

## PROGRAMME SPECIFICATION



1	<b>Awarding Institution</b>	Newcastle University
2	<b>Teaching Institution</b>	Newcastle University
3	<b>Final Award</b>	BSc (Hons)
4	<b>Programme Title</b>	Physical Geography
5	<b>UCAS/Programme Code</b>	FH82
6	<b>Programme Accreditation</b>	Not applicable
7	<b>QAA Subject Benchmark(s)</b>	Geography
8	<b>FHEQ Level</b>	6
9	<b>Date written/revised</b>	1 May 2009

### 10 Programme Aims

1. Examine core themes and ideas in physical geography (e.g. spatial variation and patterning, scale issues, change over time, magnitude and frequency, thresholds, system drivers, human-environment interaction)
2. Express deeper knowledge of areas within the discipline (e.g. geomorphology, development of a wide range of environments, conservation and adaptive management)
3. Critically examine the application of physical geography to problem-solving and improving quality of life (e.g. natural hazards and disasters, sustainability and conservation)
4. Describe, apply and evaluate a diversity of specialist techniques and approaches involved in collecting, analysing and presenting geographical information (e.g. quantitative and qualitative fieldwork, laboratory and statistical analysis, cartography, GIS and remote sensing)
5. Apply geographical ideas and practise research skills through fieldwork and independent study (dissertation)

### 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 Geography.

#### Knowledge and Understanding

Graduates from FH82 Physical Geography should have an informed and critical awareness of:

- A1** *processes that shape the natural world at different temporal and spatial scales*
- A2** *patterns and processes of environmental change and their inter-relationships with human activities*
- A3** *the role of human activity in influencing natural processes*
- A4** *the scientific and technical methods used to acquire, interpret and analyse earth systems data*

<b>A5</b>	<i>the importance of a multi-disciplinary and holistic approach to advancing knowledge of physical and biological processes and their impact on the environment</i>
<b>A6</b>	<i>the limits and potential in applying Physical Geography techniques to the study of the Earth</i>
<b>A7</b>	<i>the implications of approaches towards the sustainability of resources, an understanding of environmental issues, and an appreciation of the inter-relationship between physical and human systems</i>
<b>A8</b>	<i>the role of contemporary research in informing current practice in areas of physical geography data handling and application</i>
<b>A9</b>	<i>professional and ethical responsibilities</i>

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

Geographical knowledge and understanding (A1-8) is acquired throughout the curriculum via combinations of lectures, tutorials, staff and student-led seminars, workshops, practicals, fieldwork, guided independent study and teamwork. Fieldwork is integral to the degree programmes aims.

A compulsory Stage 1 programme develops the main themes of the degree (A1-8) while an overview of disciplinary thought and practice (A1) is provided by compulsory Stage 2 modules. During Stages 2 and 3 students can follow particular pathways through the degree programme.

#### **Assessment Strategy**

Knowledge and understanding (A1-8) is assessed by combinations of examinations (seen and unseen, including computer-aided assessments) and coursework (including essays, individual and group projects, dissertations, practical reports, oral presentations, poster presentations, portfolios and vivas).

Examinations are primarily intended to assess knowledge of core information while written and oral coursework places more emphasis on the development of critical analysis and understanding of the concepts within a wider geographical context. Poster presentations emphasise the collection and presentation of knowledge.

#### **Intellectual Skills**

On completing the programme students should be able to:

- B1 plan, design, execute and report Physical Geography research both individually and as part of a team
- B2 undertake field and laboratory investigations in a responsible and safe manner, paying due attention to risk assessment, rights of access, relevant health and safety regulations, and sensitivity to the impact of investigations on the environment and stakeholders
- B3 employ a variety of technical and laboratory-based methods for the analysis and presentation of spatial and environmental information (e.g. GIS, water chemistry, etc)
- B4 appreciate issues of sample selection, accuracy, precision and uncertainty during collection, recording and analysis of data in the field and laboratory
- B5 collect, interpret and synthesise different types of quantitative and qualitative geographical data
- B6 recognise the ethical issues involved in debates and enquiries
- B7 use the Internet critically as a means of communication and a source of information.

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

Cognitive skills are introduced in Stage 1 modules and developed to advanced levels through Stage 2 and 3 modules. Seminars, projects and group work allow students to discuss and learn to evaluate arguments and evidence while fieldwork, and especially the dissertation, promotes development of problem solving skills.

<b>Assessment Strategy</b>
Cognitive skills are assessed by coursework essays and projects, case studies, reports, vivas and, to a lesser extent, <i>via</i> unseen written examinations. The dissertation provides a means of demonstrating all cognitive skills.
<b>Practical Skills</b>
On completing the programme students should be able to:
C1 recognise and use subject-specific theories, paradigms, concepts, modeling techniques and principles
C2 analyse, synthesise and summarise information critically, using statistics, mathematics, image interpretation, spatial data and scientific results
C3 collect and integrate a number of lines of evidence to formulate and test hypotheses and develop arguments
C4 apply knowledge and understanding to address and solve both familiar and unfamiliar problems
C5 cultivate a critical awareness of data and theory through team and independent student learning
C6 recognise the moral and ethical issues of investigations and appreciate the need for professional codes of conduct
<b>Teaching and Learning Methods</b>
Subject-specific and professional skills are introduced and developed in dedicated compulsory Stage 1 and 2 modules, and are developed to an advanced level in optional modules and the dissertation. Teaching and learning methods include lectures, seminars, IT and laboratory practicals, fieldwork.
<b>Assessment Strategy</b>
Subject-specific and professional skills are assessed by means of essays, oral and poster presentations, fieldwork and laboratory reports and written and computer-aided examinations. All skills (C1-6 are assessed in Stage 3 by means of the dissertation.
<b>Transferable/Key Skills</b>
On completing the programme students should be able to:
D1 learn in familiar and unfamiliar situations, both independently and in groups
D2 communicate effectively (in writing, verbally and through graphical presentation) and at a level appropriate for the target audience
D3 work as part of a team (both in the field and in the laboratory) and recognise and respect the viewpoints of others
D4 manage their time and organise their work effectively
D5 apply numerical and computational skills to geographical information
D6 form an ability to read critically and with purpose
D7 use information technology effectively (including use of spreadsheet, database and word processing programmes; Internet and e-mail)
D8 acquire life-long learning and career development skills
<b>Teaching and Learning Methods</b>
An introduction to all (D1-8) key skills is taught formally in Stage 1 and developed further throughout the programme in a range of class, practical and fieldwork-based sessions. Communication skills (D2) are developed in written coursework and exams, projects, oral and poster presentations and via the dissertation. Specific modules support numerate skill development (D3) and the retrieval and use of information sources (D4-7). Self-management (D8) is promoted through a strict coursework and assessment timetable. The dissertation provides an opportunity for the development of a range of key skills, (D1-5, 7-8), particularly the ability to work independently (D1), while fieldwork provides opportunities to learn in unfamiliar situations (D1) and develop teamworking skills (D6).

<b>Assessment Strategy</b>
Key skills are assessed by a combination of examination and coursework assignments, including essays, project and practical reports, portfolios, oral and poster presentations and computer-aided assessments. A wide range of key skills are typically assessed within the dissertation.

<b>12 Programme Curriculum, Structure and Features</b>
<b>Basic structure of the programme</b>
<p>Newcastle and its regions provide an ideal environment in which to study Physical Geography. From coasts to mountains, rivers to moorlands, and in landscapes displaying a rich record of their evolution over lengthy timescales, the north-east of England offers a superb outdoor laboratory for students of physical geography.</p> <p>The breadth and flexibility of Physical Geography make it an ideal degree to study, bridging the gap between the physical environment and our interaction with it. In these changing and challenging times, an integrated knowledge of the myriad interactions within natural systems - <i>of which we are a part</i> - is essential for sensitive and sustainable management. This degree programme aims to provide such a knowledge base to participants. Landscape studies are diverse and exciting and demand a wide range of academic and practical skills. The FH82 modules cover methods and theory of Physical Geography along with those used to study the physical environment in order to fully interpret landscapes.</p> <p>The concerns and skills of geographers range from mapping to numerical analysis, from national and international studies of landscape formation and change to economic activity, and from cultural differences to regional analysis of social deprivation or geomorphology. Physical Geographers can influence policy in essential areas such as conservation, urban redevelopment or the scientific, legislative and managerial aspects of pollution control and water supply in both the industrial and the developing worlds. As Physical Geographers, graduates will be well placed to monitor changes in the environment, to understand and predict the effect of human activity on the world we live in, to analyse political and social development, and to locate the natural resources on which we all depend.</p> <p>The programme represents a package of modules drawn from existing courses in Geography and Geomatics, combined with specially-designed modules to fit the aims of the degree. Both are well-established disciplines at Newcastle; Geography recently celebrated its 75<sup>th</sup> anniversary, while Newcastle has been a primary national site for education in Geomatics (under a number of titles) since before the independence of Newcastle University.</p> <p>The study of <b>Geomatics</b> within this degree programme complements the geographical material already mentioned. In effect, geomatics refers to the sciences and technologies involved in handling spatial data in digital form (generally, geographical data about the Earth). Measuring the landscape using land surveying techniques is part of geomatics, as is managing the data which has been captured in computer-based information systems such as GIS (Geographical Information Systems). The display of data using cartography is also an element of geomatics. Measurement, management and presentation are the key components of this newly integrated discipline. The package of geomatics modules offered for the FH82 degree denote four major subject streams with compulsory modules in each - survey, imaging, GIS, mapping. These form a coherent whole and link with specialist optional modules in positioning (including GPS), geophysics and other technology-led areas.</p> <p>The focus on both lab-based practicals and outdoor work are designed to appeal to those who are interested in the environment and methods of handling the data which pertains to it. The intellectual core of the discipline stresses appreciation of accuracy, mastery of data manipulation and analysis, and concern for the effective dissemination and use of spatial data by geographers.</p> <p><i>(Note: each module has a specific set of learning outcomes and methods of assessment which may be found printed in module guides given to students at the beginning of each</i></p>

module, and in module pro-formas that may be viewed on the Schools web sites at

<http://www.ncl.ac.uk/geps/undergrad/modules> and

<https://www.ceg.ncl.ac.uk/internal/code/modules/modulelistny.aspx>)

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

- The programme provides a broad foundation in the discipline while allowing students the option of specialising in geography with an emphasis on both conceptual and empirical approaches, geomatics with an emphasis on earth observation, or a combination of both.
- A compulsory dissertation provides students with first-hand experience of conducting and reporting original physical geography research.
- The curriculum is strongly linked to leading geographical and geomatics research conducted by staff.
- All students have the opportunity to undertake fieldwork in both the UK and abroad, including trips to Greece and Ireland.

Students will benefit from the flexible nature of the FH82 degree, which is intended to allow individuals to specialize in the areas that interest them most. In dedicated tutorials as well as lectures, seminars and fieldwork, students will gain experience of a variety of transferable skills such as report writing, oral presentation, interpersonal communication, problem solving, initiative and adaptability, as well as hands-on experience of information technology and statistics. This will make our graduates highly employable in a wide range of careers – everything from teaching, public service and journalism to development work and environmental management. It is aimed that promising undergraduate students will be encouraged to return to Newcastle University to participate in postgraduate Geography, Geomatics or Environmental Science degree programmes at the Masters and PhD level, in both the Faculties of HASS and SAGE.

Northumberland and its hinterland areas provide access to a wide variety of environments for geographers. FH82 students will be able to study at first-hand rivers, reservoirs, wetlands, uplands and coastal areas, the human interface with these landscapes and aspects of the history and management of the countryside. The region is a rich resource for physical geography fieldwork, which forms an integral part of the degree programme and particularly at Stages 1 and 2. We also require FH82 students to partake in residential fieldwork overseas with current destinations including SE Greece and NW Ireland. In Stage 3 students are required to undertake an independent research project using the skills base developed in Stages 1 and 2.

The concerns and skills of geographers range from mapping to numerical analysis, from national and international studies of landscape formation and change to economic activity, and from cultural differences to regional analysis of social deprivation or geomorphology. Physical Geographers can influence policy in essential areas such as conservation, urban redevelopment or the scientific, legislative and managerial aspects of pollution control and water supply in both the industrial and the developing worlds. As Physical Geographers, our graduates will be well placed to monitor changes in the environment, to understand and predict the effect of human activity on the world we live in, to analyse political and social development and to locate the natural resources on which we all depend

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

[http://www.ncl.ac.uk/regulations/programme/2009-2010/documents/PhysicalGeographyBSc\\_000.pdf](http://www.ncl.ac.uk/regulations/programme/2009-2010/documents/PhysicalGeographyBSc_000.pdf)

### **13 Criteria for admission**

#### *Entry qualifications*

The following gives an indication of the type and level of entrance qualifications we will look for:

**'A' levels:** ABB from 18 units, including a minimum of 12 units from 6- or 12-unit qualifications, including A level Geography and excluding General Studies. GCSE Mathematics to 'B' grade is also required.

**Scottish qualifications:** AABBB at Higher Grade including Geography and preferably Mathematics. Combinations of Highers and Advanced Highers are accepted.

Under the new post 16 arrangements in England:

6 credit vocational A level accepted as one of the three A levels.

Applicants with 12 credit vocational A levels will be considered on their merits

2 AS levels will be accepted instead of one of the A levels (subject other than those at A level)

Skills qualifications will not generally be included in offers

#### *Admissions policy/selection tools*

The main criteria for admission is that the student should be capable of achieving the learning outcomes of the degree. This is assessed from evidence of previous examination successes. All students who are offered a place will be invited to an Open Day. We aim to talk individually to each applicant at their Open Day.

We recognize that students will apply to our degree programmes with a range of qualifications. We will consider each applicant on an individual basis, taking into account the information on the UCAS form including past academic performance and potential.

#### *Non-standard Entry Requirements*

**International Baccalaureate:** A minimum of 35 points with Geography at Higher Level grade 6 or above.

**Access to HE courses:** Candidates offering Access to HE courses are welcomed and considered on an individual basis. A module in a geography-related subject is desirable, as is a mathematics-oriented module (three modules at Credit grade for HEFC).

We welcome applications from students with qualifications other than the ones described above, including a full range of European and international qualifications, and are pleased to advise anyone interested with regard to choosing an appropriate preparatory course of study.

#### *Additional Requirements*

n/a

#### *Level of English Language capability*

All new students whose first language is not English are required to take an English Language test in the Language Centre. Where appropriate, in-session language training can be provided. The Language Centre houses a range of resources for learning other languages which may be particularly appropriate for those interested in an Erasmus exchange. See <http://www.ncl.ac.uk/undergraduate/support/facilities/langcen.phtml>

## **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/>)

#### *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 <http://www.ncl.ac.uk/undergraduate/support/tutor.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/undergraduate/support>

#### *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/undergraduate/support/disabled/>

#### *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/facilities/index.htm>

All new students whose first language is not English are required to take an English Language test in the Language Centre. Where appropriate, in-session language training can be provided. The Language Centre houses a range of resources for learning other languages which may be particularly appropriate for those interested in an Erasmus exchange. See <http://www.ncl.ac.uk/undergraduate/international/into/english.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/](http://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](http://www.ncl.ac.uk/aqss/qsh/internal_subject_review/index.php)

*Accreditation reports*

n/a

*Additional mechanisms*

n/a

## **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 (<http://www.ncl.ac.uk/regulations/docs/>) and Undergraduate Examination Conventions ([http://www.ncl.ac.uk/regulations/docs/documents/UGExamConv0809\\_000.pdf](http://www.ncl.ac.uk/regulations/docs/documents/UGExamConv0809_000.pdf)). 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 weighting of marks contributing to the degree for Stage 2 is one-third and for Stage 3 is two-thirds i.e. credits for module taken at Stage 3 are double-weighted.

*Common Marking Scheme*

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

	<b>Honours</b>	<b>Non-honours</b>
<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:

*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

The External Examiner may wish to talk to students to assess their opinion and enjoyment of their degree 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/regulations/docs/>)

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

Intended Learning Outcome	Module codes (Comp/Core in Bold on 1 <sup>st</sup> mention)
A1	<b>GEO1012</b> <i>Introduction to Earth Sciences</i> , <b>GEO1005</b> <i>Environmental Issues</i> , <b>GEO2048</b> <i>Field &amp; Lab Techniques for Physical Geographers</i> , <b>GEO2037</b> <i>Ireland field trip</i> , <b>GEO2101</b> <i>Greece field trip</i> , GEO2042 <i>Aquatic Pollution</i> , GEO2051 <i>Quaternary Environments</i> , GEO3064 <i>Research Methods in Environmental Pollution</i> , GEO3067 <i>Geoarchaeology</i> , GEO3069 <i>River Management</i> , GEO3070 <i>Glacial Meltwater Processes &amp; Products</i> , GEO3071 <i>The Oceans – past and present</i> , GEO3112 <i>Quaternary Palaeoclimatology</i> , GEO3073 <i>Ice Age Earth</i> , GEO3110 <i>Tectonic Geomorphology</i> , <b>GEO3074</b> <i>Research Project</i> , <b>SVY3014</b> <i>Geohazards and deformation of the Earth</i> , <b>SVY3019</b> <i>Advanced Geoinformatics</i> , SVY3018 <i>GIS Fieldcourse</i>
A2	GEO1012, GEO1005, GEO2048, GEO2037, GEO2101, GEO2042, GEO2051, GEO3064, GEO3067, GEO3069, GEO3070, GEO3071, GEO3073, GEO3110, GEO3074 <b>SVY1002</b> <i>Geographic Information</i> , <b>SVY1001</b> <i>Stage One Field course</i> , <b>SVY1006</b> <i>Photogrammetry and remote sensing</i> , <b>SVY2002</b> <i>Mapping Practices</i> , <b>SVY2004</b> <i>Geographic Information Systems</i> , <b>SVY2006</b> <i>Remote sensing – data acquisition and processing</i> , SVY3010 <i>Offshore Surveying</i> , SVY3006 <i>Remote sensing systems and applications</i> , SVY3014, SVY3017, SVY3018
A3	GEO1012, GEO1005, GEO2048, GEO2037, GEO2101, GEO2042, GEO2051, GEO3064, GEO3067, GEO3069, GEO3074, SVY3018
A4	<b>GEO1095</b> <i>Study Skills for Physical Geographers</i> , GEO1012, GEO1005, GEO2048, GEO2037, GEO2101, GEO2042, <b>GEO2049</b> <i>Quantitative Skills for Physical Geographers</i> , GEO2051, GEO3067, GEO3068, GEO3069, GEO3070, GEO3071, GEO3073, GEO3110, GEO3074  <b>SVY1008</b> <i>Surveying</i> , <b>SVY1010</b> <i>Principles of Computer Aided Drawing and its Visualisation</i> , SVY1002, SVY1001, SVY1005 <i>Introduction to GPS and its applications</i> , SVY1006 <b>SVY2015</b> <i>Digital Survey Methods for Geoscientists</i> , SVY2002, SVY2004, SVY2006, SVY2008 <i>Photogrammetry and laser scanning 1</i>  SVY3010, SVY3006, SVY3014, SVY3017, SVY3018
A5	GEO1095, GEO1012, GEO1005, GEO2048, GEO2037, GEO2101, GEO2042, GEO2051, GEO3067, GEO3068, GEO3069, GEO3070, GEO3071, GEO3073, GEO3110, GEO3074, SVY3017, SVY3018

A6	<p>GEO1095, GEO1012, GEO2037, GEO2101, GEO2042, GEO2051, GEO3067, GEO3068, GEO3069, GEO3070, GEO3071, GEO3073, GEO3074, GEO3110</p> <p>SVY1008, SVY1001, SVY1002, SVY1005, SVY1006, SVY1010</p> <p>SVY2014, SVY2002, SVY2004, SVY2006, SVY2008</p> <p>SVY3010, SVY3014, SVY3006, SVY3017, SVY3018</p>
A7	<p>GEO1095, GEO1012, GEO1005, GEO2037, GEO2101, GEO2042, GEO2051, GEO3067, GEO3068, GEO3069, GEO3071, GEO3074, SVY3017, SVY3018</p>
A8	<p>GEO1095, GEO1012, GEO1005, GEO3067, GEO3074, SVY3014, SVY3017, SVY1010</p>
A9	<p>GEO1095, <b>SVY3020</b> <i>Professional Practice</i>, SVY3018</p>
B1	<p>GEO1012, GEO1005, GEO2042, GEO2037, GEO2101, GEO2051, GEO3064, GEO3067, GEO3068, GEO3069, GEO3070, GEO3071, GEO3073, GEO3110, GEO3074</p> <p>SVY1008, SVY1002, SVY1001, SVY1005, SVY1006, SVY1010</p> <p>SVY2002, SVY2004, SVY2006, SVY2008</p> <p>SVY3010, SVY3014, SVY3017, SVY3018</p>
B2	<p>GEO1012, GEO2042, GEO2037, GEO2101, GEO2051, GEO3064, GEO3068, GEO3070, GEO3071, GEO3073, GEO3074</p> <p>SVY1008, SVY1002, SVY1001, SVY1005, SVY1006, SVY1010</p> <p>SVY2001, SVY2014, SVY2002, SVY2004, SVY2006, SVY2008</p> <p>SVY3010, SVY3017, SVY3018</p>
B3	<p>GEO1012, GEO2042, GEO2037, GEO2049, GEO2101, GEO3064, GEO3067, GEO3068, GEO3070, GEO3073, GEO3074</p> <p>SVY1005, SVY1010, SVY2001 <i>Databases for GIS</i>, SVY3014, <i>Geophysical Surveying</i>, SVY3017, SVY3018</p>
B4	<p>GEO1012, GEO2042, GEO2037, GEO2101, GEO3064, GEO3067, GEO3068, GEO3070, GEO3074</p> <p>SVY1008, SVY1002, SVY1001, SVY1005, SVY1006, SVY1010,</p> <p>SVY2001, SVY2014, SVY2002, SVY2004, SVY2006, SVY2008,</p> <p>SVY3010, SVY3006, SVY3014, SVY3017, SVY3018</p>
B5	<p>GEO1012, GEO2042, GEO2037, GEO2049, GEO2101, GEO3064, GEO3067, GEO3068, GEO3074</p> <p>SVY1008, SVY1002, SVY1001, SVY1005, SVY1006, SVY1010,</p> <p>SVY2001 SVY2014, SVY2002, SVY2004, SVY2006,</p>

	SVY3010, SVY3006, SVY3014, SVY3017, SVY3018
B6	GEO1095, SVY3020, GEO3074
B7	GEO1095, GEO2049, SVY1005, SVY1010, <b>SVY2013</b> <i>Research Methods</i> , SVY3014, GEO3074
C1	GEO1012, GEO1005, GEO2048, GEO2037, GEO2101, GEO2042, GEO2051, GEO3067, GEO3068, GEO3069, GEO3070, GEO3071, GEO3073, GEO3110, GEO3074  SVY1008, SVY1002, SVY1001, SVY1005, SVY1010, SVY2001, SVY2014, SVY2002, SVY2004, SVY2006, SVY2008 SVY3010, SVY3006, SVY3014, SVY3017, SVY3018
C2	GEO1012, GEO2048, GEO2037, GEO2049, GEO2101, GEO2042, GEO2051, GEO3064, GEO3067, GEO3068, GEO3070, GEO3071, GEO3073, GEO3110, GEO3074  SVY1008, SVY1001, SVY1005, SVY1010, SVY2001, SVY2014, SVY3014, SVY3017, SVY3018
C3	Geo1095, GEO1012, GEO2048, GEO2037, GEO2101, GEO2042, GEO2051, GEO3067, GEO3068, GEO3070, GEO3071, GEO3073, GEO3110, GEO3074  SVY1002, SVY1001, SVY1005, SVY1010, SVY2001, SVY2014, SVY2002, SVY2004, SVY2006, SVY2008 SVY3010, SVY3006, SVY3014, SVY3018
C4	GEO1012, GEO2048, GEO2037, GEO2049, GEO2101, GEO2042, GEO2051, GEO3064, GEO3067, GEO3068, GEO3070, GEO3071, GEO3073, GEO3110, GEO3074  SVY1008, SVY1002, SVY1001, SVY1005, SVY1010, SVY2001, SVY2014, SVY2004, SVY2006, SVY2008 SVY3010, SVY3006, SVY3014, SVY3017, SVY3018
C5	GEO1012, GEO2048, GEO2037, GEO2101, GEO2042, GEO2049, GEO2051, GEO3067, GEO3068, GEO3070, GEO3071, GEO3073, GEO3110, GEO3074  SVY1008, SVY1002, SVY1001, SVY1005, SVY1010, SVY2001, SVY2014, SVY2002, SVY2004, SVY2006, SVY2008 SVY3010, SVY3006, SVY3014, SVY3017, SVY3018
C6	GEO3074  SVY1001, SVY2013, SVY3018
D1	GEO1012, GEO2048, GEO2037, GEO2101, GEO2042, GEO2051, GEO3064, GEO3067, GEO3068, GEO3070, GEO3071, GEO3073, GEO3110, GEO3074

	SVY1008, SVY1002, SVY1001, SVY1005, SVY1010 SVY2014, SVY2004, SVY3010, SVY3014, SVY3017, SVY3018
D2	Interpersonal, written and oral communication skills are introduced, practised and assessed in the vast majority of modules within the degree programmes.
D3	GEO1012, GEO2048, GEO2037, GEO2101, GEO2042  SVY1008, SVY1002, SVY1001, SVY1010 SVY2014, SVY2004, SVY3017, GEO3110, SVY3018 SVY3010
D4	All modules but especially GEO1095, GEO1012, GEO2037, GEO2101, GEO2042, GEO3064, GEO3068, GEO3110, GEO3074  SVY1008, SVY1001, SVY1010 Stage 2 INDUCTION, SVY2014, SVY2002, SVY2004 Stage 3 INDUCTION, SVY3010, SVY3017, SVY3018
D5	These skills are introduced, practised and assessed in the vast majority of modules within the degree programmes, and are therefore not detailed here.
D6	These skills are introduced, practised and assessed in the vast majority of modules within the degree programmes, and are therefore not detailed here.
D7	These skills are introduced, practised and assessed in the vast majority of modules within the degree programmes, and are therefore not detailed here.
D8	GEO1095, GEO2049, SVY1010, SVY3017, SVY3018