

Module Information

2022.01, Approved

Summary Information

Module Code	6402NATSCI
Formal Module Title	Renewables and Low Carbon Futures
Owning School	Biological and Environmental Sciences
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 6
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
Biological and Environmental Sciences

Learning Methods

Learning Method Type	Hours
Lecture	20
Off Site	10
Workshop	10

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
JAN-CTY	CTY	January	12 Weeks

Aims and Outcomes

Aims	To examine the relationship between energy systems, society and contemporary environmental challenges – especially climate change – and how a low-carbon energy future can be achieved. To understand the environmental and social benefits and limitations of different kinds of energy generation resources and technologies. To critically evaluate global patterns of energy consumption and possible strategies to alter this. To outline the key factors in moving to a 'low-carbon' energy future in a way that is socially equitable and sustainable.
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Explain how energy systems relate to contemporary social, political and environmental challenges, especially climate change
MLO2	2	Explain the relative benefits and burdens of different forms of energy generation
MLO3	3	Critically assess the causes and consequences of contemporary patterns of energy consumption
MLO4	4	Evaluate different strategies for transitioning to a 'low-carbon' energy system, and the challenges these can encounter

Module Content

Outline Syllabus	- Defining 'energy' and its relationship to social change and its role in contemporary environmental challenges - Benefits and drawbacks of different energy supply systems in terms of climate change mitigation and sustainability - Social acceptance and conflicts around energy technologies and the causes of these - 'Justice' and 'fairness' in the energy system – what this means and how it can be achieved - Understanding patterns of energy consumption and the causes and consequences of these - Energy poverty and the 'under-consumption' of energy
Module Overview	Within this module, you will examine the relationship between energy systems, society and contemporary environmental challenges and how a low-carbon energy future can be achieved. The module will aid your understanding of the environment and social benefits and limitations of different kinds of energy generation resources and technologies. It will also outline the key factors in moving to a 'low-carbon' energy future in a way that is socially equitable and sustainable.
Additional Information	This module will examine the relationship between energy systems, society and contemporary environmental challenges, and how a 'low-carbon' and equitable energy future can be achieved.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Report	Policy report	50	0	MLO1, MLO2, MLO3, MLO4
Portfolio	Portfolio	50	0	MLO1, MLO2, MLO3, MLO4

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Neil Simcock	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings
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