UNIVERSITY OF
NEWCASTLE UPON TYNE

FACULTY OF
SCIENCE, AGRICULTURE & ENGINEERING

DEGREE PROGRAMME SPECIFICATION

UNIVERSITY OF NEWCASTLE

	Awarding Institution	University of Newcastle upon Tyne
2.	**Teaching Institution**	University of Newcastle upon Tyne
3.	**Final Award**	MSc.
4.	**Programme Title**	Tropical Coastal Management
5.	**Programme Accredited by:**	
6.	**UCAS Code**	5067
7.	**QAA Benchmarking Group(s)**	Environmental Studies (ES3)
8.	**Date of production/revision**	10 May 2002/1 June 2004

Programme Aims:

1. To equip specialists working or intending to work in coastal zones of tropical countries with a knowledge and understanding of the disciplines underpinning coastal environments, the principles of integrated coastal management and an holistic overview of coastal management issues, together with a range of key academic, practical and transferable skills.

2. To promote informed dialogue between individuals from diverse backgrounds including: biologists, economists, engineers, lawyers, managers, planners, politicians, scientists and other professionals working on coastal issues through multi-disciplinary education that adopts an interdisciplinary approach.

3. To provide a programme that addresses the many complex challenges faced by coastal managers through promoting a dynamic environment for well-motivated people from a range of geographic, professional and academic backgrounds.

4. To stimulate a critical approach to the natural and social science elements underpinning coastal management and apply its findings to management issues.

5. To offer a curriculum enhanced by interaction with an active research and consultancy environment, which will encourage thinking in a critical and constructive manner, awareness of new developments, technologies and approaches, and the ability to apply knowledge and skills to solving real coastal management issues and problems.

6. To engender an environment within which course participants benefit from each other's expertise and enjoy their learning experience.

7. Graduates in Tropical Coastal Management will be equipped to act as knowledgeable individuals, team leaders or as members of multidisciplinary teams working in coastal management. They will have gained a broad overview of the problems and issues of coastal management, the benefits of adopting an interdisciplinary approach, a wide range of transferable skills, and the ability to integrate diverse inputs into coherent management plans.

10. Intended Learning Outcomes; Teaching and Learning Strategies and Methods; Assessment Strategies and Methods

A Knowledge and understanding

A1 Mastering an interdisciplinary approach to the study of integrated coastal management that encompasses both landward (such as communities socio-economically dependent on marine resources) and seaward (for example, sustainable coral reefs) concerns.

A2 The principles, theory and practice of integrated coastal management.

A3 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 Understanding and use of social science methodologies to project appraisal and environmental management.

A5 The role 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 A broad portfolio of subject-specific knowledge and understanding related to coastal management, drawn from various modules on, coastal production systems, coastal governance, environmental politics, integrated coastal management, marine resource mapping and evaluation, environmental impact assessment, sustainable world aquaculture, remote sensing, fisheries management and research skills.

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

B Subject –specific/professional skills

B1 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.

B2 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 Design, planning (including contingency planning) and execution of independent field studies with coastal management applications.

B4 Synthesis and presentation of data and ability to produce professional quality reports suitable for international, national and local agencies.

B5 Dissemination of key information and communication with specialists and/or non-specialists on a range of coastal issues.

C Cognitive skills

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.

D Key (transferable) skills

D1 Effective verbal and written communication appropriate to the intended audience.
D2 Numerical skills, including survey and experimental design, data collection, data handling, analysis and presentation using a range of packages.
D3 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 Independent study skills, self-organisation and time-management.
D5 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.

10(b) Programme Intended Learning Outcomes: Teaching and Learning Methods and Strategies

A Knowledge and Understanding

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 a range of core and optional modules using a variety of methods including lectures, participatory exercises, interactive seminars and guided self-study. A reflective learning logbook allows students to consider the wider relevance of their learning in the workplace (A7).

B Subject-specific/Professional skills

Subject specific skills B1 and B2 are introduced in the Research Skills module and applied and reinforced in a number of modules allowing practical applications to be learned and practised in different situations. B3 and B4 are introduced through case studies and the Research module plan and developed in the research project, which is individually tutored after the research plan has been evaluated and approved. B5 is demonstrated in a number of modules and applied in fieldwork, particularly during the research project. 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.

C Cognitive Skills

Cognitive 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.

D Key (transferable) Skills

Key skills (D1 to D5) are introduced in the 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 a number of modules.

10(c) Programme Intended Learning Outcomes: Assessment Strategy

A Knowledge and understanding

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.

B Subject-specific/Professional skills

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 and as part of the independent research project.

C Cognitive Skills

Synthesis, critical use and understanding of information (C1) is assessed by written reports of independent exercises and the research project. C2 and C3 are assessed by written reports associated with the research project and by group reports as part of another core module. C4 is assessed by practical and case study reports and the reflective learning logbook.

D Key (transferable) Skills

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* examination to assess organisation and interpersonal skills.

11 Programme Features, Structure and Curriculum

The MSc and postgraduate Diploma are normally one year programmes, consisting of modules totalling 180 and 150 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 of these modules take place in the first week following the Easter vacation. The taught modules comprise compulsory (150 credits) and optional (30/80 credits) modules. At registration, a tutor will discuss the choice of optional modules with each of the students. At the discretion of the Degree Programme Director and within timetabling constraints, students can also substitute other modules from throughout the University for the optional modules. The MSc research project carries a value of 80 credits and the Diploma project a value of 50 credits.

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

Programme Summary:

	Credits	Learning Outcomes	Progression requirements
Compulsory modules:			
MST885 Critical appraisal of coastal production systems	30	A3, A7, B1, B4, C1, D1, D3	N/A
MST886 Principles and practice of integrated coastal management	20	A1-A7, B1, C1, C4, D4-D5	N/A
MST888 Coastal Governance	10	A1-A7, B1, C1, C4, D1, D3-D4	N/A
MAR801 Research Skills	10	A6, B2-B4, C1, C3, D1-D4	N/A
MST890 Research in Coastal Management	80	A6, B1-B5, C1-C4, D1-D5	Pass taught programme (100 credits)
Optional modules to a total value of 65 credits:			
MST889 Marine resource mapping and evaluation	10	A6, B1-B3, C2-C3, D2-D4	N/A
TCP846 Environmental impact Assessment	10	A6, A7, B1, B3, B4, C1-C4 D1, D4-D5	N/A
MST887 Sustainable world Aquaculture	10	A6, B1-B2, B4, C1, D1-D4	N/A
BIO800 Remote sensing and Assessment of coastal resources	10	A3, A6-A7, B1-B2, B4-B5 C1-C4, D1-D3	N/A
BIO801 Fisheries resources Assessment and management	10	A3, A5-A7, B1-B2, B4, C1, C4 D1-D4	N/A
POL804 International Environmental Politics	20	A4-A5, B1, C1, C4, D1, D4-D5	N/A
MSM799 Research in coastal management (Diploma)	50	A6, B1-B2, B4-B5, C1, C3 D1, D3-D4	Pass taught programme (100 credits)

12 Criteria for Admission:

Entry qualifications:
Applicants must have a good first degree in a relevant subject from a recognised higher education institute. Applicants whose first language is not English should have IELTS at a minimum of 6.5 or equivalent.

Admissions policy:

The MSc in Tropical Coastal Management is intended for those working in, or who wish to pursue careers in, coastal management in tropical countries, typically within developing nations. Priority will be given to applicants with first hand experience of resource or ecosystem management in the tropics, and UK applicants are normally expected to have at least 3 months of tropical work experience. Relevant first degrees include any major subject related to specific disciplines within coastal management, including environmental sciences, fisheries, economics, policy, planning, education, social sciences and law degrees.

Arrangements for non-standard entrants:

Entrants without a good first degree in a relevant subject from a recognised higher education institute may apply for the 9-month Diploma course with the option of transferring to the MSc degree subject to passing the taught course at MSc level (≥50%). English language courses are available for those with IELTS ≤ 6.5.

13 Support for Students and their Learning:

Induction

The first week of the academic year is allocated for induction procedures. The indispensable features of induction are as follows:

(i) An interview with the personal tutor, including discussion of optional module choices, goals of student, overall orientation and overview of the programme.
(ii) Registration in the School - collect Course Handbook, etc.
(iii) English language test in Language Centre (if English is not first language).
(iv) Report to Registrar's and Finance Office staff to collect Union and Library Cards, etc.
(v) Meeting with all staff involved in the MSc and other students.
(vi) Course briefing meeting and introduction to Faculty computing facilities.

Structured School and Faculty induction programme are provided including Faculty and University procedures and facilities, pastoral care, welfare and guidance related to study at Newcastle.

Study skills support

The Research Skills module (MAR801) provides study skills training including literature searching, seminar skills, using internet resources, negotiation and teamwork skills and word processing for research projects. Specific study skills guidance is provided with individual pieces of assessed work and team projects.

Academic support

Each student is assigned a personal tutor who is the first contact for academic support. Module leaders will provide specific information on performance and progress.

Pastoral support

All students are assigned a personal tutor whose responsibility is to monitor the academic performance and overall well-being of their tutees. Details of the personal tutor system can be found at http://www.ncl.ac.uk/undergraduate/support/tutor.phtml. In addition the University offers a range of support services, including the Student Advice Centre, the Student Counselling Service, the Mature Student Support Service, and a Childcare Support Officer, see http://www.ncl.ac.uk/undergraduate/support/welfare.phtml.
The University Careers Service provides help and advice when seeking employment.

Support for Special Needs

http://www.ncl.ac.uk/undergraduate/support/disability.phtml
The University Disability Support Service provides support and guidance for people with special needs. Support Service staff co-ordinate services for students with disabilities in terms of admissions to courses and giving on-going support to enable students to study effectively and make full use of opportunities at the University.

Learning resources
The Robinson Library houses the major book and journal collections in the University and has sections dedicated to the biological sciences, economics and engineering located on levels four and three. The Student Texts Collection is made up of standard texts (sometimes with multiple copies) for specific modules which can be consulted in the library but not borrowed. Computer-based facilities such as CD-ROM and on-line journals expand the resources offered by the library, and photocopying facilities are also available. A School Liaison Librarian will provide help and advice where necessary. A Resource Centre, housed within the Armstrong Building, provides a unique collection of specialised published material on various aspects of tropical coastal management. Books, periodicals, scientific papers and newsletters dealing with coastal management and marine technology issues are available for consultation by students. The School of Marine Science and Technology has major computing facilities in both the Ridley Building (Nereid NT cluster) and the Armstrong Building which are used for organised classes, but available for individual use at other times during normal working hours. Students have access to the Ridley Building cluster at all times. The University Computing Service also provides a large number of "Common User" computers located in clusters in various buildings around the University. The Computing Service provides help sheets in the use of all common software and these can be obtained from all cluster rooms or from the Computing Service Office in the Claremont Tower. On registering on the computers students get a personal Newcastle University e-mail address (username@ncl.ac.uk). The Department maintains an e-mail distribution list for the degree which is used for all urgent messages for the degree programme and for general staff-student and student-student communication. The University web pages provide an invaluable resource, offering a wealth of information on all aspects of university life (http://www.ncl.ac.uk). The following School web site provides an outline and prospectus of the MSc programme (http://www.ncl.ac.uk/marine/postgrad/taught-degrees/tropical.htm). The Tropical Coastal Management web site (http://www.ncl.ac.uk/tcmweb/ctcms/) provides specific information on alumni and recent research. The University Blackboard system is extensively used for posting teaching materials and notes on all modules on the web.

14 Methods for Evaluating and Improving the Quality and standards of Teaching and Learning:

Module reviews

Modules are reviewed each year by module leaders based on feedback from staff and students in addition to advances in subject matter and needs of potential employers. Any changes to the module outline are reviewed by the Board of Studies and major changes submitted to the Faculty Teaching Committee for review.

Programme reviews

The programme is reviewed systematically as part of the programme-specific Annual Report to Faculty Teaching and Learning Committee and is subject to internal Subject Review and external QAA Academic Review. Our primary funding agency for UK students, the Natural Environment Research Council (NERC), carries out periodic reviews of MSc provision in the UK and currently funds 5 studentships annually. The programme Standing Committee considers the programme as a whole and uses student questionnaires, an annual student evaluation meeting, the external examiner's report and comments, feedback from graduates, potential employers and comments from external lecturers to continually review and improve the programme. The Standing Committee reports to the School Teaching and Learning Committee. The Board of Studies conducts an Annual Monitoring and Review of the degree programme and reports to Faculty Teaching and Learning Committee.

External examiner reports

Verbal comments and written reports of the external examiner are reviewed each year by the Standing Committee and a report is made to School Teaching and Learning Committee and Board of Studies.

Accreditation reports

Reports of the NERC are considered and acted upon by the Board of Studies when they become available.

Student evaluations

Student evaluations are considered by the Standing Committee and reports to School Teaching and Learning Committee.

Feedback Mechanisms

The Staff-Student Liaison Committee (SSLC) is the primary route for feedback of comments from students. An elected member of the class serves on the SSLC and School Board of Studies and provides feedback to the students and staff on actions taken by the SSLC. The SSLC representative reports to the School Board of Studies, and SSLC minutes are also discussed at the School Teaching Away Days.

Faculty and University Review Mechanisms

The Programme is reviewed systematically by the Faculty Teaching and Learning Committee (AMR) and is subject to the University's Internal Subject Review programme, see http://www.ncl.ac.uk/internal/academic-quality/qualityhome.htm#2.

15 Regulation of Assessment:

All course work and examination scripts are marked according to the Faculty Postgraduate Marking scheme. The pass marks and equivalent degree classification are as follows:

Postgraduate Class	Mark Band
Distinction	70-100%
Merit	60-69%
MSc. Pass	50-59%
Diploma Pass	40-49%

An aggregate mark of ≤ 50% results in the award of the MSc degree. Students must pass the taught part of the programme (100 credits) at MSc level (≥ 50%) before proceeding to the research project which is part of module MST890 *Research in Coastal Management* (80 credits). Students passing the taught programme at 40-49% may proceed to the Diploma dissertation (MSM799) and are awarded the Diploma if their overall mark exceeds 40%. Students with an average overall mark of 40-49% will be awarded the Diploma.

All assessed work representing >10% of the module is double marked, as are a sample of examination scripts and scripts of students whose module mark is borderline or failing. The external examiner scrutinises all examination scripts, the research project and samples of all major pieces of assessed work. Part of the remit of the external examiner is to comment on the standards of the course in relation to national and international standards for similar degrees.

All major pieces of assessed work are marked according to specified criteria that are published in the Degree Programme Handbook (DPH). The methods, timing, relative weighting and rationale for each piece of assessed work are also described in the module descriptions published in the DPH.

Assessment is overseen by the Board of Examiners, aided by the external examiner. The board makes recommendations on progression and ultimately the award of the degree. The board consists of all those who examine modules plus the external examiner.

16 Indicators of Quality and Standards:

The 1998 QAA report gained an 'excellent' grading (22/24 points) and the MSc in Tropical Coastal Management was praised as having "..an attractive and varied curriculum, and a broad intake of UK and overseas students. It fills a clear need and is seen as a major asset to the Department."

The Natural Environment Research Council (NERC) currently funds 5 full studentships for UK students annually.

The external examiners consistently praise staff for the quality and standards of the degree programme - additional comments include:

".. the programme has gained international recognition" (External Examiner, 2001).

".. an excellent degree with a very strong international reputation" (External Examiner, 2002).

".. very high quality of degree as it appeared to ……. external examiner…students and ….the wider scientific community" (External Examiner, 2003).

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.

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

- The University Prospectus
- The School Prospectus
- The University and Degree Programme Regulations
- The Degree Programme Handbook
- QAA Subject Review Commentary
- The programme web site (http://www.ncl.ac.uk/marine/postgrad/taught-degrees/tropical.htm)

17 Other Sources of Information:

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

The Departmental Prospectus (see http://www.ncl.ac.uk/undergraduate/subjects/xxx)

The University and Degree Programme Regulations (see http://www.ncl.ac.uk/calendar/pdf/uniregs.pdf and http://www.ncl.ac.uk/calendar/sae/)

The Degree Programme Handbook

QAA Subject Review Report