

Module Code	CE7J04
Module Name	J4: Energy Policy and Building Energy Demand
ECTS Weighting¹	5 ECTS
Semester taught	Semester 1
Module Coordinator/s	Assoc. Prof. Sarah McCormack Lecturer(s): Assoc. Prof. Sarah McCormack Assoc. Prof. Brian Caulfield Adjunct Prof. Patrick Shiel Asst. Prof. John Gallagher
<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 and discuss the main areas of energy policy. LO2. Evaluate of energy projects using economic analysis tools. LO3. Understand how building physics (the constraints) and occupant comfort (the requirements) have shaped building energy policy in the UK and Ireland. LO4. Understand requirements for LEED/Zero Energy and Net Passive buildings. LO5. Undertake Life Cycle Assessment and understand circular economy aspects for Energy</p> <p>Graduate Attributes: levels of attainment To act responsibly - Introduced To think independently - Attained To develop continuously - Enhanced To communicate effectively - Enhanced</p>

Module Content

This module is an optional module which runs in the first semester. The module will develop knowledge of energy policy, building physics and energy engineering controls and systems in buildings. It will include topics in energy economics, policy, embodied energy and life cycle analysis and energy markets will be addressed.

Teaching and Learning Methods

Core content via lectures
Individual assignments on LCA

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
Online Examination	3 hour examination	ALL	75%	N/a
Continuous Assessment	Life Cycle Assessment	LO5	25%	12

Reassessment Requirements

100% Examination (3 hours), weighted at 50% to pass.

Contact Hours and Indicative Student Workload²

Contact hours: 30 hours
Independent Study (preparation for course and review of materials): 20 hours
Independent Study (preparation for assessment, incl. completion of assessment): 75 hours

Recommended Reading List

Sustainable energy systems engineering; P Gevorkian (2007)

Module Pre-requisite	None
Module Co-requisite	None
Module Website	https://www.tcd.ie/courses/postgraduate/az/course.php?id=DPTEG-ENSE-1F09
Are other Schools/Departments involved in the delivery of this module? If yes, please provide details.	No
Module Approval Date	
Approved by	
Academic Start Year	12 th September 2022
Academic Year of Date	2022/2023