

GEOGRAPHY
(Higher)

Third edition – published February 2008

**NOTE OF CHANGES TO ARRANGEMENTS
THIRD EDITION PUBLISHED FEBRUARY 2008**

COURSE TITLE: Geography (Higher)

COURSE NUMBER: C208 12

NATIONAL COURSE SPECIFICATION

Course Details: Course assessment details amended to reflect changes to
Paper 2 (candidates now only answer any 2 questions from 6).

National Unit Specification:

Unit: DF3C 12
Geography: Physical Environments Appendix 1 updated to clarify content.

National Course Specification

Geography (Higher)

COURSE CODE C208 12

COURSE STRUCTURE

This Course has three mandatory Units:

| | | |
|----------------|--|-----------------------------------|
| DF3C 12 | <i>Geography: Physical Environments (Higher)</i> | <i>1 credit (40 hours)</i> |
| DF43 12 | <i>Geography: Human Environments (Higher)</i> | <i>1 credit (40 hours)</i> |
| DF44 12 | <i>Geography: Environmental Interactions (Higher)</i> | <i>1 credit (40 hours)</i> |

All Courses include 40 hours over and above the 120 hours for the component Units. This may be used for induction, extending the range of learning and teaching approaches, support, consolidation, integration of learning and preparation for external assessment.

RECOMMENDED ENTRY

While entry is at the discretion of the centre, candidates will normally be expected to have attained one of the following or equivalent:

- ◆ Standard Grade in Geography or another social subject at Credit level
- ◆ Intermediate 2 Geography or its Units
- ◆ Intermediate 2 or Higher Course in another social subject or their Units

PROGRESSION

This Course or its Units may provide progression to:

- ◆ Units or the Course at Advanced Higher Geography
- ◆ Units or the Course in another social subject at Advanced Higher
- ◆ related Higher National programmes
- ◆ Higher Education programmes in which geography is accepted as either an arts, social science or a science subject

Administrative Information

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National Course Specification: (cont)

COURSE Geography (Higher)

CORE SKILLS

This Course gives automatic certification of the following:

| | | |
|--|-----------------------------|--------|
| Complete Core Skills for the Course | None | |
| Core Skills components for the Course | Critical Thinking | Higher |
| | Using Graphical Information | Higher |

CREDIT VALUE

The Higher Course in Geography is allocated 24 SCQF points at SCQF level 6.

SCQF points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.

National Course Specification: Course details

COURSE Geography (Higher)

RATIONALE

The Course in Higher Geography builds on the Standard Grade qualification in the subject and on the Units and Courses in Geography studied at Intermediate level Geography. It is also undertaken by a number of candidates who may have studied another social subject. The achievement of a Higher Course award in Geography is recognised as a general entry qualification to both further and higher education. More specifically, it is referred to as a preferred entry qualification to a number of Units at Higher National level with a geographical and environmental focus and in higher education it is valued as an entry qualification to Arts, Social Science and Science faculties in many universities.

During the Course in Higher Geography emphasis is placed on the provision of geographical experiences which lead candidates to an understanding of concepts, key ideas and relevant terminology. These experiences also develop evaluative and investigative skills. In the *Geography: Physical Environments* and *Geography: Human Environments* Units of the Course the focus of study is on specific features of physical and human environments. The *Geography: Environmental Interactions* Unit develops an awareness of the inter-relationships between these environments. Candidates who have completed all three Units will, therefore, have widened their knowledge of the environment as a whole but will also have been able to use this knowledge to come to a greater understanding of how the different elements of these environments relate to each other. As these knowledge and skill areas develop, candidates will increasingly apply them to situations in which they have to make sound and reasoned judgements about local, national and global environmental issues.

The study of Geography at Higher level provides an increasingly sophisticated development of skills through a range of learning experiences. In addition, there is an increased emphasis on developing skills of independent study, co-operative learning, objective thinking and the ability to communicate clearly and confidently. The development of these skills at Higher level provides candidates with a sound base from which to pursue further studies.

The principal aim of the Higher level Course in Geography is that, by using the concepts and techniques of geographical analysis, candidates develop a detailed understanding of aspects of the contemporary world which are of concern to all citizens. In addition, the Course enables candidates to develop progressively:

- ◆ an understanding of the ways in which people and the environment interact in response to physical and human processes at local, national and international scales
- ◆ an awareness of spatial relationships and an understanding of the changing world in a balanced, critical and sympathetic way
- ◆ a life-long interest in, understanding of, and concern for the environment
- ◆ a geographical perspective on environmental issues and their significance
- ◆ general skills of research, analysis, synthesis, evaluation and presentation, including the use of IT
- ◆ techniques and terminology to collect, extract, analyse, interpret and explain geographical phenomena
- ◆ expertise in the use of a range of maps, diagrams, statistical techniques, written accounts and, where appropriate, new technology, to process and communicate information

A contribution is made to general and vocational education and the wider curriculum by:

- ◆ raising awareness of the links between the subject and other disciplines
- ◆ developing independent and co-operative learning as part of personal and social education
- ◆ developing problem-solving skills

National Course Specification: Course details (cont)

COURSE Geography (Higher)

- ◆ emphasising the development and application of learning skills relevant to everyday life

Appropriate key geographical concepts should be developed. In constructing a teaching programme, account should be taken of the following underlying concepts:

- ◆ location
- ◆ spatial patterns
- ◆ change
- ◆ diversity
- ◆ interdependence
- ◆ co-operation
- ◆ conflict
- ◆ sustainability
- ◆ global citizenship
- ◆ technology

These concepts should be introduced where they are appropriate to the topic of study.

National Course Specification: Course details (cont)

COURSE Geography (Higher)

COURSE CONTENT

The Course content is divided into separate Units dealing with the physical and human environments, and the interactions which take place between them. Opportunities are provided in the Course for candidates to integrate knowledge and understanding, and apply this in less familiar and more complex contexts using skills acquired in the Units.

A range of geographical methods and techniques is included within the Unit *Geography: Physical Environments* and the *Geography: Human Environment* Unit. These methods and techniques build on skills developed in earlier Units and Courses. The techniques may be taught through actual fieldwork or simulated fieldwork in the classroom. The application of selected methods and techniques to present, analyse and interpret information will be part of the external and internal assessment. Opportunities should be provided for candidates to make use of a range of maps, including OS maps at a variety of scales. Further details of these skills are contained in Appendix 1 and in the Specifications for the Units which form part of this Course.

Detailed content relating to knowledge and understanding is contained in these Unit Specifications. A summary of this content is given in the table below.

Each Unit should take up to a maximum of 40 hours for teaching. Additional time is available within the 160 hours allocated to the Course for revision, preparation for assessment, remediation and reassessment.

Physical Environments Unit (Higher)

| Topic | Main idea | Key topics |
|-----------------------|---|--|
| a) Atmosphere | The characteristics of the atmosphere vary spatially and provide climate and weather conditions which interlink with other systems. | <ol style="list-style-type: none"> 1 Global scale — effects of radiation; the patterns and influence of atmospheric and oceanic circulation; global climate change. 2 Regional scale — equatorial and savanna regions of Africa. |
| b) Hydrosphere | The water cycle, which constitutes a major physical system, operates on a variety of scales. On the Earth's surface, the movement of water is a major agent in the formation of landforms and landscapes. | <ol style="list-style-type: none"> 1 Hydrological cycle. 2 Fluvial landforms and landscapes. |
| c) Lithosphere | The lithosphere displays a range of landforms and patterns which can be explained by reference to a variety of processes on different scales. | <ol style="list-style-type: none"> 1 The development of regional landscapes. 2 The influence of structure, rock type, erosion and deposition upon relief forms and patterns on the regional scale. |
| d) Biosphere | Soils and vegetation can be viewed as ecosystems, which are a set of interacting components. | <ol style="list-style-type: none"> 1 Soils — properties and formation processes. 2 Vegetation — the evolution of vegetation communities as ecosystems to climax stage. |

Human Environments Unit (Higher)

| Topic | Main idea | Key topics |
|--------------------------------|---|---|
| a) Population geography | Population change and structure vary spatially and over time. The reasons for change are complex and involve human and environmental factors. | <ol style="list-style-type: none"> 1 Demographic systems. 2 Population change. 3 Migration. |
| b) Rural geography | Rural populations are involved in a variety of agricultural systems. These systems and associated landscapes are subject to change. | <ol style="list-style-type: none"> 1 Agricultural systems — shifting cultivation, intensive peasant farming and commercial arable farming. 2 Rural landscapes associated with these systems. 3 Rural change (post 1950) associated with these systems. |
| c) Industrial geography | Areas of industrial concentration contain a range of manufacturing and other economic activities. These concentrations develop and change spatially over time. This section should be studied with reference to one or more industrial concentrations within the European Union. | <ol style="list-style-type: none"> 1 Industrial systems. 2 Industrial landscapes. 3 Industrial change. |
| d) Urban geography | Urban settlements provide a range of employment, services and residential opportunities which may be located in different parts of the settlement. This section should be studied with reference to one large urban concentration from an EMDC. | <ol style="list-style-type: none"> 1 Urban systems. 2 Urban zones. 3 Urban change (post 1950). |

Environmental Interactions Unit (Higher)

| Topic | Main idea | Areal context | Key topics |
|--|---|---|---|
| Interaction (a) —Rural land resources | Rural land resources are the product of the interaction of a wide range of physical factors modified by human activity. The resultant rural landscapes offer a variety of physical, economic and social opportunities. | United Kingdom | <ol style="list-style-type: none"> 1 Characteristics of glaciated upland, upland limestone and coastal landscapes. 2 The evolution of these landscapes. 3 Economic and social opportunities. 4 Environmental problems and conflicts. 5 UK and European Union policies. |
| Interaction (b) — Rural land degradation | Rural land resources are subject to degradation, which may be the result of natural processes, human activity or a combination of both. The decline in land productivity and other consequences of land degradation have direct social and economic consequences and have led to the development of soil conservation and land management strategies. | North America and either Africa north of the Equator or the Amazon basin | <ol style="list-style-type: none"> 1 Soil erosion and degradation (desertification). 2 Climate and, where appropriate, its variability. 3 Human activity. 4 The consequences of soil erosion and degradation (desertification). 5 Soil conservation and land management strategies. |
| Interaction (c) — River basin management | Within river basins, water control projects are undertaken for a variety of reasons and on a range of scales. These projects are examples of human interference with systems, especially hydrological systems. The changes often have both beneficial and adverse consequences. | Either Africa or North America or Asia, including the detailed study of one river basin | <ol style="list-style-type: none"> 1 Distribution of river basins and water control projects. 2 The physical characteristics of the selected river basin. 3 The hydrological cycle applied to the case study. 4 Case study of a selected river basin. 5 The selection and development of sites. 6 The consequences of water control projects on the selected basin. |

Environmental Interactions Unit (Higher)

| Topic | Main Idea | Areal context | Key topics |
|--|---|---|---|
| Interaction (d) — Urban change and its management | Large urban concentrations are characteristic of many countries. The urban environment of these concentrations changes in response to a wide range of environmental, social, economic, technological and political factors. | Two urban concentrations — one from an EMDC and one from an ELDC | <ol style="list-style-type: none"> 1 Distribution and pattern of urban growth and development. 2 Location, development, structures and urban land use patterns of case study cities. 3 Urban change. 4 The management of urban change. 5 Environmental conflicts. |
| Interaction (e) — European regional inequalities | Regional inequalities on a variety of scales are a feature of the contemporary world. There is a variety of physical, social and economic reasons for these spatial disparities. Within the European Union, policies are developed at national and international levels to reduce inequalities. | European Union, with particular reference to two of its member states, one of which must be the United Kingdom | <ol style="list-style-type: none"> 1 European Union pattern of regional inequality. 2 Explanations for this pattern. 3 Regional inequality at a national scale. 4 National and European Union policies and programmes. |
| Interaction (f) — Development and health | Inequality of social and economic development is a major feature of the contemporary world. It exists on various scales and is measurable in several ways. Levels of health and the incidence of disease are major indicators of levels of development. Such indicators may be explained geographically by reference to a variety of interacting processes. | Case studies from economically less developed countries (ELDCs) | <ol style="list-style-type: none"> 1 Measuring spatial inequality of development. 2 Differences in levels of development between and within countries. 3 Levels of health and the incidence of disease. 4 Strategies for improving health and the control of disease, and their impact. |

National Course Specification: Course details (cont)

COURSE **Geography (Higher)**

ASSESSMENT

To achieve the Course award, the candidate must pass the Units as well as the Course assessment. The candidate's grade is based on the Course assessment.

The key elements of the Course are:

- ◆ an understanding of the ways in which people and the environment interact in response to physical and human processes at local, national and international scales
- ◆ an awareness of spatial relationships and an understanding of the changing world in a balanced and critical way
- ◆ general skills of research, analysis and evaluation
- ◆ techniques and terminology to extract, analyse, interpret and explain geographical phenomena
- ◆ expertise in the use of a range of maps, diagrams, statistical techniques and, where appropriate new technology, to process and communicate information

These, therefore, represent the key objectives for the assessment of the Course. These key objectives will be addressed in both the internal assessment of the Units and in the external assessment of the Course.

Unit assessment

Assessment for each of the Units on *Physical Environments* and *Human Environments* consists of a 45 minutes holistic assessment involving restricted responses, while assessment of the Unit *Environmental Interactions*, also lasting 45 minutes, requires extended responses. In all cases, the responses have to be produced under supervised conditions and address all the Outcomes and Performance Criteria.

National Course Specification: Course details (cont)

COURSE **Geography (Higher)**

The structure of the Course assessment

The Course assessment consists of two question papers. The papers are out of 100 marks each and are equally weighted.

| Paper 1 | Physical and Human Environments Time: 1 hour 30 minutes | | Total marks |
|---|--|--------------------|--|
| Section A — four compulsory questions | | No of marks | Comments |
| Question 1 | These questions will be on two of the four physical environment topics | 16 to 20 | These questions may contain OS maps.* The questions used will vary randomly from year to year. No advance notice will be given on which topics are likely to appear in this section |
| Question 2 | | | |
| Question 3 | These questions will be on two of the four human environment topics | 16 to 20 | |
| Question 4 | | | |
| Section B — two optional questions — Physical Environments | | | |
| Question 5 | Candidates will answer one of these questions | 14 | These questions might contain OS maps.* They will be on the topics not assessed in Section A. |
| Question 6 | | | |
| Section C — two optional questions — Human Environments | | | |
| Question 7 | Candidates will answer one of these questions | 14 | These questions might contain OS maps.* They will be on the topics not assessed in Section A. |
| Question 8 | | | |
| TOTAL MARKS 100 | | | |

*OS mapping will be assessed in at least one question in Paper 1, Section A. Questions in Sections B and C might also contain OS mapping questions.

National Course Specification: Course details (cont)

COURSE Geography (Higher)

| Paper 2 | Environmental Interactions Time: 1 hour 15 minutes | Out of | |
|------------------------|---|--|----|
| Question 1 | Rural land resources | Candidate will answer two questions | 50 |
| Question 2 | Rural land degradation | | 50 |
| Question 3 | River basin management | | 50 |
| Question 4 | Urban change & management | | 50 |
| Question 5 | European regional inequalities | | 50 |
| Question 6 | Development & health | | 50 |
| TOTAL MARKS 100 | | | |

National Course Specification: Course details (cont)

COURSE Geography (Higher)

Links between Unit and Course assessment and the added value of the Course

Internal assessment of the Units which make up the Higher Geography Course covers the Performance Criteria. This takes place within the context of a limited range of sub-sections from each of the three Units. Candidates can achieve a pass in the *Physical Environments* and *Human Environments* Units by answering questions on only two of the four sub-sections taught in each. In addition to this they are required to demonstrate competence in a geographical method or technique related to each of the physical and human environments. Candidates are likely to take this assessment with advance knowledge of the sub-sections which are to be assessed. In the third Unit, *Environmental Interactions*, only one of the interactions is assessed. Overall, the internal assessment ensures that competence in the key knowledge and skill areas is shown but their breadth is not assessed to the same extent as it is in the external assessment.

The external assessment provides better opportunities to assess a wider range of content, the ability of candidates to retain knowledge and skills over a longer period of time, and their ability to integrate the knowledge and skills learnt across the Units. In Paper 1 there is an element of choice. Candidates are required to answer questions linked to six of the eight sub-sections from Units 1 and 2. This choice element in Paper 1 of the exam is constructed in such a way that it ensures that all candidates must have a sound knowledge and understanding of all eight. Paper 2 requires candidates to answer questions on two selected from the six environmental interactions which could be taught. Centres will be free to choose whether they wish to cover more than the minimum requirement of two. Where more than two are taught candidates will have choice in this paper as well. Candidates who have progressed from Intermediate 2, may also find they have an element of choice in Paper 2 but this will depend on the environmental interactions studied at that level and the depth at which that study took place.

For the Course assessment at Higher level candidates are expected to display a wide breadth of knowledge and skills, including the interpretation and analysis of Ordnance Survey maps. They are required to use these to demonstrate the high level skills of writing extended responses which integrate and analyse this information. The balance between the papers in the external exam aims to reflect the importance attached to integration and analysis through the writing of extended responses. Paper 1 uses short answer questions to examine a wide range of the content and skills taught within the first two Units. Paper 2, on the other hand, provides the opportunity to assess the higher level skills.

In summary, achievement of the Course award will show that the candidate has the ability to:

- ◆ retain and integrate knowledge and understanding
- ◆ apply knowledge and understanding to less familiar and more complex contexts
- ◆ apply geographical methods and techniques, including the use of Ordnance Survey maps, to less familiar and more complex contexts

Further details about assessment for this Course can be found in NAB materials, the Course Assessment Specification and the Specimen Question Paper, which are available for NAB materials at www.sqa.org.uk/sqasecure and for the Course Assessment Specification and Specimen Paper at www.sqa.org.uk.

National Course Specification: Course details (cont)

COURSE **Geography (Higher)**

GRADE DESCRIPTIONS

The Higher Geography Course should enable candidates to demonstrate a knowledge and understanding of key concepts, an ability to evaluate and analyse complex information and use a variety of geographical methods and techniques to interpret and explain geographical phenomena.

The candidate's grade will be based on the total score obtained from the Course assessment. The descriptions below indicate the nature of achievement required for the award at grade C and A in the Course.

Knowledge and understanding

| Element | Grade Description | Exemplification |
|---------|---|--|
| Grade C | The candidate should be able to show knowledge and understanding of terminology, ideas and systems, make use of complex information, explain a range of geographical phenomena | ◆ This knowledge should relate to both the physical and human environment and show a general understanding of the subject area |
| Grade A | The candidate should be able to show a wide knowledge and understanding of terminology, ideas and systems, make use of complex information, explain a range of geographical phenomena | ◆ This knowledge should relate to both the physical and human environment and should, in most cases, be accurate and detailed |

Evaluating

| | | |
|---------|--|---|
| Grade C | The candidate should be able to analyse a range of complex geographical evidence, reach realistic conclusions and offer explanations for these, taking relationships into account | ◆ The analysis should cover both the physical and human environments ◆ The analysis and conclusions reached should demonstrate an awareness of the interactions which occur within the environment |
| Grade A | The candidate should be able to analyse in detail a range of complex geographical evidence, reach realistic and detailed conclusions and offer detailed and reasoned explanations for these, taking relationships into account | ◆ The analysis should cover both the physical and human environments ◆ The analysis and conclusions reached should demonstrate a sound understanding of inter-relationships within the environment |

Geographical methods and techniques

| | | |
|---------|---|--|
| Grade C | The candidate should be able to apply appropriate methods and techniques and will use a range of geographical methods and techniques to interpret and analyse geographical phenomena | ◆ The knowledge should sample the range of methods and techniques used and will also include those associated with the interpretation of Ordnance Survey maps ◆ The application, interpretation and analysis of the range of methods and techniques will be demonstrated successfully |
| Grade A | The candidate should be able to apply appropriate methods and techniques and will use a range of geographical methods and techniques to give detailed interpretations and detailed analysis of the geographical phenomena | ◆ The knowledge should sample the range of methods and techniques used and will also include those associated with the interpretation of Ordnance Survey maps ◆ The application, interpretation and analysis of the range of methods and techniques will be demonstrated successfully on more than one occasion |

National Course Specification: Course details (cont)

COURSE Geography (Higher)

Evidence used for estimates and appeals

To determine the suitability of the evidence for estimates and appeals, centres should measure it against the Grade Descriptions and exemplification illustrated in the table above. Where evidence meets these criteria and demonstrates the retention of knowledge and skills over a period of time then the evidence ought to be sufficient to make a judgement for the purposes of estimates.

Evidence to support an appeal must also show a sufficient breadth of coverage of the content of component Units of the Course. Centres should base their appeals on the following criteria:

- ◆ there should be evidence of retained and integrated knowledge
- ◆ there should be evidence from a minimum of three physical and three human environments
- ◆ there should be evidence from two environmental interactions
- ◆ the evidence should include the use of Ordnance Survey maps

Where the centre has gathered evidence in such a way that the candidates are able to demonstrate evidence for all these criteria, eg by means of a prelim exam, this can form the basis of an appeal. Ideally, if a prelim is used, it should replicate the style, timing, difficulty and overall mark of the external examination.

Candidates are required to have a sound knowledge of all eight sub topics from the Units *Physical/Human Environments* and of two environmental interactions from the Unit *Environmental Interactions* when they sit the external assessment. The best evidence for appeals should therefore demonstrate this knowledge.

If using a prelim, some centres may set this early on in the Course when it would not be possible to assess all topics. In this case additional evidence covering the later topics (which could be from internal assessment/NABs) should be submitted. Evidence generated later in the Course may be more representative of candidates' final level of attainment.

Centres gathering evidence for estimates and appeals sometimes draw heavily on past SQA papers for their questions. For reliability, it is important that the assessment being used for evidence is an unseen assessment conducted under controlled and supervised conditions. Centres should note that a past paper or SQA specimen paper, in its entirety, will not be accepted as evidence to support an appeal. However, it is acceptable for centres to use a selection of individual questions drawn from a range of past papers, suitably adapted, to make up a prelim paper. This gives a degree of uniqueness to the assessment.

Additional evidence

Centres may use evidence generated from NAB items/Unit assessments to contribute toward appeals. However, the achievement of a pass in each of the units does not demonstrate all the elements of the performance required to achieve a minimum 'C' award. Achievement of at least 60% in each NAB can be helpful but evidence matching all of the bullet points listed above must be provided.

National Course Specification: Course details (cont)

COURSE Geography (Higher)

QUALITY ASSURANCE

All National Courses are subject to external marking and/or moderation. External markers, visiting examiners and moderators are trained by SQA to apply national standards. SQA is currently seeking to assist centres by preparing exemplification of standards materials in a number of subject areas. This will be rolled out to all subjects in due course.

The Units of all Courses are subject to internal moderation and may also be chosen for external moderation. This is to ensure that national standards are being applied across all subjects.

Courses may be assessed by a variety of methods. Where marking is undertaken by a trained marker in their own time, markers meetings are held to ensure that a consistent standard is applied. The work of all markers is subject to scrutiny by the Principal Assessor and a PA report is published for all subjects.

APPROACHES TO LEARNING AND TEACHING

This Course consists of three 40-hour mandatory Units.

| | | |
|---------|---|----------|
| DF3C 12 | : <i>Geography: Physical Environments</i> (Higher) | 40 hours |
| DF43 12 | : <i>Geography: Human Environments</i> (Higher) | 40 hours |
| DF44 12 | : <i>Geography: Environmental Interactions</i> (Higher) | 40 hours |

There is no set sequence for delivery either of the Units or of the content within the Units. Because it consists of four sub topics in each of the *Geography: Physical Environments* Unit and the *Geography: Human Environments* Unit and a minimum of two sub topics in the *Geography: Environmental Interactions* Unit, centres can choose the sequence in which they wish to teach the content. As a consequence of this, there is no preferred or recommended model for delivery but some general guidance is worth considering. The Units can be taught in sequence, in parallel or in an integrated way. As the *Geography: Environmental Interactions* Unit develops some of the knowledge and skills taught in the *Geography: Physical Environments* Unit and the *Geography: Human Environments* Unit, it is not advised to teach the whole of this Unit before the other two. Centres frequently teach part of the *Geography: Environmental Interactions* Unit in association with the relevant sub topics from the *Geography: Physical Environments* Unit and the *Geography: Human Environments* Unit. Once this part of the Unit has been taught it may be some time before the rest of it is taught. The Units *Geography: Physical Environments* and *Geography: Human Environments* can also follow a similar model. Selected sub topics can be taught early in the year and the other sub topics returned to at a much later date. An example of models which might be used to teach this Course in association with the Intermediate Courses in Geography is provided in Appendix 2.

National Course Specification: Course details (cont)

COURSE Geography (Higher)

The internal assessment of the Units lends itself to this style of delivery. As the internal assessment for each Unit only requires competence to be shown in some of the sub topics, this can be given before the teaching of the Unit is completed. An advantage of this is that early assessments can provide early warning to candidates and their teachers/lecturers regarding those who are having difficulty. This should make it easier to transfer candidates to another level early in the Course.

In situations where candidates transfer between levels during a session (for example from Higher to Intermediate 2), the candidate will be able to receive credit for his/her success at Higher. They will, however, only be able to achieve certification for a Course award at the lower level.

All of the Higher Geography Course can be taught in the classroom but there are many opportunities for centres to engage their candidates in fieldwork related to the Course. Both the *Geography: Physical Environment* Unit and the *Human Environment* Unit can be made more relevant to candidates by providing opportunities for fieldwork and educational visits during the Course. In the *Geography: Environmental Interactions* Unit the rural land resources, European regional inequalities and urban change and its management sub topics can also incorporate elements of fieldwork. A number of centres encourage their candidates to take part in residential visits to field studies centres or to participate in field visits organised around day visits to places of interest.

CANDIDATES WITH DISABILITIES AND/OR ADDITIONAL SUPPORT NEEDS

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering alternative Outcomes for this Course. Further advice can be found in the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* (www.sqa.org.uk).

GEOGRAPHY IN A BROADER CONTEXT

A number of national initiatives and programmes have been designed to promote themes that are important to contemporary society such as citizenship and enterprise. These themes contribute to, individual subjects and Courses by making connections beyond the subject boundaries and enrich the learning experience. Similarly, the specialist knowledge and skills developed through study of a particular subject contributes to the understanding of these themes.

Cross-curricular themes and issues in Geography

The nature of Geography, crossing as it does many of the inter-disciplinary divides, means that geographical education has traditionally been imbued with cross-curricular themes. At all levels, the Unit Specifications allow teachers and students to continue to exploit opportunities for learning experiences which go beyond the bounds of the subject. Many of the themes encompassed within current initiatives such as education for citizenship, enterprise in education, health education and the national priorities for education, can be found within the Specifications for the National Courses in Geography.

Education for citizenship equips young people with the knowledge and skills which develop their ability to become active and responsible citizens. Within the Units of Intermediate 1, Intermediate 2 and Higher Courses, students have the opportunity to explore connections between human cultures and the physical world in which they live.

National Course Specification: Course details (cont)

COURSE Geography (Higher)

Specifically, in the Intermediate 1 and Intermediate 2 Courses, the impact of human activities on the environment is explored in a variety of contexts within the British Isles in Unit 1. In Unit 2, with a more global context, differences in economic development and population change underline the need for global citizenship. Unit 3 focuses on the relationships between the physical and human environment, and extends the themes of sustainable development. Respect for cultural and community diversity may be explored through studies of the management of urban change, population change (at all levels), and European Regional Inequalities (Higher).

Health education is explored in both the Intermediate and Higher Courses, with the Specifications at both levels highlighting differences in health across the globe and specifically including reference to AIDS. Implicit is a study of healthy lifestyles.

Enterprise in Education highlights the need to equip young people with the skills to prosper in a changing society. At all levels students have the opportunity to increase knowledge relevant to the world of work through studies of technological change and change in manufacturing methods. Awareness of the changing nature of the world of business, of working life and economic activity are implicit in the Specifications for Intermediate 1, Intermediate 2 and Higher. At Advanced Higher level, self-motivation and independence are encouraged in the undertaking of practical activities.

Appendix 1: Progression of Geographical Methods and Techniques between Intermediate 1 and Higher

| SKILL AREA | INTERMEDIATE 1: (Interpreting and processing straightforward information) | INTERMEDIATE 2: (Interpreting and processing and analysing complex information) | HIGHER: (Knowledge, understanding, application, interpretation, explanation, analysis, draw conclusions) |
|----------------|--|---|---|
| Field sketches | <ul style="list-style-type: none"> ◆ Identification of features ◆ Annotation | <ul style="list-style-type: none"> ◆ Identification of features ◆ Annotation | <ul style="list-style-type: none"> ◆ Identification and annotation of physical and urban landscape features ◆ Annotation and analysis of rural, urban, and old and new industrial landscapes |
| Photographs | <ul style="list-style-type: none"> ◆ Identification of features ◆ Annotation | <ul style="list-style-type: none"> ◆ Identification of features ◆ Annotation | <ul style="list-style-type: none"> ◆ Annotation and identification of physical landscape features ◆ Annotation and analysis of photographs of rural, urban, and old and new industrial landscapes |
| Maps | <p>For 1:25000 & 1:50000 maps candidates should be able to:</p> <ul style="list-style-type: none"> ◆ use four (read and give) and six figure grid references (read) ◆ measure straight distances ◆ interpret height and steepness of slope, general patterns of relief, contour patterns linked to taught landscape features, eg corrie, river valleys, cliff ◆ identify, describe and suggest reasons for transport routes, location and distribution of settlement, different land use zones within settlements ◆ identify, describe and suggest reasons for human activity and potential conflicts ◆ describe and suggest reasons for conflicts ◆ use maps in association with photographs, field sketches, cross sections and transects | <p>For 1:25000 & 1:50000 maps candidates should be able to :</p> <ul style="list-style-type: none"> ◆ use four and six figure grid references (read and give) ◆ measure straight distances ◆ interpret height and steepness of slope, general patterns of relief, contour patterns linked to taught landscape features, eg U-shaped valley, headland, limestone pavement ◆ identify, describe and suggest reasons for transport routes, location and distribution of settlement, different land use zones within settlements ◆ identify, describe and suggest reasons for human activity and potential conflicts ◆ describe and suggest reasons for conflicts ◆ use maps in association with photographs, field sketches, cross sections and transects | <p>For 1:25000 & 1:50000 maps candidates should be able to:</p> <ul style="list-style-type: none"> ◆ use grid references ◆ give detailed descriptions of general relief ◆ describe and suggest reasons for transport routes ◆ describe and suggest reasons for different land use zones within settlements ◆ describe and explain inter-relationships within and between physical and human environments ◆ use maps in association with photographs, field sketches, cross sections and transects |

Appendix 1 (cont)

| SKILL AREA | INTERMEDIATE 1: (Interpreting and processing straightforward information) | INTERMEDIATE 2: (Interpreting and processing and analysing complex information) | HIGHER: (Knowledge, understanding, application, interpretation, explanation, analysis, draw conclusions) |
|-------------------------------|---|---|--|
| | Interpretation of: <ul style="list-style-type: none"> ◆ choropleth ◆ isoline ◆ proportional symbol ◆ topological maps | Partial construction (by completion) and interpretation and analysis of: <ul style="list-style-type: none"> ◆ choropleth ◆ isoline ◆ proportional symbol ◆ topological maps | <ul style="list-style-type: none"> ◆ Interpretation and analysis of choropleth, isoline, proportional symbol, topological maps ◆ Interpretation of climate and population maps ◆ Analyse rural land use and urban land use maps ◆ Identification of features of physical and human landscapes |
| Graphs | Construction and interpretation of: <ul style="list-style-type: none"> ◆ simple line ◆ multiple line ◆ bar ◆ divided bar ◆ histogram ◆ scatter ◆ pie ◆ pictographs | Construction, interpretation and analysis of: <ul style="list-style-type: none"> ◆ simple line ◆ multiple line ◆ complex bar ◆ divided bar ◆ histogram ◆ scatter ◆ pie ◆ pictographs | <ul style="list-style-type: none"> ◆ Construction, interpretation and analysis of climate graphs ◆ Construction and analysis of hydrographs ◆ Interpretation of population graphs ◆ Presentation and interpretation of river flow data |
| Diagrams | Annotation and interpretation of: <ul style="list-style-type: none"> ◆ Cross sections, transects, topological diagrams Construction and interpretation of: <ul style="list-style-type: none"> ◆ population pyramids | Annotation, interpretation and analysis of: <ul style="list-style-type: none"> ◆ cross sections, transects, topological diagrams Construction, interpretation and analysis of: <ul style="list-style-type: none"> ◆ population pyramids | <ul style="list-style-type: none"> ◆ Construction, interpretation and analysis of cross sections and transects in physical landscapes ◆ Interpretation of population pyramids, climate graphs and population flow diagrams ◆ Presentation and interpretation of river flow data ◆ Analysis of soil profiles, rural land use, transect showing urban land use |
| Surveys/tables /data handling | Construction and interpretation of: <ul style="list-style-type: none"> ◆ surveys ◆ tables ◆ data | Construction, interpretation and analysis of: <ul style="list-style-type: none"> ◆ surveys ◆ tables ◆ data | <ul style="list-style-type: none"> ◆ Interpretation of river flow, population data ◆ Analysis of the data from soil, industrial, employment, farm, rural land use and urban land use surveys ◆ Interpretation and explanation of vegetation surveys |
| Questionnaires | Construction and interpretation | Construction, interpretation and analysis | |

Appendix 2: Course Planning Guide

Possible models for delivery of Courses at Intermediate 1, Intermediate 2 and Higher

| Model No | 1 | Intermediate | | | Higher | | | Reassessment point — after consolidation and remediation |
|---|---|--------------|---|--|-------------|-------------------------------------|---|--|
| | | No of hours | Intermediate Unit/topics | Internal assessment point | No of hours | Higher Unit/topics | Internal assessment point | |
| Choice of Environmental Interactions | | 10 | Physical Environments — limestone, glaciation | | 10 | Physical Environments — lithosphere | | |
| | | 20 | Physical Environments — issues | | 20 | Environmental Interactions — rlr | | |
| Intermediate — rural land degradation | | | | | | | Environmental Interactions (rlr) | |
| | | 10 | Physical Environments — coasts, rivers | | 10 | Physical Environments — hydrosphere | | |
| — development and health | | | | Physical Environments | | | Physical Environments | |
| | | 10 | Human Environments — population | | 10 | Human Environments — population | | |
| Higher — rural land resources | | 20 | Environmental Interactions — dh | | 20 | Environmental Interactions — dh | | |
| | | | | Environmental Interactions (dh) | | | | Environmental Interactions |
| — development and health | | 12 | Human Environments — rural | | 10 | Human Environments — rural | | |
| | | | | | | | Human Environments | |
| | | 12 | Human Environments — urban | | 10 | Human Environments — urban | | |
| | | 6 | Human Environments — industry | | 10 | Human Environments — industry | | |
| | | | | Human Environments | | | | Human Environments |
| | | 20 | Environmental Interactions — rld | | 10 | Physical Environments — atmosphere | | |
| | | | | | 10 | Physical Environments — biosphere | | Physical Environments |

Appendix 2: Course Planning Guide (cont)

Possible models for delivery of Courses at Intermediate 1, Intermediate 2 and Higher

| Model No | 2 | Intermediate | | | Higher | | | Reassessment point — after consolidation and remediation |
|---|---|--------------|---|-----------------------------------|-------------|-------------------------------------|---|--|
| | | No of hours | Intermediate Unit/topics | Internal assessment point | No of hours | Higher Unit/topics | Internal assessment point | |
| Choice of Environmental Interactions | | 10 | Physical Environments — limestone, glaciation | | 10 | Physical Environments — lithosphere | | |
| | | 20 | Physical Environments — issues | | 20 | Environmental Interactions — rlr | | |
| Intermediate — rural land degradation | | | | | | | Environmental Interactions (rlr) | |
| | | 10 | Physical Environments — coasts, rivers | | 10 | Physical Environments — hydrosphere | | |
| — environmental hazards | | | | Physical Environments | | | Physical Environments | |
| | | 10 | Human Environments — population | | 10 | Human Environments — population | | |
| Higher — rural land resources | | 12 | Human Environments — rural | | 10 | Human Environments — rural | | |
| | | | | | | | Human Environments | |
| — urban change and its management | | 6 | Human Environments — industry | | 10 | Human Environments — industry | | |
| | | 12 | Human Environments — urban | | 10 | Human Environments — urban | | |
| | | 12 | | Human Environments | | | | Human Environments (H) |
| | | 20 | Environmental Interactions — rld | | 20 | Environmental Interactions — ucm | | |
| | | | | Environmental Interactions | | | | Environmental Interactions (H) |
| | | 20 | Environmental Interactions — eh | | 10 | Physical Environments — atmosphere | | |
| | | | | | 10 | Physical Environments — biosphere | | Physical Environments (H & I) Human Environments (I) Environmental Interactions (I) |

Appendix 2: Course Planning Guide (cont)

Possible models for delivery of Courses at Intermediate 1, Intermediate 2 and Higher

| Model No | 3 | Intermediate | | | Higher | | | Reassessment point — after consolidation and remediation |
|--|----|---------------------------------|---|---|---------------------------------|--|---|--|
| | | No. of hours | Intermediate Unit/topics | Internal assessment point | No of hours | Higher Unit/topics | Internal assessment point | |
| Choice of Environmental Interactions | | 10 | Physical Environments — rivers | | 10 | Physical Environments — hydrosphere | | |
| | | 20 | Environmental Interactions — rbm | | 20 | Environmental Interactions — rbm | | |
| Intermediate — river basin management — European environmental inequalities | | | | Environmental Interactions (rbm) | | | Environmental Interactions (rbm) | |
| | | 30 | Physical Environments — glaciation, coasts, limestone, issues | | 30 | Physical Environments — lithosphere, biosphere, atmosphere | | |
| Higher — river basin management — European regional inequalities | | | | Physical Environments | | | Physical Environments | Physical Environments |
| | | 10 | Human Environments — industry | | 10 | Human Environments — industry | | |
| | | 20 | Environmental Interactions — eei | | 20 | Environmental Interactions — eri | | |
| | | | | | | | | Environmental Interactions |
| | | 12 | Human Environments — rural | | 10 | Human Environments — rural | | |
| | | | | | | | Human Environments | |
| | 12 | Human Environments — urban | | 10 | Human Environments — urban | | | |
| | 6 | Human Environments — population | | 10 | Human Environments — population | | | |
| | | | | Human Environments | | | | Human Environments |

National Unit Specification: general information

UNIT Geography: Physical Environments (Higher)

CODE DF3C 12

COURSE Geography (Higher)

SUMMARY

This Unit builds on the key ideas developed through the study theme ‘the physical environment’ in Standard Grade Geography and also the *Geography: Physical Environments* Unit at Intermediate 1 and 2. It could also be used as an introductory Unit to those with a broad interest in the subject area.

Emphasis is placed on providing candidates with scope for deepening and broadening their knowledge and understanding of physical geography. This is done with reference to four topics: the atmosphere, hydrosphere, lithosphere and biosphere. As these topics are studied candidates will also develop their knowledge and use of a range of geographical methods and techniques appropriate to the topics being studied. These methods and techniques include interpretation and analysis of Ordnance Survey maps.

The specific aims of the Unit are to develop:

- ◆ knowledge and understanding of the physical environment
- ◆ knowledge and understanding of change in environmental systems
- ◆ knowledge and understanding of the opportunities and limitations of the physical environment in terms of human activities
- ◆ knowledge and understanding of how human activities can lead to various forms of environmental degradation and enhancement

Appendix 1 contains the skills and content which will be covered in this Unit and will be sampled to provide the evidence required for the Unit.

Administrative Information

Superclass: RF

Publication date: February 2008

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Version: 02

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National Unit Specification: general information (cont)

UNIT Geography: Physical Environments (Higher)

OUTCOMES

- a) Explain the major systems of physical geography with reference to different scales and change over time.
- b) Demonstrate knowledge, understanding and applications of a range of geographical methods and techniques (GMTs).

RECOMMENDED ENTRY

While entry is at the discretion of the centre, candidates would normally be expected to have attained one of the following or equivalent:

- ◆ Standard Grade in Geography or another social subject at Credit level
- ◆ the Course at Intermediate 2 Geography or its Units
- ◆ the Course or Units at Intermediate 2 in another social subject

CREDIT VALUE

1 credit at Higher (6 SCQF credit points at SCQF level 6*)

**SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

CORE SKILLS

This Unit gives automatic certification of the following:

| | |
|--|---------------------------------------|
| Complete Core Skills for the Unit | None |
| Core Skills components for the Unit | Using Graphical Information Higher |

National Unit Specification: statement of standards

UNIT Geography: Physical Environments (Higher)

Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit Specification. All sections of the statement of standards are mandatory and cannot be altered without reference to the Scottish Qualifications Authority.

OUTCOME 1

Explain the major systems of physical geography with reference to different scales and change over time.

Performance Criteria

- a) Accurately identify and describe in detail the geographical phenomena within the major systems of physical geography.
- b) Accurately and in detail explain the geographical phenomena within the major systems of physical geography.

OUTCOME 2

Demonstrate knowledge, understanding and applications of geographical methods and techniques (GMTs).

Performance Criteria

- a) Accurately apply an appropriate GMT in a given situation.
- b) Interpret and analyse the product of the GMT in detail.

EVIDENCE REQUIREMENTS FOR THE UNIT

Evidence for this Unit will involve restricted responses which can be written, oral or diagrammatic supplemented by written or oral responses. This evidence should be produced under supervised conditions without the assistance of additional resources. The assessment must be capable of being completed within 45 minute and will be holistic, covering all Outcomes and PCs.

The assessment will sample the content and skills defined in Appendix 1. Evidence should come from two of the four topics and from any one of the skills listed in that Appendix. If a re-assessment is required, it should contain a different sample from the range of content and skills listed.

Achievement can be decided by the use of a cut-off score. The standard to be applied and the breadth of coverage are illustrated in the National Assessment Bank items available for this Unit. If a centre wishes to design its own assessments for this Unit, they should be of a comparable standard.

National Unit Specification: support notes

UNIT Geography: Physical Environments (Higher)

This part of the Unit Specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

GUIDANCE ON THE CONTENT AND CONTEXT FOR THIS UNIT

This Unit is one of three mandatory Units which together make up the Course in Higher Geography. The other Units are *Geography: Human Environments* and *Geography: Environmental Interactions*.

The skills and content for this Unit are provided in Appendix 1.

All the topics are not studied in the same breadth and they provide differing opportunities to develop the associated geographical methods and techniques. In particular the hydrosphere and lithosphere are the topics in which Ordnance Survey map skills are best able to be developed. In view of this it is likely that the topics will not receive an equal time allocation in teaching. Although a number of the methods and techniques recur within the Unit, each topic provides a focus for the teaching of particular ones.

It is not mandatory, but highly desirable, that candidates undertake fieldwork, collectively or independently, to apply the selected methods and techniques identified in the Unit content. Where centres undertake this, teachers or lecturers in charge should ensure that any fieldwork undertaken is carried out under conditions which comply with health and safety, field studies and risk assessment policies required by their employers.

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

Teaching order

Where this Unit is being delivered as part of a Course, Units can be taught in any order or in an integrated manner. An integrated approach would enable the teaching and learning process to emphasise the holistic and integrative nature of the subject. It is also possible to teach Units in parallel with each other. If Units are taught separately, the topics within this Unit which link with the interactions selected in the *Geography: Environmental Interactions* Unit should be taught before these interactions are studied. The learning experiences in both the *Physical* and *Human Environment* Units reinforce each other: knowledge and understanding of the content and general concepts will be developed along with increased competence in the skills and geographical methods and techniques listed in this Specification.

Articulation with Intermediate 2

The Course planning guide which forms Appendix 2 of the Course Specification provides examples of how different centres might structure their Courses.

National Unit Specification: support notes (cont)

UNIT Geography: Physical Environments (Higher)

Methodology

The methodology used by teachers/lecturers will be built on existing good practice. Teacher/lecturer exposition and note-taking from textbooks, information sheets and a wide variety of other resources may form the basis of class work in these Units. Class and group discussions can reinforce this. Extension work, access to a variety of sources of information, resource and ICT based learning should be made available to individuals and groups where feasible. A case study approach could be used to deliver some of the material in some sub topics. Formal or informal group work could be used as an approach to learning where dialogue and interaction between candidates and between candidates and teachers/lecturers would be possible. The Unit also allows opportunities for the use of a wide range of media and resources.

Skills and learning experiences

Opportunities should also be provided for students to make use of a range of maps, including OS maps at a variety of scales. At least one question involving the use of an OS map extract will be compulsory in Paper 1 of the external assessment for the Course.

The Outcomes and Performance Criteria together with the skills information provided, indicate the skills and learning experiences which are important to this Unit. During the Unit candidates should also:

- ◆ make use of relevant terminology, concepts and ideas
- ◆ extract, interpret, analyse and present geographical evidence
- ◆ record systematically information derived from a variety of sources, such as maps, books, notes, graphs, statistics, audio-visual materials
- ◆ develop the skills of communicating information in written (or equivalent), map and graphical forms for a variety of purposes
- ◆ take part in formal and informal discussion and debate based on and informed by geographical evidence and knowledge in order to develop the ability to think independently and make informed judgements

Extension (if the Unit is being delivered as part of the Course), remediation and consolidation should be built into the Units; how this is organised would depend on the teaching approach.

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

The assessment would normally be given on the completion of the study of the topics selected for this purpose. Alternatively, for those centres delivering this Unit as part of the Course, the assessment could be delayed and be incorporated into a prelim exam.

Prelims can be used for internal assessment. This is acceptable for this Unit as long as:

- ◆ candidates do not choose the topics they wish to use for internal assessment
- ◆ two physical topics are assessed, each out of 20 marks
- ◆ one geographical method or technique from the physical environment list is assessed and this is out of 10 marks
- ◆ the paper makes it clear what questions are being used for assessment/reassessment
- ◆ the questions used are valid (see below)

National Unit Specification: support notes (cont)

UNIT Geography: Physical Environments (Higher)

Questions used in previous external assessments may not meet the Evidence Requirements for internal assessment: they may be too short or they might not include geographical methods and techniques. Centres are advised, therefore, to seek prior moderation of any questions not previously validated for the purpose of internal assessment by SQA. The NAB questions meet these criteria and illustrate the standard. Candidates would have to score a total of at least 50% across the identified questions to achieve a pass. A prelim exam might also be used for reassessment.

CANDIDATES WITH DISABILITES AND/OR ADDITIONAL SUPPORT NEEDS

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering alternative Outcomes for this Course. Further advice can be found in the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* (www.sqa.org.uk).

APPENDIX 1

The skills and content which will be sampled to provide the evidence required for the Unit are as follows.

The skills sampled to show candidates have achieved Outcome 2 are identified below:

Atmosphere

- ◆ interpreting climatic maps, diagrams and graphs
- ◆ constructing and analysing climate graphs

Hydrosphere

- ◆ constructing and analysing hydrographs
- ◆ presenting and interpreting river flow data

Lithosphere

- ◆ identifying and labelling main landscape features on maps, aerial photographs and sketches
- ◆ constructing and interpreting cross-sections and transects

Biosphere

- ◆ analysing soil profiles and data from soil surveys
- ◆ interpreting and explaining data from vegetation surveys and distributions with reference to the succession listed

The content sampled to show candidates have achieved Outcome 1 is identified below:

Within this Unit the content is divided into four topics:

- Atmosphere
- Hydrosphere
- Lithosphere
- Biosphere

a) *Atmosphere*

Main idea

The characteristics of the atmosphere vary spatially and provide climate and weather conditions which interlink with other systems.

Further development

Candidates should have a knowledge and understanding of:

- Global scale:
 - ◆ effects of the atmosphere on the receipt of radiation at the Earth's surface — causes of latitudinal variations of radiation receipt
 - ◆ patterns of atmospheric and oceanic circulation and their influence on the redistribution of energy over the globe — principal circulation cells, pressure and wind belts, influence of ocean currents
 - ◆ global climate change — physical and human causes of global warming — possible consequences of global warming
- Regional scale — equatorial and savanna regions of Africa:
 - ◆ nature, origin and movement of air masses, including convergence and divergence
 - ◆ weather types associated with different air masses

APPENDIX 1 (cont)

- ◆ role of continental tropical and maritime tropical air masses on West African climate — particularly rainfall amounts and distribution

b) *Hydrosphere*

Main idea

The water cycle, which constitutes a major physical system, operates on a variety of scales. On the Earth's surface, the movement of water is a major agent in the formation of landforms and landscapes.

Further development

Candidates should have a knowledge and understanding of:

- 1 Hydrological cycle:
 - ◆ components of the global hydrological cycle
 - ◆ movement of water within drainage basins — inputs, storage, outputs
 - ◆ human inputs to, and impacts on the hydrological cycle
- 2 Fluvial landforms and landscapes:
 - ◆ effects of flowing water in terms of erosion, transportation and deposition and the resultant landforms — upper, middle and lower sections of river basins
 - ◆ characteristic landscape features within a drainage basin; explanation of formation of such features and identification of river features from OS maps

c) *Lithosphere*

Main idea

The lithosphere displays a range of landforms and patterns which can be explained by reference to a variety of processes on different scales.

Further development

Candidates should have a knowledge and understanding of:

The development of regional landscapes; the influence of structure, rock type, erosion and deposition upon relief forms and patterns on the regional scale. This should be illustrated with reference to the following landscape types in the United Kingdom — glaciated upland, coasts, upland limestone, and should include:

- ◆ detailed descriptions of the formation of the characteristic features of these landscapes
- ◆ modification of these landscapes by active geomorphological processes, including the nature and effects of weathering and mass movement in them — scree slopes, rock falls, slumping and landslips
- ◆ the identification of landscape features from OS maps

d) *Biosphere*

Main idea

Soils and vegetation can be viewed as ecosystems, which are a set of interacting components.

Further development

Candidates should have a knowledge and understanding of:

- 1 Soils — properties and formation processes:
 - ◆ properties of podzols, brown earths and gleys — horizons, colour, texture, drainage
 - ◆ the influence of soil-forming processes on profiles as demonstrated by podzolisation, gleying, organic and nutrient movement

APPENDIX 1 (cont)

2 Vegetation:

- ◆ evolution of vegetation communities as ecosystems to climax stages as demonstrated by vegetation succession on coastal dune belts, ie colonisation, the role of pioneer species and a knowledge of plant names at various stages in the succession

National Unit Specification: general information

UNIT Geography: Human Environments (Higher)

CODE DF43 12

COURSE Geography (Higher)

SUMMARY

This Unit builds on the key ideas developed through the study theme ‘the human environment’ in Standard Grade Geography and also the *Geography: Human Environments* Unit at Intermediate 1 and 2. It could also be used as an introductory Unit for those with a broad interest in the subject area.

Emphasis is placed on providing candidates with scope for deepening and broadening their knowledge and understanding of human geography. This is done with reference to four topics: population, rural, industrial and urban geography. As these topics are studied candidates will also develop their knowledge and use of a range of geographical methods and techniques appropriate to the topics being studied. These methods and techniques include interpretation and analysis of Ordnance Survey maps.

The specific aims of the Unit on human environments are to develop:

- ◆ knowledge and understanding of the patterns, forms and processes of human activity
- ◆ knowledge and understanding of the factors causing change in the human environment
- ◆ awareness that human environments vary in their response to both internal and external pressures
- ◆ knowledge and understanding of the opportunities and limitations of the human environment

Appendix 1 contains the skills and content which will be covered in this Unit and will be sampled to provide the evidence required for the Unit.

Administrative Information

Superclass: RF

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National Unit Specification: general information (cont)

UNIT Geography: Human Environments (Higher)

OUTCOMES

- a) Explain the major systems of human geography with reference to different scales and change over time.
- b) Demonstrate knowledge, understanding and applications of a range of geographical methods and techniques(GMTs).

RECOMMENDED ENTRY

While entry is at the discretion of the centre, candidates would normally be expected to have attained one of the following or equivalent:

- ◆ Standard Grade in Geography or another social subject at Credit level
- ◆ the Course at Intermediate 2 Geography or its Units
- ◆ the Course or Units at Intermediate 2 in another social subject

CREDIT VALUE

1 credit at Higher (6 SCQF credit points at SCQF level 6*)

**SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

CORE SKILLS

The Unit gives automatic certification of the following:

| | |
|--|---------------------------------------|
| Complete Core Skills for the Unit | None |
| Core Skills components for the Unit | Using Graphical Information Higher |

National Unit Specification: statement of standards

UNIT Geography: Human Environments (Higher)

Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit Specification. All sections of the statement of standards are mandatory and cannot be altered without reference to the Scottish Qualifications Authority.

OUTCOME 1

Explain the major systems of human geography with reference to different scales and change over time.

Performance Criteria

- a) Accurately identify and describe in detail the geographical phenomena within the major systems of human geography.
- b) Accurately and in detail explain the geographical phenomena within the major systems of human geography.

OUTCOME 2

Demonstrate knowledge, understanding and applications of geographical methods and techniques (GMTs).

Performance Criteria

- a) Accurately apply an appropriate GMT in a given situation.
- b) Interpret and analyse the product of the GMT in detail.

EVIDENCE REQUIREMENTS FOR THE UNIT

Evidence for this Unit will involve restricted responses which can be written, oral or diagrammatic supplemented by written or oral responses. This evidence should be produced under supervised conditions without the assistance of additional resources. The assessment must be capable of being completed within 45 minutes and will be holistic, covering all Outcomes and PCs.

The assessment will sample the content and skills defined in Appendix 1. Evidence should come from two of the four topics and from any one of the skills listed in that Appendix. If a re-assessment is required, it should contain a different sample from the range of content and skills listed.

Achievement can be decided by the use of a cut-off score. The standard to be applied and the breadth of coverage are illustrated in the National Assessment Bank items available for this Unit. If a centre wishes to design its own assessments for this Unit, they should be of a comparable standard.

National Unit Specification: support notes

UNIT Geography: Human Environments (Higher)

This part of the Unit Specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

GUIDANCE ON THE CONTENT AND CONTEXT FOR THIS UNIT

This Unit is one of three mandatory Units which together make up the Course in Higher Geography. The other Units are *Geography: Physical Environments* and *Geography: Environmental Interactions*.

The skills and content for this Unit are provided in Appendix 1.

All the topics are not studied in the same breadth and they provide differing opportunities to develop the associated geographical methods and techniques. In particular the industrial and urban geography topics are those in which Ordnance Survey map skills are best able to be developed. In view of this it is likely that the topics will not receive an equal time allocation in teaching. Although a number of the methods and techniques recur within the Unit, each topic provides a focus for the teaching of particular ones.

It is not mandatory, but highly desirable, that candidates undertake fieldwork, collectively or independently, to apply the selected methods and techniques identified in the Unit content. Where centres undertake this, teachers or lecturers in charge should ensure that any fieldwork undertaken is carried out under conditions which comply with both health and safety and field studies and risk assessment policies required by their employers.

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

Teaching order

Where this Unit is being delivered as part of a Course, Units can be taught in any order or in an integrated manner. An integrated approach would enable the teaching and learning process to emphasize the holistic and integrative nature of the subject. It is also possible to teach Units in parallel with each other. If Units are taught separately the topics within this Unit which link with the interactions selected in the *Geography: Environmental Interactions* Unit should be taught before these interactions are studied. The learning experiences in both the *Physical* and *Human Environment* Units reinforce each other: knowledge and understanding of the content and general concepts will be developed along with increased competence in the skills and geographical methods and techniques listed in this Specification.

Articulation with Intermediate 2

The Course planning guide which forms Appendix 2 of the Course Specification provides examples of how different centres might structure their Courses.

National Unit Specification: support notes (cont)

UNIT Geography: Human Environments (Higher)

Methodology

The methodology used by teachers/lecturers will be built on existing good practice. Teacher/lecturer exposition and note-taking from textbooks, information sheets and a wide variety of other resources may form the basis of class work in these Units. Class and group discussions can reinforce this. Extension work, access to a variety of sources of information, resource and ICT based learning should be made available to individuals and groups where feasible. A case study approach could be used to deliver some of the material in some sub topics. Formal or informal group work could be used as an approach to learning where dialogue and interaction between candidates and between candidates and teachers/lecturers would be possible. The Unit also allows opportunities for the use of a wide range of media and resources.

Skills and learning experiences

Opportunities should also be provided for students to make use of a range of maps, including OS maps at a variety of scales. At least one question involving the use of an OS map extract will be compulsory in Paper 1 of the external assessment for the Course.

The Outcomes and Performance Criteria together with the skills information provided indicate the skills and learning experiences which are important to this Unit. During the Unit candidates should also:

- ◆ make use of relevant terminology, concepts and ideas
- ◆ extract, interpret, analyse and present geographical evidence
- ◆ record systematically information derived from a variety of sources, such as maps, books, notes, graphs, statistics, audio-visual materials
- ◆ develop the skills of communicating information in written (or equivalent), map and graphical forms for a variety of purposes
- ◆ take part in formal and informal discussion and debate based on and informed by geographical evidence and knowledge in order to develop the ability to think independently and make informed judgements

Extension (if the Unit is being delivered as part of the Course), remediation and consolidation should be built into the Units; how this is organised would depend on the teaching approach.

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

The assessment would normally be given on the completion of the study of the topics selected for this purpose. Alternatively, for those centres delivering this Unit as part of the Course, the assessment could be delayed and be incorporated into a prelim exam.

Prelims can be used for internal assessment. This is acceptable for this Unit as long as:

- ◆ candidates do not choose the topics they wish to use for internal assessment
- ◆ two human topics are assessed, each out of 20 marks
- ◆ one geographical method or technique from the human environment list is assessed and this is out of 10 marks
- ◆ the paper makes it clear what questions are being used for assessment/reassessment
- ◆ the questions used are valid (see below)

National Unit Specification: support notes (cont)

UNIT Geography: Human Environments (Higher)

Questions used in previous external assessments may not meet the Evidence Requirements for internal assessment: they may be too short or they might not include geographical methods and techniques. Centres are advised, therefore, to seek prior moderation of any questions not previously validated for the purpose of internal assessment by SQA. The NAB questions meet these criteria and illustrate the standard. Candidates must score a total of at least 50% across the identified questions to achieve a pass. A prelim exam might also be used for reassessment.

CANDIDATES WITH DISABILITIES AND/OR ADDITIONAL SUPPORT NEEDS

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering alternative Outcomes for this Course. Further advice can be found in the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* (www.sqa.org.uk).

APPENDIX 1

The skills and content which will be sampled to provide the evidence required for the Unit are as follows.

The skills sampled to show candidates have achieved Outcome 2 are identified below:

Population geography

- ◆ interpreting population data in map, tabular and diagrammatic form, including population pyramids
- ◆ interpreting flow diagrams showing migration streams

Rural geography

- ◆ analysing land use data and crop yields in map, diagrammatic and tabular form
- ◆ analysing farm survey results
- ◆ annotating and analysing field sketches and photographs of rural landscapes

Industrial geography

- ◆ annotating and analysing field sketches and photographs of old and new industrial landscapes
- ◆ analysing industrial and employment survey results

Urban geography

- ◆ analysing land use maps, transects and survey data — pedestrian and traffic counts, spheres of influence, commuter flows
- ◆ annotating and analysing field sketches and photographs of urban landscapes

The content sampled to show candidates have achieved Outcome 1 is identified below:

Within this Unit the content is divided into four topics:

- a) Population geography
- b) Rural geography
- c) Industrial geography
- d) Urban geography

a) *Population geography*

Main idea

Population change and structure vary spatially and over time. The reasons for change are complex and involve human and environmental factors.

Further development

Candidates should have a knowledge and understanding of:

- 1 Demographic systems:
 - ◆ population structures vary with different levels of birth rates, death rates and migration
 - ◆ population data is gathered using a census; variations in data quality result from a variety of factors, which include variations in levels of wealth and literacy
 - ◆ fertility and mortality vary over time: Demographic Transition Model — reasons for differences in fertility and mortality in the stages of the model; differences between economically more developed countries (EMDCs) and economically less developed countries (ELDCs)

APPENDIX 1 (cont)

2 Population change:

- ◆ the role of fertility, mortality and migration as components within the demographic system
- ◆ population pyramids in EMDCs and ELDCs countries
- ◆ the reasons for population change, including factors affecting birth rates and death rates, eg wealth, access to safe water, nutrition and diseases such as AIDS (Acquired Immune Deficiency Syndrome)
- ◆ implications of population change including problems caused by high birth rates in ELDCs, and problems caused by ageing population and long life-expectancy in EMDCs

3 Migration:

- ◆ classification of types of circulation and migration on a space-time sequence, including voluntary and forced migrations, long- and short-term and seasonal migrations and rural-urban and urban-rural migrations
- ◆ analysis of and reasons for contemporary migration streams and counter streams with reference to each of: international migration, eg between and into European Union countries; rural-urban and urban-rural migration, eg within Nigeria or the UK; forced migration, eg refugee movements in the Sahel

b) Rural geography

Main idea

Rural populations are involved in a variety of agricultural systems. These systems and associated landscapes are subject to change.

Further development

Candidates should have a knowledge and understanding of:

1. Agricultural systems:

- ◆ systems involving different population densities, technologies, levels of commercialism and physical opportunities
- ◆ one case study location for each of: shifting cultivation, eg Amazonia; intensive peasant farming, eg the Ganges Valley; commercial arable farming, eg East Anglia

2. Rural landscapes:

- ◆ landscapes, including field and infrastructural patterns associated with the agricultural systems in part 1 above

3. Rural change (post 1950):

- ◆ changes to the systems and landscapes in parts 1 and 2 above: shifting cultivation, eg impact of deforestation; intensive peasant farming, eg the Green Revolution; commercial arable farming, eg the impact of government and European Union policy, such as diversification of activities and crops
- ◆ reasons for and implications of these changes

c) Industrial geography

Main idea

Areas of industrial concentration contain a range of manufacturing and other economic activities. These concentrations develop and change spatially over time. This section should be studied with reference to at least one or more industrial concentrations within the European Union.

APPENDIX 1 (cont)

Further development

Candidates should have a knowledge and understanding of:

- 1 Industrial systems:
 - ◆ classification of industry — primary, secondary, tertiary and quaternary
 - ◆ location factors such as inputs, outputs, linkages, technology, chance factors, national and international economic, political and environmental considerations
 - ◆ interaction of these factors to explain industrial locations over time
 - ◆ historical changes in industrial location, eg water power, coalfield, footloose, coastal
 - ◆ locations
- 2 Industrial landscapes:
 - ◆ the diversity of industrial landscapes and the environmental consequences brought about by industrial activity. For case study location(s), the appearance of old industrial landscape and of new industrial landscape
 - ◆ use of maps to describe and explain industrial locations and landscapes
- 3 Industrial change:
 - ◆ reasons for, and implications of, industrial change — depending on case study this may include changes in power and raw material supply, transport and communication networks, employment, impact of government and European Union decisions

d) Urban geography

Main idea

Urban settlements provide a range of employment, services and residential opportunities which may be located in different parts of the settlement. This section should be studied with reference to one large urban concentration from an EMDC.

Further development

Candidates should have a knowledge and understanding of:

- 1 Urban systems:
 - ◆ urban systems as dynamic entities, including location, site, historical and cultural contexts, growth and functions, site and situation of case study city, and identification of settlement sites on maps
- 2 Urban zones:
 - ◆ their characteristics and interactions between them, including variations — commercial, industrial, residential functions and landscapes, and identification of urban zones on maps
- 3 Urban change (post 1950):
 - ◆ processes of change, reasons for and implications of change within large urban concentrations: industry and industrial location; residential environments; traffic management; Central Business District, eg pedestrianisation and the impact of out-of-town shopping; linkages between these changes

National Unit Specification: general information

| | |
|---------------|--|
| UNIT | Geography: Environmental Interactions (Higher) |
| CODE | DF44 12 |
| COURSE | Geography (Higher) |

SUMMARY

This Unit is set in a global context and seeks to develop a knowledge and understanding of interactions within and between physical and human environments. It aims to emphasize the holistic nature of geography. As well as providing a general understanding of interactions, case studies are used to allow teaching to focus on issues which are relevant to the contemporary world. The Unit can be used to develop further some of the environmental interactions studied at Intermediate level. It could also be used as an introductory Unit for those with a broad interest in the subject area.

The specific aims of the Unit on environmental interactions are to develop:

- ◆ knowledge and understanding of the inter-relationships, processes and activities within and between the physical and human environment
- ◆ understanding of the opportunities and limitations of the environment in terms of human activities
- ◆ knowledge and understanding of how physical processes and/or human activities can lead to various forms of environmental change, both beneficial and detrimental
- ◆ knowledge, understanding and evaluation of the strategies employed to manage the environment to encourage sustainable development
- ◆ skills of processing and interpreting map, statistical and other types of graphical information

Candidates are required to study at least two environmental interactions chosen from a list of six — one from group one and one from group two. The table below provides further information about the choice of interactions.

Administrative Information

| | |
|--------------------------|-----------------------------------|
| Superclass: | RF |
| Publication date: | February 2008 |
| Source: | Scottish Qualifications Authority |
| Version: | 02 |

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National Unit Specification: general information (cont)

UNIT Geography: Environmental Interactions (Higher)

| Environmental Interaction | Areal context | Links to Intermediate level |
|----------------------------------|--|--|
| Rural land resources | United Kingdom | Landscape case studies in the <i>Geography: Physical Environments</i> Unit |
| Rural land degradation | North America and, either Africa north of the equator or the Amazon Basin | <i>Geography: Environmental Interactions</i> Unit |
| River basin management | Either Africa or North America or Asia | <i>Geography: Environmental Interactions</i> Unit |
| Urban change and its management | Case study from both an economically more developed country (EMDC) and an economically less developed country (ELDC) | Urban case studies in the <i>Geography: Human Environments</i> Unit |
| European regional inequalities | European Union, studies from two countries, one of which must be the United Kingdom | <i>Geography: Environmental Interactions</i> Unit through development of concept of environmental inequality |
| Development and health | Case studies from the areas within the economically less developed world | <i>Geography: Environmental Interactions</i> Unit |

Appendix 1 contains the skills and content which will be covered in this Unit and will be sampled to provide the evidence required for the Unit.

OUTCOMES

- 1 Describe and explain physical features and human activities relating to an environmental interaction.
- 2 Interpret and analyse complex geographical information.
- 3 Evaluate possible strategies for environmental management of the consequences of the interaction.

RECOMMENDED ENTRY

While entry is at the discretion of the centre, candidates would normally be expected to have attained one of the following or equivalent:

- ◆ Standard Grade in Geography or another social subject at Credit level
- ◆ the Course at Intermediate 2 Geography or its Units
- ◆ the Course or Units at Intermediate 2 in another social subject

National Unit Specification: general information (cont)

UNIT Geography: Environmental Interactions (Higher)

CREDIT VALUE

1 credit at Higher (6 SCQF credit points at SCQF level 6*)

**SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

CORE SKILLS

The Course gives automatic certification of the following:

| | | |
|--|-----------------------------|--------|
| Complete Core Skills for the Unit | None | |
| Core Skills components for the Unit | Using Graphical Information | Higher |
| | Critical Thinking | Higher |

National Unit Specification: statement of standards

UNIT Geography: Environmental Interactions (Higher)

Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit Specification. All sections of the statement of standards are mandatory and cannot be altered without reference to the Scottish Qualifications Authority.

OUTCOME 1

Describe and explain physical features and human activities relating to an environmental interaction.

Performance Criteria

- a) Provide a detailed and accurate description of the environment within which the interaction takes place.
- b) Provide a detailed and accurate explanation of the environmental interaction.
- c) Provide a detailed and accurate explanation of the consequences of the environmental interaction.

OUTCOME 2

Interpret and analyse complex geographical information.

Performance Criteria

- a) Accurately interpret complex geographical information.
- b) Accurately analyse complex geographical information taking relationships into account.

OUTCOME 3

Evaluate possible strategies for environmental management of the consequences of the interaction.

Performance Criteria

- a) Provide a detailed and accurate description of the strategies for environmental management of the interaction.
- b) Provide a detailed and accurate commentary on the effectiveness of the strategies for environmental management of the interaction.

National Unit Specification: statement of standards (cont)

UNIT Geography: Environmental Interactions (Higher)

EVIDENCE REQUIREMENTS FOR THE UNIT

Evidence for this Unit will involve restricted responses which can be written, oral or diagrammatic supplemented by written or oral responses. This evidence should be produced under supervised conditions without the assistance of additional resources. The assessment must be capable of being completed within 45 minute and will be holistic, covering all Outcomes and PCs.

The assessment will sample the content and skills defined in Appendix 1. Evidence should come from any one of the interactions listed. If a re-assessment is required, it should contain a different sample from the range of content and skills listed.

Achievement can be decided by the use of a cut-off score. The standard to be applied and the breadth of coverage are illustrated in the National Assessment Bank items available for this Unit. If a centre wishes to design its own assessments for this Unit, they should be of a comparable standard.

National Unit Specification: support notes

UNIT Geography: Environmental Interactions (Higher)

This part of the Unit Specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

GUIDANCE ON THE CONTENT AND CONTEXT FOR THIS UNIT

This Unit is one of three mandatory Units which together make up the Course in Higher Geography. The other Units are *Geography: Physical Environments* and *Geography: Human Environments*.

The skills and content for this Unit are provided in Appendix 1.

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

Teaching order

Where this Unit is being delivered as part of a Course, Units can be taught in any order or in an integrated manner. An integrated approach would enable the teaching and learning process to emphasize the holistic and integrative nature of the subject. It is also possible to teach Units in parallel with each other. If Units are taught sequentially the topics within the *Geography: Physical Environments* and *Geography: Human Environments* Units to which the selected environmental interaction is linked should be taught first. Within these approaches, a great deal of flexibility exists for centres to customise their delivery to the needs of the candidate group.

There are several factors which are likely to influence the decision about which interactions centres choose to study. Although only two interactions will be assessed externally as part of the Course it may be that some centres will opt to teach a third. This might be done to develop the breadth of knowledge of their candidates and to give them more choice in the external assessment. Decisions will focus on the importance attached to the candidate mix in the teaching group, the development of general concepts, the knowledge of specific topics, the detailed knowledge of specific case study material, or the ease with which candidates could move between Higher and Intermediate 2 level during a session.

Articulation with Intermediate 2

In many centres the choice made at Higher level will influence decisions about the interactions and case studies selected for study at other levels. All candidates who take the *Geography: Physical Environments* Unit and the *Geography: Human Environments* Unit will automatically cover topics which articulate with rural land resources and urban change and its management at Higher level. If these interactions are taught at Higher level it may be possible for candidates who progress from Intermediate 2 to Higher over two sessions to be able to focus more of their time at Higher on the less familiar areas of that Course. In the *Geography: Environmental Interactions* Unit at Intermediate 2 they would focus on two other interactions. This would broaden their knowledge and provide the possibility of some degree of choice in the external exam at Higher level. In situations where both levels are being taught in the same group there can, depending upon the interactions chosen for study, be a lot of commonality of content. The Course planning guide which forms Appendix 2 of the Course Specification provides examples of how different centres might structure their Courses.

National Unit Specification: support notes (cont)

UNIT Geography: Environmental Interactions (Higher)

Methodology

The methodology used by teachers/lecturers will be built on existing good practice. Teacher/lecturer exposition and note-taking from textbooks, information sheets and a wide variety of other resources may form the basis of class work in these Units. Class and group discussions may reinforce this. Extension work, access to a variety of sources of information, resource and ICT based learning should be made available to individuals and groups where feasible. A case study approach could be used to deliver some of the material in some sub topics. Formal or informal group work could be used as an approach to learning where dialogue and interaction between candidates and between candidates and teachers/lecturers would be possible. The Unit also allows opportunities for the use of a wide range of media and resources.

Skills and learning experiences

The Outcomes and Performance Criteria together with the skills information provided indicate the skills and learning experiences which are important to this Unit. During the Unit candidates should also:

- ◆ make use of relevant terminology, concepts and ideas
- ◆ extract, interpret, analyse and present geographical evidence
- ◆ record systematically information derived from a variety of sources, such as maps, books, notes, graphs, statistics, audio-visual materials
- ◆ develop the skills of communicating information in written (or equivalent), map and graphical forms for a variety of purposes
- ◆ take part in formal and informal discussion and debate based on and informed by geographical evidence and knowledge in order to develop the ability to think independently and make informed judgements

Extension (if the Unit is being delivered as part of the Course), remediation and consolidation should be built into the Units; how this is organised would depend on the teaching approach.

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

Internal assessment of the Unit covers all the Outcomes and Performance Criteria by sampling the content through the assessment of one environmental interaction. The assessment would normally be given on the completion of the study of the interaction selected for this purpose. Alternatively, for those centres delivering this Unit as part of the Course, the assessment could be delayed and be incorporated into a prelim exam.

Prelims can be used for internal assessment. This is acceptable for this Unit as long as:

- ◆ candidates do not choose the question they wish to use for internal assessment
- ◆ the assessment item is out of 50 marks
- ◆ the internal assessment question is clearly identified as having this purpose
- ◆ the question used is valid (see below)

National Unit Specification: support notes (cont)

UNIT Geography: Environmental Interactions (Higher)

Questions used in previous external assessments may not meet the Evidence Requirements for internal assessment: they may be too short or they might not sample all the Outcomes. Centres are advised, therefore, to seek prior verification of any questions not previously validated for the purpose of internal assessment by SQA. The NAB questions meet these criteria and illustrate the standard. Candidates must score a total of at least 50% to achieve a pass. A prelim might also be used for reassessment in a situation where the candidate has previously failed one internal assessment.

CANDIDATES WITH DISABILITES AND/OR ADDITIONAL SUPPORT NEEDS

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering alternative Outcomes for this Course. Further advice can be found in the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* (www.sqa.org.uk).

APPENDIX 1

The skills and content which will be sampled to provide the evidence required for the Unit are as follows.

The skills sampled to show candidates have achieved Outcome 2 are identified below:

- ◆ identifying and labelling main landscape features on diagrams, aerial photographs and sketches
- ◆ interpreting and analysing maps, data, diagrams, surveys, photos, transects, sketches and graphs

Within this Unit the content is divided into six environmental interactions. Each provides the opportunity to illustrate linkages between physical and human environments. These are:

Rural land resources
Rural land degradation
River basin management
Urban change and its management
European regional inequalities
Development and health

For internal assessment purposes one topic is assessed but for external assessment in the Course candidates must answer questions on two topics.

The content sampled to show candidates have achieved Outcome 1 and 3 is identified below:

Rural land resources

Main idea

Rural land resources are the product of the interaction of a wide range of physical factors modified by human activity. The resultant rural landscapes offer a variety of physical, economic and social opportunities.

Areal context: United Kingdom

Further development

Candidates should have a knowledge and understanding of:

- 1 The characteristics of glaciated upland, upland limestone and coastal landscapes; the formation of the physical features associated with these landscapes should be dealt with in detail.
- 2 The factors involved in the evolution of these landscapes: structure, rock type, geology, major geomorphological processes, climate, sea level changes, drainage pattern, soils, human factors related to changing land use and settlement.
- 3 The inter-related economic and social opportunities which the land resource base provides: agriculture, forestry, energy production, recreation and tourism, mining and quarrying, industry, water storage.

APPENDIX 1 (cont)

- 4 The environmental problems and conflicts which arise from the competing demands for use of the land resource: problems and conflicts in **one upland** landscape (either glaciated upland or upland limestone) and **one coastal** landscape, with reference to protected areas, eg National Parks, ESAs, SSSIs and Areas of Outstanding Natural Beauty.
- 5 Reasons for, and impact of, UK and European Union policies affecting rural land use, including the protection of areas which are environmentally sensitive.

Rural land degradation

Main idea

Rural land resources are subject to degradation, which may be the result of natural processes, human activity or a combination of both. The decline in land productivity and other consequences of land degradation have direct social and economic consequences and have led to the development of soil conservation and land management strategies.

Areal context: North America **and either** Africa north of the Equator **or** the Amazon basin

Further development

Candidates should have a knowledge and understanding of:

- 1 The nature and processes of soil erosion and degradation (desertification), impact of vegetation removal, soil erosion by water (sheet, rill, gully) and soil erosion by wind.
- 2 The effects of climate and, where appropriate, its variability on these processes: problems posed by climatic variability in North America, eg the Great Plains, by variable movement of the Inter Tropical Convergence Zone (or Discontinuity) across Africa north of the Equator and by intensity of rainfall in the tropics.
- 3 The modification of ecosystems caused by human activity, deforestation, monoculture, over cultivation, overgrazing, inappropriate cultivation and irrigation techniques.
- 4 The consequences of soil erosion and degradation (desertification), including physical impact on the landscape and the climate, social impact on people and economic impact on ways of life.
- 5 Specific examples of soil conservation and land management strategies; case studies from the selected areal contexts.

River basin management

Main idea

Within river basins, water control projects are undertaken for a variety of reasons and on a range of scales. These projects are examples of human interference with systems, especially hydrological systems. The changes often have both beneficial and adverse consequences.

Areal context: **either** Africa **or** North America **or** Asia, including the detailed study of **one** river basin

Further development

Candidates should have a knowledge and understanding of:

- 1 The general distribution and scales of river basins and river basin water control projects within Africa **or** North America **or** Asia.

APPENDIX 1 (cont)

- 2 The physical characteristics of the selected river basin — climate, structure and rock type, landforms, vegetation and soils.
- 3 The hydrological cycle as applied to the selected river basin before and after the control project(s) — inputs, transfers, outputs.
- 4 The socio-economic, political and technological conditions of the selected river basin (and, where appropriate, adjacent areas) and the need and potential for water resource management.
- 5 The influence of discharge, geology, landforms, soils and human factors on the selection and development of sites for storage, transfer and use of water in the basin and surrounding areas.
- 6 The social, economic, political and environmental benefits and adverse consequences of water control projects on the selected basin and, where appropriate, adjacent areas.

Urban change and its management

Main idea

Large urban concentrations are characteristic of many countries. The urban environment of these concentrations changes in response to a wide range of environmental, social, economic, technological and political factors.

Areal context: two urban concentrations — **one** from an economically more developed country (EMDC) and **one** from an economically less developed country (ELDC)

Further development

Candidates should have a knowledge and understanding of:

- 1 The distribution of urban concentrations and the pattern of urban growth and development for the countries from which the urban concentrations are selected.
- 2 The physical and human factors involved in the location, development and urban structures of the selected urban concentrations and their urban land use patterns.
- 3 The nature of urban change with reference (where applicable) to the following inter-linked factors:
 - ◆ population growth, decline, redistribution: causes and consequences
 - ◆ industrial, service and employment change
 - ◆ housing change: especially inner-city and shanty development
 - ◆ changes in the quality of life and environment
 - ◆ the inequalities which arise in large urban concentrations
- 4 The management of urban change and the problems which emerge as a result of economic, social, technological and political processes. The establishment of planning controls such as greenbelts, traffic management schemes in and around the urban area, attempts to improve the environment of shanty towns.
- 5 Environmental conflicts both within and around the urban area, eg issues related to urban expansion and traffic problems, housing problems, industrial location.

APPENDIX 1 (cont)

European regional inequalities

Main idea

Regional inequalities on a variety of scales are a feature of the contemporary world. There is a variety of physical, social and economic reasons for these spatial disparities. Within the European Union, policies are developed at national and international levels to reduce inequalities.

Areal context: European Union, with particular reference to **two** of its member states, **one** of which **must** be the United Kingdom

Further development

Candidates should have a knowledge and understanding of:

- 1 The broad European Union pattern of regional inequality based on a range of socio-economic indicators, eg economic growth rates, employment structure, per capita Gross Domestic Product.
- 2 Explanations for this pattern, with reference to physical, social, political and economic factors:
 - ◆ historical access to raw materials
 - ◆ high population density — proximity to markets
 - ◆ highly developed infrastructure
 - ◆ difficult physical and climatic environment, eg mountains, drought
 - ◆ low population density — remoteness from markets
 - ◆ high proportion of employment in agriculture
- 3 The spatial pattern and causes of regional inequality at a national scale within the UK **and** one other selected European Union country (these can be identified and explained using similar indices and explanations to those listed in 1 and 2 above).
- 4 National and European Union policies and programmes and their impact on the regional inequalities and the creation of new industrial areas identified in the two countries concerned in 3 above, eg Scottish Enterprise (UK) and SODERCAN (Cantabrian Regional Development Agency), European Investment Bank, European Social Fund, European Regional Development Fund.

Development and health

Main idea

Inequality of social and economic development is a major feature of the contemporary world. It exists on various scales and is measurable in several ways. Levels of health and the incidence of disease are major indicators of levels of development. Such indicators may be explained geographically by reference to a variety of interacting processes.

Areal context: case studies from economically less developed countries (ELDCs)

Further development

Candidates should have a knowledge and understanding of:

- 1 A range of social, economic and composite methods of measuring spatial inequality of development (eg birth rate, death rate, per capita Gross Domestic Product, Physical Quality of Life Index).

APPENDIX 1 (cont)

- 2 Differences in levels of development between and within countries, for example:
 - ◆ differences between newly industrialising countries (eg Pacific Rim countries) and other ELDCs (eg Bangladesh)
 - ◆ differences within ELDCs (eg between south-east and north-east Brazil)
 - ◆ reasons for such differences

- 3 The physical and human factors involved in the levels of health and the incidence of disease, eg factors related to:
 - ◆ climate
 - ◆ water supply
 - ◆ wealth
 - ◆ nutrition
 - ◆ remoteness

and through the study of **one** water-related disease selected from:

 - ◆ bilharzia/schistosomiasis
 - ◆ cholera
 - ◆ malaria

- 4 Strategies for improving health and the control of disease, and their impact. Strategies related to the case study disease should be used, eg primary health care, immunisation programmes.