

<b>Module Code</b>	CE7J04
<b>Module Name</b>	J4: Energy Policy and Building Energy Demand
<b>ECTS Weighting<sup>1</sup></b>	5 ECTS
<b>Semester taught</b>	Semester 1
<b>Module Coordinator/s</b>	Assoc. Prof. Sarah McCormack <b>Lecturer(s):</b> Assoc. Prof. Sarah McCormack Assoc. Prof. Brian Caulfield Adjunct Prof. Patrick Shiel Asst. Prof. John Gallagher
<b><u>Module Learning Outcomes</u> with reference to the <u>Graduate Attributes</u> and how they are developed in discipline</b>	<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. How to have building physics (the constraints) and occupant comfort (the requirements) 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><b>Graduate Attributes: levels of attainment</b>  To act responsibly - Introduced  To think independently - Attained  To develop continuously - Enhanced  To communicate effectively - Enhanced</p>

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<b>Module Content</b>	<p>To develop knowledge of energy policy, building physics and energy engineering controls and systems in buildings.</p> <p>Topics in energy economics, policy, embodied energy and life cycle analysis and energy markets will be addressed.</p>							
<b>Teaching and Learning Methods</b>	A combination of lectures. Tutorials and Laboratories.							
<b>Assessment Details<sup>2</sup></b> <b>Please include the following:</b> <ul style="list-style-type: none"> <li>• <b>Assessment Component</b></li> <li>• <b>Assessment description</b></li> <li>• <b>Learning Outcome(s) addressed</b></li> <li>• <b>% of total</b></li> <li>• <b>Assessment due date</b></li> </ul>	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			
<b>Reassessment Requirements</b>	None							
<b>Contact Hours and Indicative Student Workload<sup>2</sup></b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td data-bbox="662 1388 1495 1472"><b>Contact hours: 30 hours</b></td> </tr> <tr> <td data-bbox="662 1472 1495 1591"><b>Independent Study (preparation for course and review of materials): 20 hours</b></td> </tr> <tr> <td data-bbox="662 1591 1495 1755"><b>Independent Study (preparation for assessment, incl. completion of assessment): 70 hours</b></td> </tr> </table>					<b>Contact hours: 30 hours</b>	<b>Independent Study (preparation for course and review of materials): 20 hours</b>	<b>Independent Study (preparation for assessment, incl. completion of assessment): 70 hours</b>
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<b>Recommended Reading List</b>	Sustainable energy systems engineering; P Gevorkian (2007)							

<b>Module Pre-requisite</b>	None
<b>Module Co-requisite</b>	None
<b>Module Website</b>	<a href="https://www.tcd.ie/courses/postgraduate/az/course.php?id=DPTEG-ENSE-1F09">https://www.tcd.ie/courses/postgraduate/az/course.php?id=DPTEG-ENSE-1F09</a>
<b>Are other Schools/Departments involved in the delivery of this module? If yes, please provide details.</b>	No
<b>Module Approval Date</b>	
<b>Approved by</b>	
<b>Academic Start Year</b>	28 <sup>th</sup> September 2020
<b>Academic Year of Date</b>	2020/2021