PROGRAMME SPECIFICATION	

1	**Awarding Institution**	Newcastle University
2	**Teaching Institution**	Newcastle University
3	**Final Award**	MSc/PGDip
4	**Programme Title**	MSc International Marine Environmental Consultancy
5	**UCAS/Programme Code**	5158F/P 3420F/P
6	**Programme Accreditation**	IMarEst
7	**QAA Subject Benchmark(s)**	Environmental Studies (ES3)
8	**FHEQ Level**	M
9	**Date written/revised**	October 2013

10 Programme Aims

The aim of this programme is to meet industry needs by launching competent, experienced marine consultants and coastal managers into UK and European business, to meet the growing demand for truly multidisciplinary graduates within the growing environmental sector.

1. To give students from a range of backgrounds a common level of knowledge and understanding of marine environmental issues and the assessment of these in a contemporary marine consultancy business context.
2. To enable such students to gain knowledge and understanding of the role of science, policy, technology and development in the marine environment.
3. To enable such students to gain knowledge and understanding of business principles and practice and the role of enterprise and to actively apply this knowledge to marine consultancy.
4. To provide students with an appreciation of the need for, and mechanisms to achieve, sustainability in the marine environment, and the role that environmental consultancy plays in achieving this.
5. To enable students to understand the social, political and economic climate in which marine environmental consultancies must work.
6. To produce high quality, multi- and inter-disciplinary graduates armed with business skills and hands-on consultancy experience, for the marine sector.
7. To provide a programme consistent with Level M of the FHEQ.

Learning Outcomes

1. Mastering an interdisciplinary approach to the study of marine consultancy that encompasses both landward (such as communities socio-economically dependent on marine resources) and seaward (for example, sustainable marine energy) concerns.
2. The principles, theory and practice of marine management.
3. Knowledge of biodiversity, economic goods and services, physical and biological processes, developing technologies and functions of coastal ecosystems that provide the resource base for communities.
4. Understanding and use of social science methodologies to project appraisal and environmental management.

5. The role of governance in marine management focussing on advances in law and policy for addressing the development, management and use of coastal resources at local, national and international levels.
6. A broad portfolio of subject-specific knowledge and understanding related to marine consultancy, drawn from various modules on, coastal production systems, governance, marine research and evaluation, environmental impact assessment and research skills.
7. Applications of multi-disciplinary and interdisciplinary approaches to advancing marine consultancy, drawing as appropriate from the natural and social sciences and where possible, based on real life case studies

Knowledge and Understanding

On completing the programme students should have:

The programme provides opportunities for students to develop and demonstrate knowledge and understanding, qualities, skills and other attributes in the following areas. The programme outcomes have references to the benchmark statements for Knowledge and Understanding On completing the programme students should have:

1. Mastered an interdisciplinary approach to the study of coastal and marine environments around the world, gaining awareness of socio-economic as well as scientific and technical aspects of coastal and marine management.
2. Knowledge of biodiversity, economic goods and services, physical and biological processes, developing technologies and functions of coastal ecosystems and the resources that these provide.
3. Understanding and use of both natural and social/economic science methodologies to support project formulation and appraisal in support of environmental assessment and management, in a consultancy context.
4. Understanding of the role of governance in marine environmental issues, focussing on advances in law and policy for addressing the development, management and use of coastal resources at local, national and international levels, and the implications of these for environmental consultancy in the marine environment.
5. A broad portfolio of subject-specific knowledge and understanding related to marine environmental consultancy, drawn from various modules on coastal production systems, coastal governance, integrated coastal management, marine resource mapping and evaluation, environmental impact assessment, sustainable world aquaculture, remote sensing, fisheries management and marine environmental research skills.
6. Applications of multi-disciplinary and interdisciplinary approaches to marine consultancy, drawing as appropriate from the natural and social sciences and where possible, based on real life case studies
7. An understanding of the principles of environmental consultancy and be aware of both common tools and new developments employed in the industry.
8. An understanding of the economic, social and political climate in which the environmental consultancy industry must work.
9. An understanding of the life cycle of a business from set up to liquidation including business plans, and the nature of enterprise.
10. An understanding of the principles of project planning and management, and the ability to apply these to small scale consultancy projects.

A1 appreciated interdisciplinary approaches to the study of integrated coastal management that encompasses both landward (e.g. communities socio-economically dependent on marine resources) and seaward (e.g. sustainable ecosystem exploitation) concerns.

A2 grasped the principles, theory and practice of integrated coastal management.
A3 gained knowledge of biodiversity, economic goods and services, physical and biological processes, developing technologies and functions of tropical coastal ecosystems that provide the resource base for coastal communities.
A4 increased understanding and ability to use social science methodologies for project appraisal and environmental management.
A5 comprehended roles of governance in coastal management focussing on advances in law and policy for addressing the development, management and use of coastal resources at local, national and international levels.
A6 gained a broad portfolio of subject-specific knowledge and understanding related to coastal management, drawn from modules on coastal production systems, governance, marine environmental research, and environmental impact assessment.
A7 Applications of multi-disciplinary and interdisciplinary approaches to advancing tropical coastal management, drawing as appropriate from the natural and social sciences and where possible, based on real life case studies

Teaching and Learning Methods

Knowledge and understanding (A1 to A7) are developed mainly through lectures/seminars/tutorials/ fieldwork, case-histories, case studies and development and practice of research skills. A3 is further developed in a scientific literature study in which learning is reviewed by peer assessment, formative and summative assessment. A1 to A7 are supplemented by active participatory exercises involving role-playing, seminars, teamwork and communication to solve problems and facilitate learning by experience. A6 is facilitated chiefly by internal and external staff through core and optional modules using a variety of methods including lectures, participatory exercises, interactive seminars, guided self-study and workshops. A reflective learning logbook allows students to consider the wider relevance of their learning in the workplace (A7).

Assessment Strategy

Knowledge and understanding (A1 to A7) is summatively assessed by unseen written examination and written reports, including the literature review as part of the research project. Formative assessment is by individual tutoring, feedback on written work (at various stages) and individual and group feedback in participatory exercises and case studies.

Intellectual Skills

On completing the programme students should have:

1. Awareness of, ability to identify, access and make critical use of sources of information on the economic, environmental, legal, political, social, scientific, technological and other aspects of coastal management; integrating and evaluating information and data from a variety of sources.
2. Skills in data exploration, numerical analysis and application of statistical methods to field, survey and experimental data related to coastal management, with the ability to make decisions from data, interpret published results in a meaningful way and formulate useful inferences.
3. The ability to design, plan (including contingency planning) and execute independent marine environmental consultancy studies, based either at the desk or in the field. Including the selection and application of appropriate mathematical and computer based methods for modelling and analysing relevant problems, as required.
4. The ability to take a creative holistic approach to solving problems, applying professional judgements to balance risks, costs, benefits, safety, reliability, aesthetics and environmental impact; with the experience required to identify suitable analytical and assessment methods for solutions to consultancy challenges, working with relevant financial constraints and legislative frameworks.

5. Synthesis and presentation of data and ability to produce professional quality reports suitable for international, national and local consultancies and their clients, particularly government agencies.
6. Dissemination of key information and communication with specialists and/or non-specialists on a range of coastal and marine issues of relevance to consultancy.
7. A thorough understanding of the business and enterprise aspects of environmental consultancy, and the range and diversity of consultancy specialist markets that operate within the marine sector.

The ability to formulate competitive project plans, tender documents and business plans for the marine consultancy sector, applying general principles to specific consultancy situations.

On completing the programme students should be:

B1 Aware of and able to identify, access and make critical use of sources of information on the economic, environmental, legal, political, social, scientific, technological and other aspects of coastal management.
B2 Capable of data exploration, numerical analysis and application of statistical methods to field, survey and experimental data related to coastal management - ability to make decisions from data, interpret published results in a meaningful way and formulate useful inferences.
B3 Able to design, plan (including contingency planning) and execute independent field studies with coastal management applications.
B4 Able to synthesise and present data and able to produce professional quality reports suitable for international, national and local agencies.
B5 Capable of dissemination key information and communication with specialists and/or non-specialists on a range of coastal issues.

Teaching and Learning Methods

Subject specific skills B1 and B2 are introduced, applied and reinforced in several modules allowing practical applications to be learned and practised in different situations. B3 and B4 are introduced through case studies and research project proposals, and developed in the final consultancy project, which is individually supervised before and after the research proposal has been evaluated and approved. B5 is demonstrated in a number of modules and applied in fieldwork. A number of modules develop aspects of experimental and survey design and report preparation as part of lectures/seminars, case studies and group-led field exercises.

Assessment Strategy

Subject-specific skills (B1 and B2) are assessed by practical reports, essays and literature reviews. B3 and B4 are mainly assessed as part of the research project, including separate evaluations of the study plan, literature review and research paper. Aspects of experiment/survey design and presentation (B3 and B4) are also assessed in optional modules by practical reports and literature reviews. B5 is assessed through a number of modules including the research project.

Practical Skills

On completing the programme students should be able to:

C1 Synthesise, summarise and integrate existing information and critically assess different sources of information.
C2 Collect new data and information and incorporate with existing knowledge - present this information in different formats to make clear to those targeted.
C3 Design and implement information-gathering strategies in an efficient and cost-effective way.

C4 Apply knowledge and understanding of coastal management to familiar and unfamiliar problems such as identifying and resolving stakeholder conflicts

Cognitive skills

1. Synthesise, summarise and integrate existing information and critically assess different sources of information.
2. Collect new data and information and incorporate with existing knowledge - present this information in different formats to make clear to those targeted.
3. Design and implement information-gathering strategies in an efficient and cost-effective way.
4. Critical appraisal of assessment methodologies within a commercial consultancy environment.
5. Critical evaluation of tools and techniques based on financial as well as technical merit; employing good professional judgement to balance risks, costs and benefits.

Apply knowledge and understanding of the marine environment to familiar and unfamiliar problems; such as identifying and resolving stakeholder conflicts or balancing commercial and environmental priorities for clients.

Teaching and Learning Methods

These skills are challenged through literature reviews (C1) introduced at the start of the programme and form a major part of the research project. C2 and C3 are developed in the research project, during field exercises and in several optional modules with data gathering and data mining exercises. Students develop cognitive skills (C4) through problem-solving exercises and case studies from real-life environmental projects.

Assessment Strategy

Synthesis, critical use and understanding of information (C1) is assessed by written reports of independent exercises including the research project. C2 and C3 are assessed by written reports in the research project and one other compulsory module. C4 is assessed by practical and case study reports and the reflective learning logbook.

Transferable/Key Skills

1. Effective verbal and written communication appropriate to the intended audience.
2. Numerical skills, including survey and experimental design, data collection, data handling, analysis and presentation using a range of packages.
3. Analytical skills; including policy and legal analysis, spatial planning and analysis.
4. Critical and effective use of IT including internet resources, reference managers and other software packages as a means of communication and source of information.
5. Independent study skills, self-organisation and time-management.
6. Teamwork and interpersonal skills, including identifying individual and collective goals and responsibilities, managing meetings and schedules, recognising and respecting the views of others, conflict resolution and building consensus.

Project design, resourcing and budgeting skills, understanding of business and enterprise.

On completing the programme students should:

D1 Have effective verbal and written communication appropriate to the intended audience

D2 Be able to use numerical skills, including survey and experimental design, data collection, data handling, analysis and presentation using a range of packages.

D3 Be capable of making critical and effective use of IT including internet resources, reference managers and other software packages as a means of communication and source of information.

D4 Possess independent study skills, self-organisation and time-management.

D5 Have teamwork and interpersonal skills, including identification of individual and collective goals and responsibilities, management of meetings and schedules, recognition and respect for the views of others, conflict resolution and building consensus.

Teaching and Learning Methods

Key skills (D1 to D5) are introduced in the Marine Environmental Research Skills module via hands-on exercises and accompanying workbooks. The application of these skills is also assessed in a variety of modules, different situations and intended audiences. Numerical skills (D2) are developed using a series of exercises. Independent study (D4) is promoted in library research projects and the final research project, whereas teamwork (D5) is practised in independent group exercises in several modules.

Assessment Strategy

Communication skills (D1) are assessed by oral presentations and written reports in a number of modules. Numerical, IT and independent study skills (D2 to D4) are assessed by practical reports, literature reviews and the research paper. Teamwork skills (D5) are assessed by individual reports on group work and by group reports supplemented by *viva voce* assessment of organisation and interpersonal skills.

12 Programme Curriculum, Structure and Features

Basic structure of the programme

The MSc and postgraduate Diploma are normally one year programmes, consisting of modules totalling 180 and 120 credits worth of study respectively. Common to both are taught modules totalling 100 credits which provide structured learning over 22 weeks from September to March. Examinations take place in the January exams period. The taught component comprises compulsory (180 credits) modules. At the discretion of the Degree Programme Director and within timetabling constraints, students can substitute other modules from throughout the University for semester two modules. The MSc research project carries a value of 80 credits and the Diploma project a value of 20 credits. See Annex for list of modules and specific knowledge, understanding and skills outcomes.

The aim of the programme is to provide existing professionals and graduates with a flexible training programme leading to recognised postgraduate and professional qualifications, while facilitating increased levels of interaction between Newcastle University, commercial companies, professional bodies and other organisations operating across the marine sector.

To achieve this it will capitalise upon the excellent array of discipline based science and engineering masters level courses already available within the university, developing additional new material only to provide the interdisciplinary linkages to deliver successful IMEC graduates with the necessary holistic approach. In addition, core governance, legal, policy and management components are augmented by more taught consultancy, business planning and enterprise aspects.

Alongside specific existing enterprise and entrepreneurship modules there will be a new, unique, intensive ‘business internship’ module. In the first semester this will involve a series of four 3 day seminars, one delivered by each of our partners, with a 4 month internship for each MSc student, in the final semester, to develop a marine project for assessment with a UK/EU or International consultancy. This activity will be focused on collaboration with regional businesses, and should yield significant benefits, not only for the programme, but in terms of faculty and school strategies to engage with local business, increase consultancy income to the school, and demonstrate our engagement with and contribution to the North East region by providing more industry relevant training, and contributing to the level of regional graduate retention, in local consultancy. The synergies apparent through this approach could provide significant benefits to the school on several levels.

Key features of the programme (including what makes the programme distinctive)

A distinguishing and defining feature of this MSc is that it is taught by a multi-disciplinary team that aims for and repeatedly adopts an interdisciplinary approach to integrated coastal management with due consideration given to economic, ecological and social aspects from both a landward and seaward viewpoint.

Programme regulations (link to on-line version)

http://www.ncl.ac.uk/regulations/programme/

13 Criteria for admission

Entry Requirements: Normally three to six months' relevant practical experience and a second-class Honours degree, or an international equivalent, in an environmental subject. Applicants whose first language is not English require IELTS 6.5, TOEFL 575 (paper-based) or 233 (computer-based), or equivalent.

Entry qualifications

Normally undergraduate honours degree or equivalent in a discipline relevant to the programme (e.g. biology/zoology/botany, marine science, oceanography, environmental science, geography, earth science) at a university recognised by NARIC/International Office

Admissions policy/selection tools

DP selection: applicants meeting entry qualification and additional requirements can register for MSc, non-standard entry into Diploma

Non-standard Entry Requirements

Extensive work experience (e.g. >1 year) relevant to the programme (e.g. marine environmental research, government planning, environmental impact work, work for NGO or international agency), entry at Diploma level

Additional Requirements

(1) Minimum 3-6 months relevant tropical work experience (duration dependant on qualifications and references), normally work in the tropics with an agency/NGO/department/institute/group related to tropical coastal management (e.g. protected area management, environmental monitoring, resource assessment, research, consultancy) or an aspect of it (e.g. mapping, planning, environmental education development) (2) Appropriate rationale for taking programme (e.g. qualification need for professional reasons, intended career in environmental science or with NGOs and/or government agencies and/or companies) (3) Good typically academic reference and possible validation of work experience

Level of English Language capability

Minimum IELTS6.5 or equivalent

14 Support for Student Learning

The Student Services portal provides links to key services and other information and is available at: *http://www.ncl.ac.uk/students/*

Induction
During the first week of the first semester students attend an induction programme. New students will be given a general introduction to University life and the University's principle support services and general information about the School and their programme, as described in the Degree Programme Handbook. New and continuing students will be given detailed programme information and the timetable of lectures/practicals/labs/ tutorials/etc. The International Office offers an additional induction programme for overseas students.

Study skills support
Students will learn a range of Personal Transferable Skills, including Study Skills, as outlined in the Programme Specification. Some of this material, e.g. time management is covered in the appropriate Induction Programme. Students are explicitly tutored on their approach to both group and individual projects.

Numeracy support is available through Maths Aid and help with academic writing is available from the Writing Development Centre (further information is available from the Robinson Library).

Academic and Pastoral support
Each undergraduate and taught postgraduate student will be assigned a personal tutor.*
A personal tutor is one part of a wider network of advice and guidance available to students to support their personal and general academic development. The module leader acts as the first point of contact for subject-specific academic advice. Thereafter the Degree Programme Director or Head of School may be consulted. Issues relating to the programme may be raised at the Student-Staff Committee, and/or at the Board of Studies. Within the academic unit, students may also receive additional academic and pastoral advice from a range of other student-facing staff including degree programme directors, dissertation/project supervisors, and administrative support staff.
*Arrangements may vary for students taking special types of provision.

The University also offers a wide range of institutional services and support upon which students can call, such as the Writing Development Centre, Careers Service and Student Wellbeing Service. This includes one-to-one counselling and guidance or group sessions / workshops on a range of topics, such as emotional issues e.g. stress and anxiety, student finance and budgeting, disability matters etc. There is specialist support available for students with dyslexia and mental health issues. Furthermore, the Student Union operates a Student Advice Centre, which can provide advocacy and support to students on a range of topics including housing, debt, legal issues etc.

Support for students with disabilities
The University's Disability Support team provides help and advice for disabled students at the University - and those thinking of coming to Newcastle. It provides individuals with: advice about the University's facilities, services and the accessibility of campus; details about the technical support available; guidance in study skills and advice on financial support arrangements; a resources room with equipment and software to assist students in their studies.

Learning resources
The University's main learning resources are provided by the Robinson and Walton Libraries (for books, journals, online resources), and Information Systems and Services, which supports campus-wide computing facilities.

All new students whose first language is not English are required to take an English Language Proficiency Test. This is administered by INTO Newcastle University Centre on behalf of Newcastle University. Where appropriate, in-sessional language training can be provided. The INTO Newcastle University Centre houses a range of resources which may be particularly appropriate for those interested in an Erasmus exchange.

15 Methods for evaluating and improving the quality and standards of teaching and learning

Module reviews
All modules are subject to review by questionnaires which are considered by the Board of Studies. Changes to, or the introduction of new, modules are considered at the Board of Studies and/or the School Teaching and Learning Committee. Student opinion is sought at the Student-Staff Committee and/or the Board of Studies. New modules and major changes to existing modules are subject to approval by the Faculty Learning, Teaching and Student Experience Committee.

Programme reviews
The Board of Studies conducts an Annual Monitoring and Review of the degree programme and reports to Faculty Learning, Teaching and Student Experience Committee. The FLTSEC takes an overview of all programmes within the Faculty and reports any Faculty or institutional issues to the Faculty Learning, Teaching and Student Experience Committee.

External Examiner reports
External Examiner reports are considered by the Board of Studies. The Board responds to these reports through Faculty Learning, Teaching and Student Experience Committee. External Examiner reports are shared with institutional student representatives, through the Student-Staff Committee.

Student evaluations
All modules, and the degree programme, are subject to review by student questionnaires. Informal student evaluation is also obtained at the Student-Staff Committee, and the Board of Studies. The results from student surveys are considered as part of the Annual Monitoring and Review of the programme and any arising actions are captured at programme and School / institutional level and reported to the appropriate body.

Mechanisms for gaining student feedback
Feedback is channelled via the Student-Staff Committee and the Board of Studies.

Faculty and University Review Mechanisms
Every six years degree programmes in each subject area undergo periodic review. This involves both the detailed consideration of a range of documentation, and a review visit by a review team (normally one day in duration) which includes an external subject specialist and a student representative. Following the review a report is produced, which forms the basis for a decision by University Learning, Teaching and Student Experience Committee on whether the programmes reviewed should be re-approved for a further six year period.

Accreditation reports

Not applicable

Additional mechanisms

There is informal discussion throughout the year with teachers, module leaders and the Degree Programme Director and several cases in recent years of changes in assessment and deadlines in response to student needs.

16 Regulation of assessment

Pass mark
The pass mark is 50 (Postgraduate programmes)

Course requirements
Progression is subject to the University's Masters Degree Progress Regulations, Taught and Research and Examination Conventions for Taught Masters Degrees. There are reassessment opportunities, with certain restrictions. Limited compensation up to 40 credits of the taught element and down to a mark of 40% is possible for candidates who commenced their programme in 2013/14 or earlier. For students starting their programme in 2014/15 or later, no compensation is possible.

Weighting of stages

Not applicable

Common Marking Scheme

The University employs a common marking scheme, which is specified in the Taught Postgraduate Examination Conventions, namely:

Summary description applicable to postgraduate Masters programmes		**Summary description applicable to postgraduate Certificate and Diploma programmes**	
<50	Fail	<50	Fail
50-59	Pass	50 or above	Pass
60-69	Pass with Merit		
70 or above	Pass with Distinction		

Role of the External Examiner
An External Examiner, a distinguished member of the subject community, is appointed by Faculty Teaching and Learning Committee, after recommendation from the Board of Studies. The External Examiner is expected to:

- See and approve examination papers
- Moderate examination and coursework marking
- Attend the Board of Examiners
- Report to the University on the standards of the programme

In addition, information relating to the programme is provided in:

The University Prospectus: http://www.ncl.ac.uk/postgraduate/

The School Brochure: http://www.ncl.ac.uk/marketing/services/print/publications/ordering/

Degree Programme and University Regulations: http://www.ncl.ac.uk/regulations/docs/

The Degree Programme Handbook and MSc TCM prospectus at the web site: http://www.ncl.ac.uk/marine/postgrad/taught/tropical.htm

Please note. This specification provides a concise summary of the main features of the programme and of the learning outcomes that a typical student might reasonably be expected to achieve if she/he takes full advantage of the learning opportunities provided. The accuracy of the information contained is reviewed by the University and may be checked by the Quality Assurance Agency for Higher Education.

Annex

Mapping of Intended Learning Outcomes onto Curriculum/Modules

		Intended Learning Outcomes			
Module	**Type**	**A**	**B**	**C**	**D**
MST8011	Compulsory	3, 7	1, 4	1	1, 3
MST8022	Compulsory	1-7	1	1, 4	4-5
MST8024	Compulsory	3, 6-7	1-5	1-4	1-5
MST8023	Compulsory**	1-7	1-5	1-4	1-5
MST8014	Compulsory*	1-7	1-5	1-4	1-5
SPG 8016	Compulsory	3, 6-7,	2-4, 5	1, 3	1-5
SPG8013	Compulsory	6	1, 4-5	1, 3	1, 3-4
SPG8009	Compulsory	3, 5-6	1, 4	1	1, 4

* for Diploma
** for MSc