## Module descriptor 2017/2018

<table>
<thead>
<tr>
<th>Module Code:</th>
<th>ENGM060</th>
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<tbody>
<tr>
<td>Module Title:</td>
<td>Environmental Science and Society</td>
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<tr>
<td>FHEQ Level:</td>
<td>FHEQ Level 7</td>
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<tr>
<td>Module Co-ordinator:</td>
<td>Jonathan Chenoweth</td>
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<tr>
<td>Other contributors:</td>
<td>Stephen Morse, Jhuma Sadhukhan, Matthew Leach, Ian Christie, Chris France</td>
</tr>
<tr>
<td>Number of credits:</td>
<td>15 credits</td>
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<tr>
<td>Number of ECTS credits:</td>
<td>7.5 ECTS credits</td>
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<tr>
<td>Module Availability:</td>
<td>Semester 1</td>
</tr>
<tr>
<td>Overall student workload:</td>
<td>150 hours</td>
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<tr>
<td>Last updated:</td>
<td>19/3/2017</td>
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### Assessment Pattern

<table>
<thead>
<tr>
<th>Units of Assessment</th>
<th>Weighting towards Module Mark (%)</th>
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<tbody>
<tr>
<td>Group work report completed in class</td>
<td>20%</td>
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<tr>
<td>Individual post-module assignment</td>
<td>80%</td>
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Alternative Assessment: Alternative case study (group assessment), alternative set of questions (post-module assignment)

Qualifying Condition(s)

A weighted aggregate mark of 50% is required to pass the module

### Pre-requisite/Co-requisites

None

### Module Overview

This module seeks to provide students with the physical science and social science introduction that other modules in the Centre for Environment and Sustainability subsequently build upon.

### Module Aims

This module aims:
- To introduce key theoretical concepts in the physical and natural sciences and their importance for sustainable development;
- To outline the underlying science behind specific environmental problems such as climate change, ozone depletion and biodiversity loss;
- To give an overview of the scientific approaches to diagnosis, analysis and solution of environmental problems;
- To introduce the complex interactions between scientific knowledge, uncertainty and public policy.

### Learning Outcomes

Key: C-Cognitive/Analytical; K-Subject Knowledge; T-Transferable Skills; P- Professional/Practical skills

On completion of this module, students will be able to:
- Recognise the importance of science to the debates on sustainable development (C)
- Be able to articulate the scientific dimensions of policy responses to environmental problems (K)
- Be able to identify the complexities of sustainable development inherent in the science / policy interface,(K)
- Be able to carry out a basic environmental risk assessment (P)
Module Content
Indicative content includes:
- ecology and biodiversity,
- thermodynamics of ecosystems and human systems,
- pollution science,
- the science of climate change,
- the science of ozone depletion,
- environmental risk assessment,
- Scientific uncertainty and the development processes for environmental policy.

Methods of Teaching/Learning
The teaching and learning strategy is designed to encourage active, problem-based learning. The module will encourage students to explore and critically evaluate theoretical perspectives, and consider their application to case studies.

The learning and teaching methods include:
- Lectures and class discussions (25 hours)
- In-class assessed group work (7 hours)
- Independent study (118 hours)

Assessment Strategy
The assessment strategy is designed to provide students with the opportunity to demonstrate the ability to conduct research in the scientific literature and thus build upon concepts introduced in the module’s lectures.

The summative assessment for this module consists of:
- Ten-page group work report completed during module week (20% of module marks)
- 3000 word individual post-module coursework consisting of short-answer questions (80% of module marks)

Formative assessment and feedback
Students will receive qualitative feedback (and marks) on the group work report prior to the submission of the individual post-module coursework.

Reading List
**Essential Reading:** None

**Recommended Reading**


**Background Reading:** None