

Summary Information

Module Code	7125NATSCI
Formal Module Title	Sustainable Energy Management
Owning School	Biological and Environmental Sciences
Career	Postgraduate Taught
Credits	20
Academic level	FHEQ Level 7
Grading Schema	50

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Laurence Brady	Yes	N/A

Module Team Member

Contact Name	Applies to all offerings	Offerings
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Partner Module Team

Contact Name	Applies to all offerings	Offerings
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Teaching Responsibility

LJMU Schools involved in Delivery
Biological and Environmental Sciences
Civil Engineering and Built Environment

Learning Methods

Learning Method Type	Hours
Lecture	20
Off Site	3
Tutorial	20

Module Offering(s)

Offering Code	Location	Start Month	Duration
JAN-CTY	CTY	January	12 Weeks

Aims and Outcomes

Aims	To develop knowledge and understanding of energy sources and of management of production and consumption of energy in an efficient and sustainable way. Develop a critical understanding of energy efficient and sustainable design and construction of buildings and how this can contribute to management of our energy supply.
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Learning Outcomes

After completing the module the student should be able to:

Code	Description
MLO1	Develop knowledge and understanding of energy sources and be able to evaluate the sustainability of alternate energy sources.
MLO2	Critically appraise the efficient and sustainable management of energy consumption and distribution.
MLO3	Critically appraise energy efficient and sustainable design, construction and operation of buildings.

Module Content

Outline Syllabus
Energy sources and sustainability of alternative energy sources (e.g. solar thermal, PV, hydropower, geothermal, wind energy, tidal energy, CHP, heat pumps); Energy consumption prediction and management; Energy distribution and smart grids; Green buildings: carbon neutral and sustainable construction and energy efficient building design; Legal and Institutional Framework;

Module Overview
This module provides knowledge and understanding of energy sources and management of production and consumption of energy in an efficient and sustainable way. It will allow students to critically evaluate energy efficient and sustainable design in the construction of buildings and how this can contribute to management of energy supply. It will also provide legal and institutional framework context in this area.

Additional Information

This module develops a student's ability to critically analyse and evaluate energy sources and design and construction of buildings in terms of energy efficiency and sustainability.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Learning Outcome Mapping
Report	Report	50	0	MLO3
Centralised Exam	Exam	50	2	MLO1, MLO3, MLO2