Programme Specification

Joint European MSc in Marine Environment and Resources 2016/2017

This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities that are provided.

Awarding Institution	University of Southampton Universidad del Pais Vasco/Euskal Herriko Unibertsitatea, Spain (UPV/EHU) La Université de Bordeaux-1, France (UBx1) L'Université de Liège, Belgium (ULg)
Teaching Institution	University of Southampton, Highfield Campus Universidad del Pais Vasco/Euskal Herriko Unibertsitatea, Spain La Université de Bordeaux-1, France L'Université de Liège, Belgium (ULg)
Accreditation details	N/A
Final award	MSc
Name of award	Marine Environment and Resources
Interim Exit awards	PG Certificate (Soton)
FHEQ level of final award	Level 7
UCAS code	N/A
QAA Subject Benchmark or other external reference	QAA Earth Sciences, Environmental Sciences and Environmental Studies Benchmark Statement (ES3) QAA Masters Degree Characteristics The UK QAA National Qualifications Framework (Masters Level)
Programme Leads	Professor Duncan Purdie (UoS) Prof Manu Soto (UPV/EHU) Prof Jörg Schäfer (UBx1) Dr Mathieu Poulicek (ULg)
Date specification was written	September 2006
Date specification was validated	Due 2016/17
Date specification was last updated	July 2016

Programme Overview

Brief Outline of the Programme

This Joint European Master of Science (MSc) in Marine Environment and Resources, acronym 'MER', is a Joint European degree programme that has been developed by leading European institutions in the field of marine environment and resources with three European countries (UK, Spain, France and Belgium). The programme is a two year Masters course consisting of 4 Semesters of full-time study (120 ECTS). Student mobility is compulsory so that each student must undertake the Programme by enrolling at three of the four Parties (including for completion of the project).

Employers in the public and private sectors require top quality graduates as managers, planners, policy makers, researchers or advisors who can make a difference in marine environmental resource management. They need people who have the ability to think through complex issues, who can analyse the marine environment and its resources, including sustainable development, through field measurements and modelling, who are capable of managing projects and programmes, and have well developed leadership and personal skills

The programme's objective is to provide these graduates by attracting highly qualified and motivated students from around the world into a fully integrated world class EU Masters programme that combines the best elements of existing courses offered by the consortium members.

A memorandum of agreement (MoA) has been drafted between the four Parties. It sets out the nature of the collaboration between the partners of this European MSc. The MoA is a consortium-level document. All Partners

have overall responsibility for the academic standards and quality of the Programme delivered under this Agreement; this responsibility is normally exercised through the Joint Programme Board (JPB).

Learning and teaching

You will develop core knowledge and understanding, subject-specific, general and transferable skills via compulsory module and specialised option module lectures, tutor-led and student-led tutorials, seminars and presentations, laboratory and practical classes, visits, fieldwork, boat-work, independent study, group study and your own research. You will also undertake courses in

- computer programming and particular software packages;
- lectures on writing and oral communications;
- lectures on health and safety aspects of practical work, followed if appropriate by the development of correct procedures in the laboratory, in the field and on the boat;
- use of the internet for accessing data, access to module information;
- data transfer during group practicals, and general communication with staff and students;
- a professional development workshop.

A wide range of support is available for those students who have further or specific learning and teaching needs.

Assessment

To test your knowledge and understanding of material presented in the lectures and associated practicals, you will be assessed through a combination of written examinations, essays, computer and laboratory exercises, oral presentations, fieldwork/boatwork reports, short coursework assignments, poster presentations, and research project reports.

Please note: As a research-led University, we undertake a continuous review of our programmes to ensure quality enhancement and to manage our resources. **As a result, this programme may be revised during a student's period of registration, however, any revision will be balanced against the requirement that the student should receive the educational service expected. Please read our Disclaimer to see why, when and how changes may be made to a student's programme.**

Programme and major changes to programmes are approved through the University's programme validation process which is described in the University's Quality Handbook.

Educational Aims of the Programme

Ocean and Earth Science (OES) is strongly committed to providing the very best learning experience to all our students in a friendly and stimulating environment. We are known nationally and internationally for our excellence in teaching, and are continually improving the scope and delivery of our activities.

Ocean and Earth Science is housed in the prestigious National Oceanography Centre Southampton (NOCS), which opened in 1995 housing the University of Southampton department and part of the Natural Environment Research Council (NERC)'s National Oceanography Centre. NOCS is one of the world's largest centres devoted to research, teaching and technology development in ocean and Earth science.

Research carried out by academic staff provides direct and enthusiastic input into a challenging and stimulating teaching programme. There are also unique opportunities for students to undertake research projects with scientists outside of OES based at the National Oceanography Centre Southampton or in some cases in collaboration with external organizations.

The specific aims of our teaching programme are to provide you with:

- A high quality postgraduate education in marine environment and resources on the basis of practical, analytical and numerical approaches.
- A postgraduate degree with a strong research element, at internationally recognised training centres in marine science.
- Advanced training in marine exploration techniques, laboratory analyses and mathematical modelling.
- Opportunities to develop key skills in marine data processing and analysis, with research experience gained through an individual advanced research project.
- Training in marine resource management and sustainable development, from academic and practical perspectives.
- Direct experience of work on a sustained research project at the forefront of marine environment knowledge.
- Opportunities to train alongside world class scientists in a research-led environment.
- Vocational training for a professional career in industries related to the marine environment and resource management.

- A sound and suitable qualification that would enable you to proceed to a more specialist higher degree at the PhD level.
- Opportunities to develop critical and analytical problem-solving powers and the ability to communicate results to non-specialists.
- Opportunities to develop a range of generic skills including: critical and reflective thinking, articulate communication and the skills of literacy and numeracy.
- A high quality and intellectually stimulating experience of learning in supportive environments.

Programme Learning Outcomes

You will start your programme having already acquired important skills and knowledge during your undergraduate career. This programme provides you with the opportunity to focus and further develop your undergraduate experience in the context of the marine environment. In particular you will develop knowledge and skills in the following areas achieved through the combination of modules you take.

Knowledge and Understanding

Having successfully completed this programme you will be able to demonstrate knowledge and understanding of:

1. The ocean processes in the main disciplines of oceanography (e.g. biological, chemical, geological and physical) at an advanced level.
2. The processes which shape the marine world at different temporal and spatial scales.
3. The terminology, nomenclature and classification systems used in the marine environmental sciences.
4. Theory, practice, acquisition, analysis and interpretation of data across a range of marine environmental applications.
5. The value and need for multi-disciplinary approaches in advancing knowledge.
6. The application of oceanographic knowledge to contribute to the sustainable management of the environment and resources.
7. A wide selection of topics currently at the frontiers of research and many of the specialist techniques used to investigate them.)

Subject Specific Intellectual and Research Skills

Having successfully completed this programme you will be able to:

1. Understand the scientific process and its role in marine resource management.
2. Recognise and use theories, paradigms, concepts and principles to design and undertake primary research in the context of the marine environment and living/non-living marine resources.
3. Critically analyse, synthesise, interpret and summarise complex scientific information.
4. Collect, record, and analyse marine environmental data in the field and in the laboratory, using state-of-the-art techniques and equipment.
5. Read, use and reference the marine environmental work of others in an appropriate manner.
6. Undertake field and laboratory investigations in a responsible and safe manner, paying due attention to risk assessment, rights of access, relevant health and safety regulations, and sensitivity to the impact of investigations on the environment and stakeholders.

Transferable and Generic Skills

Having successfully completed this programme you will be able to:

Practical Skills

1. Collecting and integrating several lines of evidence to formulate and test hypotheses;
2. Applying your knowledge and understanding to address familiar and unfamiliar problems;
3. Designing, implementing and reporting on scientific research projects, including a major research project at the forefront of oceanographic knowledge;

Communication Skills

4. Communicate effectively to a variety of audiences in written, verbal and graphical forms;
5. Select and use the appropriate method and means of communication for a range of different situations;
6. Absorb and respond to a variety of information sources (e.g., textual, numerical, verbal, graphical);
7. Critically using the internet as a means of communication and data dissemination, and as a source of information;
8. Numeracy and C & IT Skills;

9. Synthesising, applying and further developing the computing, statistical and mathematical skills that you brought to the MSc programme from your undergraduate work;
10. Appreciating statistical issues of sample selection, accuracy, precision and uncertainty during collection, recording and analysis of data in the field and in the laboratory;
11. Preparing, processing and presenting data, using appropriate qualitative and quantitative techniques and computer software packages and solving numerical problems using computer and non-computer-based techniques;
12. Developing, where appropriate, advanced skills in computer programming;
13. Identify individual and collective goals and responsibilities and performing in an appropriate manner.
14. Recognising and respecting the views of other team members;
15. Evaluating performance as an individual and as a team member;
16. Understanding the roles of individuals in teams and how individuals learn in team groups;
17. Self-Management and Professional Development Skills;
18. Continuing to develop the skills necessary for self-managed and life-long learning (such as working independently and within groups, time management and organisation);
19. Identifying and working towards targets for personal, academic and career development;
20. Developing an adaptable and flexible approach to study and work;

Teaching and Learning Methods

To assist the development of your knowledge and understanding of the marine environment and its resources, we use a wide range of teaching methods. You will develop core knowledge and understanding via compulsory modules and specialised option module lectures, tutor-led and student-led tutorials, student-led seminars and presentations, laboratory and practical classes, coastal surveys, case studies, fieldwork, boatwork and visits to leading research institutes, guided independent study, group study and your own research.

Assessment Methods

To test your knowledge and understanding of material presented in the lectures and associated practicals, you will be assessed via a combination of written examinations, oral presentations, essays, poster presentations, laboratory experiment write-ups, and fieldwork/boatwork reports. Additional support can be provided for those students who have further or specific needs.

Formative assessment is particularly important during Semester 1 of the MSc where students are often learning in English for the first time.

Summative assessment contributes to your marks and usually involves a combination of unseen written examinations (at the end of the study module) and coursework (which includes essays, project reports, and computing practicals, etc.). Assessment of your knowledge and understanding is undertaken primarily via these summative assessment methods; in addition you will receive feedback on all formally assessed work.

A wide range of support is available for those students who have further or specific learning and teaching needs.

Programme Structure

Typical course content

The MSc MER programme runs full-time over 24 months (120 ECTS) and consists of advanced modules (90 ECTS) and a Research Project (30 ECTS).

Every student will follow an individually-tailored study programme, by combining the different disciplines that can be studied at each of the Partner universities:

- Coastal Management or Advanced Oceanography, in SOTON;
- Marine Non-living Resources or Marine Environment, in UBX;
- Marine Living Resources or Marine Pollution (Ecosystem Health Assessment included), in UPV/EHU; and
- Marine Biology and Ecology, in ULg.

These are the complementary profiles in which each Partner excels and, as such, recognized internationally.

Special Features of the Programme

This Programme is a Joint European MSc aimed at attracting well qualified and motivated students with first degrees in a scientific or engineering discipline to study for a fully integrated world-class EU MSc programme.

The programme was conceived by,

- University of Southampton (SOTON)
- Université de Bordeaux (UB)
- Université de Liège (ULg)
- Universidad del País Vasco/Euskal Herriko Unibertsitatea

The MSc provides students with competences and skills to develop a marine career in the following fields:

- integrated coastal zone management;
- protection of marine and estuarine environments;
- adaptation to global climate change;
- assessment of marine ecosystem health;
- conservation of biodiversity and natural heritage; and
- management of fisheries and other marine resources.

The degree offers:

- A high quality postgraduate education in marine environment and resources on the basis of practical, analytical and numerical approaches.
- A postgraduate degree with a strong research element, at internationally recognised training centres in marine science.
- Advanced training in marine exploration techniques, laboratory analyses and mathematical modelling.
- Opportunities to develop key skills in marine data processing and analysis, with research experience gained through an individual advanced research project.
- Training in marine resource management and sustainable development, from academic and practical perspectives.
- Direct experience of work on a sustained research project at the forefront of marine environment knowledge.
- Opportunities to train alongside world class scientists in a research-led environment.
- Vocational training for a professional career in industries related to the marine environment and resource management.
- A sound and suitable qualification that would enable you to proceed to a more specialist higher degree at the PhD level.
- Opportunities to develop critical and analytical problem-solving powers and the ability to communicate results to non-specialists.
- Opportunities to develop a range of generic skills including: critical and reflective thinking, articulate communication and the skills of literacy and numeracy.
- A high quality and intellectually stimulating experience of learning in supportive environments.

The programme is aimed to respond to challenges of the recent European Marine Strategy and Water Framework Directives and is designed to allow specialisation in particular areas of marine science. A pivotal goal of the programme is to promote international and European cultural exchange and interactions among students.

Programme details

Throughout the programme students can make a selection between (3) alternative mobility pathways (UBX-EHU-SOTON; UBX-EHU-ULg; SOTON-EHU-ULg).

MER students have the opportunity to travel, from molecular biology to remote sensing issues; and from short-term phenomena (e.g. tides and intertidal variability) to their long-term consequences (e.g. ocean acidification).

UBX – EHU – SOTON Pathway

Semester 1: UBX

Compulsory

Biological Oceanography (6 ECTS)
Chemical Oceanography (6 ECTS)
Dynamic Oceanography (6 ECTS)
Seafloor Geology (6 ECTS)
Analyses of Environmental Data and Modelling (6 ECTS)

Semester 2: EHU

Compulsory

Research in Marine Environment and Resources (6 ECTS)

Optional – Six x 4 ECTS modules from the following:

Instrumentation and Measurements in Operational Oceanography
Marine Primary Production
Satellite Oceanography and Meteorology
Advanced Instrumental Analysis
Cellular and Molecular Biomarkers
Degradation and Rehabilitation of Estuarine Ecosystems
Ecological Quality Assessment in Coastal Ecosystems
Ecotoxicity Bioassays in Aquatic Risk Assessment
Environmental Analytical Chemistry
Environmental Genomics
Eutrophication and Harmful Algae
Fish and Shellfish Parasitology
Fish and Shellfish Reproduction and Endocrinology
Fish Welfare and Seafood Quality
Histology and Histopathology of Aquatic Animals
Marine Molecular Biology and Biotechnology
Molecular Population Genetics of Fish and Shellfish
Physiological Energetics of Marine Organisms
Fisheries Socio-Economics
Sustainable Fisheries Management
Multicultural Integration in EU
Environmental Data Analysis
Introduction to Research Activities

Semester 3: Soton

Optional – Four x 7.5 ECTS Modules from the following:

SOES3014 Coastal Sediment Dynamics
SOES6001 Contemporary Topics
SOES6004 Applied & Marine Geophysics
SOES6005 Large Scale Ocean Processes
SOES6007 Biogeochemical Cycles in the Earth System
SOES6008 Deep Sea Ecology
SOES6009 Zooplankton Ecology & Processes
SOES6017 Introductory Remote Sensing of the Ocean
SOES6037 Geodynamics and Solid Earth Geophysics
SOES6056 International Maritime and Environmental Law
SOES6061 Marine GeoArchaeology
SOES6022 Microfossils Environment and Time

Interim Exit Award – Postgraduate Certificate

Semester 4: Soton or UPV or Liege or Collaborating Organisation

Research Project

SOTON – EHU - ULg Pathway

Semester 1: Soton

Compulsory

SOES6001 Contemporary Topics (7.5 ECTS)
SOES6013 Introduction to Biological Oceanography (3.75 ECTS)
SOES6014 Introduction to Physical Oceanography (3.75 ECTS)
SOES6015 Introduction to Chemical Oceanography (3.75 ECTS)
SOES6016 Introduction to Marine Geology (3.75 ECTS

Optional – one 7.5 ECTS Module from the following:

SOES3014 Coastal Sediment Dynamics
SOES6004 Applied & Marine Geophysics
SOES6005 Large Scale Ocean Processes
SOES6007 Biogeochemical Cycles in the Earth System *
SOES6008 Deep Sea Ecology
SOES6009 Zooplankton Ecology & Processes
SOES6017 Introductory Remote Sensing of the Ocean *
SOES6037 Geodynamics and Solid Earth Geophysics
SOES6056 International Maritime and Environmental Law *
SOES6061 Marine GeoArchaeology
SOES6022 Microfossils Environment and Time

*Equivalent modules are also offered at Liege and are therefore mutually exclusive.

Interim Exit Award – Postgraduate Certificate

Semester 2: EU

Compulsory

Research in Marine Environment and Resources (6 ECTS)

Optional – Six x 4 ECTS modules from the following:

Instrumentation and Measurements in Operational Oceanography
Marine Primary Production
Satellite Oceanography and Meteorology
Advanced Instrumental Analysis
Cellular and Molecular Biomarkers
Degradation and Rehabilitation of Estuarine Ecosystems
Ecological Quality Assessment in Coastal Ecosystems
Ecotoxicity Bioassays in Aquatic Risk Assessment
Environmental Analytical Chemistry
Environmental Genomics
Eutrophication and Harmful Algae
Fish and Shellfish Parasitology
Fish and Shellfish Reproduction and Endocrinology
Fish Welfare and Seafood Quality
Histology and Histopathology of Aquatic Animals
Marine Molecular Biology and Biotechnology
Molecular Population Genetics of Fish and Shellfish
Physiological Energetics of Marine Organisms
Fisheries Socio-Economics
Sustainable Fisheries Management
Multicultural Integration in EU
Environmental Data Analysis
Introduction to Research Activities

Semester 3: Liege

Compulsory

Interdisciplinary Aspects of Marine Science (6 ECTS)

Optional – Four x 6 ECTS from the following

Marine Plant Biology and Ecology
Marine Ecology
Marine Nutrient Dynamics and Ecosystem Modelling
Advanced Marine Zoology
Biochemistry, Physiology and Production of Marine Animals
Ecotoxicity and Biodegradation of Marine Pollutants
Threats to Marine Mammals
Functional and Molecular Marine Microbiology
Numerical Methods Applied to the Environment
Biogeochemical Cycles in the Ocean *
Remote Sensing of the Oceans *
Policies for Marine Environment and Resources Management *

*Can only be taken if not already studied at Southampton

Semester 4: Soton or UPV or Liege or Collaborating Organisation

Research Project

Progression Requirements

To progress from Semester 1 (30 ECTS) to Semester 2 (30 ECTS), you must achieve a minimum ECTS grade of E (i.e. a pass) in all modules.

To progress from Semester 2 (30 ECTS) to Semesters 3 30 ECTS), you must achieve a minimum ECTS grade of E (i.e. a pass) in all modules.

In order to proceed to the research project dissertation, you must achieve a minimum ECTS grade of E in all modules at Semesters 1-3 (90 ECTS).

Each Party is responsible for the assessment of your modules during your period of study at their institution and will use its own grading systems.

The marks awarded for each institutions' examinations systems will be converted into marks for the Final award using an agreed Marks Translation Scheme.

At Southampton, the programme follows the University's regulations for ***Progression, Determination and Classification of Results: Undergraduate and Integrated Masters Programmes*** as set out in the University Calendar.

Intermediate exit points

You will be eligible for an interim exit award from Southampton if you complete part of the programme but not all of it, as follows:

Qualification	Minimum overall credit in ECTS credits	Minimum ECTS credits required at level of award
Postgraduate Diploma	at least 60	45
Postgraduate Certificate	at least 30	20

Support for student learning

There are facilities and services to support your learning some of which are accessible to students across the University and some of which will be geared more particularly to students in your particular Faculty or discipline area.

The University of Southampton provides:

- Library resources, including e-books, on-line journals and databases, which are comprehensive and up-to-date; together with assistance from Library staff to enable you to make the best use of these resources
- High speed access to online electronic learning resources on the Internet from dedicated PC Workstations onsite and from your own devices; laptops, smartphones and tablet PCs via the Eduroam wireless network. There is a wide range of application software available from the Student Public Workstations.
- Computer accounts which will connect you to a number of learning technologies for example, the Blackboard virtual learning environment (which facilitates online learning and access to specific learning resources)
- Standard ICT tools such as Email, secure filestore and calendars.
- access to key information through the MySouthampton Student Mobile Portal which delivers timetables, Module information, Locations, Tutor details, Library account, bus timetables etc. while you are on the move.
- IT support through a comprehensive website, telephone and online ticketed support and a dedicated helpdesk in the Student Services Centre
- Enabling Services offering assessment and support (including specialist IT support) facilities if you have a disability, dyslexia, mental health issue or specific learning difficulties
- The Student Services Centre (SSC) to assist you with a range of general enquiries including financial matters, accommodation, exams, graduation, student visas, ID cards
- Career Destinations, advising on job search, applications, interviews, paid work, volunteering and internship opportunities and getting the most out of your extra-curricular activities alongside your degree programme when writing your CV
- A range of personal support services : mentoring, counselling, residence support service, chaplaincy, health service
- A Centre for Language Study, providing assistance in the development of English language and study skills for non-native speakers.

The Students' Union provides

- An academic student representation system, consisting of Course Representatives, Academic Presidents, Faculty Officers and the Vice-President Education; SUSU provides training and support for all these representatives, whose role is to represent students' views to the University.
- Opportunities for extracurricular activities and volunteering
- An Advice Centre offering free and confidential advice including support if you need to make an academic appeal
- Support for student peer-to-peer groups, such as Nightline.

Associated with your programme at Southampton you will be able to access:

- Programme and module guides/information. Hard copies are available but are mainly published on the web: http://www.southampton.ac.uk/oes/postgraduate/index.page? and www.blackboard.soton.ac.uk

- A number of well-resourced lecture/meeting rooms and a suite of modern, first class, specialist laboratories and analysis facilities.
- A dedicated 'Masters' room with computer and high speed Internet access.
- Three additional computer clusters which are available at the NOCS for your use shared with undergraduate students. Additional computer clusters are available for your use on the other University campuses.
- Training on the Ocean and Earth Science's research launch, *RV Callista*, which is fully equipped for boatwork practicals and project work in the local estuary and coastal waters and in our shore-side laboratory and aquarium facilities.
- Equipment to support your field work, including laptop computers, GPS, specialised shipboard data acquisition systems deployed from the 19m research catamaran *RV Callista*.
- A research-led environment, which provides a high quality learning environment for students.
- A dedicated Student Office whose role is to support both staff and students in the administration of postgraduate teaching and research within Ocean and Earth Science. This is normally your first port of call for issues relating to the administration of your programme (e.g. registration, timetables, module courses, coursework submission, sickness and absence, examinations, staff whereabouts, etc.)
- A personal supervisor system which aims to provide personalised pastoral and academic care for all students. You will be allocated a member of the academic staff as your personal supervisor on arrival at University, and he/she will be charged with your guidance throughout your postgraduate career.
- Access via email which is freely available at all times and personal contact with all teaching staff.

Methods for evaluating the quality of teaching and learning

You will have the opportunity to have your say on the quality of the programme in the following ways:

- Completing student evaluation questionnaires for each module of the programme.
- Acting as a student representative on various committees, e.g. Staff: Student Liaison Committees, Faculty Programmes Committee OR providing comments to your student representative to feed back on your behalf.
- Serving as a student representative on Faculty Scrutiny Groups for programme validation.
- Taking part in programme validation meetings by joining a panel of students to meet with the Faculty Scrutiny Group.

The ways in which the quality of your programme is checked, both inside and outside the University, are:

- Regular module and programme reports which are monitored by the Faculty.
- Programme validation, normally every five years.
- External examiners, who produce an annual report.
- A national Research Assessment Exercise (our research activity contributes directly to the quality of your learning experience).
- Institutional Review by the Quality Assurance Agency.

Criteria for admission

The University's Admissions Policy (see www.southampton.ac.uk/admissions-policy) applies equally to all programmes of study.

Applicants for this programme are required to complete the on-line application procedure, providing documents and forms as required. Please see http://merconsortium.eu/howtodo/admission.html

All applications are reviewed by the Joint Programmes Board. The Board consists of representatives from all partner Universities.

Entry Requirements

You will need a good (2:1 or an equivalent standard in other qualifications) Honours degree in chemical, biological, physical, Earth and environmental sciences, engineering, oceanography or mathematics. A solid background in mathematics at undergraduate level and familiarity with computers will also be required. If you do not have these qualifications, but have relevant professional experience in coastal sciences, we will consider you.

English Language Proficiency

The language of instruction at all Partner Universities is in English. Therefore English language proficiency is a pre-requisite for this Joint European MSc programme.

All programmes at the University of Southampton are taught and assessed in the medium of English (other than those in modern foreign languages). Therefore, all applicants must demonstrate they possess at least a minimum standard of English language proficiency. Our minimum standard entry requirements are an IELTS Band C, i.e.

Overall	Reading	Writing	Speaking	Listening
6.5	5.5	5.5	5.5	5.5

Information on all acceptable English Language Tests can be found on the University website: www.southampton.ac.uk/admissions-language

Financial responsibility of students on this programme

Prior to participating in the Programme, you should ensure that you have adequate funds to cover:

- study at each of the Parties including relevant financial documents required for visa purposes;
- tuition, academic and other fees payable in respect of participation in the Programme and membership of a Party;
- medical/health insurance (check insurance coverage provided by the MER Consortium);
- travel to and from your home country to the other Parties as required by the Programme;
- personal and living expenses, including accommodation and food; and
- any other debts incurred by your or your dependants for the duration of your study abroad.

Career Opportunities

Successful completion of this programme will prepare the student for a leadership role in various marine sectors such as conservation and environmental management, fisheries, non-governmental organisations and all levels of government from local to global.

European employers in the public and private sectors require top quality graduates as managers, planners, policy makers, researchers or advisors who can make a difference in marine environmental resource management. They need people who have the ability to think through complex issues, who can analyse the marine environment and its resources, including sustainable development, through field measurements and modelling, which are capable of managing projects and programmes, and have well developed leadership and personal skills.

The MER consortium support career development from the point of enrolment. At UPV a careers' prospect is delivered once registration has been formalised and is also available online in the MER MSc website. The prospect contains:

- guidelines, links and references to orientate the student about potential careers and professional prospects;
- interesting links for job seeking; and
- examples of real published job offers to let them know which are the requisites and conditions for different employment opportunities in the real world.

The prospect is yearly revised, together with the website update. The tutor and the supervisor will also advise each student on potential careers and opportunities.

Career destinations and advice can be found at:
http://www.soton.ac.uk/careers/ and http://www.southampton.ac.uk/postgraduate/careerprospects/

External Examiners(s) for the programme

Name: Dr Crispin Little
Institution: University of Leeds

Name: Dr Mark Hartl
Institution: Heriot-Watt University

Students must not contact External Examiner(s) directly, and external examiners have been advised to refer any such communications back to the University. Students should raise any general queries about the assessment and examination process for the programme with their Course Representative, for consideration through Staff: Student Liaison Committee in the first instance, and Student representatives on Staff: Student Liaison

Committees will have the opportunity to consider external examiners' reports as part of the University's quality assurance process.

External examiners do not have a direct role in determining results for individual students, and students wishing to discuss their own performance in assessment should contact their personal tutor in the first instance.

The programme overall is overseen by an External Validator, appointed by the Joint Programmes Board:

Name: Professor Angel del Valls
Institution: University of Cádiz, Spain

Please note: This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities that are provided. More detailed information can be found in the programme handbook (or other appropriate guide) or online at http://merconsortium.eu/programme/index.html.

Appendix: Learning outcomes and Assessment Mapping

Southampton	Bordeaux	EHU	Liege	All

		Knowledge and Understanding							Subject Specific Intellectual Skills						Transferable/Key Skills																		
Module Code	Module Title	1	2	3	4	5	6	7	1	2	3	4	5	6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
SOES6001	Contemporary Topics	X	X			X	X	X	X	X	X		X		X	X	X	X		X	X						X	X	X	X	X	X		X
SOES6013	Introduction to Biological Oceanography	X	X	X	X	X			X			X		X		X		X		X				X	X								
SOES6014	Introduction to Physical Oceanography	X	X	X	X	X			X			X		X		X		X		X		X	X	X	X								
SOES6015	Introduction to Chemical Oceanography	X	X	X	X	X			X			X		X		X		X		X				X	X								
SOES6016	Introduction to Marine Geology	X	X	X	X	X			X							X		X		X													
UB1 0001	Biological Oceanography	X		X					X							X		X		X				X									
UB1 0002	Chemical Oceanography	X		X					X							X		X		X													
UB1 0003	Dynamic Oceanography	X		X					X							X		X		X				X									
UB1 0004	Seafloor Geology	X							X							X		X		X													
UB1 0703	Analyses of Environmental Data Modelling	X		X					X							X		X		X											X		
EHU 501315	Research in Marine Environment and Resources	X		X					X							X		X		X											X		
OCEA00151-00201	Interdisciplinary Aspects of Marine Science	X		X					X							X		X		X											X		
501000	Research Project				X	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X		X		X		X	X

Module Code	Module Title	Coursework 1	Coursework 2	Coursework 3	Exam
SOES6001	Contemporary Topics	Written Report: 70%	Oral Presentations: 30%		
SOES6013	Introduction to Biological Oceanography	Boatwork Report: 20%			Theory Exam: 80%
SOES6014	Introduction to Physical Oceanography	Boatwork Report: 10%			Theory Exam: 90%
SOES6015	Introduction to Chemical Oceanography	Practical Write-up: 10%			Theory Exam: 90%
SOES6016	Introduction to Marine Geology				Theory Exam: 100%
UB1 0001	Biological Oceanography	Oral Examination: 10%	Report: 40%		Written Exam: 50%
UB1 0002	Chemical Oceanography	Practical Examination: 40%			Written Exam: 60%
UB1 0003	Dynamic Oceanography	Oral Examination: 20%	Practical Examination: 50%		Written Exam: 30%
UB1 0004	Seafloor Geology	Practical Examination: 50%			Written Exam: 50%

UB1 0703	Analyses of Environmental Data Modelling	Practical Examination: 50%			Written Exam: 50%
EHU 501315	Research in Marine Environment and Resources	Written Report: 5 page journalistic summary of RiMER Course	Written Report: 5 page summary of student's choice Round Table	Written Report: 10 page report on one topic selected from a list.	
OCEA00151-00201	Interdisciplinary Aspects of Marine Science	Oral Examination: 50%	Written Report & Oral Presentation: 50%		
501000	Research Project	Formative Context: 25%	Written Report: 35%	Viva: 30%	Research Sufficiency: 10%

Revision History

1. Minor updates July 2016 – please note minor updates include those made to module profiles.

APPENDIX 2

Additional Costs

Students are responsible for meeting the cost of essential textbooks, and of producing such essays, assignments, laboratory reports and dissertations as are required to fulfil the academic requirements for each programme of study. In addition to this, students registered for this programme typically also have to pay for the items listed in the table below.

In some cases you'll be able to choose modules (which may have different costs associated with that module) which will change the overall cost of a programme to you. Details of such costs will be listed in the Module Profile. Please also ensure you read the section on additional costs in the University's Fees, Charges and Expenses Regulations in the University Calendar available at www.calendar.soton.ac.uk.

Main Item	Sub-section	PROGRAMME SPECIFIC COSTS
Approved Calculators		Candidates may use calculators in the examination room only as specified by the University and as permitted by the rubric of individual examination papers. The University approved models are Casio FX-570 and Casio FX-85GT Plus. These may be purchased from any source and no longer need to carry the University logo.
Stationery		You will be expected to provide your own day-to-day stationary items, e.g. pens, pencils, notebooks, etc). Any specialist stationery items will be specified under the Additional Costs tab of the relevant module profile.
Textbooks		Where a module specifies core texts these should generally be available on the reserve list in the library. However due to demand, students may prefer to buy their own copies. These can be purchased from any source. Some modules suggest reading texts as **optional** background reading. The library may hold copies of such texts, or alternatively you may wish to purchase your own copies. Although not essential reading, you may benefit from the additional reading materials for the module.
Equipment and Materials	Field Equipment and Materials:	A number of essential items will be provided to you **if they are required on your programme** e.g.: field notebook(s); compass-clinometer; geological hammer; steel tape measure; map case; pocket lens (x 10); safety helmet; safety goggles; bottle of dilute hydrochloric acid. If items provided are lost replacements will need to be purchased. However, you will need provide yourselves with a ruler; a pair of compasses; set squares; protractor; pencils (including coloured); eraser; calculator, penknife. These can be purchased from any source.
	Laboratory Equipment and Materials:	Laboratory equipment and consumables will be provided where appropriate
Fieldwork: logistical costs		For compulsory residential fieldcourses accommodation and travel are normally provided. You are usually expected to cover the costs of food and drink, although some courses may include meals. For optional fieldcourses, you may be asked to make a contribution to the travel and/or accommodation costs. Additionally, if travelling abroad you may incur costs for travel and health insurance; visa costs; vaccinations/immunisation. Specific details on what additional costs there will be are detailed in the individual module profiles which can be found under the modules tab of the programmes details of the relevant academic unit. In addition, some modules may offer a one-day fieldcourse. Normally transport to the location is provided, but you will be expected to cover your food and drink costs for that day.
Clothing	Lab coats and safety spectacles	Marine Biology students will receive a lab coat, dissection kit and waterproof notebook during Induction. If these are lost the student must replace them at their own expense.

Main Item	Sub-section	PROGRAMME SPECIFIC COSTS
	Fieldcourse clothing:	You will need to wear suitable clothing when attending fieldcourses, e.g. waterproofs, walking boots. You can purchase these from any source.
IT	Data Storage	Students are expected to provide their own data storage device
	Software Licenses	Will be provided by the University where appropriate
	Hardware	It is advisable that students provide their own laptop or personal computer, although shared facilities are available across the University campus.
Printing and Photocopying Costs		Where possible, coursework such as essays; projects; dissertations is likely to be submitted on line. However, there are some items where it is not possible to submit on line and students will be asked to provide a printed copy. The University printing costs for taught students are currently: A4 - 5p per side (black and white) or 25p per side (colour) A4 - 4.5p double sided (black and white) or 24p double sided (colour) A3 - 10p per side (black and white) or 50p per side (colour) A3 - 9.5p double sided (black and white) or 48p double sided (colour) You can pay for your printing by using the money loaders or by using print copy payment service by going to www.printcopypayments.soton.ac.uk Please remember that we are unable to refund any credit that has not been used by the end of your course, so please consider this when topping up your printing/copy account You will be given a printing allowance towards the costs of printing lecture handouts and/or practical scripts. The University Print Centre also offer a printing and copying service as well as a dissertation/binding service. Current printing and copying costs can be found here. They also provide a large format printing service, e.g. Academic posters. Details of current costs can be found here.