# Programme Specification: Undergraduate
# For students starting in Academic Year 2022/2023

## 1.Course Summary

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|---|---|
| Name of programme & award title with UCAS code | Physical Geography / Mathematics [FG81] |
| Awarding Institution | Aberystwyth University |
| Final Award | Bachelor of Science |
| Date of Publication | September 2023 |
| QAA Subject Benchmark | **Information provided by Department of Geography and Earth Sciences**<br>Geography<br>**Information provided by Department of Geography and Earth Sciences**<br>The relevant QAA benchmark statement for Geography can be found here https://www.qaa.ac.uk/en/publications/documents/sbs-geography-2014.pdf<br>**Information provided by Department of Geography and Earth Sciences**<br>Geography<br>**Information provided by Department of Mathematics**<br>Mathematics, Statistics and Operational Research |

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## 2: Duration

| Programme | Years |
|---|---|
| Physical Geography / Mathematics [FG81] | 3 |

## 3: Educational aims of the programme

**Information provided by Department of Geography and Earth Sciences**

Geography at Aberystwyth explores the nature and impact of cultural, social, economic, political and physical processes from the global to the local scale. The BSc Geography Joint Honours degree scheme places an emphasis on aspects of Physical Geography, providing understanding and explanation of the processes structuring the natural world and of how and why that world has changed in the past, is changing now and continue to change in the future. Through their selection of modules, students are able to develop pathways which focus exclusively on Physical Geography or which combine elements of Physical and Human Geography. The structure of the Joint Honours programme allows students to combine a primary interest in Geography with a significant secondary interest in another subject.

The Aims of the BSc Geography Joint Honours degree scheme are:

- To develop a broad and deep understanding of geography, its content, methods and philosophy
- To provide a structured programme of delivery that is academically rigorous and meets current and future benchmarking requirements
- To encourage selected specialist knowledge and understanding through Level 3 optional modules in those areas where the Institute has expertise
- To produce graduates with a wide range of analytical, critical and technical abilities within geography
- To develop powers of critical, analytic thinking and logical argument
- To develop competence in a range of subject-specific and transferable skills including literacy, numeracy, computer literacy, graphicacy, problem setting and problem solving, report writing, laboratory and fieldwork skills
- To encourage independent study and thought, enquiring minds, and a commitment to personal scholarship of the highest standard
- To enable students to combine a primary interest in Geography with a significant secondary interest in their ‘minor’ subject.

Sections 10 to 16 of this form relate to the Geography component of the Joint Honours programme. This is a generic programme specification for BSc Geography Joint Honours degree schemes.

**Information provided by Department of Mathematics**

This programme caters for a degree scheme which allows the student to take a course in which one-half of the content is in Mathematics and the remainder in another subject in the Faculties of Arts or Science.

The educational aims of the programme are:
? To provide students with knowledge and understanding in a range of topics in Mathematics, which may include some topics in Statistics.
? To develop skills in the application of such knowledge and understanding to the solutions of problems in Mathematics.
? To develop the ability to transfer subject-specific skills to a range of topics in Mathematics.
? To allow students to develop subject-specific knowledge and skills in another discipline in the Faculty of Arts or the Faculty of Science in parallel with their studies in Mathematics.
? To prepare students for careers in which a combination of the skills developed in Mathematics and another subject is particularly appropriate.
? To develop analytical reasoning skills, team-working skills, information technology skills and other skills appropriate to a wide range of careers.

# 4: Intended learning outcomes

**Information provided by Department of Geography and Earth Sciences**

On completion of the programme students should:

- Be able to evaluate critically geographical ideas, concepts and approaches across the whole of the subject and within particular branches of Geography
- Be able to carry out independent research, applying a range of cartographic, computational, literary and technical skills
- Have developed a range of geographical skills and be able to apply them to a variety of geographical issues
- Be able to recognize that their learning experience has been positively reinforced by exposure to research

- Be able to evaluate their own performance in a range of learning contexts and under different modes of assessment
- Be able to work independently, in a team and with a social awareness of the contribution made by scholarship and applied research in their discipline to social and environmental policy
- Have the necessary skills and awareness to seek employment in a variety of professional careers or to begin postgraduate research and study.

**Information provided by Department of Geography and Earth Sciences**

On completion of the programme students should:

- Be able to evaluate critically geographical ideas, concepts and approaches across the whole of the subject and within particular branches of Geography
- Be able to carry out independent research, applying a range of cartographic, computational, literary and technical skills
- Have developed a range of geographical skills and be able to apply them to a variety of geographical issues
- Be able to recognize that their learning experience has been positively reinforced by exposure to research
- Be able to evaluate their own performance in a range of learning contexts and under different modes of assessment
- Be able to work independently, in a team and with a social awareness of the contribution made by scholarship and applied research in their discipline to social and environmental policy
- Have the necessary skills and awareness to seek employment in a variety of professional careers or to begin postgraduate research and study.

T*he programme provides opportunities for students to develop and demonstrate knowledge and understanding, skills, qualities and other attributes in the following areas:*

NB: Details of the delivery of the learning outcomes listed below in our current portfolio of modules are indicated on the attached Curriculum Map.

**Information provided by Department of Mathematics**

The programme provides opportunities for students to develop and demonstrate knowledge and understanding, skills, qualities and other attributes in the following areas

# 5: Knowledge and understanding

**Information provided by Department of Geography and Earth Sciences**

On completion of the degree scheme, students will be able to:

A1 Demonstrate appreciation of the relationships between human activity and the physical environment, including the impact of human activity on landscape form and environmental quality

A2 Describe and account for spatial variations in the physical makeup of the Earth's physical environments at a variety of spatial and temporal scales

A3 Describe the physical and chemical processes that are responsible for moulding the Earth's physical environments

A4 Conceptualise the relationships between process and form in the physical world as interrelated and interdependent systems involving flows of energy and mass

A5 Demonstrate an awareness of the range and nature of data sources available to the physical geographer and employ and evaluate a substantial range of observational, recording and analytic strategies used in geographical field enquiry and data analysis

A6 Demonstrate a knowledge and understanding of the different forms of representation of the physical environment – including text, maps, mathematical equations, chemical equations, visual images, and models (including hardware, numerical and conceptual models)

A7 Critically evaluate the range of philosophical and methodological approaches employed by geographers in their analysis and interpretation of the Earth's physical environment

A8 Develop insight and understanding into the contribution that geographical study makes to an informed concern about the Earth and its people, in academic, practical and policy terms

A9 Account for, and evaluate, the development of Physical Geography as a distinctive discipline, and discuss the relationships between Geography and other disciplines in the physical and natural sciences.

By selecting a pathway of modules which involves elements of Human Geography, students may also develop the capacity to:

A10 Describe and account for spatial and temporal variations in the distributions of human phenomena at a variety of scales

A11 Account for the varied ways in which spaces, places, landscapes and environments are constituted and continually remade through a variety of social, economic, political and cultural processes, in a range of contexts from the local to the global

A12 Demonstrate understanding of how particular geographical 'ways of seeing' are produced, theorised and interpreted, including the representation of places through academic, policy and lay discourses

A13 Critically evaluate the range of philosophical and methodological approaches employed by geographers in their analysis and interpretation of human society

A14 Demonstrate a knowledge and understanding of the different forms of representation of the human world – from maps, through texts and visual images to digital technologies

A15 Synthesise contributions from Human and Physical Geography to address issues of environmental management.

***Teaching, learning and assessment methods used to enable outcomes to be achieved and demonstrated:***

***Teaching and Learning***

At Level 1, student development towards learning outcomes A1–A8 is promoted via the core BSc Geography module programme, delivered through lectures and tutorials, and supported by field-classes, independent study and student reading. Issues relating to learning outcomes A5-A8 are addressed through one core lecture-based module and in tutorials, supported by directed student exercises and reading. Student development towards learning outcomes A5-A8 and A15 is also promoted in a practical sense through a combination of practical/laboratory classes and field classes and their related exercise-based assignments.

At Levels 2 and 3, the teaching programme consists of four elements. (i) Core Knowledge and Understanding Modules in Level 2 develop student capacities relating to outcomes A1-A5 through lectures supported by independent study and reading by students. (ii) Core Skills Modules at Level 2 promote learning outcomes A5-A8 through a combination of lectures, practical classes and field classes, variously supported by fieldwork exercises, group or individual exercise-based assignments and independent reading as appropriate. Field classes also address issues related to A1 and A15, while independent research undertaken by students towards their Dissertation may also contribute towards the development of knowledge relating to some or all of outcomes A1-A8. (iii) Optional modules taken at Level 2 and Level 3 and delivered through lectures and seminars supported by independent study and reading, contribute to student development towards some or all of outcomes A1-A8. (iv) Small group tutorials in both Level 2 and Level 3 cover themes relating to outcomes A1-A9.

***Assessment***

At Level 1, student capacities relating to learning outcomes A1-A9 (and, where appropriate, A10 to A15) are assessed through unseen examination essays, unseen short-answer examinations, exercise-based coursework assignments and tutorial essay assignments and project work. Student capacities relating to outcomes A5 and A6 are assessed through practical, laboratory and field exercises.

At Levels 2 and 3, student capacities relating to learning outcomes A1 to A16 may be variously assessed as appropriate through tutorial assignments, the Dissertation project, fieldwork assignments, oral presentations,

coursework essays, project essays, seminar presentations, and seen, unseen and free-time examination essays.

**Information provided by Department of Geography and Earth Sciences**

On completion of the degree scheme, students will be able to:

A1 Demonstrate appreciation of the reciprocal relationships between human activity and the physical environment, including the impact of human activity on landscape form and environmental quality.

A2 Describe and account for spatial variations in the distributions of human phenomena at a variety of scales and temporal contexts.

A3 Account for the varied ways in which spaces, places, landscapes and environments are constituted and continually remade through a variety of social, economic, political and cultural processes, in a range of contexts from the local to the global.

A4 Demonstrate and account for variation in the outcome of processes and be familiar with a range of interpretations of the processes which create geographies of difference and inequality

A5 Demonstrate understanding of how particular geographical `ways of seeing? are produced, theorised and interpreted, including the representation of places through academic, policy and lay discourses.

A6 Develop insight and understanding into the contribution that geographical study makes to an informed concern about the Earth and its people, in academic, practical and policy terms.

A7 Account for and evaluate the development of Geography as a dynamic, plural and contested discipline, and discuss the relationship of Geography with other disciplines in the arts, humanities and social sciences.

A8 Critically evaluate the range of philosophical and methodological approaches employed by geographers in their analysis and interpretation of human society.

A9 Demonstrate a knowledge and understanding of the different forms of representation of the human world ? from maps, through texts and visual images to digital technologies.

A10 Demonstrate an awareness of the range and nature of data sources available to the human geographer and employ and evaluate a substantial range of observational, recording and analytic strategies used in geographical field enquiry and data analysis.

By selecting a pathway of modules which involves elements of Physical Geography, students may also develop the capacity to:

A11 Describe and account for spatial and temporal variations in the distributions of physical phenomena at a variety of scales.

A12 Account for the varied ways in which places, landscapes and environments are constituted and continually remade through a variety of physical, environmental and biotic processes in a range of contexts from the local to the global.

A13 Conceptualise patterns, processes, interactions and changes in the physical world as systems operating at a range of scales.

A14 Critically evaluate the range of philosophical and methodological approaches employed by geographers in their analysis of the natural environment.

A15 Demonstrate a knowledge of the different forms of representation of the physical world, including maps, scientific texts and digital technologies (GIS and Remote Sensing).

A16 Synthesise contributions from Human and Physical Geography to address issues of environmental management.

Teaching, learning and assessment methods used to enable outcomes to be achieved and demonstrated:

**Teaching and Learning**

At Level 1, student development towards learning outcomes A1 ? A6 is promoted via the core BA Geography module programme, delivered through lectures and tutorials, supported by independent study and reading by students. Issues relating to learning outcomes A7 and A8 are addressed through lectures on one core module and in tutorials, supported by directed student exercises and reading. Student development towards learning outcomes A9, A10 and A15 is promoted, depending on module choice, through a combination of lectures, practical classes and field classes and related exercise-based assignments. It is possible for students to develop capacities related to outcomes A11 to A14 by selecting modules from the BSc Geography programme, which are delivered through lectures supported by independent study and reading.

At Levels 2 and 3, the teaching programme consists of four elements. (i) Core Knowledge and Understanding Modules in Level 2 develop student capacities relating to outcomes A1 to A6 through lectures supported by independent study and reading by students. (ii) Core Skills Modules at Level 2 promote learning outcomes A5 to A10 through a combination of lectures and practical classes, variously supported by group or individual exercise-based assignments and independent reading as appropriate. (iii) Optional modules taken at Level 2 and Level 3 and delivered through lectures and seminars supported by independent study and reading, contribute to student development towards some or all of outcomes A1 to A10. (iv) Small group tutorials in both Level 2 and Level 3 cover themes relating to outcomes A1 to A10.

Additionally, students may develop capacities relating to outcomes A11 to A16 through the selection of Core Knowledge and Understanding Modules and Optional Modules from the BSc Geography programme, variously delivered through lectures and practical classes, supported by independent study and reading.

*Assessment -*

At Level 1, student capacities relating to learning outcomes A1 to A8 (and, where appropriate, A11 to A14) are assessed through unseen examination essays, unseen short-answer examinations, exercise-based coursework assignments and tutorial essay assignments and project work. Student capacities relating to outcomes A9, A10 and A15 may be assessed through tutorial project work, directed exercises and practical exercises depending on module choice.

At Levels 2 and 3, student capacities relating to learning outcomes A1 to A16 may be variously assessed as appropriate through tutorial assignments, oral presentations, coursework essays, project essays, seminar presentations, and seen, unseen and freetime examination essays.

**Information provided by Department of Mathematics**

Knowledge and understanding

A1. Of fundamental concepts and techniques of calculus, algebra, analysis and selected topics in geometry, mathematical modelling, probability and statistics.

A2. Of more advanced concepts in abstract algebra, real and complex analysis and selected topics in numerical mathematics, fluid dynamics, probability and statistics.
A3. Of a selection of specialist topics in Mathematics and Statistics.
A4. Of software for the analysis of numerical data.

A5. Of software supporting presentations and producing reports.

***Teaching, learning and assessment methods used to enable outcomes to be achieved and demonstrated:***
Formal lectures (A1-A5), tutorials (A1-A4), examples classes (A1-A4), practical classes (A4 - A5), survey group meetings (A1- A5), help-desk encounters (A1), student-initiated informal meetings with lecturers (A1-A4), coursework (A1-A4). Project consultations (A1-A4) for students who have chosen the appropriate module.

***Assessment*** ? unseen written examinations (A1-A3), open-book practical examinations (A1 - A4), coursework (A1-A4). Project/survey reports/presentations (A1 - A5), if appropriate.

# 6: Skills and other attributes

**Information provided by Department of Geography and Earth Sciences**

### 10.2.1 Intellectual skills

On completion of the degree scheme, students will be able to:

B1 Abstract and synthesise information

B2 Critically judge and evaluate evidence

B3 Critically interpret data and text

B4 Make justified decisions

B5 Assess the merits of contrasting theories, explanations and policies

B6 Develop a reasoned argument

B7 Find ways to overcome problems

B8 Write in an appropriate academic style in reporting, reviewing and discussing geographical themes

B9 Appropriately and critically employ material from academic literature and correctly cite and reference sources

B10 Take responsibility for their own learning and review and reflect upon that learning

***Teaching, learning and assessment methods used to enable outcomes to be achieved and demonstrated:***

***Teaching and Learning***

Student development towards outcomes B1 to B10 is primarily promoted through small group tutorials (Levels 1-3), and practical classes (Levels 1-2). Learning is supported through tutorial and practical exercises. The application of these skills in the context of specific areas of geographical enquiry is demonstrated through lectures for core and optional modules at Levels 1, 2 and 3.

***Assessment***

Assessment of student capacities in relation to outcomes B1 to B10 are central to criteria employed in the evaluation of a range of assessment forms employed at all three levels of the degree scheme. These include tutorial assignments, coursework essays, practical exercises, project essays, seminar and oral presentations and seen, unseen and free-time examination essays.

### 10.2.2 Professional practical skills / Discipline-specific skills

On completion of the degree scheme students will be able to demonstrate competence in the following professional geographical skills:

C1 Planning, designing and executing a piece of rigorous geographical research or enquiry, including the production of a final report

C2 Presenting geographical data effectively through the use of appropriate media including maps, diagrams, statistical tables and academic prose

C3 Combining and interpreting different types of geographical evidence

C4 Analysing the geographical implications of current events, policy decisions and social, economic, political and cultural processes

C5 Interrogating and interpreting the production and presentation of policy documents, print and broadcast media, landscape and textual material

C6 Recognising the moral and ethical issues involved in geographical and social scientific debates and enquiries

Depending on module choice, students may also be able to demonstrate competence in:

C7 Employing a variety of social survey and interpretative methods for the collection, analysis and understanding of information from the human world, including questionnaire surveys and interviews.

***Teaching, learning and assessment methods used to enable outcomes to be achieved and demonstrated:***

***Teaching and Learning***

The teaching of discipline-specific professional and practical skills is delivered in a number of contexts. Small group tutorials at Levels 1, 2 and 3 address issues relating to outcomes C1 and C3-C6 inclusive; whilst outcomes C4 to C6 are also addressed at Level 1 through lectures on a core module and related exercise-based assignments. Depending on module choice, practical classes at Levels 1 and 2 contribute to the development of skills C2, C3, C5 and C7, supported by practical group and individual exercises.

Additionally, the application of these skills in the context of specific areas of geographical enquiry is demonstrated through lectures for core and optional modules at Levels 1, 2 and 3.

***Assessment***

The above skills are assessed through a variety of methods at all three levels of the degree scheme. Tutorial assignments, coursework essays, project essays and examination essays may all assess C2, C3, C4, C5 and C6 as appropriate to the context of the assessment. Depending on module choice, group and individual exercises related to practical classes assess skills C2, C3, C5 and C7. Skill C1 is assessed through tutorial project work.

**Information provided by Department of Geography and Earth Sciences**

**10.2.1 Intellectual skills**

On completion of the degree scheme, students will be able to:

B1 Abstract and synthesise information

B2 Critically judge and evaluate evidence

B3 Critically interpret data and text

B4 Make justified decisions

B5 Assess the merits of contrasting theories, explanations and policies

B6 Develop a reasoned argument

B7 Find ways to overcome problems

B8 Write in an appropriate academic style in reporting, reviewing and discussing geographical themes

B9 Appropriately and critically employ material from academic literature and correctly cite and reference sources

B10 Take responsibility for their own learning and review and reflect upon that learning

*Teaching, learning and assessment methods used to enable outcomes to be achieved and demonstrated*

**Teaching and Learning**

Student development towards outcomes B1 to B10 is primarily promoted through small group tutorials (Levels 1-3), and practical classes (Levels 1-2). Learning is supported through tutorial and practical exercises. The application of these skills in the context of specific areas of geographical enquiry is demonstrated through lectures for core and optional modules at Levels 1, 2 and 3.

*Assessment* -

Assessment of student capacities in relation to outcomes B1 to B10 are central to criteria employed in the evaluation of a range of assessment forms employed at all three levels of the degree scheme. These include

tutorial assignments, coursework essays, practical exercises, project essays, seminar and oral presentations and seen, unseen and free-time examination essays.

### 10.2.2 Professional practical skills / Discipline-specific skills

On completion of the degree scheme students will be able to demonstrate competence in the following professional geographical skills:

C1 Planning, designing and executing a piece of rigorous geographical research or enquiry, including the production of a final report

C2 Presenting geographical data effectively through the use of appropriate media including maps, diagrams, statistical tables and academic prose.

C3 Combining and interpreting different types of geographical evidence.

C4 Analysing the geographical implications of current events, policy decisions and social, economic, political and cultural processes.

C5 Interrogating and interpreting the production and presentation of policy documents, print and broadcast media, landscape and textual material.

C6 Recognising the moral and ethical issues involved in geographical and social scientific debates and enquiries.

Depending on module choice, students may also be able to demonstrate competence in:

C7 Employing a variety of social survey and interpretative methods for the collection, analysis and understanding of information from the human world, including questionnaire surveys and interviews.

***Teaching, learning and assessment methods used to enable outcomes to be achieved and demonstrated***

**Teaching and Learning**

The teaching of discipline-specific professional and practical skills is delivered in a number of contexts. Small group tutorials at Levels 1, 2 and 3 address issues relating to outcomes C1 and C3-C6 inclusive; whilst outcomes C4 to C6 are also addressed at Level 1 through lectures on a core module and related exercise-based assignments. Depending on module choice, practical classes at Levels 1 and 2 contribute to the development of skills C2, C3, C5 and C7, supported by practical group and individual exercises.

Additionally, the application of these skills in the context of specific areas of geographical enquiry is demonstrated through lectures for core and optional modules at Levels 1, 2 and 3.

*Assessment* ?

The above skills are assessed through a variety of methods at all three levels of the degree scheme. Tutorial assignments, coursework essays, project essays and examination essays may all assess C2, C3, C4, C5 and C6 as appropriate to the context of the assessment. Depending on module choice, group and individual exercises related to practical classes assess skills C2, C3, C5 and C7. Skill C1 is assessed through tutorial project work.

**Information provided by Department of Mathematics**

### 10.2.1. Intellectual skills

The ability to

B1. Calculate and manipulate data obtained from, or related to, the bodies of knowledge studied.

B2. Apply a range of concepts and principles in well-defined mathematical or statistical contexts, showing judgement in the selection and application of tools and techniques.
B3. Develop and evaluate logical arguments.
B4. Abstract the essential elements of problems, formulate them in a mathematical context and obtain solutions by appropriate methods.

***Teaching, learning and assessment methods used to enable outcomes to be achieved and demonstrated***
Formal lectures, tutorials, examples classes, practical classes, revision workshops, help-desk encounters, student-initiated informal meetings with lecturers. Project consultations and survey group meetings for students who have chosen the appropriate modules. Skills B1-B4 are developed in all these learning situations.

***Assessment*** ? unseen written examinations, open-book practical examinations, coursework, presentations. Project/survey report. Skills B1-B4 are assessed by all these assessment methods.

**10.2.2. Professional practical skills**

The ability to

C1. Present arguments and conclusions effectively and accurately.
C2. Use computer software to analyse and interpret the data.
C3. Design a survey as a member of a group and carry out the survey.
C4. Interpret data collected in a survey and write a report.
C5. Use computer software to support presentations and produce reports.

***Teaching, learning and assessment methods used to enable outcomes to be achieved and demonstrated***
Formal lectures, tutorials, examples classes, practical classes, revision workshops, help-desk encounters, student-initiated informal meetings with lecturers. Project consultations and survey group meetings for students who have chosen the appropriate modules. Skill C1 is developed in all these learning situations, skills C2-C5 in practical classes and skills C3-C5 in formal lectures and survey group meetings. Some, but not all, of the skills C2 - C5 are acquired by all students on this programme, since the modules in which they are developed are optional.

***Assessment*** ? unseen written examinations (C1), open-book practical examinations (C2), coursework (C1 - C2), project report/survey report/presentations (C1 - C5), if appropriate.

# 7: Transferable/Key skills

**Information provided by Department of Geography and Earth Sciences**

On completion of the programme the student will be able to take responsibility for themselves and their work. The student will be able to demonstrate ability in the following key skills which are transferable to a non-academic context:

D1 Working independently

D2 Working as part of a team

D3 Respecting the views, beliefs, opinions and values of others

D4 Listening to and engaging with other speakers

D5 Effective verbal communication in a range of settings, including group discussions and debates and formal presentations.

D6 Effective written communication in a variety of forms

D7 Use of information technologies to process, store, present and communicate information, including spreadsheets, databases, word processing, e-mail and the world-wide web

D8 Identifying, retrieving, sorting and handling information from conventional and electronic sources, including libraries, CD-Roms, on-line computer resources and the world-wide web

D9 Time management and self-regulation of work regimes

D10 Research issues and solve problems

D11 Adapting to change

D12 Reading comprehension and interpretation of a range of written material

D13 Observational skills.

D14 Identifying appropriate career pathways and developing the capacity to compete effectively for employment opportunities.

Depending on module choice, students may also be able to demonstrate ability in:

D15 Collating, processing, interpreting and presenting numerical data.

***Teaching, learning and assessment methods used to enable outcomes to be achieved and demonstrated:***

***Teaching and Learning***

The programme aims to promote, develop and nurture students' awareness of and competence in these key transferable skills, many of which students will already possess in a greater or lesser degree of competence. Some of these skills are integral to teaching and learning activities across the programme (D1, D4, D7, D8, D9, D10, D11, D12). Others are developed through specific modules and learning activities, including practical classes and exercises (D15) and oral presentations (D5). Most significantly, small group tutorials have a progressive syllabus from Level 1 to Level 3 which specifically addresses a number of these skills, including D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, D11, D12 and D14.

***Assessment***

Assessment of student capacities in relation to many of the above outcomes (D6, D7, D8, D9, D10, D12) is central to criteria employed in the evaluation of a range of assessment forms employed at all three levels of the degree scheme. These include tutorial assignments, coursework essays, practical exercises, project essays and seen, unseen and free-time examination essays. In addition, a number of the above skills are explicitly assessed at various points during the programme through a range of methods, including the tutorial project work (D1, D2), oral presentations (D5), tutorial study skills assignments (D7, D8), and practical exercises (D13, D15).

**Information provided by Department of Geography and Earth Sciences**

On completion of the programme the student will be able to take responsibility for themselves and their work. The student will be able to demonstrate ability in the following key skills which are transferable to a non-academic context:

D1 Working independently

D2 Working as part of a team

D3 Respecting the views, beliefs, opinions and values of others

D4 Listening to and engaging with other speakers

D5 Effective verbal communication in a range of settings, including group discussions and debates and formal presentations.

D6 Effective written communication in a variety of forms

D7 Use of information technologies to process, store, present and communicate information, including spreadsheets, databases, word processing, e-mail and the world-wide web.

D8 Identifying, retrieving, sorting and handling information from conventional and electronic sources, including libraries, CD-Roms, on-line computer resources and the world-wide web.

D9 Time management and self-regulation of work regimes.

D10 Research issues and solve problems

D11 Adapting to change

D12 Reading comprehension and interpretation of a range of written material

D13 Observational skills.

D14 Identifying appropriate career pathways and developing the capacity to compete effectively for employment opportunities.

Depending on module choice, students may also be able to demonstrate ability in:

D15 Collating, processing, interpreting and presenting numerical data.

*Teaching, learning and assessment methods used to enable outcomes to be achieved and demonstrated*

Teaching and Learning

The programme aims to promote, develop and nurture students? awareness of and competence in these key transferable skills, many of which students will already possess in a greater or lesser degree of competence. Some of these skills are integral to teaching and learning activities across the programme (D1, D4, D7, D8, D9, D10, D11, D12). Others are developed through specific modules and learning activities, including practical classes and exercises (D15) and oral presentations (D5). Most significantly, small group tutorials have a progressive syllabus from Level 1 to Level 3 which specifically addresses a number of these skills, including D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, D11, D12 and D14.

Assessment

Assessment of student capacities in relation to many of the above outcomes (D6, D7, D8, D9, D10, D12) is central to criteria employed in the evaluation of a range of assessment forms employed at all three levels of the degree scheme. These include tutorial assignments, coursework essays, practical exercises, project essays and seen, unseen and free-time examination essays. In addition, a number of the above skills are explicitly assessed at various points during the programme through a range of methods, including the tutorial project work (D1, D2), oral presentations (D5), tutorial study skills assignments (D7, D8), and practical exercises (D13, D15).

**Information provided by Department of Mathematics**

The ability to

D1. Apply general mathematical skills to the interpretation of numerical data.

D2. Work as a member of a team.
D3. Use information technology effectively to manage information.
D4. Manage time and resources effectively.
D5. Develop effective learning skills.
D6. Be aware of the need to plan for employment and of need to develop various skills for such employment.
D7. Work independently.

***Teaching, learning and assessment methods used to enable outcomes to be achieved and demonstrated***

Skill D1 is developed in all learning environments in the Department of Mathematics and assessed by all assessment methods. Skill D2 is developed during practical classes and in survey group meetings and assessed by the survey report. Skill D3 is developed primarily in practical classes and in producing a survey report and assessed by open-book examinations, coursework and survey report. Project consultations and survey group meetings for students who have chosen the appropriate modules.. Skill D3 is also developed through the use of e-mail, which is a normal means of communication between staff and students. Skills D4 and D5 are developed in an induction course on study skills, in preparing set coursework and submitting it by given deadlines and in planning and executing a survey. Skills D4 and D5 are not explicitly assessed. Skill D6 is developed at meetings with Personal Tutors, at occasional recruitment meetings arranged for final-year student in the Department of Mathematics and in interactions with the Careers Advisory Service. Skills D4, D5 and D7 are developed by independent study for an optional project.

# 8: Work-based learning (where appropriate)

# 9: What is the structure of the programme?

## Year 1 Core modules

**Core (40 Credits)**

| Name | Module Code | Credits | Semester |
|---|---|---|---|
| Algebra | MA10510 | 10 | Semester 1 |
| Mathematical Analysis | MA11110 | 10 | Semester 2 |
| Calculus | MP10610 | 10 | Semester 1 |
| Further Algebra and Calculus | MP11010 | 10 | Semester 2 |

**Core (60 Credits)**

| Name | Module Code | Credits | Semester |
|---|---|---|---|
| Living in a Dangerous World | GS10000 | 0 | Semester 1 |
| Living in a Dangerous World | GS10020 | 20 | Semester 2 |
| Earth Surface Environments | GS10520 | 20 | Semester 2 |
| How to Build a Planet | GS11520 | 20 | Semester 1 |

## Year 1

**Options** Choose 20 credits

| Name | Module Code | Credits | Semester |
|---|---|---|---|
| Coordinate and Vector Geometry | MA10110 | 10 | Semester 1 |
| Probability | MA10310 | 10 | Semester 1 |
| Differential Equations | MA11210 | 10 | Semester 2 |
| Statistics | MA11310 | 10 | Semester 2 |
| Geometreg Gyfesurynnol a Fectoraidd | MT10110 | 10 | Semester 1 |

| | | | |
|---|---|---|---|
| Tebygoleg | MT10310 | 10 | Semester 1 |
| Hafaliadau Differol | MT11210 | 10 | Semester 2 |
| Ystadegaeth | MT11310 | 10 | Semester 2 |

## Year 2 Core modules

**Core (20 Credits)**

| Name | Module Code | Credits | Semester |
|---|---|---|---|
| Physical Geography and Environmental Science Research Design and Fieldwork Skills | GS21100 | 0 | Semester 1 |
| Physical Geography and Environmental Science Research Design and Fieldwork Skills | GS21120 | 20 | Semester 2 |

**Core (20 Credits)**

| Name | Module Code | Credits | Semester |
|---|---|---|---|
| Linear Algebra | MA21410 | 10 | Semester 2 |
| Complex Analysis | MA21510 | 10 | Semester 2 |

## Year 2

**Options** Choose 40 credits

| Name | Module Code | Credits | Semester |
|---|---|---|---|
| Bwyd, Ffermio a'r Amgylchedd | BG21920 | 20 | Semester 2 |
| Geomorffoleg Afonol | DA22510 | 10 | Semester 1 |
| Chemical Analysis of Natural Materials | GS21010 | 10 | Semester 2 |

| | | | |
|---|---|---|---|
| Reconstructing Past Environments | GS21910 | 10 | Semester 2 |
| Physical Analysis of Natural Materials | GS22010 | 10 | Semester 1 |
| Geohazards | GS22810 | 10 | Semester 2 |
| The Frozen Planet | GS23510 | 10 | Semester 1 |
| Geographical Information Systems | GS23710 | 10 | Semester 2 |
| Quantitative Data Analysis | GS23810 | 10 | Semester 1 |
| Catchment Systems | GS25210 | 10 | Semester 1 |

**Options** Choose 40 credits of optional mathematics modules, EITHER from Block A, OR BLOCK B.

**Options** BLOCK A: (Choose your preferred language, if applicable)

| Name | Module Code | Credits | Semester |
|---|---|---|---|
| Real Analysis | MA20110 | 10 | Semester 1 |
| Introduction to Abstract Algebra | MA20310 | 10 | Semester 1 |
| Distributions and Estimation | MA26010 | 10 | Semester 1 |
| Applied Statistics | MA26600 | 0 | Semester 1 |
| Applied Statistics | MA26620 | 20 | Semester 2 |
| Dadansoddiad Real | MT20110 | 10 | Semester 1 |

**Options** BLOCK B: (Choose your preferred language, if applicable)

| Name | Module Code | Credits | Semester |
|---|---|---|---|
| Real Analysis | MA20110 | 10 | Semester 1 |

| | | | |
|---|---|---|---|
| Introduction to Abstract Algebra | MA20310 | 10 | Semester 1 |
| Introduction to Numerical Analysis and its applications | MA25200 | 0 | Semester 1 |
| Introduction to Numerical Analysis and its applications | MA25220 | 20 | Semester 2 |
| Hydrodynamics 1 | MA25610 | 10 | Semester 2 |
| Advanced Dynamics | MA25710 | 10 | Semester 2 |
| Dadansoddiad Real | MT20110 | 10 | Semester 1 |
| Cyflwyniad i Ddadansoddiad Rhifiadol a'i Gymwysiadau | MT25200 | 0 | Semester 1 |
| Cyflwyniad i Ddadansoddiad Rhifiadol a'i Gymwysiadau | MT25220 | 20 | Semester 2 |
| Hydrodynameg 1 | MT25610 | 10 | Semester 2 |

## Final Year Core modules

**Core (20 Credits)**

| Name | Module Code | Credits | Semester |
|---|---|---|---|
| Geography Joint Honours/Major Project | GS34200 | 0 | Semester 1 |
| Geography Joint Honours/Major Project | GS34220 | 20 | Semester 2 |

## Final Year

**Options** Choose 40 credits

| Name | Module Code | Credits | Semester |
|---|---|---|---|
| Rheoli'r Amgylchedd Gymreig | DA31720 | 20 | Semester 2 |
| Volcanic Activity: Hazards and Environmental Change | GS30420 | 20 | Semester 2 |

| | | | |
|---|---|---|---|
| Applied Environmental Management | GS31120 | 20 | Semester 1 |
| Earth Observation from Satellites and Aircraft | GS32020 | 20 | Semester 1 |
| Sedimentary Environments | GS32120 | 20 | Semester 2 |
| Glaciers and Ice Sheets | GS33420 | 20 | Semester 1 |
| People, Climate and Environment: a Palaeoenvironmental Perspective | GS33720 | 20 | Semester 2 |

**Electives** Choose 60 credits (level 3) from mathematics as advised by the department, subject to pre-requisites

# 10: University Regulations

Details of University Regulations can be found at https://www.aber.ac.uk/en/academic-registry/handbook/regulations/

# 11: Support for students and their learning

**Information provided by Department of Geography and Earth Sciences**

? Departmental Learning Support

- Departmental Induction Meetings for all Year Groups at the start of each academic year and through regular meeting (one per semester)
- Personal and Academic Tutor support for all students providing learning and teaching opportunities and feedback on assessed work
- E-mail access to all staff
- Staff-Office Hours for consultation as and when necessary
- Student Handbooks
- Field course handbooks for all field course modules
- Excellent laboratory provision for teaching and research
- Map collection and reading room in the department
- Departmental web-site on Computer-based Initiatives in Teaching Geography
- Computer-aided Learning resources available on University networked computers

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- Computer-aided Learning resources available on University networked computers
- Student Led Mentoring System

# 12: Entry Requirements

**Information provided by Department of Geography and Earth Sciences**

Applicants are selected on their individual merits, and offers can vary. Normally offers are made as follows:

AS & AL GCE, VAS & VAL: 240-300 points C in Geography

National Diploma or Certificate: 3 Distinctions plus 2 merits plus Competence in Geography

International Baccalaureate: 28-30

European Baccalaureate: 65% 0verall with 75% in specified subject

Irish Leaving Certificate: BBCCC/BBBCC (B in Geography)

Scottish Certificate of Education (Higher Grade): AABBB (B in Geography)

***However, you may be made a higher offer if the normal Single Honours requirement for you second subject is higher than that for Geography.***

Applicants from Access candidates and mature-aged candidates (aged over 21 at date of entry) not offering standard qualifications are encouraged. Offers to mature-aged candidates are made on an individual basis, and an interview may be required.

All programmes require grade C in GCSE English or Welsh or an acceptable equivalent. Normally GCSE Mathematics is expected but not required for the BA Geography programme.

General Studies AL /As is normally included in the offer.

The full Key Skills qualification will be regarded as equivalent to an AS Level and will be included in the framing of an offer.

**Information provided by Department of Geography and Earth Sciences**

Details of admission criteria are found on the web page:

http://www.aber.ac.uk/prospective.shtml

http://www.aber.ac.uk/iges/old_html/admiss/index.htm

http://www.aber.ac.uk/iges/old_html/postgrad_admissions/postop.html

Applicants are selected on their individual merits, and offers can vary. Normally offers are made as follows:

AS & AL GCE, VAS & VAL: 240-300 points C in Geography

National Diploma or Certificate: 3 Distinctions plus 2 merits plus

Competence in Geography

International Baccalaureate: 28-30

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General Studies AL /As is normally included in the offer.

The full Key Skills qualification will be regarded as equivalent to an AS Level and will be included in the framing of an offer.

**Information provided by Department of Mathematics**

? GCSE: Mathematics (min. C), English or Welsh.
? A/AS level: UCAS tariff: 300 with A-level Mathematics (min. B).
? Advanced level GNVQ: Distinction (12 units).
? National Diploma or Certificate: 5 distinctions plus 1 merit plus A-level Mathematics (min. C).
? International Baccalaureate: 26-28 (including Mathematics).
? European Baccalaureate: 65%-70% overall with Mathematics (min. 75%).
? Irish Leaving Certificate BCCCC/BBCCC with Mathematics (min. B). (Higher Level):
? Scottish Certificate of Education BCCCC/BBCCC with Mathematics (min. B). (Higher Grade):

Applications submitted on the basis of other qualifications and applications from mature-age candidates will be considered on an individual basis. Such applications must have a sufficient background in Mathematics to be able to cope this scheme.

Details of entry requirements for the scheme can be found at https://courses.aber.ac.uk/

# 13: Methods for evaluating and improving the quality and standards of teaching and learning

# 14: Regulation of Assessment

**Information provided by Department of Geography and Earth Sciences**

**Role of the External Examiners**

The external examiner reports to the university on whether:

the standards set are appropriate by reference to national subject benchmarks and the Aberystwyth University (AU) programme specifications and any other relevant points of reference are met.

the standards of student performance in the programme(s), or parts of programme(s), are comparable to the standards of similar programmes in other UK higher education institutions.

the processes for assessment, examination and determination of awards are sound and fairly conducted in accordance with AU examination conventions and procedures.

The assessment and examination process is monitored by an External Examiner appointed by the Academic Board. Three External Examiners are normally appointed for the Geography programme with responsibility for English-medium (Science and Arts) and Welsh-medium assessment respectively. External Examiners are senior figures in the discipline of Geography based at other universities who are able to offer a comparative perspective on our assessment standards and procedures.

Assessment Rules and Honours Classification

In order to progress from the first year of degree into the second year (Part 2), students must meet the following University criteria:

• Have an average mark of at least 40 across your 120 credits of modules (weighting marks for 20 credits modules double those for 10 credit modules).

• Have passed at least 80 credits of modules with marks of 40 or more.

• Have no modules with marks of below 30.

In order to progress from the second year to the final year, students must have passed at least 60 credits of modules in second year.

The class of degree is determined from the marks attained on modules studied in the second and third year by a weighted average. The classes are then determined according to the following categories.

First:  70-100%

Upper Second :  60-69%

Lower Second :  50-59%

Third:  40-49%

Fail:  0 – 39%

To qualify for a degree, a student must achieve (in addition to meeting all other requirements) marks of 40 or above in at least three-quarters of the credits taken in part 2, including marks of 40 or above in at least two-thirds of level 3 credits. Fail marks cannot be carried in more than 60 credits worth of modules at Levels 2 and 3. If students have failed more than this because of failures in their second year or in semester 1 of the third year, they may continue into semester 2 of the third year even though they cannot qualify for a degree in that year. Students may re-sit failed modules on one further occasion, normally when the modules are re-examined in the following sessions. Students in this position will not be presented to the University for their degree until re-sits have been successfully taken. Students must pass the Dissertation module in order to qualify for a degree.

Details of departmental assessment criteria are available from Blackboard.

**Information provided by Department of Geography and Earth Sciences**

*Role of the External Examiners*

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Assessment Rules and Honours Classification

Completion of the programme requires completion of 120 credits worth of First Year (Part One) level modules and 240 credits of Second and Third Year (Part Two) modules.

Progression from the first year to the second year requires a weighted average of at least 40% with at least 40% in modules with a credit weighting of 80 or more and at least 30% in the remaining modules.

Progression from the second year requires at least 40% in modules taken in the second year with a credit rating of at least 60.

The class of degree is determined from the marks attained on modules studied in the second and third year by a weighted average. The classes are then determined according to the following categories.

First: 70-100%

Upper Second : 60-69%

Lower Second : 50-59%

Third: 40-49%

Fail: 0 ? 39%

To qualify for a degree, a student must achieve (in addition to meeting all other requirements) marks of 40 or above in at least three-quarters of the credits taken in part 2, including marks of 40 or above in at least two-thirds of level 3 credits. Fail marks can not be carried in more than 60 credits worth of modules at Levels 2 and 3. If students have failed more than this because of failures in their second year or in semester 1 of the third year, they may continue into semester 2 of the third year even though they cannot qualify for a degree in that year. Students may re-sit failed modules on one further occasion, normally when the modules are re-examined in the following sessions. Students in this position will not be presented to the University for their degree until re-sits have been successfully taken.

An overview of the assessment details are provided in the University?s Student Examination Handbook. Further information is provided on the web page:

http://www.aber.ac.uk/academicstudent.shtml

Details of departmental assessment criteria are provided in the Degree Scheme Handbook, Dissertation Handbook and Field-course Handbooks.

**Information provided by Department of Geography and Earth Sciences**

Assessment Rules and Honours Classification

Further information on progression rules, assessment and the cascade can be found using the following link http://www.aber.ac.uk/en/academic-quality-records-office/exams/exam---conventions/

Details of departmental assessment criteria are available from Blackboard.

Academic Regulations are published as Appendix 2 of the Academic Quality Handbook: https://www.aber.ac.uk/en/aqro/handbook/app-2/

# 15: External Examiners

External Examiners fulfill an essential part of the Universityâ€™s Quality Assurance. Annual reports by External Examiners are considered by Faculties and Academic Board at university level.

# 16: Indicators of quality and standards

**Information provided by Department of Geography and Earth Sciences**

The quality and standard of the programmes provided by the Institute of Geography and Earth Sciences is indicated by:

University Departmental Audits

External validation and accreditation, including External Audits, assessments of external examiners and advisory bodies

Note

This specification provides a summary of the main features of the programme and of the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities that are provided. More detailed information on the learning outcomes, content and teaching, learning and assessment methods of each module can be found in the Degree Scheme Handbook and on the University website. The information contained in this specification is correct at the time of writing (June 2011) but no guarantee can be given that it will not be amended before the commencement of, or during, the programme to which it refers. Such amendments, if any, will be made in accordance with any statement of reservations that is set out in the Prospectus of First Degree Courses at Aberystwyth University.

**Information provided by Department of Geography and Earth Sciences**

The quality and standard of the programmes provided by the Department of Geography and Earth Sciences is indicated by:

University Departmental Audits

External validation and accreditation, including External Audits, assessments of external examiners and advisory bodies.

**Information provided by Department of Geography and Earth Sciences**

The quality and standard of the BA Geography programme and its associated procedures are indicated by:

- The award of an `Excellent? rating in the 1996 Teaching Quality Assessment audit.
- The positive report of the University?s Internal Departmental Quality Audit in 2000.

Note

This specification provides a summary of the main features of the programme and of the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities that are provided. More detailed information on the learning outcomes, content and teaching, learning and assessment methods of each module can be found in the Degree Scheme Handbook and on the University web-site. The information contained in this specification is correct at the time of writing (June 2003) but no guarantee can be given that it will not be amended before the commencement of, or during, to course to which it refers. Such amendments, if any, will be made in accordance with any statement of reservations that is set out in the Prospectus of First Degree Courses at the University of Wales Aberystwyth.

This document has been compiled by Dr Michael Woods (Co-ordinator, BA Geography programmes) and Dr Bill Edwards (IGES Teaching Co-ordinator), Institute of Geography and Earth Sciences.

**Information provided by Department of Mathematics**

A Teaching Quality Assessment was carried out in 1996. The Assessing Panel approved the quality of education in Mathematics and Statistics in the Department of Mathematics, referring to strengths and high standards in

? The Quality of Programme Design and Curricula,
? The Quality of Teaching,
? The Quality of Academic Support,
? The Quality of Student Achievement,
? The Quality of the Learning Environment.

The Department Quality Audit questionnaire serves as a checklist about the current requirements of the Universityâ€™s Academic Quality Handbook. The periodic Department Reviews provide an opportunity to evaluate the effectiveness of quality assurance processes and for the University to assure itself that management of quality and standards which are the responsibility of the University as a whole are being delivered successfully.Â