


<b>PROGRAMME SPECIFICATION</b>	 <b>Newcastle University</b>
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<b>1 Awarding Institution</b>	Newcastle University University of Southampton Heriot Watt University University of Glasgow
<b>2 Teaching Institution</b>	As above University College London University of Strathclyde Rolls Royce plc
<b>3 Final Award</b>	Master of Science Postgraduate Diploma Postgraduate Certificate
<b>4 Programme Title</b>	Marine Technology (Naval Architecture/ Marine Engineering/Offshore Engineering/ Small Craft Design/Classification and Survey/ Conversion and Repair/Defence/General)
<b>5 UCAS/Programme Code</b>	Diplomas 3347-3353/3394; MScs 5081-5087/ 5116
<b>6 Programme Accreditation</b>	Royal Institution of Naval Architects Institute of Marine Engineering, Science and Technology Institution of Mechanical Engineers
<b>7 QAA Subject Benchmark(s)</b>	n/a
<b>8 FHEQ Level</b>	Masters
<b>9 Date written/revised</b>	February 2007

<b>10 Programme Aims</b>	The aim of this programme is to provide the marine industry within the UK with graduates who have the necessary skills and training in advanced technologies, management, business and IT. With this training, they will be able to provide the necessary leadership and vision to maintain and enhance the industry's knowledge base and improve competitiveness. The programme will provide students with advanced technical and managerial techniques that can be applied in the marine industry and enable them to take on major responsibility early in their careers.
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<b>11 Learning Outcomes</b>	The programme provides opportunities for students to develop and demonstrate knowledge and understanding, qualities, skills and other attributes in the following areas.
	<b>Knowledge and Understanding</b>
	On completing the programme students should be able to demonstrate an understanding of: A1 advanced technology within the chosen technology stream A2 business applications of advanced marine technologies A3 concepts of non technical issues including economics, environmental issues, safety and legislation
	<b>Teaching and Learning Methods</b>
	Knowledge and understanding are generally taught via formal lectures and distance learning material, supplemented by seminars and tutorials. Students are encouraged to develop their knowledge and understanding by independent reading for which they are given guidance in the distance learning material. The use of design exercises during the intensive school, and work based assessments and application after the intensive school, also enable the student to learn. Knowledge and understanding are also achieved via a significant multi disciplinary

industrial project which must include A1-A3.
<b>Assessment Strategy</b>
Knowledge and understanding are assessed via unseen written examinations, course assignments and the industrial project. For A1 and A2 this is supplemented by performance in design exercises where appropriate.
<b>Intellectual Skills</b>
On completing the programme students should be able to demonstrate an awareness of: B1 the collation, analysis and evaluation of data B2 problem formulation B3 problem solving B4 decision making
<b>Teaching and Learning Methods</b>
These skills are taught primarily through design classes, case studies and seminars. Development of these skills is particularly linked to industrial and work based applications such as group and individual design exercises, postschool assignments, and the industrial project.
<b>Assessment Strategy</b>
Intellectual skills are assessed via the industrial project and any assessed design exercises. Skill B1 is also assessed by the course assignments.
<b>Practical Skills</b>
On completing the programme students should be able to demonstrate: C1 an awareness of theoretical design concepts and practical implementation C2 IT skills C3 project planning C4 project and resource management
<b>Teaching and Learning Methods</b>
Practical skills are highly relevant in this programme. Lectures and design classes are a key element to teaching subject specific skills. In addition, distance learning material is used to develop project planning and project and resource management skills (C3 and C4). Students are encouraged to learn by application both during the modules and in a work based environment. Design exercises during the modules and work based applications as part of the postschool study are the key methods for enabling the students to obtain and improve these important skills. In particular, design exercises require the student to apply theoretical work in a practical way, use a variety of software and organise and manage the design process. In addition, skill C2 is supplemented by the delivery system for the distance learning material which is a web based system (Blackboard).
<b>Assessment Strategy</b>
These skills are essentially assessed via design exercises, where appropriate, the industrial project and course assignments. Theoretical design concepts and practical implementation are also assessed via the unseen written examination.
<b>Transferable/Key Skills</b>
On completing the programme students should be able to demonstrate: D1 communication skills D2 time management D3 team working D4 ability to work alone

### **Teaching and Learning Methods**

The key transferable skills are demonstrated in seminars and through the study skills information in the student handbook. This information is particularly important for the distance learning element of the programme. Expertise in these skills is developed by module and project presentations (D1), preparation of the project dissertation (D1), the industrial based group project (D1, D2, D3, D4) and work based assignments (D1, D2, D4). The actual completion of the programme, including the distance learning packs, will, in itself, significantly develop key skills (D2, D4). The student must combine this study with commitments at work and at home.

### **Assessment Strategy**

Communication skills (D1) are the most assessed key skills. Assessment includes design exercises, course assignments and the industrial project – dissertation and oral interview. Teamworking (D3) is also assessed by the project and design exercises. The other skills are not formally assessed in the programme.

## **12 Programme Curriculum, Structure and Features**

### **Basic structure of the programme**

The programme is delivered as a part time modular programme with a maximum duration of five years (minimum two years). MSc students complete ten 10-credit modules and an 80-credit research project. PG Diploma students complete eight 10-credit modules and a 40-credit research project. PG Certificate students complete six 10-credit modules.

Overall credit arrangements:

MSc 180 credits

PG Diploma 120 credits

PG Certificate 60 credits

There are no fixed stages for the programme. The programme is designed for students working full time in industry and therefore needs to be as flexible as possible. Students will be able to choose which modules to complete each year.

All modules must be passed by the student. One resit opportunity is permitted. Students can continue to take modules whilst awaiting a resit opportunity.

Core and foundation modules should be completed by the student early on in the programme.

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

The programme has a number of innovative features, in particular:

Designed for graduates and engineers working full time.

Designed to be highly relevant to industry's needs.

Collaborative programme involving six UK universities.

Modules delivered via a combination of distance learning material and intensive schools.

Distance learning material available via a web based IT system.

MSc and PG Diploma projects wholly industrially based.

Foundation modules available for non-marine graduates.

### **Programme regulations (link to on-line version)**

<http://www.ncl.ac.uk/regulations/programme/2007-2008/programme/486.php>

<http://www.ncl.ac.uk/regulations/programme/2007-2008/programme/355.php>

### **13 Criteria for admission**

#### *Entry qualifications*

BEng Honours in marine technology subject or relevant subject (e.g. civil, mechanical or environmental engineering). Class 2.2 or above.

#### *Admissions policy/selection tools*

All applicants will be considered on the basis of their academic qualifications and their relevant technical and industrial experience. All admissions will be undertaken in accordance with the equal opportunities policy set out in the degree programme handbook.

#### *Non-standard Entry Requirements*

Applicants with non standard entry qualifications will be considered on a case by case basis. Key criteria will be academic qualifications (equivalent to 2.2 Honours degree), technical experience, level of responsibility and leadership.

Applicants who do not meet the standard entry requirement will be asked to submit a CV detailing academic qualifications and industrial experience. This will be reviewed by the Programme Director on a case by case basis. Those not meeting standard entry levels may be advised on how the appropriate standard can be achieved. The candidate will be informed of the outcome in writing.

#### *Additional Requirements*

#### *Level of English Language capability*

An applicant whose first language is not English will be required to satisfy the Programme Director of an ability to understand and communicate, in both written and spoken English, which is adequate for the purpose of pursuing the course of study. Either before or after the application for admission to the programme, the Programme Director may require the applicant to attend a programme of instruction and reach a satisfactory standard in the English language. The minimum English language proficiency requirement is IELTS 6.5 (or equivalent).

### **14 Support for Student Learning**

#### *Induction*

Induction will be primarily via the degree programme handbook and the Blackboard system. A full time programme coordinator is employed for this programme and can be contacted by telephone, fax or email.

#### *Study skills support*

Study skills support will be offered via the degree programme handbook. The Blackboard system will provide study skills information and support via the forum board system. Remote support will be available from the programme coordinator and the academic staff including module leaders and industrial lecturers. This support will be generally via email.

#### *Academic support*

The degree programme handbook gives contact details of each module leader. Further academic support can be obtained during the intensive week school when the students have the opportunity to meet the academic staff involved. The forum boards on the Blackboard system also offer academic and peer support to the student.

#### *Pastoral support*

Pastoral support will be available via the programme coordinator, Directors of Study at the collaborating universities and the Programme Director. Counselling and other support mechanisms are available at all of the collaborating universities.

*Support for students with disabilities*

Support for special needs will be offered by the Disability Unit (and equivalent at each collaborating university). Counselling services at each university will also be available to help students in need of counselling support.

*Learning resources*

The following learning resources will be made available to each student:

Use of all facilities (including library and computing service) at university of registration.  
Use of facilities (including library) at university of delivery for the week long intensive school.  
Web based Blackboard system.  
Distance learning material.

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

*Module reviews*

Modules will be reviewed by the module leader either on an annual basis or after each module delivery (whichever is the longer period) following evaluation of student feedback. The review process will be monitored by the programme's Board of Studies.

*Programme reviews*

Programme reviews will be undertaken by the Board of Studies and will consider feedback from students, industry, module leaders and the Board of Management.

*External Examiner reports*

External Examiner reports will be supplied to the Board of Studies and to each collaborating university. Each university will review the report in accordance with their own procedure. The Board of Studies will also review the report and any action identified as a result of this review will be documented and actioned.

*Accreditation reports*

Accreditation reports will be reviewed by the Board of Studies and any action identified as a result of the review will be documented and actioned.

*Student evaluations*

Student evaluation will be sought after each module, after the completion of the industrial project, and as a general "programme review" on a regular basis. Student evaluations will be considered at the next Board of Studies meeting.

*Mechanisms for gaining student feedback*

Student representation will be welcomed at the Board of Studies. This will ensure feedback to the students about their comments and suggestions. Supporting organisations will also be asked to provide feedback on the project and the programme as a whole.

*Faculty and University Review Mechanisms*

The programme is subject to the University's Internal Subject Review process, see [http://www.ncl.ac.uk/aqss/qsh/internal\\_subject\\_review/index.php](http://www.ncl.ac.uk/aqss/qsh/internal_subject_review/index.php)

## 16 Regulation of assessment

### *Pass mark*

Pass mark for each module is 50%.  
Pass mark for project dissertation is 50%.

### *Course requirements*

A student must pass all the modules and the project in order to be eligible for a postgraduate award. One resit of each module is permitted and students can continue to take modules whilst waiting for the opportunity to resit. Students will be offered the opportunity to resubmit their dissertation on one occasion. This must be done within a 12 month period.

### *Weighting of stages*

n/a

### *Common Marking Scheme*

MSc with Distinction is available and the student must achieve 70% or above in the dissertation and an overall average mark of 70% or above.

### *Role of the External Examiner*

External Examiners are appointed in accordance with each institution's own procedures. There are two External Examiners for the programme.

The External Examiner is expected to:

- Approve examination questions
- Attend meetings of the Board of Examiners.
- Review distance learning material where appropriate.
- Report to the University on the standards of the programme

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

The University Prospectus (see <http://www.ncl.ac.uk/undergraduate/>)

The School Brochure (contact [enquiries@ncl.ac.uk](mailto:enquiries@ncl.ac.uk))

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.

## Mapping of Intended Learning Outcomes onto Curriculum/Modules

Module	Type	Intended Learning Outcomes			
		A	B	C	D
A1 MAR8122	Foundation	1, 2	1, 2, 3, 4	1, 2, 3, 4	1, 2, 4
A2 MAR8106	Foundation	1, 2	1, 2, 3, 4	1, 2, 3, 4	1, 2, 4
B1 MAR8131	Core	3	1, 2, 3, 4	2, 3, 4	1, 2, 4
B2 MAR8102	Core	3	1, 2, 3, 4	2, 3, 4	1, 2, 4
B3 MAR8107	Core	3	1, 2, 3, 4	2, 3, 4	1, 2, 4
B4 MAR8108	Core	1, 2	1, 2, 3, 4	1, 2, 3, 4	1, 2, 4
C1 MAR8109	Optional	3	1, 2, 3, 4	2, 3, 4	1, 2, 4
C2 MAR8104	Optional	1, 2, 3	1, 2, 3, 4	1, 2, 3, 4	1, 2, 4
C3 MAR8110	Optional	1, 2, 3	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4
C4 MAR8111	Optional	1, 2, 3	1, 2, 3, 4	1, 2, 3, 4	1, 2, 4
C5 MAR8101	Optional	1, 2, 3	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4
C6 MAR8103	Optional	1, 2, 3	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4
C7 MAR8112	Optional	1, 2, 3	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4
C8 MAR8113	Optional	1, 2, 3	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4
C9 MAR8114	Optional	1, 2, 3	1, 2, 3, 4	1, 2, 3, 4	1, 2, 4
C10 MAR8115	Optional	1, 2, 3	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4
C11 MAR8116	Optional	1, 2, 3	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4
C12 MAR8117	Optional	1, 2, 3	1, 2, 3, 4	1, 2, 3, 4	1, 2, 4
C13 MAR8118	Optional	1, 2, 3	1, 2, 3, 4	1, 2, 3, 4	1, 2, 4
C14 MAR8119	Optional	1, 2, 3	1, 2, 3, 4	1, 2, 3, 4	1, 2, 4
C15 MAR8105	Optional	1, 2, 3	1, 2, 3, 4	1, 2, 3, 4	1, 2, 4
C16 MAR8120	Optional	1, 2, 3	1, 2, 3, 4	1, 2, 3, 4	1, 2, 4
C17 MAR8121	Optional	1, 2, 3	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4
MAR8195	Compulsory	1, 2, 3	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4
MAR8196	Compulsory	1, 2, 3	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4