

UNIVERSITY OF PLYMOUTH MODULE RECORD

SECTION A: DEFINITIVE MODULE RECORD. *Proposed changes must be submitted via Faculty/AP Quality Procedures for approval and issue of new module code.*

MODULE CODE: MLA706A

MODULE TITLE: Offshore Renewable Energy

CREDITS: 30

FHEQ LEVEL: 7

HECOS CODE(S): F700

PRE-REQUISITES: None

CO-REQUISITES: None

COMPENSATABLE: Yes

SHORT MODULE DESCRIPTOR:

Marine Renewable Energy equips students with a strong and stable background framework knowledge and understanding in this specialist area of expertise. Bringing together meteorology, oceanographic and coastal environmental process together with modern renewable engineering techniques, it provides students with a practical and forward-looking skill set in this field.

ELEMENTS OF ASSESSMENT					
E1 (Examination)	N/A	C1 (Coursework)	80%	P1 (Practical)	20%
E2 (Clinical Examination)	N/A	A1 (Generic assessment)	N/A		
T1 (Test)	N/A	O1(online open book assessment)	N/A		

SUBJECT ASSESSMENT PANEL to which module should be linked: MLA

Professional body minimum pass mark requirement: N/A

MODULE AIMS:

This module aims to develop students' abilities in the design, development, testing, critical evaluation, and judgement of sustainable current and future energy supply. This module seeks to provide students with the necessary multidisciplinary knowledge and understanding of the arguments, challenges, and solutions to providing sustainable and efficient energy delivery.

ASSESSED LEARNING OUTCOMES: (additional guidance below; please refer to the Programme Specification for relevant Programme Intended Learning Outcomes).

At the end of the module the learner will be expected to be able to:

Assessed Module Learning Outcomes (ALOs)	Programme Intended Learning Outcomes (PILOs) contributed to
1. Demonstrate knowledge of key concepts relating to meteorology and oceanography. 2. Analyse and debate possible social, environmental, and economic impacts arising from the development of marine renewable energy sources. 3. Critically evaluate a variety of marine renewable energy generation mechanisms.	

DATE OF APPROVAL: 9th November 2016	FACULTY/OFFICE: Academic Partnerships
DATE OF IMPLEMENTATION: 03/16	SCHOOL/PARTNER: MLA
DATE(S) OF APPROVED CHANGE:	SEMESTER: AY
MODE OF DELIVERY: distance learning	

Additional Guidance for Learning Outcomes:

To ensure that the module is pitched at the right level check your intended learning outcomes against the following nationally agreed standards

- Framework for Higher Education Qualifications
<http://www.qaa.ac.uk/docs/qaa/quality-code/qualifications-frameworks.pdf>
- Subject benchmark statements <https://www.qaa.ac.uk/quality-code/subject-benchmark-statements>
- Professional, regulatory and statutory (PSRB) accreditation requirements (where necessary e.g. health and social care, medicine, engineering, psychology, architecture, teaching, law)
- QAA Quality Code <https://www.qaa.ac.uk/quality-code>

SECTION B: DETAILS OF TEACHING, LEARNING AND ASSESSMENT

Items in this section must be considered annually and amended as appropriate, in conjunction with the Module Review Process. Some parts of this page may be used in the KIS return and published on the extranet as a guide for prospective students. Further details for current students should be provided in module guidance notes.

ACADEMIC YEAR: 2022-23**NATIONAL COST CENTRE: 111****MODULE LEADER: Dr. Carlos Martins****OTHER MODULE STAFF: Dr. Jaimie Cross****Summary of Module Content**

Advanced meteorology and ocean processes, environmental and socio-economic impacts, renewable energy engineering. SUMMARY OF TEACHING AND LEARNING [Use HESA KIS definitions]		
Scheduled Activities	Hours	Comments/Additional Information (briefly explain activities, including formative assessment opportunities)
Lectures (online)	40	Indicative figures for distance learning
Tutorials and formative assessment (online)	40	Indicative figures for distance learning
Directed and self-study	100	Reading and associated study
Personal development planning	20	Reflection within portfolio
Professional portfolio	100	Completion of assessment
Total	300	(NB: 1 credit = 10 hours of learning; 10 credits = 100 hours, etc.)

SUMMATIVE ASSESSMENT

Element Category	Component Name	Component Weighting
Written exam	N/A	N/A
Test	N/A	N/A
Coursework	Critical literature review	20%
	Impact case study	80%
Practical	Recorded presentation	100%
Clinical Examination	N/A	N/A
Generic Assessment	N/A	N/A
Online open book assessment	N/A	N/A

REFERRAL ASSESSMENT

Element Category	Component Name	Component Weighting
Written exam	N/A	N/A
Coursework (in lieu of the original assessment)	Critical literature review Impact case study	20% 80%
Coursework	N/A	N/A
Practical	Recorded presentation	100%
Clinical Examination	N/A	N/A
Generic Assessment	N/A	N/A
Test	N/A	N/A
Online Open Book Assessment	N/A	N/A

To be completed when presented for Minor Change approval and/or annually updated**Updated By** MLA CollegeDate: 3rd March 2022**Approved by:** Dr Ross PomeroyDate: 3rd March 2022**Recommended Texts and Sources**

- Shields, M. and Payne, A. (eds) (2014) *Marine Renewable Energy Technology and Environmental Interactions*. London: Springer.
- Tavner, P. (2012) *Offshore Wind Turbines: Reliability, Availability and Maintenance*. London: Institution of Engineering and Technology.
- Quaschnig, V. (2005) *Understanding renewable energy systems*. London: Earthscan.