# **PROGRAMME SPECIFICATION**



1	Awarding Institution	Newcastle University
2	Teaching Institution	Newcastle University
3	Final Award	BSc (Hons)
4	Programme Title	Marine Environmental Engineering
5	UCAS/Programme Code	HH23
6	Programme Accreditation	Being sought from IMarEST
7	QAA Subject Benchmark(s)	Environmental Science & Engineering
8	FHEQ Level	н
9	Date written/revised	September 2007

# 10 Programme Aims

To emphasise the multidisciplinary nature of Marine Environmental problems. To combine its contents and structure into a coherent curriculum with the key ingredients of marine systems management, marine environmental technology and marine science.

To enable everyone on the degree programme to develop a thorough knowledge and understanding of Marine Environmental Engineering at a general level and in the specialist areas of; (i) the biology of marine organisms; (ii) the ecology of marine communities and (iii) the physical and chemical processes occurring in the marine environment, together with appropriate practical and key skills.

To enhance engineering knowledge of those wishing to join maritime related industries including design, exploration, monitoring, operation with all aspects of Marine Environmental concerns and Environmental Sustainability.

To provide professionals with the needed breadth of knowledge to work in the marine environmental field, to understand the legal, political and economic context of marine environmental problems. Designing a mitigation system for cleaning up pollution, designing safe, environmentally friendly ships, developing monitoring systems for studying global climate change or measuring ocean pollution.

To provide a Marine Environmental Engineering programme for well motivated people from a diversity of social, geographic and academic backgrounds.

To provide a Marine Environmental Engineering curriculum enhanced by an active research environment that will encourage: thinking in a critical and constructive manner, awareness of new technologies and the skills and aptitudes needed for the development of a wide variety of careers.

To stimulate an informed interest in Marine Environmental Engineering and engender an awareness of the disciplines interaction with society and the environment.

To provide a programme which meets the FHEQ at Honours level and which takes appropriate account of the subject benchmark statements in environmental science and engineering.

# 11 Learning Outcomes

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 the environmental sciences (\*) and engineering disciplines (\$).

# Knowledge and Understanding

On completing the programme students should have gained:

- A1 Knowledge of the Ocean as a system.\*
- A2 Knowledge and understanding of human activities and their interaction with ocean systems.\*
- A3 Knowledge and understanding of activities, patterns, processes, impacts and responses in the ocean system including recognition of the temporal and spatial scales at which they operate.\*
- A4 Knowledge and understanding of the fundamental concepts, principles and theories of Marine Environmental Engineering.
- A5 Knowledge of business and management techniques that are relevant to marine environmental engineering and marine environmental engineers.\$
- A6 Detailed knowledge and understanding of the essential facts, concepts, principles and theories relevant to the student's chosen area of specialisation within Marine Environmental Engineering.\$
- A7 Knowledge of the environmental issues that affect marine activities and the issues associated with sustainable engineering solutions.\$
- A8 Knowledge of the conceptual and detailed design of artefacts appropriate to their area of specialisation.\$
- A9 Knowledge of the production practice including codes of practice, design, the assessment of safety risks, and the legislative framework for safety.\$
- A10 Knowledge of the inter-disciplinary/multi-disciplinary context of marine environmental science and marine environmental engineering.\* \$
- A11 Knowledge and understanding of the terminology, nomenclature and classification approaches drawn from the natural and social sciences, from engineering an developed within the discipline itself.\* \$

# **Teaching and Learning Methods**

#### Teaching strategy

The primary means of imparting knowledge and understanding in all the above is through lectures supplemented, as appropriate, with practical classes, seminars and tutorials, many of which are supported through the University's virtual learning environment, Blackboard. A8-9 are enhanced by the undertaking of the individual and tam projects in the final year requiring a substantial literature review and interpretation of the experimentally generated data and/or design work. Visiting speakers contribute to A5.

#### Learning strategy

Throughout the programme students are encouraged to supplement taught material by selfstudy of reading materials and appropriate information on the internet to which they are directed by staff. In the final year most of the directed reading is of research papers and guidance on their effective use is provided. Short tests are administered in some modules on completion of specific topics to enable students to monitor the progress of their learning. Feedback on essays and laboratory reports allows students to refine their presentation techniques in these areas and assess the level of their knowledge and understanding.

# Assessment Strategy

Assessment of knowledge is by use of unseen written examinations (including essay questions, short answer and problem-solving as appropriate to the module and level of study) and by coursework (including essays, laboratory or case-study reports, in-course tests, research project work and dissertation, oral and poster presentations). The mix of examination and coursework varies as appropriate to the module but most modules include some aspect of formative assessment during the module in addition to the summative assessment.

#### Intellectual Skills

On completing the programme students should be able to:

- B1 Describe and record materials in the field and laboratory and to interpret practical results.\*
- B2 Use appropriate laboratory and field equipment competently and safely.\*
- B3 Plan, conduct and present and independent project with appropriate guidance.\*
- B4 Choose and apply a range of methods to solve problems.\*
- B5 Present research findings in a number of formats, to relate investigations to prior work, to be aware of the latest research developments and to reference appropriately.\*
- B6 Analyse and solve engineering problems. \$
- B7 Design a structure or component to meet a need. \$
- B8 Be creative in the solution of problems and in the development of designs. \$
- B9 Evaluate designs and make improvement, taking a holistic approach to solving problems and designing systems, applying professional judgements to balance risks, costs, benefits, safety, reliability, aesthetics and environmental impact.\$

#### **Teaching and Learning Methods**

#### Teaching Strategy

Practical classes associated with many modules during the first two years progressively develop B1-B9 which is greatly enhanced by the individual research project in the final year (B3). These fundamental skills in B1, B2 and B3 are honed by practice in laboratory classes at Stage 2. the team project also makes a major contribution to B3, B6-B9. From the first year, students are required, after appropriate guidance, to search the literature for information and submit all written work in an appropriate scientific format so that by the final year B5 is thoroughly integrated into all submitted work.

#### Learning Strategy

Students are encouraged to develop appropriate quantitative and practical skills (B1-B9) by monitored attendance at formal classes during the first two years and subsequently through practice and discussion with their supervisor as part of their final year research project. From the first year all written work must be submitted in an appropriate scientific format and feedback on such work enhances learning of the skill outlined in B5.

# Assessment Strategy

B1-B9 are assessed primarily through coursework (laboratory and field class reports, completion of quantitative and statistical calculation sheets, essays) during the first two years. B1 and B4 form a major part of the assessment of the final year research and team projects. Some unseen examination questions, particularly in appropriate Stage 3 modules, require consideration of the practical aspects of the discipline.

# **Cognitive Skills**

On completing the programme students should be able to:

- C1 Critically analyse information and arguments derived from a range of sources.
- C2 Interpret scientific information, both quantitative and qualitative.
- C3 Derive and recognise hypotheses based on existing knowledge; to advance logical arguments, based on new or existing scientific evidence, to support or refuse hypotheses; identify gaps in knowledge and propose means for filling them.
- C4 Produce rational analyses of complex problems, in particular, those involving the application of scientific advances in marine environmental engineering.

# **Teaching and Learning Methods**

## Teaching Strategy

Cognitive skills are developed progressively throughout the programme in modules containing practical classes, case studies, small group discussion tutorials and essays. This is a particular feature of the final year where students undertake critical reviews of recently published papers. In the final year the individual research project and its associated dissertation and the team project require students to display all skills C1-C4 and they are supported by their supervisor while gaining full confidence in their ability to do this.

#### Learning Strategy

In all years students are encouraged to consider information and experimental data in a critical manner and to justify interpretation by logical development of ideas and reference to known facts. Planning, executing and reporting on their final year research project enhances the learning of these skills in a less controlled environment than in previous years.

# **Assessment Strategy**

Cognitive skills are assessed through various forms of coursework (including laboratory reports, case studies and essays), culminating in assessment of the final year research project dissertation. In the final year, student critical appraisal of recently published papers is assessed.

# Transferable/Key Skills

On completing the programme students should be able to:

- D1 Communicate clearly and effectively through written documents and oral presentations in ways that are appropriate to the target audience.
- D2 Effectively use library and other sources of information.
- D3 Effectively use communication and information technology.
- D4 Plan, organise and prioritise work effectively to meet deadlines.
- D5 Work independently and as part of a team.
- D6 Demonstrate problem-solving skills and initiative.
- D7 Research employment opportunities, to prepare and submit effective applications for employment and to gain skills in effective presentations at interview.

## **Teaching and Learning Methods**

#### Teaching Strategy

Some key skills, D1-D3, are formally taught in specific, compulsory skills modules (eg Core skills in Marine Environmental Engineering while the others are integrated into subject-specific compulsory modules as appropriate to meet the aims of those modules e.g. teamworking in the stage 3 Team Project and D4 in the final year project. All students benefit from tutorials and one-to-one sessions with their Tutor and the careers service to develop D7.

#### Learning Strategy

While skills D1-D3 are formally taught, and the students obtain feedback to enhance their learning, as parts of the module, the same skills are applied in many subject-specific modules with students required to find information and give oral or written presentation throughout all years of study. In these cases the student is learning not only subject-specific information but also D1-D3. Deadlines for submission of coursework are strictly enforced encouraging students to develop D4 and this is supported by guidance provided during Induction Week at each Stage of the programme. Students learn D5 and D6 as part of the work associated with their final year research project and as parts of others modules with specific and substantial assignments. In addition most practical classes require students to work in groups of two or more to carry out the experimental work and obtain data which provides an introduction to the more complex team-working skills that are developed subsequently.

#### **Assessment Strategy**

Key skills form all or part of the assessment in Core skills in marine environmental engineering where all assessment is based on submitted coursework. In addition D1-D6 are indirectly assessed through their contribution to coursework (essays, oral and poster presentations, completion of final year research project and dissertation) in other modules. D7 is assessed formatively within the tutorial system.

# 12 Programme Curriculum, Structure and Features

# A Key features of the programme

The unique innovative features of the degree are the combining of marine science and engineering content within a single programme. Other key features include the amount and integration of field studies into the programme, the use of external practitioners and case studies to inform Stage 3 teaching. Students undertake 2 weeks of field courses and 3 other modules include field practical classes.

# B Programme Structure Stage One

Stage One provides an introduction to core subjects in Marine Biology and Marine Engineering supported by a balanced programme of modules designed to provide the background required for the later stages of the degree programme.

Two core modules are defined: *Introduction to Marine Environmental Engineering* (MST 1004) and Core skills in Marine Environmental Engineering (MST 1006). The former considers the issues at the interface of the marine environment and human technological advances. Both the ways technological development have impacted the marine system but also how greater understanding of the marine system is allowing technological solutions to be developed to problems such as 'clean' ships, waste treatment, eco-friendly sea defences and renewable energy form the sea. The latter covers aspects such as Health & Safety issues, provides an introduction to IT, data management and computing. All candidates for the Honours degree in Marine Environmental Engineering must demonstrate a sufficient level of proficiency and knowledge of these subjects.

The core modules are supported by the compulsory modules which form the remainder of the Stage. Given the breadth of the subject area it is important that a good grounding across the spectrum from marine systems function (oceanography and ecology), the diversity of marine life, the principles of vessel design and the needs of offshore industries is achieved. This allows increasing specialization in subsequent stages.

The core modules at stage one introduces the student to key areas of the syllabus and provide an introduction to practical study through the use of field and laboratory classes. Independent field study with appropriate study guides, video and other methods of learning will also be used to provide the candidate with a rich and diverse background to their learning of marine environmental engineering and to ensure that the student has developed the skills needed. The courses provide both an overview and an introduction to the subject and the modules are suitable for those proceeding to other scientific disciplines.

At Stage One students will begin to learn how to supplement the formal taught components of the course with private study and Marine Environmental Engineering candidates will be assigned personal tutors. They will guide them in the process, as well as providing a small group study environment where the student will be encouraged to practice both study and communication skills prior to proceeding to those modules at Stages 2 and 3 where these skills will be formally assessed.

# Stage Two

On completion of Stage One every student, whatever their cultural or academic background, will have achieved an enhanced basis for more advanced study of the subject at Stage Two of the Honours Marine Environmental Engineering programme which builds on the platform created by the first year of study. A number of core subjects are studied at greater depth and new subjects in Marine Environmental Engineering are introduced. The modules include both pure and applied aspects of Marine Environmental Engineering as well as a continuation of basic scientific, engineering and information skill related modules.

The course comprises three threads: a marine environmental engineering thread taken by all candidates, a marine environmental science thread of which each student takes 30 credits, and a marine technology thread of which again a student takes 30 credits.

Special features of the marine environmental thread include modules providing more detailed coverage of marine ecology, oceanography, experimental marine biology and ecophysiology

that lead into advanced modules that can be studied in Stage Three of the degree programme.

The marine technology thread comprises of marine engineering, offshore systems, and production technology modules. These provide a preparation for further studies in the next stage of the programme.

Considerable emphasis is given to the learning of field and laboratory practical techniques. The course therefore includes field study modules, data analysis, statistics and other numerical methods.

There are modules encouraging learning of the theoretical basis of marine environmental engineering for which the student will have to study a variety of sources of information. The candidate will also study modules which will enhance related practical skills. These modular elements are designed to develop the student's skills in information technology, data and information source handling, writing and oral presentation.

# **Stage Three**

Stage Three of the degree programme has been designed to provide both broad coverage of the subject and to provide opportunities for specialisation and study in depth. The whole programme builds on the diverse learning outcomes achieved in the previous two Stages of the degree programme.

Candidates select three, from four, advanced marine environmental engineering modules and thus equip themselves with knowledge and understanding of the key areas of the discipline and current advances in them. These modules are *MST3006 Sustainable Marine Transport, MST3007 Offshore resource recovery, MST3026 Clean marine technology, MST3009 International law of the sea* 

In addition candidates continue to take advanced modules from the marine environmental science and the marine technology areas. These are designed to bring them an understanding of the thresholds of current research in Marine Science & Technology and how that knowledge is of benefit to Society. These will present conceptual ideas and provide the basis for in depth private study and will often involve interaction with professional marine scientists and engineers invited to participate in the programme.

The advanced modules at Stage 3 will continue using a small group approach. At this stage the student will be trained in procedures for study on a research vessel and associated safety measures.

Numerical skills may lead into module components involving mathematical modelling and computer simulation in the analysis of marine environmental problems.

This broad range of advanced course modules forms the background to the student's own independent studies.

A major component of the course that integrates much of the proceeding training is the research project. This takes the form of an independent scientific investigation carried out the supervision of a member of the School and presented as a written dissertation (20 credits) and as the subject of an oral presentation which students give to class and members of the School. The oral component will be assessed but the student will have already gained experience at earlier stages of the degree programme and can expect to have achieved a high level of technical and professional competence by this stage of the degree programme. Students also carry out a team project, this takes the form of either an Environmental Impact Assessment, an Environmental Audit or design project. This provides experience of the type of task a professional practitioner may be called upon to undertake and experience of working in a team to achieve a common goal. Team working skills are assessed.

# Basic structure of the programme

The programme is structured on a semester pattern. You study modules comprising 120 credits in each of Stage I, II and III. Students follow a prescribed set of modules in Stages 1 and 2 and there is some optional choice in Stage 3 to reflect greater degrees of different specialisms in marine environmental engineering design. After successful completion of three G:\Programmes\Programme Specifications\2007-2008\MAST\HH23\_Mar\_Env\_Eng.doc Last saved by nads4 26/10/2007 13:15

years full-time study, students will receive a degree of Bachelor of Science (BSc.).

In addition there are the following exit points:

Certificate of Higher education, following successful completion of Stage I;

• Diploma of Higher education, following successful completion of Stage II ; The duration of all the courses may be extended by one year through enrolment on the Engineering Foundation Year.

A University credit is the equivalent of 10 student study notional hours. Each module is a selfcontained part of the programme of study and carries a credit rating.

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

The School of Marine Science and Technology is a unique School because it is one of the very few, if not the only centre in the world where there is close integration and appreciation of both the engineering aspects of marine technology, with the biological and even social aspects of marine science and coastal management. Already this has resulted in a number of unique research successes which are pooling the skills of staff across these disciplines to address serious marine environmental issues.

This degree programme is the obvious evolution of this success into our teaching programmes at the Undergraduate level. MAST has a unique opportunity to develop training and education in this area as a niche degree in a subject which is of growing international importance and we expect to grow the degree into one which is as successful as our current programmes.

# Programme regulations (link to on-line version)

http://www.ncl.ac.uk/regulations/programme/2007-2008/programme/hh23.php

# 13 Criteria for admission

Admissions policy/selection tools

*Entry qualifications GCSEs required* Science (Biology, Chemistry and Physics), Maths (at least a B) and English Language

A-Level Subjects and Grades

BCC/CCC from 18 units and 6- or 12-unit qualifications and normally including A-level Mathematics at C grade. Biology required at AS level if not offered at A level, Chemistry preferable at AS level but not essential.

Alternative entry qualifications

World-wide qualifications, including International Baccalaureate, 32 points, accepted.

# Scottish qualifications

AABBB at Higher Grade, including Mathematics at Grade 'A' and Biology at B, Physics and or Chemistry also preferred. Combinations of Highers and Advanced Highers accepted.

# Other Qualifications

For candidates offering Access courses, modules in Biological Science and Mathematics are essential (at a high level for courses which are graded).

# Admissions policy

To admit candidates from a wide range of backgrounds and ages, from any country in the world, who are well qualified for the degree course.

# Arrangements for non-standard entrants

Non-standard Entry Requirements

All non-standard applicants are invited for an informal discussion with the Admissions Tutor and Degree Director to ensure that they have the background which will adequately prepare them for the degree course.

# PARTNERS scheme

The Marine Environmental Engineering programme is involved in the Newcastle PARTNERS programme. The PARTNERS Programme is intended to support students who definitely wish to study at Newcastle University.

# The PARTNERS offer requires students to

• successfully complete the Assessed Summer School

• achieve specific grades in their A/As levels/AVCE/National Diploma course

These grades will be slightly lower than the normal offer for the Marine Environmental Engineering degree programme to take account of the extra work they do for the Assessed Summer School. The PARTNERS offer for this degree is CDD.

Additional Requirements

None

Level of English Language capability

Those students whose first language is not English, would be required to demonstrate achievement of IELTS 6.0 or equivalent certificate in English.

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.

# 14 Support for Student Learning

# 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 (see <a href="http://www.ncl.ac.uk/international/coming\_to\_newcastle/orientation.phtml">http://www.ncl.ac.uk/international/coming\_to\_newcastle/orientation.phtml</a>)

# 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.

# Academic support

The initial point of contact for a student is with a lecturer or module leader, or their tutor (see below) for more generic issues. Thereafter the Degree Programme Director or Head of School may be consulted. Issues relating to the programme may be raised at the Staff-Student Committee, and/or at the Board of Studies.

# 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 <a href="http://www.ncl.ac.uk/undergraduate/support/tutor.phtml">http://www.ncl.ac.uk/undergraduate/support/tutor.phtml</a>

In addition the University offers a range of support services, including the Student Advice Centre, the Counselling and Wellbeing team, the Mature Student Support Officer, and a Childcare Support Officer, see <a href="http://www.ncl.ac.uk/undergraduate/support/welfare.phtml">http://www.ncl.ac.uk/undergraduate/support</a> (Student Support Officer, and a Childcare Support Officer, see <a href="http://www.ncl.ac.uk/undergraduate/support/welfare.phtml">http://www.ncl.ac.uk/undergraduate/support</a> (Student Support Officer, and a Childcare Support Officer, see <a href="http://www.ncl.ac.uk/undergraduate/support/welfare.phtml">http://www.ncl.ac.uk/undergraduate/support</a> (Student Support Officer, and a Childcare Support Officer, see <a href="http://www.ncl.ac.uk/undergraduate/support/welfare.phtml">http://www.ncl.ac.uk/undergraduate/support</a> (Student Support Officer, and a Childcare Support Officer, see <a href="http://www.ncl.ac.uk/undergraduate/support/welfare.phtml">http://www.ncl.ac.uk/undergraduate/support</a> (Student Support Officer, and a Childcare Support Officer, see <a href="http://www.ncl.ac.uk/undergraduate/support/welfare.phtml">http://www.ncl.ac.uk/undergraduate/support/welfare.phtml</a> (Student Support Support (Student Support) (Studen

#### Support for students with disabilities

The University's Disability Support Service 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. For further details see <a href="http://www.ncl.ac.uk/disability-support/">http://www.ncl.ac.uk/disability-support/</a>

#### 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, see <a href="http://www.ncl.ac.uk/undergraduate/support/acfacilities.phtml">http://www.ncl.ac.uk/undergraduate/support/acfacilities.phtml</a>

# 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 School Teaching and Learning Committee and at the Board of Studies. Student opinion is sought at the Staff-Student Committee and/or the Board of Studies. New modules and major changes to existing modules are subject to approval by the Faculty Teaching and Learning Committee.

#### Programme reviews

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

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

#### Accreditation reports

This programme will be accredited by the Institute of Marine Engineering, Science and Technology along side other programmes in the School with which it shares provision.

# Student evaluations

All modules, and the degree programme, are subject to review by student questionnaires. Informal student evaluation is also obtained at the Staff-Student Committee, and the Board of Studies. The National Student Survey is sent out every year to final-year undergraduate students, and consists of a set of questions seeking the students' views on the quality of the learning and teaching in their HEIs. Further information is at <u>www.thestudentsurvey.com/</u> With reference to the outcomes of the NSS and institutional student satisfaction surveys actions are taken at all appropriate levels by the institution.

Mechanisms for gaining student feedback

Feedback is channelled via the Staff-Student Committee and the Board of Studies.

Faculty and University Review Mechanisms

The programme is subject to the University's Internal Subject Review process, see <a href="http://www.ncl.ac.uk/aqss/gsh/internal\_subject\_review/index.php">http://www.ncl.ac.uk/aqss/gsh/internal\_subject\_review/index.php</a>

Additional mechanisms

# 16 Regulation of assessment

Pass mark

The pass mark is 40 (Undergraduate programmes)

Course requirements

Progression is subject to the University's Undergraduate Progress Regulations (<u>http://www.ncl.ac.uk/calendar/university.regs/ugcont.pdf</u>) and Undergraduate Examination Conventions (<u>http://www.ncl.ac.uk/calendar/university.regs/ugexamconv.pdf</u>). In summary, students must pass, or be deemed to have passed, 120 credits at each Stage. Limited compensation up to 40 credits and down to a mark of 35 is possible at each Stage and there are resit opportunities, with certain restrictions.

## Weighting of stages

The marks from Stages 2 and 3 will contribute to the final classification of the degree

The weighting of marks contributing to the degree for Stages 2 is 25%

Common Marking Scheme

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

	Honours	Non-honours
<40	Fail	Failing
40-49	Third Class	Basic
50-59	Second Class, Second Division	Good
60-69	Second Class, First Division	Very Good
70+	First Class	Excellent

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 (see <u>http://www.ncl.ac.uk/undergraduate/</u>or http://www.ncl.ac.uk/postgraduate/

The School Brochure (contact <a href="mailto:enquiries@ncl.ac.uk">enquiries@ncl.ac.uk</a>)

The University Regulations (see http://www.ncl.ac.uk/calendar/university.regs/)

The Degree Programme Handbook

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 Outcome	Module codes (Comp/Core in Bold)	
A1	MST1002, MST2006, MST2004	
A2	MST1001, MST1004, MST2004, MST2003, MST2009	
A3	MST1002, MST1004,	
A4	MAR1001, MAR1009, MST1004, MAR2012, MST3097, MST3098, SFY0001, ENG1001	
A5	MST3006, MST3007, MAR3026, MST3009, MAR3022	
A6	MST3001, MST3002,MST3003, MAR3001, MAR3003, MAR3012, MAR3025, SFY0001, ENG1001	
A7	MST1004, MAR2012, MST2004, MST2002, MST2009, MST2003, MST2004, MAR2013, MAR2012, ENG2008	
A8	MAR1001, MAR1009, MAR2013, MAR2002,	
A9	<b>MST1006, MAR2012, MST2004</b> , MST3009, SFY0001, ENG1001	
A10	MST1004, MAR2012, MST3098,	
A11	MST1001, MST1002, MST1004, MAR1001, MAR1009, and all stage 2 and stage 3 modules.	
B1	MST1005, MST1004, MST1006, MST1002, MAR2012, MST3097, MST3098	
B2	MST1006, MAR2012,	
ВЗ	MAR2012,MST3097, MST3098	
В4	ENG2008, MAR2012, MST3097	
В5	MST1006, MST1004, MAR2012, MST3097, MST3098	
В6	MAR1001, MAR2012, MST2004, ENG2008, MAR2013, MAR2002, MST3098, SFY0001, ENG1001	
В7	MAR1001, MAR1009, ENG2008, MAR2013, MAR2002, MST3098	
B8	MAR1001, MAR1009, ENG2008, MAR2013, MAR2002, MST3098, MST3097	

В9	MAR1001, MAR1009, ENG2008, MAR2013, MAR2002, MST3098
C1	MST1006, MST1004, MAR2012, MST2004, MST3001, MST3002, MST3003
C2	MST1002, ENG2008, MAR2012, MST3097, MST3098
С3	MST106, MAR2012, MST3001, MST3002, MST3003
C4	MST1004, MAR2012, MST2004, ENG2008, ST3097, MST3098
D1	MST1006, MAR2012, MST3097, MST3098
D2	MST1006, and all stage 2 and 3 modules
D3	MST1001, MST1002, MST1006, MST1004, MST1005, MAR1001, MAR1009, MAR2012, MST3097, MST3098
D4	ALL
D5	MAR2012, MST3097, MST3098
D6	MAR2012, MST3097, MST3098
D7	Tutorials and through provision provided by the University Careers Service under a Service Level Agreement.