

Disclaimer:

The University will use all reasonable endeavours to deliver modules in accordance with the descriptions set out below. Every effort has been made to ensure the accuracy of the information, however, the University reserves the right to introduce changes to the information given including the addition, withdrawal or restructuring of modules if it considers such action to be necessary.

Module Outline Form

4347

Module code	SPG8012	Academic Year	2011	Offered	Yes	Stand alone	Not Available
-------------	---------	---------------	------	---------	-----	-------------	---------------

Short Title	Renewable Energy: Energy Management
-------------	-------------------------------------

Module title	Renewable Energy: Energy Management
--------------	-------------------------------------

Credits	Semester 1	0	Semester 2	10	Semester 3	0	ECTS	5.0	Max Capacity	999
---------	------------	---	------------	----	------------	---	------	-----	--------------	-----

FHEQ Level	7	Marking Scale	PG Linear Scale	Mode	Blended Learning
------------	---	---------------	-----------------	------	------------------

Owning School	SAGE Faculty Office	Delivery	Blended Learning
---------------	---------------------	----------	------------------

Teaching Location	TBC
-------------------	-----

Contributors

Contributor Name	Description	%
Miss Sharon Joyce	Module Leader	100

Pre-requisite Comments	None
------------------------	------

Co-requisite Comments	None
-----------------------	------

Programme Relationship	None
------------------------	------

Availability	Every Year	Study Abroad	No
--------------	------------	--------------	----

Aims	To give students an appreciation of the drivers, technologies and techniques behind the management of energy. In addition to give practical experience in energy auditing, including monitoring and targeting, enabling them to identify energy efficiency opportunities. This module gives a systematic and comprehensive overview of why we should manage the energy we use, looking at political, environmental and fiscal issues. It then goes on to give the students the tools and techniques necessary to actively manage energy in their workplace.
------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Outline of Syllabus	Demand side management Policy, regulations and fiscal drivers Monitoring and targeting Energy efficient techniques and technologies Human factors Practical energy auditing
---------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Intended Knowledge Outcomes

At the end of this module, students should be able to;
Evaluate the political, regulatory and fiscal drivers for energy management;

Understand a range of energy efficiency technologies and techniques;

Understand data requistes, data sources, and appropriate methodology for the organisation, presentation and usage for monitoring and targeting energy efficiency initiatives. This will include metering, degree day calculation, correlation between productivity and energy usage.

Intended Skills Outcomes
At the end of this module, students should be able to
Demonstrate a systematic and comprehensive understanding and critical analysis of the relevance of Government policy, regulations and fiscal drivers; demonstrate practical auditing skills and the ability to apply the above knowledge to real life situations; to measure and critically analyse data, audit facilities, write energy audit reports evaluate and recommend improvements.

Cognitive skills
On completion of this module, students should be able to demonstrate the ability to Collate, analyse and critically evaluate data associated with energy efficiency and energy auditing activities.

Key skills:
On completion of the module, students will be able to demonstrate communication skills through discussions and report writing. They will also possess time management skills.

Graduate Skills Framework	GSF Applicable	Yes	P - Present, A -Assessed, N/A Not Applicable			
Cognitive / Intellectual Skills	Critical Thinking	P	Data Synthesis	A	Active Learning	P
	Numeracy	A	Literacy	A		
Information Literacy	Source Materials	P	Synthesise and Present Materials	A	Use of Computer Applications	P
Self Management	Self-awareness & Reflection			N/A		
Planning & Organisation	Goal Setting & Action Planning			P	Decision Making	P
Personal Enterprise	Innovation & Creativity	N/A	Initiative	P	Independance	P
	Adaptability	N/A	Problem Solving	A	Budgeting	P
Communication	Oral	P	Foreign Languages	N/A	Interpersonal	P
	Written/Other	A				
Team Working	Collaboration	P	Relationship Building	P	Leadership	N/A
	Negotiation	P	Peer Assessment/Review	N/A		
Application	Occupational Awareness		P			
Commercial Acumen	Market Awareness		N/A		Governance Awareness	P
	Financial Awareness		P		Business Planning	N/A
	Ethical Awareness		N/A		Social, Cultural & Global Awareness	P
	Legal Awareness		P			
Teaching Activities						

Category	Activity	No.	Length	Student Hours	Staff Contact Hours	Comment
Guided Independent Study	Assessment preparation and completion	1	0020:00	0020:00	0000:00	Pre-school assignment
Scheduled Learning And Teaching Activities	Fieldwork	1	0004:00	0004:00	0004:00	N/A
Scheduled Learning And Teaching Activities	Small group teaching	2	0002:00	0004:00	0004:00	N/A
Scheduled Learning And Teaching Activities	Lecture	11	0002:00	0022:00	0022:00	N/A
Guided Independent Study	Directed research and reading	1	0030:00	0030:00	0000:00	Pre-school study
Guided Independent Study	Assessment preparation and completion	1	0020:00	0020:00	0000:00	Post-school assignment
Totals				0100:00	0030:00	

Jointly Taught With None

Rational of Teaching Methods and Relationship to Learning Outcomes

Knowledge and understanding of policy, regulation and fiscal issues will be taught via the guided independent study material and reinforced by lectures during the intensive school. Auditing techniques will be demonstrated via lectures and exercises during the intensive school and then further developed by an assignment.

Exams None

Exam Resits None

Exam Pairings None

Exam Pairing Resits None

Other Assessment

Component	Semester	When Set	%	Comment
Essay 1	2	M	50	1500 word post-school assignment
Essay 2	2	M	50	1500 word pre-school assignment

Other Assessment Resits None

Zero Weighted Pass/fail Assessment None

Formative Assessments None

Assessment Rationale and Relationship

The pre and post school assignments will provide students with the opportunity to develop and demonstrate their knowledge and understanding of the drivers, techniques and technologies behind energy management.

Subject specific, cognitive and communication skills will also be assessed through the assignments. The other key skills will not be assessed but students will need to utilise these skills in order to access the self guided material and prepare assignments.

Exempt from Assessment Tarrif

No

Exemption date

Exemption from Assessment Tariff Comment

N/A

Hesa Data

School Code	School Name	Cost Centre Code	Cost Centre Description	Jacs Code	Jacs Subject Description	% Split
D-CEAM	Chemical Eng & Advanced Materials	17	Chemical Engineering	N200	Management studies	80
D-SFAC	SAGE Faculty Office	21	Mechanical, Aero and Production Engineering	J910	Energy Technologies	20

General notes

N/A

Immunisation / Allergy screening - should be offered

Allergy Screening:

No

Hepatitis A

No

Hepatitis B

No

Tetanus

No