

Geography

Subject benchmark statements

Subject benchmark statements provide a means for the academic community to describe the nature and characteristics of programmes in a specific subject. They also represent general expectations about the standards for the award of qualifications at a given level and articulate the attributes and capabilities that those possessing such qualifications should be able to demonstrate.

This subject benchmark statement, together with the others published concurrently, refers to the ***bachelors degree with honours***.

Subject benchmark statements are used for a variety of purposes. Primarily, they are an important external source of reference for higher education institutions when new programmes are being designed and developed in a subject area. They provide general guidance for articulating the learning outcomes associated with the programme but are not a specification of a detailed curriculum in the subject. Benchmark statements provide for variety and flexibility in the design of programmes and encourage innovation within an agreed overall framework.

Subject benchmark statements also provide support to institutions in pursuit of internal quality assurance. They enable the learning outcomes specified for a particular programme to be reviewed and evaluated against agreed general expectations about standards.

Finally, subject benchmark statements are one of a number of external sources of information that are drawn upon for the purposes of academic review* and for making judgements about threshold standards being met. Reviewers do not use subject benchmark statements as a crude checklist for these purposes however. Rather, they are used in conjunction with the relevant programme specifications, the institution's own internal evaluation documentation, together with primary data in order to enable reviewers to come to a rounded judgement based on a broad range of evidence.

The benchmarking of academic standards for this subject area has been undertaken by a group of subject specialists drawn from and acting on behalf of the subject community. The group's work was facilitated by the Quality Assurance Agency for Higher Education, which publishes and distributes this statement and other benchmarking statements developed by similar subject-specific groups.

The statement represents the first attempt to make explicit the general academic characteristics and standards of an honours degree in this subject area, in the UK.

In due course, but not before July 2003, the statement will be revised to reflect developments in the subject and the experiences of institutions and academic reviewers who are working with it. The Agency will initiate revision and, in collaboration with the subject community, will establish a group to consider and make any necessary modifications to the statement.

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* academic review in this context refers to the Agency's new arrangements for external assurance of quality and standards. Further information regarding these may be found in the ***Handbook for Academic Review***, which can be found on the Agency's web site.

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Letter from the Chair of the benchmarking group

Dear Colleague

In November 1998, Geography, Business Studies and Engineering were requested by the Quality Assurance Agency to undertake a benchmarking exercise. The Royal Geographical Society (with The Institute of British Geographers) agreed to facilitate the exercise.

The subject community was invited to give nominations for panel members and a panel chair. Sixty-five names were submitted, from whom the panel of twelve were selected as being representative of the breadth of the discipline, the range of institutions where Geography degrees are taught, regions in the UK, gender, age and experience of teaching, including external examining. The task of panel chair was undertaken by Professor IG Simmons FBA.

Following a second consultation, the geography community approved the twelve panel members and chair. In addition, five corresponding members advisors were appointed who lent their particular expertise to the process.

There are eight sections, with Sections 1 and 2 providing an introduction and aims. Subsequent sections develop the programme specifications: Sections 3 and 4 help staff to specify outcomes for knowledge and skills; Section 5 indicates the learning and teaching methods used to support students in achieving these outcomes; and Section 6 outlines the assessment methods which enable students to demonstrate their level of attainment. Section 7 considers standards and levels of attainment, with a conclusion in Section 8.

This benchmarking statement is the outcome of the panel's work. It represents the views of the entire panel, to whom I am grateful for their assistance. I am also indebted to Dr Lorraine Craig of the RGS-IBG for her work as panel secretary.

Professor IG Simmons

A number of panel members belong to the AUT, and had been asked not to co-operate in this exercise. However, they judged that the greater good of academic work would be served on this occasion by their full participation. The QAA is asked, nevertheless, to make clear to its sponsoring bodies the dissatisfaction felt by many AUT members about pay and conditions.

Academic standards - Geography

1 Introduction

1.1 Geography occupies a distinctive place in the world of learning, offering an integrated study of the complex reciprocal relationships between human societies and the physical components of the Earth. The geographer's canvas is coloured by place, space and time: recognising the great differences and dynamics in cultures, political systems, economies, landscapes and environments across the world, and the links between them.

1.2 The discipline is characterised by a breadth of subject matter in which the traditional division has been between human and physical Geography. In recent years, however, the third category of 'environmental Geography' has sometimes been recognised, encompassing the many courses that deal explicitly with human-environment relations and sustainable development, and building upon the role of Geography in schools as the main discussion platform for environmental concerns. Geographic Information Science (GIS) and remote sensing, based on very specialised IT techniques, is another distinct teaching area, occurring almost wholly within higher education. The spectrum of first degree programmes in the UK requires this diversity of epistemology in order to make available the full suite of analytic and interpretative tools provided by the natural and social sciences, and by the humanities.

1.3 In the higher education (HE) system of the UK, Geography is a major discipline. In 1997-98, there were approximately 21,000 students registered for honours programmes, and many students in other programmes taking modules that were either explicitly Geography or else derived directly from the discipline. This document deals only with named single honours degrees in Geography. Such courses were offered by 101 HEIs, with good levels of recruitment. A close nexus of links between teaching and the vigorous research sector, in addition to Geography's high international standing, enhance the attraction of most programmes, as does a dedicated journal (*Journal of Geography in Higher Education*) and channels (such as the Geography Discipline Network) for the electronic dissemination of information and debate.

1.4 In its 1994-95 Subject Overview Report (QO11/85), HEFCE reported that:

'Students receive a good education in Geography. The subject ... is taught by well-qualified, enthusiastic, caring and professional staff ... Geography departments have clearly articulated aims and objectives which are well matched to institutional missions and which are carried through into curricula and syllabuses'.

This benchmarking panel is convinced that this situation has improved since 1995 as a result of subsequent stock-taking. It expects that the development of the Subject Centre for Geography, Earth and Environmental Sciences will further enhance teaching and learning in its constituent disciplines.

1.5 The purpose of the present statement is to:

- provide a framework for staff running Geography programmes, and assist in the development of programme specifications;
- help external examiners to validate standards of student achievements;
- inform potential students and employers as to the nature of attainment that can be expected of graduates from Geography programmes;
- provide academic reviewers with guidance for judging standards.

1.6 The breadth of Geography means that many of its core constituents can be approached through a number of routes, and so any attempts at prescription must be discarded; institutions offering degree programmes in Geography must be free to decide upon the details of content and organisation. A valued characteristic of the discipline is its plurality of ways of knowing and understanding the world, and the depth to which individual specialisms are studied will vary according to the nature of specific departments. Nevertheless, Section 3 does suggest that there are some common areas of knowledge, with accompanying modes of understanding. These areas are echoed in Table 1, where they are developed into the concept of levels of achievement.

1.7 Progression in higher-level study of a discipline such as Geography is likely to involve some measure of specialisation. In the initial stages of a degree programme, students should achieve a basic knowledge and understanding of a range of different approaches to the discipline. Thereafter, progression and specialisation should inform critical reflection about both the discipline's diversity and its unifying themes. By the end of a programme, students should be able to situate their chosen specialisms within a wider understanding of the discipline. Given the emphasis on diversity, it is important that potential students are fully informed of the

particular emphases and strengths of individual programmes.

2 Aims of an honours geography programme

2.1 The aims identified in this document are those appropriate to single honours Geography programmes. The discipline is studied in a variety of other contexts: it attracts many students within the Scottish HE system, some as part of degrees in other subjects. Moreover, it is a major component of many combined or joint programmes, including a number in Earth and Environmental Sciences. Benchmark standards must allow for this variety of provision.

2.2 Geographers develop their geographical understanding through fieldwork and other forms of experiential learning, which helps to promote curiosity about the social and physical environments, discerning observation and an understanding of scale. Graduates have a progressive understanding of the evolution and significance of the distinctiveness of place and environment, including different ways of considering those relationships, and a parallel understanding of the significance of spatial linkages in social and physical processes (see also Section 3).

2.3 Through a diversity of provision in degree programmes, students acquire a range of cognitive, generic and transferable skills (Section 4). Geography graduates have learned to interpret and analyse (intellectual skills), and to tackle geographical issues through the deployment of skills specific to the geographer and professional researcher, including the use of appropriate information technologies (Section 5). They are well placed to contribute to the development of interdisciplinary aspects of knowledge. In addition, Geography fosters a range of personal attributes relevant to the world beyond HE, which will promote geographers' ability to engage in lifelong learning, to consider ethics and values, and to contribute to the wider community. Some will choose to develop specialist research skills in social or natural sciences; all compete successfully for a wide variety of employment.

3 Knowledge and understanding

3.1 We expect all programmes to address the following areas of knowledge and understanding, so that graduating geographers are conversant with these aspects of the discipline. As they progress, students would be expected to develop a greater depth of knowledge and understanding of a selection of these aspects, often through their application and interpretation in a particular geographical context. Geographers should have an understanding of the vital contribution made by research in their discipline to the development of knowledge, particularly in terms of the influence of recent research.

3.2 Geographers should understand the reciprocal relationships between physical and human aspects of **environments** and **landscapes**. They should appreciate the geographical meanings of these concepts, encompassing: firstly, an understanding of environments as the result of biophysical processes operating within the geo-ecosphere; secondly, an understanding of environments and landscapes as the result of human modification; and, finally, an understanding of socially constructed ways of representing and interpreting the world.

3.3 The concept of **spatial variation** should be familiar to geographers, so that they may demonstrate knowledge and understanding of spatial distributions in both physical and human phenomena. They should be able to explain the pattern and dynamic nature of spatial variation in the physical world of Earth surface processes, water, landforms, climate, vegetation and soils. They should also recognise the ways in which spatial relations are an inherent and important feature of economic, social and political activity, and the ways in which they reflect, reproduce and remake social relations. Geographers should be aware of the importance of spatial dimensions in broader debates and issues involving both physical and human environments.

3.4 The way in which the distinctiveness of a particular **place** is constituted and continually remade by physical, environmental, biotic, social, economic and cultural processes should be understood by geographers, as should the influence of place-specific characteristics on such processes. Geographers should demonstrate an awareness of the constitution of places outside their own immediate everyday experience.

3.5 Geographers should be able to conceptualise patterns, processes, interactions and change in the physical world as **systems** at a range of spatial scales (examples might include global hydrological and biogeochemical cycles, catchment processes and ecosystems). They should know how to incorporate into a systems framework natural environmental impacts on human activity (eg natural hazards), human impacts on biophysical systems (eg air pollution, deforestation and soil erosion) and the management of wild environments and landscapes.

3.6 Geographers should have a critical awareness of the significance of spatial and temporal **scale** on physical processes, human processes and their interactions. They should comprehend how such processes operate at local, regional and global scales to produce particular geographies, and the ways in which

interactions at one magnitude influence those at another.

3.7 An appreciation of **change** is central to an understanding of the human and physical worlds, their interaction and interdependence. Geographers should be aware of past patterns of change operating on different timescales, particularly those that have been most influential in shaping the world of today and the foreseeable future. This aspect of geographical knowledge may be taught through specialist courses in, for example, historical Geography, Quaternary science or Holocene environmental change. Such an appreciation of change and stability, cause and consequence, should inform understanding in most areas of the discipline. This is especially appropriate in the case of environmental social science.

3.8 The ideas of place, space and time should inform geographers' critical understanding of the nature of **difference** within the human world. They should demonstrate knowledge of the main dimensions and scales of economic, social, political and environmental **inequality**, and be familiar with a range of interpretations of the processes creating geographies of difference and inequality.

3.9 Geographers should have a critical and reflexive sense of the **nature of the discipline** as dynamic, plural and contested. They should be aware of its development and changing relationships with other fields of enquiry. They should have a basic knowledge and understanding of the relationship between the various approaches to the discipline, including those associated with the broader epistemologies of the physical and natural sciences, the social sciences and the humanities.

3.10 The literal derivation of the term 'Geography' is Earth-writing. Geographers should show knowledge and critical understanding of the diverse manners of **representation** of the human and physical worlds. Maps have an important historic role as representations of the world, and geographers should be conversant with their modern forms and dimensions. However, geographers should have a similar depth of understanding of other representational forms, including texts, visual images and digital technologies (particularly GIS and remote sensing).

3.11 Geographers should have a firm grasp of the main methodological strategies used in the **analysis** and **interpretation** of geographical information, and show a critical understanding of the appropriate contexts for their use. There will be variation in the methodologies taught to high levels of technical proficiency in different programmes (see Section 4), reflecting the specialisms and expertise of different departments.

3.12 However, all geographers should be conversant with a substantial range of analytical and **observational** strategies, including most or all of the following: social survey and interviewing methods; geographical field research; laboratory-based analysis (both scientific and computational); quantitative analysis; qualitative analysis; and modelling strategies. Students should also be familiar with the developing technology associated with these strategies, such as computer packages for statistical and qualitative analysis, specialist computing and remote sensing.

3.13 It follows that geographical knowledge and understanding should form the basis for **informed concern** about the Earth and its people. Geographers should be aware of the application of geographical concepts, techniques and expertise to problem-solving, wealth creation and improving the quality of life, as in urban planning, hazard assessment and sustainability and conservation. However, awareness of the practical value of such applications of geographical knowledge must be balanced by a recognition of their limitations, and a critical understanding of their broader social, political and environmental contexts.

4 *Student skills, abilities and attributes*

4.1 In recent years, there has been an increase in the use of C&IT, teamwork and written communication to development of student skills. The use of both scientific and computational laboratories to foster knowledge and understanding of careful planning, good recording and the concepts of accuracy, precision and uncertainty encourage intellectual development. Many Geography degrees, particularly in the larger departments, include numerous options in specialist fields with a heavy reliance on scientific laboratory and fieldwork as an integral element.

4.2 Many Geography degree programmes are now at the forefront of policies to furnish students with skills that are valued in the world of work and provide the basis for lifelong learning. Students therefore learn 'through' Geography in addition to learning 'about' Geography. The attention given to skills, both discipline-specific and generic, is intended to improve students' academic performance, enhance their career prospects, enable them as citizens to make a full contribution to the wider community and give them the flexibility required to adapt to new developments and opportunities in a rapidly changing world.

4.3 Given the rich diversity of Geography degrees and the range of options in which students are able to specialise, it is unwise to be too rigid or prescriptive in setting out the skills that graduates are likely to possess. Nonetheless, in broad terms, they should be expected to demonstrate competence in most of the

skills, abilities and attributes itemised below.

4.4 *Intellectual skills*

Geography enhances a range of intellectual skills and abilities that are acquired through use of its learning resources, frequent practice of its methods and immersion in appropriate research contexts. Through these experiences, students should develop competence in:

- assessing the merits of contrasting theories, explanations and policies
- analysing and problem-solving
- decision-making
- critically judging and evaluating evidence
- critically interpreting data and text
- abstracting and synthesising information
- developing a reasoned argument
- taking responsibility for their own learning, and developing habits of reflection upon that learning

4.5 Discipline-specific skills

The range of discipline-specific skills developed through a geographical education should normally include:

- planning, designing and executing a piece of rigorous research or enquiry, including the production of a final report
- undertaking effective fieldwork (with due regard for safety and risk assessment)
- working safely in a scientific laboratory, with awareness of standard procedures
- preparing effective maps and diagrams using a range of appropriate technologies
- employing a variety of social survey and interpretative methods for the collection, analysis and understanding of information from the human world
- employing a variety of technical and laboratory-based methods for the collection and analysis of spatial and environmental information (eg GIS, remote sensing and mathematical modelling)
- combining and interpreting different types of geographical evidence (eg texts, imagery, maps, digitised and laboratory data)
- recognising the moral and ethical issues involved in debates and enquiries

4.6 Key skills

As a result of taking their degree, Geography students should develop skills in the following areas:

- learning and study
- written communication
- verbal presentation
- numeracy and computation
- spatial awareness and observation
- field and laboratory studies (both scientific and computational)
- information technology (including spreadsheets, databases, word processing, email and WWW)
- information handling and retrieval (including the use of online computer searches); identifying, retrieving, sorting and exchanging information; investigating a wide range of sources
- interpersonal situations, including working with groups/teams and recognising and respecting the viewpoints of others

4.7 Personal attributes and social skills

In addition, Geography fosters the development of a range of personal attributes that are important in the world of work, and will strengthen the graduate's ability to engage in lifelong learning and contribute to the wider community. These include:

- motivation

- ability to work autonomously and with others
- self-awareness and self-management
- empathy and insight
- intellectual integrity
- awareness of responsibility as a local, national and international citizen
- interest in lifelong learning
- flexibility and adaptability
- creativity

4.8 While recognising and valuing the diversity of existent good practice, it is useful to emphasise some of the general principles underpinning successful skills curricula. The most important is the need for careful planning and the explicit incorporation of skills within the design and delivery of the degree programme as a whole. The skills dimension is best planned in conjunction with the knowledge-based curriculum, so that the relationship between the two can be given detailed consideration. Skills need to be taught, practised and assessed within a curriculum framework that is balanced, coherent and progressive, so that the level of challenge and achievement is gradually increased throughout, taking students to the boundaries of research frontiers.

5 Processes and contexts of learning

5.1 Geography encompasses a unique breadth of intellectual styles and traditions, drawn from a spectrum including the natural sciences, the social sciences and the humanities. This offers opportunities for the development of the skills of analysis, synthesis and interpretation.

5.2 Geography has been notable for its reflective concern with teaching methods, such that the discipline continues to lead in the creation and implementation of pedagogic innovation. Thus its range of learning and teaching contexts is continually evolving, for example, with the development of flexible and distance-learning structures, work-based learning, and the increasing use of self-determined learning methods. There is increasing use of C&IT, through networked and computer-based learning. Nevertheless, it is vital that continued attention is paid to library stocks and the role of reading.

5.3 Students reading for a degree in Geography should be provided with full documentation on their programme of study and each individual component (course, module, unit, etc). Furthermore, departments should normally provide a wide range of documentation on all contextual aspects of their study programme, including safety information for field and laboratory work.

5.4 The learning and teaching methods that geographers have experienced to date typically include:

- lectures
- seminars, tutorials, supervisions or other small group formats
- directed reading and library use
- laboratory practical classes, including the use of scientific laboratories and advanced computer facilities
- field investigation
- a range of student-centred learning opportunities, which might include electronic mail discussion groups, resource-based learning and problem-based teamwork

5.5 We do not expect this list to remain static; innovation is currently proceeding at a rapid pace. Much of the best learning and teaching will be an interactive process from which students and academics gain mutual benefit, but well-designed self-taught materials may also play an important role in a student's learning experience. These increasingly involve C&IT. Students have also been encouraged to learn through experience both as individuals and as team members, with practicals and fieldwork featuring large in this aspect of provision. Further elements of degree programmes, with similar objectives, may include role-play exercises and work-based experience.

5.6 Distance learning may lead to a deeper development of the student as an autonomous, self-critical learner (though one less experienced in teamwork and traditional field studies). This method of teaching and learning is likely to increase in Geography.

5.7 Given the importance of the development of technical skills in a variety of areas of geographical endeavour, institutions should facilitate access to libraries, information systems, equipment and technical

resources.

5.8 An education in Geography involves an active engagement with the external world. Fieldwork constitutes an essential aspect of this engagement and thus has a variety of roles, in:

- providing an opportunity to apply theoretical, technical and scientific laboratory methods to the more complex, uncontrolled field environment, and to appreciate how processes that might be regarded as 'general' are mediated by the social and environmental character of a specific place
- prompting students' capacity to identify a problem or research question, and to develop approaches to solving or answering this through hypothesis testing, research design and data collection
- encouraging consideration of the ethical aspects of research processes
- developing a sense of place, awareness of difference, and tolerance for others
- finally, but no less importantly, promoting certain transferable skills required in practical work and seminars, such as teamwork and observation

5.9 Within most honours Geography degree programmes, some form of independent research work will be a prerequisite, often in the form of a dissertation presented in the later stages of the programme. Where field-based research is carried out, this represents an area of the student's learning requiring mature and intelligent reflection on the potential risks and moral and ethical issues associated with a proposed project.

5.10 The balance within a degree programme of these learning and teaching styles, and of the associated assessment methods, will clearly vary from one institution to another, consistent with the overall mission, aims and objectives of both the institution and the programme. However, Geography degree programmes will characteristically have recourse to a wide range of learning and teaching styles, as befits the intellectual heritage of a discipline whose concerns are with both environment and society.

6 Assessment

6.1 It is important that any assessment strategy supports student learning and allows them to demonstrate their level of attainment; this is enabled by a learning and teaching policy that promotes these outcomes. The process should be made explicit, with aims, tasks and marking criteria clearly defined for each method of assessment. It should outline appropriate progression throughout the degree programme. Such a strategy should reflect the variety of abilities and skills developed within the curriculum, the types of teaching methods and learning contexts used, and the learning outcomes of the degree programme. Moreover, it should recognise the formative value of assessment for promoting deep reflective learning, and include team and individual assessment. Students should be permitted to demonstrate their full range of abilities and skills, with institutions providing a mix of assessment methods that are, overall, equally accessible to students from varying educational backgrounds and in different learning situations.

6.2 Students of Geography are therefore likely to encounter most of the following assessment methods in their degree: unseen examinations with a range of types of questions/tasks; dissertations and projects (and proposals for these); practical work (in the field, scientific laboratories, specialist C&IT work and quantitative and qualitative analyses); essays of varying lengths; reports; oral presentations; posters; press releases; annotated bibliographies; objective tests (perhaps through computer-based assessment); internet-based assignments; work-based assessments; and teamwork of varying kinds. Geography has been innovative in the development both of assessment of these types of learning and of ideas of equity and consistency of standards.

7 Standards and levels of achievement

7.1 The performance of all honours graduates in Geography may be expressed with reference to the four areas of achievement identified above: knowledge and understanding (Section 3); discipline-specific skills (Section 4); intellectual (thinking) skills (Section 4); and key skills (Section 4).

7.2 Table 1 expresses performance in terms of learning outcomes at the end of the degree programme. It is important to note that the benchmark statements are phrased in broad terms, to encourage institutions to develop diverse and innovative programmes within the overall framework provided by this document. As stated in paragraph 1.6, Table 1 should not be used in a prescriptive manner. These descriptors are intended to aid the preparation of programme specifications.

7.3 Students should demonstrate achievement in each of the four areas of performance, but not necessarily covering all of the items identified in Table 1. However, they would normally be expected to attain the appropriate level of achievement for each of the four areas taken as a whole and with due regard for

progression through an honours programme.

7.4 Table 1 identifies two levels of achievement: threshold and typical. The former describes the standard achieved by a minimally acceptable honours graduate (bottom of Third class of the current honours degree classification); the latter describes graduates straddling the boundary between a Lower and Upper Second class honours degree. This represents the majority of graduates. The current exercise is not intended to provide detailed descriptors of degree class attainments.

7.5 Table 1 is informed by Sections 3 and 4 of this document, and links learning outcomes to levels of performance on completion of a degree programme. However, it is possible to describe in more general terms the qualities of graduates achieving these levels of performance.

7.6 Threshold graduates possess a basic knowledge and understanding of change within human and physical environments, of interrelationships between these environments and of the interdependence of places at various scales. Their view of the discipline and its methodologies is strongly influenced by formal teaching and has a limited critical perspective. Competence in essential discipline-specific, intellectual and key skills is demonstrated.

7.7 Typical graduates display a critical awareness of the scope and methodologies of the discipline, based on a solid foundation of knowledge derived from formal teaching and independent study. They consistently demonstrate a command of appropriate discipline-specific and key skills as well as proficiency in most of the higher-level intellectual skills. Typical graduates are also distinguished from the threshold level by a capacity for developing and applying personal perspectives critically to their studies.

7.8 It is also important to recognise that a significant proportion of Geography graduates achieve excellence beyond the typical standard. These graduates are distinguished primarily by superior intellectual skills, which are deployed in the context of wide-ranging knowledge of the various aspects of the discipline. The strength of Geography's catholic methodological tradition is most clearly demonstrated in its best graduates, who bring originality, insight and superior critical and reflective abilities to bear upon this knowledge, and have the capacity to link theory and practice in identifying and tackling research problems. This quality is evident across the spectrum of assessed work, but is perhaps most clearly demonstrated in dissertations.

8 Conclusion

8.1 A major intellectual task within Geography is to encompass the different types of knowledge that are characteristic of the study of the Earth's physical environments, human societies and the interactions between the two. At the same time, the recognition that all knowledge is provisional implies that the subject must be aware not only of the different approaches to that knowledge but also of how that knowledge is produced and how it changes. These considerations have a major consequence for benchmarking: the discipline is dynamic and therefore any exercise such as this will have a shelf-life of only few years. New concerns and new ways of understanding the world mean that the content and study of Geography will itself change over time. Departments will wish to reflect these changes in the substance and delivery of their programmes; institutions will need to sustain the development of the discipline and to institute mechanisms for the regular review of degree programmes.

Table 1: Illustration of threshold and typical levels of achievement in Geography

On completion of an honours degree course in Geography, students should be able to:

	<i>Threshold</i>	<i>Typical</i>
<i>Knowledge and understanding</i>	<ul style="list-style-type: none"> ● Describe and exemplify the nature of change within human environments ● Describe and exemplify the nature of change within physical environments ● Describe and exemplify the reciprocal relationships between physical and human environments ● Describe and exemplify the significance of spatial relationships as influences upon physical and human environments ● Describe and exemplify the diversity and interdependence of places at various spatial scales ● Describe and exemplify the diversity of approaches to the generation of knowledge and understanding deriving from experience of the epistemologies of humanities, social and natural sciences ● Carry out routine investigations as instructed 	<ul style="list-style-type: none"> ● Demonstrate comprehension of the nature of change within human environments ● Demonstrate comprehension of the nature of change within physical environments ● Demonstrate comprehension of the reciprocal relationships between physical and human environments ● Demonstrate comprehension of the significance of spatial relationships as influences upon physical and human environments ● Demonstrate comprehension of the diversity and interdependence of places at various spatial scales ● Evaluate the diversity of approaches to the generation of knowledge and understanding deriving from experience of the epistemologies of the humanities, social and natural science ● Apply understanding of geographical concepts in different situations ● Have a systematic approach to accuracy, precision and uncertainty

	<i>Threshold</i>	<i>Typical</i>
<i>Discipline-specific skills</i>	<ul style="list-style-type: none"> • Illustrate the issues involved in applying research design and execution skills within the specific context of field-based research • Illustrate the diversity of specialised techniques and approaches involved in collecting geographical information (e.g. instrumentation, remote sensing, cartographic surveying, social survey, observation and the use of textual and archival sources) • Illustrate the diversity of specialised techniques and approaches involved in analysing geographical information (e.g. special techniques for the analysis of spatial information, laboratory techniques, qualitative and quantitative techniques for the analysis of social information) • Illustrate the diversity of specialised techniques and approaches involved in presenting geographical knowledge and information (e.g. GIS, cartography and different textual strategies) 	<ul style="list-style-type: none"> • Evaluate the issues involved in applying research design and execution skills within the specific context of field-based research • Evaluate the diversity of specialised techniques and approaches involved in collecting geographical information (e.g. instrumentation, remote sensing, cartographic surveying, social survey, observation and the use of textual and archival sources) • Evaluate the diversity of specialised techniques and approaches involved in analysing geographical information (e.g. special techniques for the analysis of spatial information, GIS, laboratory techniques, qualitative and quantitative techniques for the analysis of social information) • Evaluate the diversity of specialised techniques and approaches involved in presenting geographical information (e.g. GIS, cartography and different textual strategies)
<i>Intellectual (thinking) skills</i>	<ul style="list-style-type: none"> • Illustrate the contested and provisional nature of knowledge and understanding • Identify/formulate questions or problems • Identify approaches to problem-solving • Synthesise information • Develop a reasoned argument 	<ul style="list-style-type: none"> • Illustrate and discuss the contested and provisional nature of knowledge and understanding • Identify/formulate and evaluate questions or problems • Identify and evaluate approaches to problem-solving • Synthesise information and recognise relevance • Develop a sustained and reasoned argument

Key skills

Threshold

- Recognise and articulate weaknesses in the arguments of others
- Communicate geographical ideas, principles and theories by written, oral and visual means
- Present material to support a reasoned argument
- Use C&IT to select, analyse, present and communicate geographical information
- Interpret and use numerical and statistical information
- Apply basic numerical skills to geographical information
- Undertake independent/self-directed study/learning (including time-management) within a supportive framework
- Perform assigned tasks within a group setting and take part in group discussions

Typical

- Evaluate and articulate weaknesses in the arguments of others
- Articulate and communicate personal views about geographical issues
- Apply ideas to new situations
- Communicate geographical ideas, principles and theories effectively and fluently by written, oral and visual means
- Relate material appropriately to the intended audience
- Use C&IT effectively and appropriately to select, analyse, present and communicate geographical information
- Effectively and appropriately interpret and use numerical statistical information
- Apply basic and more advanced numerical skills effectively and appropriately to geographical information
- Undertake independent/self-directed study/learning (including time management) to achieve consistent, proficient and sustained attainment
- Work as a participant or leader of a group and contribute effectively to the achievement of objectives
- Reflect on the process of learning and evaluate personal strengths and weaknesses

Geography benchmarking group membership

Dr CT Agnew	University College London
Professor M Bradford	University of Manchester
Ms S Birkhill	College of St Mark and St John
Dr S Buckingham-Hatfield	Brunel University
Professor B Chalkley	University of Plymouth
Professor K Chapman	University of Aberdeen
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Dr D Gilbert	Royal Holloway, University of London
Professor MJ Healey	Cheltenham and Gloucester College of Higher Education
Professor JA Matthews	University of Wales, Swansea
Professor KS Richards	University of Cambridge
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