PROGRAMME SPECIFICATION	

1	**Awarding Institution**	Newcastle University
2	**Teaching Institution**	Newcastle University
3	**Final Award**	BSc (Hons)
4	**Programme Title**	Chemistry
5	**UCAS/Programme Code**	CF11, Biology and Chemistry
6	**Programme Accreditation**	N/A
7	**QAA Subject Benchmark(s)**	Chemistry
8	**FHEQ Level**	Level 6
9	**Date written/revised**	February 2011

10 Programme Aims

1 The degree programme aims to educate students with an understanding of the essential principles and applications of organic, inorganic and physical chemistry and to equip students with skills that enable them to pursue careers in science-related disciplines and commerce.
2 To educate the student in the use of simple and more advanced chemical laboratory techniques and the application of these techniques to problems in contemporary science.

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 Chemistry.

Knowledge and Understanding

On completing the programme students should:

A1 The three main branches of chemistry (inorganic, physical & organic)
A2 Practical laboratory chemistry
A3 Data analysis and numeracy
A4 Spectroscopy and chemical characterisation

Teaching and Learning Methods

The acquisition of understanding and knowledge is by way of a combination of lectures, tutorials and workshops. Hand-on experience of chemistry is through practical classes consisting of carefully designed and tested experiments.
Practical classes in Years 1 and 2 will introduce and allow the student to practice a variety of basic and sophisticated practical techniques. The experiments complement the material being taught in the lectures.

Assessment Strategy

The testing of knowledge is through a combination of unseen written examinations (A1, A3, A4) and oral examinations (A2).

Intellectual Skills

On completing the programme students should be able to:
B1 Critically evaluate data
B2 Apply learnt knowledge to unseen problems

B3 Analyse and interpret data

Teaching and Learning Methods

Intellectual skills are developed by means of the teaching and learning programme outlined above. All courses are designed to promote discussion of key topics and facilitate self-assessment. Courses encourage application of concepts within a laboratory framework. Tutorials and seminars back-up lecture material and facilitate small group participation in answering problems.

Assessment Strategy

Problem solving based examinations and oral responses to either problems of tasks (tutorials) are used to test skills B1 to B3. Write up of independent projects also allows students to demonstrate cognitive skills

Practical Skills

On completing the programme students should be able to:

C1 Work safely in a chemistry laboratory

C2 Plan and undertake a practical or literature or non-laboratory based IT project

Teaching and Learning Methods

For skill C1 all students receive close supervision from a demonstrator or member of staff in the laboratory when performing experiments. A series of experiments are presented in the laboratory manual which outline safety issues, laboratory codes of practice and gives a detailed plan of operation. Students present results from their experiments in the form of a report. For skill C2 most students complete a practical project in an area of chemistry. They contribute to the planning and direction of the experimental work. They improve on their experimental technique and experience.

Assessment Strategy

The skills C1 are assessed by means of laboratory write-ups and oral examinations.

Transferable/Key Skills

On completing the programme students should be able to:

D1 Communicate and express clearly ideas both orally and in writing

D2 Work in a group environment

D3 Manage time and complete work to deadlines

D4 Assess and form an opinion of other peoples work

D5 Find information from a range of sources

D6 Be self-reliant

D7 Critically evaluate data and use when required.

Teaching and Learning Methods

All laboratory courses require regular written work and the use of search libraries, the Internet and extensive bookwork. After marking practical write-ups and tutorial work the work is discussed with the students to develop their understanding as well as their powers of expression. Skills (D2 and D3) are learnt from working in group environments (groups vary in size from 2 to 6 depending on the courses), and handing in reports to set deadlines. Skills D4 and D5 are obtained from detailed literature searches. Skills D2 and D4 stem from small group tutorials and oral presentations to a peer audience. Solving of unseen problems helps develop skill D7.

Assessment Strategy

Oral examinations are used to assess a student's ability, both at one-to-one level and in a peer-reviewed atmosphere. Many of the outlined skills are assessed in written examinations by both the answers and the approach to question answering. Laboratory work in a research environment critically evaluates skills D2-D7.

12 Programme Curriculum, Structure and Features

Basic structure of the programme

The degree programme is offered full-time (3 years). The entry and progression points are indicated by arrows. All students must take the compulsory courses outlined in each year. A number of option courses are open for study and are chosen by the student with consultation with their personal tutor.

1. Stage 1

Students study 60 credits of compulsory modules in Stage 1 and 2 and choose from a range of optional modules at Stage 3. students study 120 credits in total at each stage. The following combinations are available:

CF11 – Biology and Chemistry

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

Programme regulations (link to on-line version)

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

13 Criteria for admission

Dealt with in overarching Joint Honours Programme Specification.

14 Support for Student Learning

Induction

The first week of the first term/semester is an Induction Week with no formal teaching. During this period all students attend an induction programme in which they will be given detailed programme information and the timetable of lectures/practicals/labs/ tutorials/etc. In particular all new students will be given general information about the School and their programme, as described in the Degree Programme Handbook. The International Office offers an additional induction programme for overseas students (see http://www.ncl.ac.uk/international/coming_to_newcastle/orientation.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.

Help with academic writing is available from the Writing Centre.

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/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

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/support/acfacilities.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.

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

This programme is not accredited by any professional body.

Additional mechanisms

Review Mechanisms:

Student Questionnaires
Degree Programme Review
Internal Subject Review

Committees For Monitoring Quality

Faculty Board for Co- and Multi-disciplinary Degree Programmes
Co- and Multi-disciplinary Staff-Student Committee
Awards Board for Co- and Multi-Disciplinary Degree programmes
Subject Area Boards of Studies
Subject Area Boards of Examiners
Subject Area Staff-Student Committees
Faculty Teaching and Learning Committee
University Teaching and Learning Committee

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 and Undergraduate Examination Conventions. 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 and 3 is 1:1

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 http://www.ncl.ac.uk/undergraduate/) The School Brochure (contact 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.

Annex

Mapping of Intended Learning Outcomes onto Curriculum/Modules

Intended Learning Outcome	Module codes (Comp/Core in Bold)
A1: Inorganic, Organic, Physical Chemistry	**CHY1101, CHY1201, CHY1301, CHY2101, CHY2201, CHY2301,** CHY3003, CHY3004, CHY3006, CHY3101, CHY3201, CHY3301
A2: Practical laboratory chemistry	**CHY1101, CHY1301, CHY2101, CHY2201, CHY2301,** CHY3003, CHY3004, CHY3006
A3: Data analysis and numeracy	**CHY1101, CHY1201, CHY1301, CHY2101, CHY2201, CHY2301,** CHY3003, CHY3004, CHY3006, CHY3101, CHY3201, CHY3301
A4. Spectroscopy and chemical characterisation	**CHY1201, CHY1301, CHY2101, CHY2201, CHY2301,** CHY3003, CHY3004, CHY3006, CHY3201, CHY3301
B1. Critically evaluate data	CHY3003, CHY3004, CHY3006, CHY3201
B2. Apply learnt knowledge to unseen problems	**CHY1101, CHY1201, CHY1301, CHY2101, CHY2201, CHY2301**, CHY3101, CHY3201, CHY3301
B3. Analyse and interpret data	**CHY1201, CHY1301, CHY2101, CHY2201, CHY2301,** CHY3003, CHY3004, CHY3006 CHY3101, CHY3201, CHY3301,
B4. Independently plan and undertake a project	CHY3003, CHY3004, CHY3006
C1: Work safely and independently in a laboratory	**CHY1101, CHY1301, CHY2101, CHY2201, CHY2301,** CHY3003, CHY3004, CHY3006
C2: Plan and undertake an advanced practical course or non-lab project	CHY3003, CHY3004, CHY3006
D1. Communicate and express ideas orally and in writing	**CHY1101, CHY1201, CHY1301, CHY2101, CHY2201, CHY2301,** CHY3003, CHY3004, CHY3006, CHY3101, CHY3201, CHY3301
D2. Work in a group environment	
D3. Manage time and complete work to deadlines	**CHY1101, CHY1301, CHY2101, CHY2201, CHY2301,** CHY3003, CHY3004, CHY3006, CHY3101, CHY3201, CHY3301
D4. Assess and form an opinion of other people's work	**CHY2101**
D5. Find information from a range of sources	CHY3101, CHY3201, CHY3301
D6. Be self-reliant	CHY3003, CHY3004, CHY3006
D7. Critically evaluate data and use when required	CHY3003, CHY3004, CHY3006

Optional module to add CHY2401