED
The assessment (coursework's 1-4) provide novel approaches (book jigsaw / internationalisation at home/ rich pictures / role play) within the UG course and anonymous reflective feedback from students will be used to evaluate the deployment of these coursework's.

Additional Information

Students are encouraged to attend co-curricular construction site visits & Monday evening Civil Engineering 4 real (CE4R) workshops.

Resit Procedure

Coursework submitted before August 2026 Exam diet begins.

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Recommended Reading

Purchase Recommended

Argawal, R. (2018) Built: The Hidden Stories Behind our Structures, London: Bloomsbury.

Highly recommended reading

Blockley, D. (2014) Structural Engineering: A Very Short Introduction, Oxford: OUP Oxford.
Muir Wood, D. (2012) Civil Engineering: A Very Short Introduction, Oxford: OUP Oxford.

For reference

Electronic Books available from University Library
Ferguson, H & Chrimes, M. (2011) The Civil Engineers: The Story of the Institution of Civil Engineers and the People who Made it, London, ICE Publishing.

Ferguson, H & Chrimes, and M. (2013) The Contractors: The Story of British Civil Engineering Contractors, London, ICE Publishing.
Ferguson, H & Chrimes, and M. (2020) The Consulting Engineers: The British Consulting Engineers who Created the World's Infrastructure, London, ICE Publishing.
Magazines
New Civil Engineer (NCE) Free Monthly online / tablet version when you join the Institution of Civil Engineers for free as a Student Member, see https://www.ice.org.uk/membership/grades-of-ice-membership/student-membership-of-ice

The Structural Engineer, Monthly online magazine of the Institution of Structural Engineers (electronic access through the university library) + join the IStructE as a student member for free, see https://www.istructe.org/membership/types-of-membership/student-member

Examples of Video & Radio resources available on the University Planet eStream, A full list will be emailed to students:

The Five Billion Pound Super Sewer –Thames Water London (Pt1)
http://ls-video2.ces.strath.ac.uk/view.aspx?id=14877~5o~hmeyrgzdK8

Brunel: The Man Who Built Britain (Part 1)
http://ls-video2.ces.strath.ac.uk/view.aspx?id=12377~5h~zBbEwS8VBB

The Lighthouse Stevensons - https://ls-video2.ces.strath.ac.uk/view.aspx?id=2419~4q~qMPbenUS

Thomas Telford: The Man who Built Britain- http://video.strath.ac.uk/07/250-07-01.wvx

How they Work (Ceramics) –Concrete in Civil Engineering
http://ls-video2.ces.strath.ac.uk/view.aspx?id=6644~4u~vC7fULN2

How they Work (Metals)-Cast Iron and Steel in Civil Engineering
http://ls-video2.ces.strath.ac.uk/view.aspx?id=6671~4u~vC7fUOMY&nonhttps=true

Queensferry Crossing (BBC Radio Scotland) science involved in the construction of the Queensferry Crossing
http://ls-video2.ces.strath.ac.uk/view.aspx?id=7019~4r~SFdwPyf3

Costing the Earth (Wildlife-Friendly Motorways)
http://ls-video2.ces.strath.ac.uk/view2.aspx?id=8065~4t~V4IJjBBG

Module Timetable

Week	Semester 1	Semester 2
0		
1		
2		
3		
4	Submission 25%	
5		
6		
7	Submission 20%	
8		
9	Submission 20%	
10		
11	Submission 35%	
E		

Date of Last Modification

28-08-2025