PROGRAMME SPECIFICATION	

1	**Awarding Institution**	Newcastle University
2	**Teaching Institution**	Newcastle University
3	**Final Award**	MSc, Postgraduate Diploma
4	**Programme Title**	Petroleum Geochemistry
5	**Programme Code**	5034 (MSc), 3324 (PgD)
6	**Programme Accreditation**	Joint Board of Moderators
7	**QAA Subject Benchmark(s)**	
8	**FHEQ Level**	M level
9	**Date written/revised**	Revised 6th August 2007

10 Programme Aims

1 To provide the theoretical and practical training necessary to equip Earth science or chemistry graduates with the advanced knowledge and skills appropriate for successful careers in the petroleum, environment and related service industries.

2 To provide the training necessary to allow the conversion of skilled Earth science and chemistry graduates into petroleum geochemists capable of further academic research.

3 To allow disciplinary migration into the field of organic geochemistry, an important subject which is not given detailed coverage at undergraduate level.

4 To ensure that the key skills of our students develop in parallel with their academic and technical abilities. These key skills include the ability to communicate effectively, the ability to employ IT and library resources appropriately, the ability to prioritise work and to meet deadlines, the ability to work alone and with others, and the ability to use initiative and to solve problems.

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:

Knowledge and Understanding

On completing the programme students should:

A1 An advanced knowledge and understanding of the origin of petroleum source rocks and of the processes of oil and gas generation in sedimentary basins

A2 An advanced knowledge and understanding of the processes influencing petroleum migration and trapping

A3 An advanced knowledge and understanding of the geochemistry of petroleum reservoirs

A4 An advanced knowledge and understanding of the geochemistry of molecular marker compounds in sediments and crude oils - their uses and limitations

A5 An awareness of the role played by the petroleum geochemist in the oil and gas industries, especially in petroleum systems analysis and appraisals of hydrocarbon prospectivity

A6 An understanding of the principles, applications and limitations of the main analytical techniques used in petroleum geochemistry, and an advanced understanding of some of these techniques

A7 An understanding of the theory and practice of microscopy in the study of sedimentary organic matter, and an awareness its value and limitations compared to organic geochemical approaches

Teaching and Learning Methods

Specialist knowledge and understanding (A1–A7) are primarily imparted via lecture classes, often supported by computer-hosted reference materials. Knowledge and understanding in each of these areas are further promoted by workshops covering problem solving and modelling (A1–A6), field trips (including a residential field course in the Wessex Basin; A1–A7), practical classes (A6–A7), and case studies (e.g. Wessex Basin; A1–A7).

A key philosophy is to provide core knowledge and understanding through formal teaching in the initial taught modules (GSC8009 Sedimentary Organic Matter, GSC8010 Maturation and the Generation of Oil and Gas, GSC8001 Molecular Marker Compounds, GSC8011 Migration and Reservoir Geochemistry, GSC8012 Petroleum and the Environment and GSC8013 Chemical Analysis of Organic Matter). The three final taught modules GSC8014 and GSC8015 (Petroleum Geochemistry of the Wessex Basin 1 and 2), and GSC8016 (Petroleum Systems Analysis) employ a different balance, with much reduced formal teaching and much greater emphasis on developing students own study and team-working skills through case-study exercises.

Throughout the taught component of the course, students are encouraged and expected to engage in independent reading, and are supported in this by the provision of individual module reading lists. Short multiple choice tests at the end of each module ("ten minute tests") enable students to monitor the progress of their learning. Active participation in problem solving and modelling workshops (A1–A6; e.g. GSC8009, GSC8010, GSC8001, GSC8011, and GSC8016), field course exercises and discussions (A1–A7; GSC8009 and GSC8014), practical classes (A6–A7; GSC8009 and GSC8013), and reflection on case studies (A1–A7; GSC8014, GSC8015, GSC8016) all aid the development of understanding.

Assessment Strategy

Knowledge and understanding (A1–A7) are assessed by a combination of 7 unseen written module examination papers and 12 coursework exercises. Both employ a range of approaches in order to assess accurately student abilities. Written papers include variously essay, calculation, data interpretation and multi-part questions; assessed coursework comprises a laboratory report, essays, data interpretation exercises, field-based course work and the production of PowerPoint presentations. Some, or all, of A1–A7 (depending on topic) are also examined by the means of a dissertation and short oral dissertation presentation and possibly (at the discretion of an External Examiner) by viva voce examination.

Intellectual Skills

On completing the programme students should be able to:

B1 Critically assess the quality of data generated by analytical geochemical techniques

B2 Present and summarise such data in graphical and tabular form, and critically appraise its significance, using appropriate statistical techniques where applicable

B3 Critically assess the value and limitations of existing information on a given subject

B4 Formulate or recognise key hypotheses, to test hypotheses using logical and consistent quantitative or qualitative arguments, and to identify key data which allow such tests to be made

B5 Critically assess the value and limitations of new data in relation existing information on a given subject, to draw logical conclusions, and to identify appropriate avenues for further study

B6 Solve relevant logical and numerical problems

Teaching and Learning Methods

Skills B1 and B2 are developed in GSC8009 (Sedimentary Organic Matter), GSC8013 (Chemical Analysis of Organic Matter) and GSC8001 (Molecular Marker Compounds). Intellectual skills B3–B6 are addressed in the many problem solving and modelling workshops throughout the course (e.g. GSC8010 (Maturation and the Generation of Oil and Gas), GSC8011 (Migration and Reservoir Geochemistry), GSC8012 (Petroleum and the Environment), GSC8014 and GSC8015 (Petroleum Geochemistry of the Wessex Basin 1 and 2) GSC8016 (Petroleum Systems Analysis); the exercises during GSC8014 and GSC8015 (Petroleum Geochemistry of the Wessex Basin 1 and 2) involve students collating, interpreting and integrating (often conflicting) data and observations, and thus further develop these skills. Attendance at School and external (e.g. University of Durham CeREES)

seminars in Semester 2 provides an additional opportunity to acquire skills B3–B5, and all intellectual skills (B1–B6) are exercised significantly during the course of the individual project (GSC8099 or GSC8098 Dissertation).

Following their initial introduction in lecture classes, students are encouraged to acquire intellectual skills B1 and B2 in the laboratory practical classes and workshops of modules GSC8009, GSC8013, and GSC8001, by the analysis, interpretation and presentation of data, some of which they have generated themselves. Active participation in the problem solving workshops of succeeding modules (e.g. GSC8010, GSC8011, GSC8012, GSC8014, GSC8015, and GSC8016) promotes the development of skills B3–B6. Students are also expected to acquire cognitive skills by simulating aspects of petroleum systems using simple computer models (B3–B5; GSC8010, GSC8015, GS8016), by participation in, and reflection on, the field course exercises (B1–B6; GSC8014), and by discussion of scientific presentations following School seminars (B3–B5). The interpretative and discursive aspects of the GSC8099 or GSC8098 dissertation project encourage the further development of cognitive skills B1–B6, but at a more advanced academic level.

Assessment Strategy

Intellectual skills (B1–B6) are assessed by means of coursework (a laboratory report, essays, data interpretation exercises, field-based course work and the production of PowerPoint presentations), and unseen written examinations. Some, or all, of B1–B6 (depending on topic) are also examined by means of a dissertation (GSC8099 or GSC8098) and short dissertation presentation (GSC8099 only), and possibly (at the discretion of the External Examiner) by viva voce examination.

Practical Skills

On completing the programme students should be able to:

C1 Understand the principles, applications and limitations of the main analytical techniques used in petroleum geochemistry (with an advanced understanding of some of these techniques)

C2 Have acquired practical experience of a range of modern organic geochemical techniques, and advanced experience of some of these techniques

C3 Be able to critically assess the quality of the analytical data generated by these techniques

C4 Be able to present and summarise such data in graphical and tabular form, and to critically appraise their significance, using appropriate statistical techniques

Teaching and Learning Methods

Understanding (C1, C2) and experience or demonstration of the main organic geochemical and optical techniques used in petroleum geochemistry are primarily provided by the lectures and practical classes, respectively, of GSC8013 (Chemical Analysis of Organic Matter) plus GSC8001 (Molecular Marker Compounds), and GSC8009 (Sedimentary Organic Matter). Interpretation of the significance of the data generated, and its quality and presentation (C3, C4) are also taught in these laboratory and lecture classes. Problem-solving exercises during the residential field course of GSC8014 (Petroleum Geochemistry of the Wessex Basin 1), and in GSC8015 (Petroleum Geochemistry of the Wessex Basin 2) and GSC8016 (Petroleum Systems Analysis) help students acquire the ability to integrate diverse geochemical and geological data sets.

CIV8001 (Research Methods) further addresses C3 and C4, whilst more advanced training in some, or all, of skills C1–C4, is provided on an individual basis during the summer project (GSC8099 (MSc) or GSC8098 (PgD) Dissertation Project) during which students commonly work within one of the existing CEG geochemistry research groups.

Students are encouraged to acquire practical skills C1–C2 through hands-on participation in the organic geochemical and optical practical classes (GSC8013, GSC8009), and by active participation in data interpretation workshops (C3–C4, e.g. in GSC8009, GSC8016). Completion of exercises during the residential field course of GSC8014, and in GSC8015 and GSC8016, provides a further opportunity for students to acquire an appreciation of the significance and quality of geochemical data (C3–C4). Learning is reinforced, and further

developed, as students apply their new skills to the analysis of sedimentary organic matter, and to the appraisal and presentation of the resulting data, in their dissertation projects (some or all of C1–C4; GSC8099, GSC8098).

Assessment Strategy

Subject-specific and practical skills (C1–C4) are assessed by means of 12 coursework reports and by 7 unseen written examinations. Some, or all, of C1–C4 (depending on topic) are also examined by means of a dissertation and short dissertation presentation and possibly (at the discretion of an External Examiner) by viva voce examination.

Transferable/Key Skills

On completing the programme students should be able to:

D1 Communicate by means of well prepared, clear and confident presentations and concise and grammatical written documents
D2 To use library and other information sources skilfully and appropriately and to be able to cite them appropriately
D3 To use IT resources skilfully and appropriately
D4 To plan, organise and prioritise work activities in order to meet deadlines
D5 To work independently, with initiative, and also in teams
D6 To solve problems

Teaching and Learning Methods

Key skills D1–D4 are taught formally in CIV8001 (Research Methods). Management of workload in order to meet deadlines (D4) is also promoted by means of a strict coursework timetable, whilst team working skills (D5) are developed by group exercises (some of which are field-based) in GSC8014, GSC8015 (Petroleum Geochemistry of the Wessex Basin 1 and 2) and GSC8016 (Petroleum Systems Analysis). These also provide opportunities for students to improve their problem solving abilities (D6), and to extend their communication, library, IT, and time management skills (D1–D4). The summer GSC8099 or GSC8098 dissertation project provides students with further opportunities to develop all of these skills (D1–D6).

Students are encouraged to acquire key skills D1–D4 through reflection on the material provided in CIV8001. Participation in the team components of GSC8014 and GSC8015 allows students to improve their team working skills (D5), whilst developing solutions to problems arising during field (GSC8014) and desk-based exercises (GSC8015, GSC8016) assists in the advancement of students' problem-solving abilities (D6).

Within GSC8014 and GSC8015 the students improve their communication, library, IT, and time management skills (D1–D4) by researching the geology and source rock geochemistry of the Wessex Basin (D2, D3), communicating their information to their colleagues (D1, D3), manipulating the data generated (D3), and reporting their findings in a timely fashion; D1, D4). The dissertation project (GSC8099 or GSC8098) and CIV8001 project brief provide similar opportunities for skill development through the construction of a research plan for the dissertation (D4, CIV8001 project brief), during the literature searching and data handling components (D2, D3), and as the field and laboratory work is performed (D5, D6).

Assessment Strategy

Key skills (D1–D4) are assessed via written examinations, the production of a research brief (CIV8001), and the preparation and delivery of a short presentation on their dissertation work (GSC8099 only). Communication (D1), library (D2) and IT (D3) skills, and the ability to meet deadlines (D4) work independently (D5) and solve problems (D6) are indirectly assessed by other coursework items (a laboratory report, essays, data interpretation exercises, field-based course work and the production of PowerPoint presentations), and all key skills (D1-D6) are examined by means of a dissertation (GSC8099 or GSC8098) and short dissertation presentation (GSC8099 only), and possibly (at the discretion of an External Examiner) by viva voce examination.

12 Programme Curriculum, Structure and Features

Basic structure of the programme

(a) When taken full-time the MSc is a one-year programme (late September to early September). The Postgraduate Diploma (PgD) is a shorter programme running from late September to late May.
(b) Stages are not applicable; a formal progression separates the MSc taught course and the dissertation project (GSC8099).
(c) The MSc comprises 180 credits: ten 100-credit taught modules running from late September until Easter, and an 80-credit individual dissertation project (GSC8099) leading to submission of a dissertation in mid-August. The PgD is a shorter 120 credit course comprising eight 10-credit taught modules and a 40-credit dissertation project (GSC8098) which is submitted in late May. The first 8 taught modules (80 credits) of both courses are identical.
(d) There are no optional modules. This is because the MSc and PgD course have to impart a lot of new knowledge that is not covered in any undergraduate qualification, and our students have a variety of backgrounds (although usually either geologists or chemists). Everything that is taught is considered to be essential to a rounded understanding of the subject. The level of student numbers also means that options would be an ineffective use of staff time. Individual specialisation is possible within the dissertation module (GSC8099 or GSC8098).

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

The taught component of the MSc course consists of ten 10-credit compulsory modules: one Research Methods module (CIV8001) and nine modules that address the subject-specific aspects of the programme: GSC8009 (Sedimentary Organic Matter), GSC8010 (Maturation and the Generation of Oil and Gas), GSC8001 (Molecular Marker Compounds), GSC8011 (Migration and Reservoir Geochemistry), GSC8012 (Petroleum and the Environment), GSC8013 (Chemical Analysis of Organic Matter), GSC8014 and GSC8015 (Petroleum Geochemistry of the Wessex Basin 1and 2) and GSC8016 (Petroleum Systems Analysis). Each 10-credit module equates to 100 hours of learning time. A characteristic feature is that all but one of the technical modules are taught in short (generally two-week) blocks. These occupy students full-time until the module has been completed, and students then progress to the next module. This structure enhances student learning by allowing later units to build on the concepts, knowledge and skills acquired in earlier modules. There is a formal progression step requiring that the taught course is passed before MSc students are allowed to proceed to the GSC8099 Dissertation Project (4 months, 800 hours).

(a) There are no formal industrial placements or overseas study periods; however, some dissertation work may be partly or wholly done at another academic or industrial institution provided appropriate supervisory and support arrangements are possible. Apart from the one week Wessex Basin trip (GSC8014) any additional fieldwork usually only involves short sampling trips (e.g. day trips to local UK outcrop areas).

(b) As all modules are compulsory there are no alternate pathways through the MSc course. For those who enrol part time (residential), the taught course modules can be taken in appropriate blocks of time spread over up to three years in combinations that ensure any prerequisite knowledge required for each module has been gained.

(c) Accreditation
Joint Board of Moderators http://www.jbm.org.uk/ for intakes up to 2011.

Geological Society of London accreditation to be applied for in 2007.
http://www.geolsoc.org.uk/gsl/null/lang/en/page728.html.

(d) This is the only dedicated Petroleum Geochemistry MSc course available in the UK or elsewhere.

Teaching styles change through the course in order to help students adjust and adapt to the self-management and independent learning expected outside academia. The initial taught course modules impart knowledge and information through formally taught lectures and practical classes; however, in Semester 2, modules GSC8014, GSC8015, and GSC8016 introduce a case-study teaching style, with students being required to take a more active role

in their own learning, but with a greater element of teamwork. This is designed to assist them in their transition to independent (but directed) learning during the dissertation project (GSC8099 or GSC8098).

The GSC8099 MSc dissertation projects are often laboratory based but may also involve desk or literature studies, or modelling work. Students are provided with a wide range of potential projects and asked to express their preferences; we then allocate projects based on these preferences and staff supervisory loads. The shorter GSC8098 PgD dissertation project involves less practical work and this places greater emphasis on literature work and data interpretation. During the project, MSc students are usually based in the School, often working alongside PhD students and post-doctoral research associates in one of our established research groups.

Programme regulations (link to on-line version)

MSc: http://www.ncl.ac.uk/regulations/programme/2007-2008/programme/5034.php
Diploma: http://www.ncl.ac.uk/regulations/programme/2007-2008/programme/3324.php

13 Criteria for admission

Entry qualifications

A 2nd class degree from a UK University, or its overseas equivalent, is the minimum qualification for entry for both the MSc and PgD course (as both are M level and most of the taught modules are in common). Preferred first degree subjects are chemistry and Earth science subjects. Other *relevant* science or engineering degrees may also be acceptable. Chemistry at A level, or evidence of having studied (geo) chemistry during the first degree, is preferred.

Admissions policy/selection tools

Upon receipt of a completed application form via the electronic E2R system, eligible and suitably qualified candidates are made automatic conditional or unconditional offers of places by the Graduate School. Overseas qualifications are assessed by the Graduate School using NARIC http://www.naric.org.uk/ and the 2006 Nigerian NUC university and course accreditation ratings http://www.nucnigeria.info/accre.htm. Where uncertainty exists applications are referred to the Degree Programme Director (DPD). The DPD invites all UK-based applicants to visit the School to attend an informal interview and to see our facilities; this is done on an individual ad hoc basis to avoid delays. Applicants not based in the UK are not required to attend an interview and decisions are based on qualifications, references, any relevant work experience, and the applicants' personal statements. NERC studentships (4 awards following the Masters Review of 2005), and any other funding, are awarded to eligible students on a competitive basis, the DPD taking degree grade, references, experience and interview performance into account. Decisions are usually made by June. The change to a NERC Masters Training Grant from 2006/07 allows greater flexibility in the use of NERC funds, with a minimum of 50% of a full grant being awarded to any one eligible and successful MSc applicant.

Non-standard Entry Requirements

Applicants who hold non-standard qualifications, and/or have significant *relevant* industrial experience, will be considered on an individual basis.

Level of English Language capability

Applicants for whom English is not a first language must provide evidence of a satisfactory command of English, preferably by means of a TOEFL score of 575 or greater, or by an IELTS score of 6.5 or greater.

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 http://www.ncl.ac.uk/international/arrival/jan/index.phtml

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. Further details are available at:

http://www.ncl.ac.uk/library/news_details.php?news_id=159 Help with academic writing is available from the Writing Centre. Details can be obtained from Alicia.Cresswell@ncl.ac.uk

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 http://www.ncl.ac.uk/teachingexcellence/support/pgtutor.htm
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 http://www.ncl.ac.uk/postgraduate/support/welfare.phtml

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 http://www.ncl.ac.uk/disability-support/

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
http://www.ncl.ac.uk/undergraduate/degrees/facilities/index.phtml

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. See
http://ncl.ac.uk/langcen/index.htm

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.

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 www.thestudentsurvey.com/. 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 http://www.ncl.ac.uk/aqss/qsh/internal_subject_review/index.php

Accreditation reports
The Petroleum Geochemistry course is reviewed periodically by the Natural Environment Research Council (1996, 2000, and 2005).

The Geological Society of London accreditation for masters courses was only formally announced in January 2007; an application will be submitted within 2007 http://www.geolsoc.org.uk/gsl/null/lang/en/page728.html.

The MSc and PgD courses were included within an application to the Joint Board of Moderators http://www.jbm.org.uk/ for recognition of *all* the School's MSc and PgD programmes. In March 2006 the JBM recommended that the MSc and PgD in Petroleum Geochemistry be one of those approved by the ICE, IStrutE and IHT as meeting the requirements under UK-SPEC (http://www.engc.org.uk/ukspec/default.aspx) for a period of Further Learning for a Chartered Engineer for candidates that have already acquired a CEng accredited BEng(Hons) first degree. In July this was confirmed for all intakes up to 2011. The JBM accreditation will only be relevant to a very small minority of Petroleum Geochemists.

16 Regulation of assessment

Pass mark
The pass mark is 40 (Undergraduate programmes)
The pass mark is 50 (Postgraduate programmes)

Course requirements

Progression is subject to the University's Masters Degree Progress Regulations, Taught and Research (http://www.ncl.ac.uk/calendar/university.regs/tpmdepr.pdf) and Examination Conventions for Taught Masters Degrees (http://www.ncl.ac.uk/calendar/university.regs/tpmdeprexamconv.pdf). Limited compensation up to 40 credits of the taught element and down to a mark of 40 is possible and there are reassessment opportunities, with certain restrictions. For the MSc course a formal progression step follows the taught course modules; to continue to the dissertation project the candidates

must: (i) after the application of compensation, have obtained a weighted average mark for the 100 credit taught component of at least 50%; (ii) have failed no more than 40 credits and; (iii) have no module marks below 40.

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

	Modules used for degree classification (DC)	**Modules not used for degree classification**
<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

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

The School Brochure (contact enquiries@ncl.ac.uk)

The School Website (see http://www.ceg.ncl.ac.uk/postgrad/pgt/courses/p%205034.htm, http://www.ceg.ncl.ac.uk/info/index.htm)

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

The Degree Programme Handbook (see https://www.ceg.ncl.ac.uk/students/index.aspx?page=\page1\02%20Student%20Handbooks)

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 (Compulsory in Bold)
A1	**CGSC8009, GSC8010, GSC8014, GSC8015, GSC8016, GSC8099 (MSc) or GSC8098 (PgD)**
A2	**GSC8011, GSC8014, GSC8016, GSC8099 (MSc) or GSC8098 (PgD)**
A3	**GSC8011, GSC8014, GSC8016, GSC8099 (MSc) or GSC8098 (PgD)**
A4	**GSC8001, GSC8099 (MSc) or GSC8098 (PgD)**
A5	**GSC8011, GSC8014, GSC8015, GSC8016, GSC8099 (MSc) or GSC8098 (PgD)**
A6	**GSC8013, GSC8010, GSC8001, GSC8015, (GSC8099 or GSC8098)**
A7	**CGSC8009, GSC8010, GSC8099 (MSc) or GSC8098 (PgD)**
B1	**GSC8009, GSC8013, GSC8001, GSC8014, GSC8015, GSC8016, GSC8099 (MSc) or GSC8098 (PgD)**
B2	**GSC8009, GSC8013, GSC8001, GSC8014, GSC8015, GSC8016, CIV8001, GSC8099 (MSc) or GSC8098 (PgD)**
B3	**GSC8014, GSC8015, GSC8016, GSC8010, GSC8011, GSC8012 GSC8099 (MSc) or GSC8098 (PgD)**
B4	**GSC8014, GSC8015, GSC8016, GSC8010, GSC8011, GSC8012 GSC8099 (MSc) or GSC8098 (PgD)**
B5	**GSC8014, GSC8015, GSC8016, GSC8010, GSC8011, GSC8012 GSC8099 (MSc) or GSC8098 (PgD)**
B6	**GSC8014, GSC8015, GSC8016, GSC8010, GSC8011, GSC8012, GSC8099 (MSc) or GSC8098 (PgD)**
C1	**GSC8009, GSC8013, GSC8010, GSC8001, GSC8014, GSC8015, GSC8016, GSC8099 (MSc) or GSC8098 (PgD)**
C2	**GSC8009, GSC8013, GSC8099 (MSc) or GSC8098 (PgD)**
C3	**GSC8009, GSC8013, GSC8001, GSC8014, GSC8015, GSC8016, GSC8099 (MSc) or GSC8098 (PgD)**
C4	**GSC8009, GSC8013, GSC8001, GSC8014, GSC8015, GSC8016, CIV8001, GSC8099 (MSc) or GSC8098 (PgD)**
D1	**CIV8001, GSC8014, GSC8016, GSC8099 (MSc) or GSC8098 (PgD)**
D2	**CIV8001, GSC8099 (MSc) or GSC8098 (PgD)**
D3	**CIV8001, GSC8099 (MSc) or GSC8098 (PgD)**
D4	**CIV8001, GSC8099 (MSc) or GSC8098 (PgD)**
D5	**GSC8014, GSC8015, GSC8016, GSC8099 (MSc) or GSC8098 (PgD)**
D6	**GSC8014, GSC8015, GSC8016, GSC8010, GSC8011, GSC8012, GSC8099 (MSc) or GSC8098 (PgD)**