# PHYSICAL GEOGRAPHY
## COURSE HANDBOOK 2011-12

This course handbook provides general information about the Physical Geography programme. Students must also refer to the full set of course documents maintained and updated online at: *http://www.keele.ac.uk/eesg/physicalgeography/* Students must also refer to the Year Handbook for their year of study, the Programme Specification, the House Style, and other resources that are available on the course web page.

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# 1. Physical Geography at Keele

The Physical Geography Principal Course can be taken as:

- a 3-year BSc *Dual Honours* route in combination with another principal subject;
- a 3-year BSc *Major* route where the other subject is dropped at level 3;
- a 3-year BSc *Minor* route where Physical Geography is dropped at level 3;
- part of the 4-year *MGeoscience* route in combination with Geology.

The course provides a broad-based first-year programme followed by more specialised second-year and third-year studies. The course assumes no prior expertise in Physical Geography, and begins with introductory modules that provide a platform from which you can develop your knowledge, understanding and skills. As the course progresses, you will explore more advanced topics, conduct independent research, and develop your expertise.

- **First year** is designed to help you acquire essential academic skills and a foundation of knowledge of the underlying concepts and principles of the subject.
- **Second year** develops your critical understanding of more advanced topics and conceptual issues in the subject, and helps you to establish skills in independent research.
- **Third year** allows you to explore specialised topics of your choice at the level of the most recent scientific research, and to develop a range of advanced skills.

# 2. Physical Geography Course Structure 2011-12

*NB: For complete details of the course please refer to the Programme Specification.*
*For details of individual modules see the Year Handbooks and [www.keele.ac.uk/eesg/](www.keele.ac.uk/eesg/)*

**FIRST YEAR**
**Four compulsory modules. 60 credits. 38% exam, 62% coursework.**
Students take all 4 modules:
ESC-10039 and ESC-10035 and ESC-10038 and ESC-10041.

**Semester 1**

| Module | Title | Credit | Format | Exam | Coursework |
|---|---|---|---|---|---|
| ESC-10039 | Fundamentals of Physical Geography | 15 | Lectures | Exam 50% | 1 1500-word essay (20%)<br>3 class exercises (5% each)<br>3 VLE exercises (5% each) |
| ESC-10035 | Geographical Skills (first half) | Module runs through both semesters, including weekly tutorials and practical classes in this first semester. See details below. | | | |

**Semester 2**

| | | | | | |
|---|---|---|---|---|---|
| ESC-10038 | The Practice of Physical Geography | 15 | Lectures & 1-day field trip | Exam 50% | 1 1500-word essay (20%)<br>2 class exercises (5% each)<br>2 VLE exercises (5% each)<br>1 field exercise (10%) |
| ESC-10041 | People and the Environment | 15 | Lectures | Exam 50% | 1 2000-word essay (30%)<br>2 short exercises (10% each) |
| ESC-10035 | Geographical Skills (second half) | 15 | Practicals, tutorials & fieldcourse | None | Weekly tutorials (30%)<br>Weekly practical classes (40%)<br>5 field days (30%) |

**SECOND YEAR**
**Optional units within 4 compulsory modules. 60 credits. 12.5% exam, 87.5% coursework.**
Students take all 4 modules listed:
ESC-20050 and ESC-20009 and ESC-20030 and GEG-20009

**Semester 1**

| Module | Title | Credit | Format | Exam | Coursework |
|---|---|---|---|---|---|
| ESC-20050 | Dynamic Geographies | 15 | Lectures | None | 100% - number & style depend on options chosen. Equivalent to 2x2500-word essays. |
| ESC-20029 | Practical Physical Geography | 15 | Practicals & tutorials | None | 4 tutorial exercises (8% each)<br>Field project portfolio (33%)<br>GIS practical exercise (35%) |

**Semester 2**

| | | | | | |
|---|---|---|---|---|---|
| ESC-20030 | Regional Landsystems | 15 | Lectures & Tutorials | Exam 50% | 2 tutorial exercises (10% each)<br>1 1500-word essay or equivalent poster or web-page (30%) |
| GEG-20009 | Geographical Research Training | 15 | Practicals & overseas fieldcourse | None | 1 practical exercise (20%)<br>1 dissertation proposal (20%)<br>Fieldcourse (60%) |

**THIRD YEAR (Dual Honours route)**
**A DISSERTATION + OPTION MODULES TO A TOTAL OF 60 CREDITS. 12.5-37.5% EXAM, 62.5-87.5% COURSEWORK.**
Students take either GEG-30006 plus 2 additional modules or GEG-30008 plus 3 additional modules.

| Module | Title | Credit | Format | Exam | Coursework |
|---|---|---|---|---|---|
| GEG-30006 | Double Dissertation | 30 | Dissertation | None | Dissertation (100%) |
| GEG-30008 | Single Dissertation | 15 | Dissertation | None | Dissertation (100%) |
| ESC-30006 | Glaciers and Glacial Geomorphology | 15 | Lectures | Exam 50% | 1 1500-word essay or web-page (30%)<br>2 VLE exercises (10% each) |
| ESC-30018 | Global Environmental Change | 15 | Lectures | Exam 50% | 1 1500-word essay (30%)<br>2 VLE exercises (10% each) |
| ESC-30020 | Water Resources | 15 | Lectures | Exam 50% | 1 technical report (50%) |
| ESC-30009 | Natural Hazards | 15 | Lectures & workshops | Exam 50% | 1 poster (20%)<br>1 technical report (20%)<br>1 oral presentation (10%) |
| GEG-30014 | Inspirational Landscapes | 15 | Lectures | None | 1 Project Proposal (20%)<br>1 Online exercise (20%)<br>1 Project Report (60%) |
| ESC-30017 | Applied Environmental GIS | 15 | Lectures & practicals | Exam 50% | 1 small-group project (40%)<br>Tutorial exercises (10%) |
| ESC-30027 | Coastal Environments | 15 | Lectures | Exam 50% | 1 Poster presentation (30%)<br>1 in-class exercise 20% |

**THIRD YEAR (Major route)**
**DOUBLE DISSERTATION + OPTION MODULES TO A TOTAL OF 120 CREDITS. 31-37.5% EXAM, 62.5-69% COURSEWORK.**
Students take GEG-30006 plus 6 additional modules (or exceptionally GEG-30008 plus 7 others).

| Module | Title | Credit | Format | Exam | Coursework |
|---|---|---|---|---|---|
| GEG-30006 | Double Dissertation | 30 | Dissertation | None | Dissertation (100%) |
| ESC-30006 | Glaciers and Glacial Geomorphology | 15 | Lectures and online activities | Exam 50% | 1 1500-word essay or web-page (30%)<br>2 VLE exercises (10% each) |
| ESC-30018 | Global Environmental Change | 15 | Lectures | Exam 50% | 1 1500-word essay, poster or web-page (30%)<br>2 VLE exercises (10% each) |
| ESC-30020 | Water Resources | 15 | Lectures | Exam 50% | 1 technical report (50%) |
| ESC-30009 | Natural Hazards | 15 | Lectures & workshops | Exam 50% | 1 poster (20%)<br>1 technical report (20%)<br>1 oral presentation (10%) |
| GEG-30014 | Inspirational Landscapes | 15 | Lectures | None | 1 Project Proposal (20%)<br>1 Online exercise (20%)<br>1 Project Report (60%) |
| ESC-30017 | Applied Environmental GIS | 15 | Lectures & practicals | Exam 50% | 1 small-group project (40%)<br>Tutorial exercises (10%) |
| ESC-30027 | Coastal Environments | 15 | Lectures | Exam 50% | 1 Poster presentation (30%)<br>1 in-class exercise 20% |
| Others | By arrangement with the course director, other appropriate modules up to a value of 15 credits from cognate disciplines such as Geology, Env.Sci. or Life Sciences might be taken as part of the level-3 programme instead of one of those listed above. At least 105 credits must be derived from level 3 modules listed above. | | | | |

# 3. What do students learn and how are they assessed?

FIRST YEAR. Essential academic skills and a foundation of knowledge of the underlying concepts and principles of the subject. Knowledge and understanding of core Physical Geography topics and ideas. Fundamental skills and techniques in practical Physical Geography, including fieldwork. Essential study and communications skills.

SECOND YEAR. A critical understanding of more advanced topics and conceptual issues, and skills in independent research. Knowledge and understanding of advanced Physical Geography topics and ideas. Advanced skills and techniques in practical Physical Geography, including fieldwork. Core skills in research design and project formulation. Advanced study skills and engagement with research-level literature.

THIRD YEAR. Skills and knowledge specific to Physical Geography, plus a range of skills and knowledge applicable to a wide range of employment opportunities that will also establish the basis for a future of lifelong learning. Specialist knowledge and understanding of Physical Geography topics and concepts at the cutting edge of the discipline Advanced research skills and practical techniques in Physical Geography, including fieldwork.

Assessment involves:

- Diagnostic Assessments: These are used to determine students' prior knowledge and ability before a section of the course. They do not count towards students' marks, but help to ensure that teaching is well-targeted and appropriate for students' needs.
- Formative Assessments: These are designed to inform students of their progress and to encourage them to reflect on their developing subject knowledge and understanding. They take place during the running of a module and are not used as a part of students' formal assessment mark for the module.
- Summative Assessments: These are used to return a formal assessment mark. They are normally derived from examinations and/or continuous assessment of course work throughout the module. Summative assessment marks from levels 2 and 3 count towards the final degree score.

The Physical Geography degree programme uses a diverse range of assessments that are aligned with the intended learning outcomes of the relevant modules and enable students to develop a broad range of both generic and subject-specific skills. Students are always provided with either oral or written feedback to explain the reason behind the mark awarded and to highlight areas of potential improvement. Students are always encouraged to discuss their assessed work with staff if they required additional feedback.

The conduct of assessments is governed by the University's Regulations:
http://www.keele.ac.uk/regulations/regulation8/

Further information on assessment can be found via the following links:

University Code of Practice on Assessment:
http://www.keele.ac.uk/depts/aa/newacadregpages/copassessment.htm

University Marking criteria:
http://www.keele.ac.uk/depts/aa/newacadregpages/marking%20criteria.htm

University Degree classification:
http://www.keele.ac.uk/depts/aa/newacadregpages/degreeclass.htm

# 4. Physical Geography Staff

Many staff contribute to teaching in Physical Geography, but the five tutors who will lead you through the Physical Geography program are:

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| Dr Peter Knight | e-mail: p.g.knight@keele.ac.uk | room F30 | tel: (7)34304 |
| Dr Richard Waller | e-mail: r.i.waller@keele.ac.uk | room F23A | tel: (7)33179 |
| Dr Zoe Robinson | e-mail: z.p.robinson@keele.ac.uk | room F24 | tel: (7)34303 |
| Dr Katie Szkornik | e-mail: k.szkornik@keele.ac.uk | room F28 | tel: (7)33614 |
| Dr Alix Cage | e-mail: a.g.cage@keele.ac.uk | room F17 | tel: (7)33177 |

We are all based in the William Smith Building (Earth Sciences and Geography), which is part of the School of Physical and Geographical Sciences. Our aim is to help you to enjoy your Physical Geography course and to get the most out of your studies. If you need any help or advice at any time, or if you just want to call in to say hello and have a chat, we will always be pleased to see you. If you want to make sure in advance that we will be free when you call, you can e-mail to make an appointment.

Course Director: Dr Peter Knight is the tutor with overall responsibility for Physical Geography, and you may contact him if you have any general queries.

Course Administrator: The course is administered by Mrs Stef Everill in the Earth Sciences and Geography Office. e-mail: s.everill@esci.keele.ac.uk tel: (7)34307

Your Physical Geography Tutor: Each student is allocated a Physical Geography Tutor who will usually be your first point of contact and will meet you regularly for tutorials.

The First-year Tutor: Mr Keith Mason has overall responsibility for level-1 students on all the Geography courses, including matters such as coursework extensions and academic warnings. e-mail: k.t.mason@esci.keele.ac.uk tel: (7)33170 room: F31

# 5. What is a University Degree all about?

University study is different in many ways from what you may have experienced at school or college. At university you will have to take responsibility for your own learning, and it will be up to you to manage your time effectively so that you achieve your academic goals. Your tutors are here to help you, but they will not spoon-feed you. The aim of our teaching is to help you to learn. Teaching includes tutorials, lectures, practicals, seminars and fieldwork, as well as guided independent study. Assessment is by a combination of examination and coursework.

The 3-year Physical Geography courses lead to a BSc (Bachelor of Science) Honours degree. It is important for you to understand what is expected of you if you are to reach that level of academic achievement. There is a *National Framework for Higher Education Qualifications* (generally known as the FHEQ) provided by the Quality Assurance Agency for Higher Education (http://www.qaa.ac.uk). The FHEQ explains what is expected of students at each level of their studies. The Physical Geography course at Keele is designed to lead you steadily through the levels as you progress through the course.

The information on the next page summarises the key points from the FHEQ describing the three years of study for an Honours degree.

**Key points from the Framework for Higher Education Qualifications (FHEQ) describing the three years of study for an Honours degree.**

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**At the end of 1st Year**
Students should have a sound knowledge of the basic concepts of a subject, and will have learned how to take different approaches to solving problems. Students will be able to communicate accurately, and will have the qualities needed for employment requiring the exercise of some personal responsibility.

**At the end of 2nd Year**
At this level students will have developed a sound understanding of the principles in their field of study, and will have learned to apply those principles more widely. Through this, they will have learned to evaluate the appropriateness of different approaches to solving problems. Their studies may well have had a vocational orientation, enabling them to perform effectively in their chosen field. They will have the qualities necessary for employment in situations requiring the exercise of personal responsibility and decision-making.

**At the end of 3rd Year**
An Honours graduate will have developed an understanding of a complex body of knowledge, some of it at the current boundaries of an academic discipline. Through this, the graduate will have developed analytical techniques and problem-solving skills that can be applied in many types of employment. The graduate will be able to evaluate evidence, arguments and assumptions, to reach sound judgements, and to communicate effectively. An Honours graduate should have the qualities needed for employment in situations requiring the exercise of personal responsibility, and decision-making in complex and unpredictable circumstances.

**Honours degrees are awarded to students who have demonstrated:**
i) a systematic understanding of key aspects of their field of study, including acquisition of coherent and detailed knowledge, at least some of which is at, or informed by, the forefront of defined aspects of a discipline;
ii) an ability to deploy accurately established techniques of analysis and enquiry within a discipline;
iii) conceptual understanding that enables the student:

> *to devise and sustain arguments, and/or to solve problems, using ideas and techniques, some of which are at the forefront of a discipline; and to describe and comment upon particular aspects of current research, or equivalent advanced scholarship, in the discipline;*

iv) an appreciation of the uncertainty, ambiguity and limits of knowledge;
v) the ability to manage their own learning, and to make use of scholarly reviews and primary sources (eg refereed research articles and/or original materials appropriate to the discipline).

*Based on: http://www.qaa.ac.uk/AssuringStandardsAndQuality/Qualifications/Pages/default.aspx*

# 6. What is Physical Geography all about?

Why is climate changing? Why is sea level rising in some places and falling in others? What can be done about flooding, coastal erosion, or catastrophic landslides? How do volcanoes, glaciers, hurricanes, sand dunes and forest ecosystems work? Why does this landscape look the way it does? These are the kinds of questions that Physical Geographers seek answers to. Physical Geography is all about understanding why the natural world around us is the way it is, and predicting how it might change.

Physical Geography is all around us, and affects all of our lives. Consider these extracts from what the Royal Geographical Society has to say about Geography:

> "Geography is inherent in everyone's lives. It is all around us and it is capable of enriching even the most mundane of tasks, and instilling consideration for the world, its environments and its peoples. Geography, experienced from a young age through fieldwork and travel, often stimulates in people of all ages a life-long enthusiasm for the countryside, a respect and responsibility for conservation and human diversity, and an understanding of the interconnected nature of the world and the need for sustainable management of its resources. A country walk takes on new meaning when one has an understanding of the landscape, its age, how it formed, how it has been changed by human actions, and the threats it may face from soil erosion or nitrate pollution of streams…
>
> "In short, Geography is, in the broadest sense, an education for life and for living. An understanding and enthusiasm for Geography, and the development of geographical knowledge, is essential for the 21st century in a world where population growth, rapid development, global environmental change, social and economic inequality, and resource depletion threaten the very planet on which we live. These problems place increasing burdens on cultural tolerance, the sustainable management of societies, natural resources including bio-diversity, and landscapes. Geographers have a key role to play in understanding and helping to solve these issues."
>
> *http://www.rgs.org*

Physical Geography is a rapidly evolving science at the heart of our study of global environmental change. It focuses both on the features of the Earth's varied landscapes, and on the complex interaction of land, ocean, atmosphere, ice and life within the framework of a potentially fragile global system. There is a beautiful, complex, fascinating world out there, and as a Physical Geographer you have the opportunity to explore how it works.

# 7. Careers in Physical Geography

Employers recognise that Physical Geography graduates have a wide range of skills including independent thinking, computer literacy, teamwork, problem solving, and data handling, as well as specialised knowledge about the physical environment. Traditional employment opportunities in areas such as teaching, surveying, media and local government are still important, but Physical Geography graduates are well placed to benefit from new environmental career opportunities such as resource management, geomorphological consultancy, and environmental protection. For students who wish to pursue an academic or research-based career, the strong research ethos in Physical Geography at Keele, combined with the breadth of expertise that can be acquired as part of a dual honours programme, provides a perfect starting point. For more information about careers please refer to the careers information on the Earth Sciences and Geography website: www.esci.keele.ac.uk/careers/ or speak to Zoe Robinson, the Physical Geography careers tutor.

# 8. Code of Behaviour for Physical Geography Students

All students within the School of Physical and Geographical Sciences (which includes Physical Geography) are expected to behave in a manner that does not disrupt the working environment of their fellow students or staff. We expect all students to be responsible members of the academic community and to follow the Code of Behaviour set out below.

**Conduct in Lectures:** Students must not participate in any activities within lectures that might reduce the ability of others to engage with the learning process. Students should avoid being late for lectures, as it is unfair to the whole class and shows a lack of respect for the member of staff delivering the lecture. Mobile phones should be turned OFF. Personal music players should NOT be used. Laptops may be used for taking notes, but not for other purposes. Student contributions during lectures are actively encouraged, but distracting conversations are not permitted. Students will be required to leave a lecture if their behaviour is a distraction to others.

**Conduct in Practical Classes:** Again, students must not engage in any activities which might impinge on the ability of others to benefit from the learning experience provided. Mobile phones and personal music players must NOT be used within the laboratories. In general, students may temporarily leave practical sessions to obtain refreshments or in order to make or take personal telephone calls. Food and drink must not be brought into the laboratories. Students will be required to leave a practical class if their behaviour is a distraction to other students and/or the teaching staff.

**Conduct on Field Courses:** Students are expected to behave in a reasonable and responsible manner whilst on field courses such that they do not cause any disruption to other students, staff or the general public. Any student, who by thoughtless actions or rowdy behaviour, puts the course, other students and the good name of the University in jeopardy, will be immediately dismissed from the field course to face disciplinary procedures (see below). Students are reminded that such a course of action may have serious implications for their ability to complete the degree course requirements. In addition, anyone causing damage to property belonging to the University or external organisations will be charged for the repair/replacement of the damaged items.

**University Disciplinary Procedures:** We adopt a 'zero-tolerance' policy to any student who causes disruption within classes or on field courses. Students who behave inappropriately will be dealt with immediately under the University's regulations on discipline and conduct, which may lead to the requirement to withdraw from the University. A full description of the University's disciplinary regulations can be found at:

http://www.keele.ac.uk/regulations/regulation20/

In particular, students should note that a breach of the University's disciplinary regulations includes:

- Impeding or disrupting the work of any officer, employee, student or guest of the University, academic, administrative or otherwise.
- Failure to comply with any reasonable request made by any person employed by the University in performance of his or her duty at his or her place of work within the University premises.
- Failure to comply with any penalty imposed under the University's regulations on discipline and conduct.

# 9. More information about Physical Geography at Keele

**You must read the following documents**

The Physical Geography **Programme Specification**. This is the official description of exactly what the course involves and what you should expect to get out of it.
available at: http://www.esci.keele.ac.uk/people/pgk/pgdocuments/

The Geography Courses **Year Handbook** relevant to your year of study. NB: the 1st-Year Handbook includes specific information about 1st-year modules and assignments.
available at: http://www.esci.keele.ac.uk/people/pgk/pgdocuments/

The **module handbooks** for each of your modules. These provide specific details about your classes, assignments, set reading, examinations and all the other week-by-week information that you need. available at: http://www.keele.ac.uk/eesg/students/geography/

The Physical Geography **House Style** document. This explains the rules that you must follow when submitting essays, writing e-mails, or completing any other written work in Physical Geography.
available at: http://www.esci.keele.ac.uk/people/pgk/pgdocuments/

"The **role of lectures** in Physical Geography at Keele". This gives you advice about how to get the most out of lectures.
available at: http://www.esci.keele.ac.uk/people/pgk/learning/index.html

**You should refer to** the School of Physical and Geographical Sciences Student Handbook, which contains important information about specific issues such as safety, absence from classes, student support services, disability policy, plagiarism, appeals, codes of practice, etc. The handbook is available on our web site: http://www.keele.ac.uk/spgs/studentinformation/

**You must regularly check** your Keele University e-mail account for messages from tutors. You are expected to check your Keele e-mail every day during teaching periods, and you must use your Keele account, rather than a personal account, for all your Keele-related communications with staff. You must also regularly check the student notice boards in the William Smith Building.

**For day to day information and advice**, staff in the Earth Sciences and Geography Office in the William Smith Building will be pleased to help. The Geography Administrator in the Office is Mrs. Stef Everill (s.everill@esci.keele.ac.uk). You may also call on the Physical Geography Course Director (Peter Knight) or any of the Geography staff.

**Other important sources of information:**

University Regulations: www.keele.ac.uk/admin/ps/governance/acts/regulations/regulations.htm

Student Support and Development Services offer a range of important services including **academic advice and personal support**. http://www.keele.ac.uk/studentsupport/

IT IS YOUR RESPONSIBILITY TO ENSURE THAT YOU ARE AWARE OF ALL REGULATIONS AND PROCEDURES RELEVANT TO YOUR COURSE INCLUDED WITHIN THE UNIVERSITY AND COURSE DOCUMENTATION

The information in this handbook is as accurate and up-to-date as we can make it. It does not, however, replace the entries in the University Prospectus and Calendar, which are authoritative statements. In case of conflict, the Prospectus and Calendar take priority. The statements in this handbook are made in good faith. It may however be necessary from time to time to vary courses, procedures and other arrangements.

**This revision of the handbook: updated September 2011. Peter G. Knight.**