

# Programme Specification

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## Joint European MSc in Marine Environment and Resources 2018/2019

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 Coordinator	Professor Duncan Purdie (UoS) Prof I Marigómez (UPV/EHU) Prof Jörg Schäfer (UBx1) Dr Mathieu Poulicek (ULg)
Date specification was written	First draft September 2006;

## Programme Overview

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### 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 modules and specialised option module lectures, tutor-led and student-led tutorials, seminars and presentations, laboratory and practical classes, visits, fieldwork, boatwork, 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, and 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.

## Educational Aims of the Programme

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The aim of the programme is to develop your critical understanding of technical and scientific tools together with excellent management abilities and personal skills. This will be provided by:

- 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

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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

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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.)

### **Learning and Teaching**

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. 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 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.

## **Subject Specific Intellectual and Research Skills**

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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**

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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;

### **Learning and Teaching**

Your subject specific and general and transferable skills are embedded within the curriculum and many of the teaching methods used to develop these skills are common to those discussed in the Knowledge and Understanding Section. You will develop your subject-specific and general and transferable skills via compulsory module and specialised option module lectures, tutor-led and student-led tutorials and problem classes, computer laboratories, and 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, and a professional development workshop. A wide range of support is available for those students who have further or specific learning and teaching needs.

### **Assessment**

Assessment of these skills will be achieved through a combination of written examinations, essays, computer and laboratory exercises, oral presentations, fieldwork/boatwork reports, short coursework assignments, poster presentations, and a substantial research project report. Additional support can be provided for those students who have further or specific needs.

## **Programme Structure**

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### **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 UB1;
- 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**

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](#) (UB1-EHU-SOTON; UB1-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).

### UBL – EHU – SOTON Pathway

Semester 1: UB1

#### 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 and Climate  
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  
SOES6061 Marine GeoArchaeology

SOES6022 Microfossils Environment and Time  
SOES6025 Computational Data Analysis for Geophysicists and Ocean Scientists

**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

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:

SOES6001 Contemporary Topics

SOES3014 Coastal Sediment Dynamics  
SOES6004 Applied & Marine Geophysics  
SOES6005 Large Scale Ocean Processes and Climate  
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  
SOES6061 Marine GeoArchaeology  
SOES6022 Microfossils Environment and Time  
SOES6025 Computational Data Analysis for Geophysicists and Ocean Scientists

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

**Interim Exit Award – Postgraduate Certificate**

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: 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 Organisations (Associated Partners)

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

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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 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 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](http://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 Academic Unit of 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 the Academic Unit. 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

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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

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### University Commitment

The University will at all times seek to operate admissions regulations that are fair and are in accordance with the law of the United Kingdom, and the University's Charter, Statutes, Ordinances and Regulations.

This includes specific compliance with legislation relating to discrimination (e.g. Equality Act 2010) and the University's Equal Opportunities Policy Statement. This includes a commitment that the University will:

- actively assist groups that experience disadvantage in education and employment to benefit from belonging to the University
- actively seek to widen participation to enable students that do not traditionally participate in Higher Education to do so;
- ensure that admission procedures select students fairly and appropriately according to their academic ability and that the procedure is monitored and regularly reviewed.

## Entry Requirements

We very much welcome an application from you if you have at least a second class, upper division undergraduate degree (or equivalent from European and non-European universities) in the field of chemical, biological, physical, Earth and environmental sciences, engineering, oceanography or mathematics. A solid background in mathematics at the undergraduate level and familiarity with computers will also be required. Candidates who do not hold any of the above qualifications, but who have relevant professional experience in the fields of coastal sciences, may also apply.

The modules are taught and assessed in English so proficiency in the English language is a pre-requisite. The minimum requirements for non-native speakers are a score of 600 in the Test of English as a Foreign Language (TOEFL), an average of 6.5 for the British Council English Language Tests (IELTS) or equivalent test recognised by the University of Southampton (see the following website:

<http://www.southampton.ac.uk/studentadmin/admissions/admissionspolicies/language/>. Official certificates must be included with the application.

Applicants are required to complete the [on-line application](#) procedure, providing documents and forms 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.

The programme is open to anyone regardless of age, class, creed, disability, ethnic origin, gender, marital status, nationality, sexual orientation or caring responsibilities. All individuals are selected and treated on their relative merits and abilities in accordance with the University's Equal Opportunities Policy. The special needs of disabled applicants will be assessed by the University Disability Officer. Parts of the programme, such as practical laboratory sessions, may have to be adapted if you have specific disabilities such as visual or hearing impairment, or limited mobility.

### Financial responsibility of students on the 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

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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

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**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.

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**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
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Module Code	Module Title	Knowledge and Understanding							Subject Specific Intellectual Skills						Transferable/Key Skills																					
		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	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: 20%			Theory Exam: 80%
SOES6015	Introduction to Chemical Oceanography	Practical Write-up: 20%			Theory Exam: 80%
SOES6016	Introduction to Marine Geology	Practical Write-up: 20%			Theory Exam: 80%
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 revisions (including title) 10 July 2007
2. New Brand added July 2008
3. Updated to reflect University restructuring June 2011
4. Minor revisions May 2012;
5. Transferred to new template & minor revisions September 2014.
6. Minor revisions August 2016