Programme Specification: Undergraduate

For students starting in Academic Year 2018/2019

1. Course Summary

Names of programme(s) and award title(s)	BSc (Hons) Environment and Sustainability BSc (Hons) Environment and Sustainability with Work Placement Year BSc (Hons) Environment and Sustainability with International Year (see Annex A for details) NB: the default award for the Single Honours Environment & Sustainability is a BSc Honours degree. However, students who successfully complete at Level 6 60 credits or more of Social Sciences modules receive a BA Honours degree. The 60 credits can be made up of Education, Human Geography, Politics, Psychology and Criminology based modules and may include the 30 credits from the Dissertation if it is of a social science nature.
Award type	Single Honours
Mode of study	Full time
Framework of Higher Education Qualification (FHEQ) level of final award	Level 6
Duration	3 years 4 years with either the Placement Year or International Year between years 2 and 3
Location of study	Keele University – main campus
Accreditation (if applicable)	This programme is accredited by the Institution of Environmental Sciences (IES) and by the Institute of Environmental Management and Assessment (IEMA). For further details see the section on Accreditation below
Regulator	Office for Students (OfS)
Tuition Fees	**UK/EU students:** Fee for 2018/19 is £9,250* **International students:** Fee for 2018/19 is £15,480** The fee for the international year abroad is calculated at 15% of the standard year fee

** These fees are regulated by Government. We reserve the right to increase fees in subsequent years of study in response to changes in government policy and/or changes to the law. If permitted by such change in policy or law, we may increase your fees by an inflationary amount or such other measure as required by government policy or the law. Please refer to the accompanying Student Terms & Conditions. Further information on fees can be found at http://www.keele.ac.uk/studentfunding/tuitionfees/*

*** We reserve the right to increase fees in subsequent years of study by an inflationary amount. Please refer to the accompanying Student Terms & Conditions for full details. Further information on fees can be found at http://www.keele.ac.uk/studentfunding/tuitionfees/*

	The fee for the placement year is calculated at 20% of the standard year fee
Additional Costs	Refer to the section on Additional costs below

How this information might change: *Please read the important information at http://www.keele.ac.uk/student-agreement/. This explains how and why we may need to make changes to the information provided in this document and to help you understand how we will communicate with you if this happens.*

2. What is a Single Honours programme?

The Single Honours programme described in this document allows you to focus more or less exclusively on Environment and Sustainability. In keeping with Keele's commitment to breadth in the curriculum, the programme also gives you the opportunity to take some modules outside Environment and Sustainability, in other disciplines and in modern foreign languages as part of a 360-credit Honours degree. Thus it enables you to gain, and be able to demonstrate, a distinctive range of graduate attributes.

The Environment and Sustainability degree is highly interdisciplinary, drawing on teaching from three different Faculties within the University, integrating natural science perspectives of the environment with teaching on social science (e.g. politics) and health aspects of the environment. Hence this Single Honours programme is in keeping with Keele's tradition of a broad education.

The Environment and Sustainability programme may lead to either a BA or BSc award based on the nature of the modules and Dissertation carried out in the final year (Level 6). The Environment and Sustainability programme aims to create graduates who have an understanding of environmental and sustainability issues from both natural and social science perspectives. The programme is therefore designed so that Levels 4 and 5 students gain a background in both these areas, but are then able to specialise in either the social science or natural science aspects of environment and sustainability issues (or combine both natural and social sciences) in their final year.

3. Overview of the Programme

The study of environmental and sustainability problems and solutions is a rapidly growing academic field as societies around the world face increasing environmental threats posed by climate change, loss of biodiversity, depletion of resources and pollution of water bodies and the atmosphere. In order to tackle contemporary environmental and sustainability problems effectively, it is essential to have people who are conversant with both the scientific aspects and the human causes and costs of these complex problems.

The Environment and Sustainability degree at Keele University aims to produce graduates who are able to cross the traditional natural science-social science divide, providing tremendous opportunities to work in a range of sectors. Graduates will have a broad and deep understanding of environmental problems and be conversant with strategies for moving towards sustainability in many different contexts.

The programme is taught across three different faculties and integrates over eleven different disciplines including geosciences, life sciences, chemical sciences, politics and international relations, management and health. The first year provides students with the background and training in tackling environment and sustainability issues using a number of different approaches and disciplinary backgrounds. The training becomes more specialist in the second year, covering more applied sustainability areas while also providing students with training in carrying out independent research.

The four-year Work Placement option provides students with the opportunity to undertake a sustainability-focussed work placement (minimum 30 weeks full time (1050 hours), or equivalent) between the 2nd and 3rd year of their degree programme.

There is a lot of flexibility in the final year for students to study in depth the areas of environment and sustainability which are of most interest to them, through a combination of independent study and taught

modules allowing students to specialise or to maintain a broad environment and sustainability portfolio and mould their degree to their interests and determine whether they graduate with a BSc or BA degree. This degree structure is designed to cater for those students with general interests in the environment and environmental and sustainability issues, and for those with clear environmental/sustainability career aspirations. Environment and Sustainability is a highly innovative degree programme, and a leader in its field in the United Kingdom and covers an incredibly exciting and relevant subject for today's society with ever- increasing employment prospects and career opportunities.

4. Aims of the Programme

The broad aims of the programme are to enable you to:

- develop a sound understanding of different natural science and social science perspectives of environment and sustainability issues and how these can be applied to tackle the world's environmental and sustainability problems, and be able to apply these different perspectives to these problems.

- be able to integrate scientific knowledge, and an awareness of social, economic and ethical issues, to address the management of the environment and tackle environmental and problems such as climate change, water pollution, water resource scarcity and atmospheric pollution as well as wider sustainability issues.

- gain a wide-range of data collection and analysis skills, including the ability to carry out independent research relevant to the investigation of environmental and sustainability issues across the social and natural sciences.

- have developed to a high professional standard, generic employability skills in report writing and other written communication styles, information technology, numeracy, oral presentation, team work and independent work, problem solving and searching, and evaluating literature and related-resources.

- have gained experience of work in the environment and sustainability sector, including familiarisation with the professional working environment.

5. What you will learn

The intended learning outcomes of the programme (what students should know, understand and be able to do at the end of the programme), can be described under the following headings:

- Subject knowledge and understanding
- Subject specific skills
- Key or transferable skills (including employability skills)

Subject knowledge and understanding

The structure of the programme and the options available emphasise the interdisciplinary context of the programme, with core modules from different Schools covering natural and social sciences as well as health and management perspectives, and optional modules further developing some of these themes from a range of different disciplines including politics, international relations, education, psychology, life sciences, sociology, geography, geology, chemistry and environmental science. The intended learning outcomes listed below are categorised into different broad disciplinary approaches and based on the core modules within the programme

Interdisciplinary sustainability modules

The interdisciplinary sustainability modules will allow successful students to:

- demonstrate knowledge and understanding of a range of core issues of sustainability and the concepts of environment and sustainability as seen by different disciplines;
- demonstrate an awareness of how interdisciplinary approaches work together and/or in tension;
- explain the environmental and social sustainability responsibilities of organisations;

- explain the environmental and social impacts of different sectors and activities within organisations (e.g. energy, transport, waste);
- explain the processes by which organisations can audit, improve, and monitor environmental and social impacts within the workplace;
- research the environmental and social impacts and their potential solutions, of an area of an organisation's operations;
- describe the ways in which people interact with their environment and their approaches to dealing with environmental problems;
- explain the complementary nature of physical science and social science approaches to tackling environmental issues;
- account for the relationship between 'hard scientific facts' and the contested nature of their interpretation in the environmental context.
- enhance their career knowledge;
- research an environmental issue relating to a specific geographical area, utilising a wide range of different sources and synthesise and present this as an oral presentation;
- apply theoretical knowledge and understanding of environment and sustainability issues to specific geographical and environmental contexts.
- carry out an in depth, interdisciplinary sustainability analysis of a specific case, using well-defined tools, as part of team and in a timely fashion;
- identify and explain the main models, methods and criteria for carrying out a sustainability analysis;
- apply key theoretical concepts and ethical principles in the field of sustainability in order to analyse critically a complex 'real life' case or problem;
- review and summarise the research and technical literature of a particular clean technology;
- develop a detailed critical appraisal in a report format of their chosen technology;
- critically evaluate the potential of their chosen clean technology in society's progress towards a more sustainable future.

Natural Sciences

The natural science modules will allow successful students to:

- outline the ways in which ecological populations and communities function and interact;
- perform calculations involving simple population dynamics models;
- evaluate basic theories and concepts in ecology and conservation;
- describe the ecology and environmental issues of a specified ecosystem;
- describe the internal structure and composition of the Earth and its development since the formation of the Solar System;
- demonstrate an understanding of the theory of plate tectonics, its manifestation on the Earth's current surface, and the consequences of its operation in the geological past;
- recognise and describe minerals in hand specimen and thin section using a hand lens, petrological microscope and related techniques;
- describe the three major subdivisions of rocks in terms of how they are formed and how their properties relate to environmental science issues;
- use techniques for the acquisition, interpretation, analysis and visualisation of geoscience data (e.g. geological maps);
- interpret geological maps in order to understand the geological structure and stratigraphy of specific study areas, and be able to synthesise observations and interpretations within a geological report.
- discuss a broad range of human impacts on the environment and their wider significance and possible solutions;
- communicate effectively in written form about an environmental issue, including possible solutions and barriers to their adoption, in an interesting, engaging and informative way;
- describe and explain, in scientific terms, the key causes of negative environmental impacts on air, water and soil quality.

Social Sciences

The social science modules will allow successful students to:

- explain the emergence of 'the environment' as an object of social scientific study and political debate;
- explain the development of, and debates about, the concepts of 'sustainable development' and 'sustainability';
- identify and critically discuss - by applying relevant conceptual tools - the social, political, economic, and cultural factors that have led to the problem of 'unsustainability';
- analyse the historical origins and the evolution of the concepts of corporate governance and social responsibility;
- understand the use of relevant theoretical frameworks to analyse corporate governance and social responsibility issues;
- systematically and critically evaluate corporate governance, social issues, and environmental issues;
- critically assess the role of the accounting profession in encouraging development of corporate governance codes, examining their impacts on corporate performance;
- critically assess the role of green policies and socially responsible investment in the development of accounting for corporate responsibility;
- critically appraise the key issues of corporate governance and environmental accounting for business strategy;
- demonstrate the complex way in which businesses governance relates to internal and external stakeholders, and to the natural environment;
- use of tools, techniques and strategies for managing and supporting corporate governance and social responsibility in practice;
- contribute to the future of corporate governance practice and social responsibility performance and reporting, to enhance the *skills of reviewing and presenting scholarly work, and to develop skills of theorizing empirical observations.*
- distinguish between a range of perspectives on environmental issues and appreciate how environmental issues may be understood as political issues;
- identify and explain the political dimensions of environmental issues, while understanding the particular historical, cultural and social contexts in which they arise;
- identify and explain the range of strategies available for bringing about environmental-political change, including the policy process at different levels, corporate environmental responsibility, and social movement activism;
- apply conceptual tools in order to analyse critically environmental problems and controversies;
- interpret and distinguish between different theoretical and empirical approaches to the study of global and transboundary environmental problems;
- analyse key problems in the international relations of the environment, integrating theoretical concepts and empirical material;
- demonstrate knowledge, understanding and the ability to critically evaluate the effects differing environmental factors can have on human mental and physical health;
- understand the effect the changing environment may have on human mental and physical health and to demonstrate knowledge and the ability to critically evaluate these changes.

Subject specific skills

Successful students will be able to:

- collect and record qualitative and quantitative information in the field pertinent to solving environmental problems;
- plan, design and execute an independent piece of project work relevant to environment and sustainability, including acquisition and recording of data in the field, followed by the processing, interpretation and presentation of this data, and the production of a final report;
- develop practical skills, including note-taking and representation of data in graph or table formats;

- undertake exercises involving geological maps and cross-sections, and the ability to deduce a sequence of geological events from a geological map;
- make safe and effective use of a range of field equipment commonly used by the environmental science profession and develop an understanding of the scope and limitations of such equipment;
- undertake effective fieldwork with due regard for safety, risk assessment, rights of access, relevant health and safety regulations and sensitivity to the impact of investigations on the environment;
- work safely in a scientific laboratory, with awareness of standard methods and procedures and with due regard for risk assessment and relevant health and safety regulations;
- employ a variety of technical and laboratory-based methods for the collection and analysis of information relevant to the environment;
- combine and interpret different types of living and non-living evidence relevant to the environment using quantitative and qualitative approaches;
- appreciate the issues of sample selection, accuracy, precision and uncertainty during collection, recording and analysis of environmental data in the field and laboratory;
- use powers of observation, analysis and imagination to make decisions in the light of uncertainty;
- critically evaluate the different approaches to sustainability in an urban context and frame policy questions in relation to a variety of temporal and spatial scales;
- apply theoretical tools in the analysis of environmental problems and controversies;
- appreciate the dynamic nature of the discipline and understand the contribution of research to the development of knowledge;
- apply appropriate methods and approaches to the assessment of a particular environmental problem or case;
- understand the principles, theory and practice of risk assessment;
- be able to conceptualise the interaction of human and physical systems and the operation of natural hazards at their interface;
- identify a range of interdisciplinary strategies and methods for analysing and responding to environmental problems in order to promote sustainability;
- demonstrate an awareness of how interdisciplinary approaches work together and/or in tension demonstrate familiarity with a range of ecological and geochemical laboratory and field techniques and collect, synthesize, evaluate and present environmental (geochemical, ecological, geological) data;
- describe and apply appropriate techniques and methodologies within the context of environment and sustainability field data collection;

Key or transferable skills (including employability skills)

Successful students will be able to:

- recognise and use subject-specific theories, concepts and principles to make reasoned decisions and solve problems;
- analyse, synthesise and summarise data and information critically, including undertaking prior research;
- collect and integrate several lines of evidence to formulate and test hypotheses, and make critical judgements;
- apply knowledge and understanding to address familiar and unfamiliar problems;
- assess the merits of contrasting theories, explanations and policies;
- recognise the moral and ethical issues of investigations and appreciate the need for professional codes of conduct;
- develop an adaptable and flexible approach to study and work;
- identify and work towards targets for personal, academic and career development;
- take responsibility for their own learning and develop a habit of reflection upon that learning;
- employ good presentation skills;
- undertake research work independently;
- employ self-directed modes of learning;
- practically apply academic research;
- analyse, evaluate and report published research;

- develop collaborative and leadership skills through working as a member of a team to prepare a team oral presentation, and through participation in tutorial discussions;
- use good oral and written communication skills;
- identify and formulate effective arguments.
- develop and sustain effective approaches to learning and study, including time management, flexibility, creativity and intellectual integrity;
- communicate effectively to a variety of audiences in written, verbal and graphical forms;
- work with numerical data using appropriate qualitative and quantitative techniques, as well as computer software packages;
- work effectively with a variety of types of information technology to analyse and present information and data, as well as solve numerical problems;
- demonstrate competence in spatial awareness and observation;
- conduct field and laboratory studies;
- reference work in an appropriate manner;
- work with information handling and retrieval systems using data from a wide range of sources;
- work effectively both as an individual and as part of a group or team, recognising and respecting the viewpoints of others;
- sustain motivation to work towards a goal over an extended period of time;
- evaluate their own employability skills (via a SWOT Analysis) and develop their own intended learning outcomes (ILOs);
- develop, through practice in the work place, the work-related skills identified through their SWOT analysis and ILOs;
- apply academic theory learnt as part of the taught degree to real situations in the work place;
- critically evaluate their learning from the work placement;
- explain how the professional environmental sector operates and what skills are needed to develop their career; gather and synthesize information and use this information to discuss, in written form, a variety of environmental issues;
- communicate ideas and arguments effectively in a range of written and oral formats including the use of standard academic requirements such as referencing;
- work with team members to identify, distribute and undertake tasks necessary to complete a project. reflect on and evaluate his/her own learning experience in order to improve the learning experience in future stages of the programme;
- communicate professionally in video format the conclusions and recommendations for future improvements from research into an aspect of the sustainability operations of the University;
- reflect on their own learning and the links between course material and their own lives.
- design a piece of research achievable as a third year dissertation project and applicable to the field of environment and sustainability, showing an ability to synthesize the research literature, select appropriate techniques for data collection and analysis, and understand ethics and risk assessment;
- present their research in an engaging poster format and discuss their research with their peers;
- effectively and fluently communicate complex arguments supported by appropriate evidence in oral form;
- recognise responsibilities as a local, national and international citizen;

Keele Graduate attributes

Engagement with this programme will enable you to develop your intellectual, personal and professional capabilities. At Keele, we call these our ten Graduate Attributes and they include independent thinking, synthesizing information, creative problem solving, communicating clearly, and appreciating the social, environmental and global implications of your studies and activities. Our educational programme and learning environment is designed to help you to become a well-rounded graduate who is capable of making a positive and valued contribution in a complex and rapidly changing world, whichever spheres of life you engage in after your studies are completed.

Further information about the Keele Graduate Attributes can be found here: http://www.keele.ac.uk/journey/

6. How is the Programme taught?

Learning and teaching methods used on the programme vary according to the subject matter and level of the module. They include the following:

- Lectures
- Tutorials, seminars and workshops
- Practical classes
- Field courses
- Work placements
- Individual progress interviews, including profiling/ personal development planning (PDP)
- Directed reading
- Group presentations and linked discussion

Apart from these formal activities, students are also provided with regular opportunities to talk through particular areas of difficulty, and any special learning needs they may have, with their Personal Tutors or module lecturers on a one-to-one basis.

These learning and teaching methods enable students to achieve the learning outcomes of the programme in a variety of ways.

7. Teaching Staff

As Environment and Sustainability is such an interdisciplinary subject, the current staff that deliver the Environment and Sustainability Programme come from a range of different Faculties and Schools including the School of Geography, Geology and the Environment, the School of Life Sciences, the School of Politics, International Relations and Environment, the School of Health and Rehabilitation, and the Keele Management School. The teaching and research profiles of the staff that currently deliver and support the Environment and Sustainability programme can be found on the different School websites.

There is a strong emphasis on enhancing the student learning experience within the School of Geography, Geology and the Environment, which has developed a national reputation for its learning and teaching activities. The Environmental programmes at Keele have received several Keele Teaching Innovation Awards and course developments within the Environment and Sustainability programme have received external funding and recognition from the Higher Education Academy Geography, Earth and Environmental Sciences subject centre, the HEA Education for Sustainable Development project and the Higher Education Funding Council for England. In recent years, several University and National awards for Excellence in Learning and Teaching have been awarded to staff within the Environment and Sustainability teaching team. Staff actively participate in teaching and learning activities, many staff hold a Postgraduate Certificate qualification in Learning and Teaching in Higher Education and are Fellows of the Higher Education Academy (the professional body for teaching and learning in higher education), and several staff members are actively involved with pedagogic research that seeks to identify ways in which the student learning experience within environmental programmes can be enhanced. The Environment and Sustainability programme has also been shortlisted within the 'Courses' category in the high profile 'Green Gown' awards.

The University will attempt to minimise changes to our core teaching teams, however, delivery of the programme depends on having a sufficient number of staff with the relevant expertise to ensure that the programme is taught to the appropriate academic standard.

Staff turnover, for example where key members of staff leave, fall ill or go on research leave, may result in changes to the programme's content. The University will endeavour to ensure that any impact on students is limited if such changes occur.

8. What is the Structure of the Programme?

The academic year runs from September to June and is divided into two semesters. The number of weeks of teaching will vary from course to course, but you can generally expect to attend scheduled teaching sessions between the end of September and mid-December, and from mid-January to the end of April.

Our degree courses are organised into modules. Each module is usually a self-contained unit of study and each is usually assessed separately with the award of credits on the basis of 1 credit = 10 hours of student effort. An outline of the structure of the programme is provided in the tables below.

There are three types of module delivered as part of your programme. They are:

- Compulsory modules – a module that you are required to study on this course;
- Optional modules – these allow you some limited choice of what to study from a list of modules;
- Elective modules – a free choice of modules that count towards the overall credit requirement but not the number of subject-related credits.

A summary of the credit requirements per year is as follows, with a minimum of 90 subject credits (compulsory plus optional) required for each year.

Year	Compulsory	Optional		Electives	
		Min	Max	Min	Max
1	105	0	15	0	15
2	90	15	30	0	15
3	60	30	60	0	30

Module lists

Year 1 (Level 4)

In the first year students study 105 credits of compulsory Environment and Sustainability modules and have a choice of one option module from those suggested or one elective offered elsewhere in the University, giving students the opportunity to develop additional skills such as learning a language.

Compulsory modules	Credits	Optional modules	Credits
Studying the Environment	15	Fundamentals of Physical Geography	15
Introductory Geology for the Environmental Sciences	15	Introductory Environmental Chemistry	15
Biodiversity, Ecology and Environment	30	Global Warming or a New Ice Age	15
The Politics of Sustainability	15	Environmental Ethics	15
Greening Business: Employability and Sustainability	15		
People and the Environment	15		

Field courses	
Studying the Environment (local area)	Introductory field day to explore the different aspects of environmental science and sustainability at a local field site (1 day).
Studying the Environment (Centre for Alternative Technology)	A residential weekend to the Centre for Alternative Technology, exploring renewable energy, sustainable living and building, and the geology and physical landscape of the local area.

Studying the Environment (North Wales)*	Residential field course in North Wales, looking at the ecology of marine and terrestrial environments and the environmental impacts of historical mining activities, includes a day of lab work at Keele (5 days).

***Note about field courses:** *these may change depending on factors such as staff availability, staff changes, staff expertise, costs, student numbers, other factors outside of our control (earthquakes, volcanic eruptions etc.). Locations of 'local area' field days change on a year by year basis.*

Year 2 (Level 5)

In the second year students take 90 credits of compulsory Environment and Sustainability modules, and have 30 credits of module choice, at least 15-credits of which must come from a choice of two politics-based modules (see below). The final 15-credit module choice can be from the remaining politics-based module, from the list of optional modules below or from any available University elective. Students studying abroad for one semester do not take the 30-credit module Environmental and Sustainability Impact Assessment and Research Planning, and instead take 15-credits of this module during the semester that they remain at Keele (either Environmental and Sustainability Impact Assessment or Research and Fieldwork Planning).

Compulsory modules	**Credits**	**Optional modules**	**Credits**
Human Impacts on the Environment: Scientific Perspectives	15	Environmental Politics and Policy*	15
Work Placement module	15	The Practice of Politics*	15
Health and the Environment	15	Environmental Analytical Methods	15
Corporate Governance and Social Responsibility	15	Reconstructing Past Environments	15
Environmental and Sustainability Impact Assessment and Research Planning	30	Dynamic Geographies	15
		Geoscience and Society	15
		Research and Analytical Skills	15
		Regional Landsystems	15
		Living Together: Behaviour, Co-operation and Conflict	15
		Sustainable Chemistry	15

** At least one of these modules must be selected*

Field courses	
Environmental and Sustainability Impact Assessment and Research Planning (local)	Based in a local country park, students work in project groups to undertake an Environmental Impact Assessment (EIA). (1 day)
Environmental and Sustainability Impact Assessment and Research Planning (residential)	A residential field course investigating issues of environmental science and management (6-8 days depending on dates of Easter vacation). In 2016/17 options were the Lake District, UK or Bordeaux, France.

***Note about field courses:** *these may change depending on factors such as staff availability, staff changes, staff expertise, costs, student numbers, other factors outside of our control (earthquakes, volcanic eruptions etc.). Locations of 'local area' field days change on a year by year basis.*

Work Placement Year

Students taking the 4-year with 'work placement year' undertake their work placement between Year-2 and Year-3 of their degree programme. During the work placement year, students undertake a work placement

(minimum 30 weeks full time (1,050 hours) or equivalent) with an environmentally-focussed company or organisation. Students take the year-long, non-credit bearing module:

Core modules	Credits
Work Placement Year	n/a

International Year

Information relevant to students taking the International Year is available in Annex A.

Year 3 (Level 6)

In the final year of Environment and Sustainability students study 3 compulsory modules (worth 60 credits in total) and choose four other modules (60 credits) with a maximum of 30 credits of elective modules offered across the University.

Compulsory modules	Credits	Optional modules	Credits
Dissertation	30	Economic Development and Environmental Transformation	15
Clean Technology	15	Trees in their Environment	15
Sustainability Case Study	15	Applied Insect Ecology	15
		Applied Fish Biology	15
		Conservation Biology	15
		Natural Hazards	15
		Global Environmental Change	15
		Applied GIS	15
		Coastal Environments	15
		Water Resources	15
		Glaciers and Glacial Geomorphology	15
		Ecotoxicology and Risk Assessment	15
		The Science of Soil	15
		Environmental Politics in the US	15
		The Northern Dimension: Resources, environment and security in the Arctic	15
		Happiness and Wellbeing	15
		Environmental Crime	15
		Education for Global Citizenship	15
		Animals and Society	15
		Environmental Public Policy	15

Field courses: any field courses undertaken during the third year will depend on the modules chosen. It should be noted that for many students their Dissertation research is likely to include a significant amount of fieldwork.

For further information on the content of modules currently offered, including the list of elective modules, please visit: www.keele.ac.uk/recordsandexams/az

Learning Outcomes

Subject Knowledge and Understanding		
Learning Outcome *Successful students will be able to demonstrate knowledge and*	**Module in which this is delivered**	**Principal forms of assessment (of the Level Outcome) used**

understanding of:		
a range of core issues of sustainability and the concepts of environment and sustainability as seen by different disciplines	Studying the Environment	Portfolio of small assessments Portfolio of field exercises
how interdisciplinary approaches work together and/or in tension	Studying the Environment	Portfolio of small assessments Portfolio of field exercises
the environmental and social sustainability responsibilities of organisations	Greening Business: Employability and Sustainability	Group video project Workbook
the environmental and social impacts of different sectors and activities within organisations (e.g. energy, transport, waste)	Greening Business: Employability and Sustainability	Group video project Workbook
the processes by which organisations can audit, improve, and monitor environmental and social impacts within the workplace	Greening Business: Employability and Sustainability	Group video project Workbook
the ways in which people interact with their environment and their approaches to dealing with environmental problems	People and the Environment	Essay Exam
the complementary nature of physical science and social science approaches to tackling environmental issues	People and the Environment	Exam
the relationship between 'hard scientific facts' and the contested nature of their interpretation in the environmental context	People and the Environment	Essay
the ways in which populations and communities function and interact in an ecosystem context	Ecology and Environment	Multiple choice questions Individual report Exam
basic theories and concepts in ecology and conservation	Biodiversity, Ecology and Environment	Exam
the ecology and environmental issues of a specified ecosystem	Biodiversity, Ecology and Environment	Multiple choice questions Exam
the internal structure and composition of the Earth and its development since the formation of the Solar System	Introductory Geology for the Environmental Sciences	Exam
the theory of plate tectonics, its manifestation on the Earth's current surface, and the consequences of its operation in the geological past	Introductory Geology for the Environmental Sciences	Computer task Exam

the three major subdivisions of rocks in terms of how they are formed and how their properties relate to environmental science issues	Introductory Geology for the Environmental Sciences	Exam
the emergence of 'the environment' as an object of social scientific study and political debate	The Politics of Sustainability	Time line project Exam
the development of, and debates about, the concepts of 'sustainable development' and 'sustainability'	The Politics of Sustainability	Time line project Exam
a broad range of human impacts on the environment and their wider significance and possible solutions	Human Impacts on the Environment: Scientific Perspectives	Essay Exam
the key causes of negative environmental impacts on air, water and soil quality	Human Impacts on the Environment: Scientific Perspectives	Exam
the biological, geological, chemical and social aspects of the fields of environmental science and sustainability	Environmental and Sustainability Impact Assessment and Research Planning	Report Field course portfolio
the ideological and philosophical underpinning of different approaches to environmental and sustainability research	Environmental and Sustainability Impact Assessment and Research Planning	Research proposal
the historical origins and the evolution of the concepts of corporate governance and social responsibility	Corporate Governance and Social Responsibility	Group work assignment Exam
the role of the accounting profession in encouraging development of corporate governance codes, examining their impacts on corporate performance	Corporate Governance and Social Responsibility	Group work assignment Exam
the role of green policies and socially responsible investment in the development of accounting for corporate responsibility	Corporate Governance and Social Responsibility	Group work assignment Exam
the key issues of corporate governance and environmental accounting for business strategy	Corporate Governance and Social Responsibility	Group work assignment
the complex way in which businesses governance relates to internal and external stakeholders, and to the natural environment	Corporate Governance and Social Responsibility	Exam
the tools, techniques and strategies for managing and	Corporate Governance and Social	Exam

supporting corporate governance and social responsibility in practice	Responsibility	
the range of strategies available for bringing about environmental-political change, including the policy process at different levels, corporate environmental responsibility, and social movement activism	Environmental Politics and Policy	Portfolio of writing assignments Class test Research paper
the political dimensions of environmental issues, while understanding the particular historical, cultural and social contexts in which they arise	Environmental Politics and Policy	Portfolio of writing assignments Class test Research paper
the effects differing environmental factors can have on human mental and physical health	Health and the Environment	Group presentation Individual assignment
the effect the changing environment may have on human mental and physical health	Health and the Environment	Group presentation Individual assignment
the main models, methods and criteria for carrying out a sustainability analysis	Environment and Sustainability Case Study	Sustainability analysis
different aspects of a particular clean technology	Clean Technology	Poster Essay

Subject Specific Skills		
Learning Outcome *Successful students will be able to:*	**Module in which this is delivered**	**Principal forms of assessment (of the Level Outcome) used**
demonstrate familiarity with a range of ecological and geochemical laboratory and field techniques and collect, synthesize, evaluate and present environmental (geochemical, ecological, geological) data	Studying the Environment	Portfolio of field exercises
research the environmental and social impacts and their potential solutions, of an area of an organisation's operations	Greening Business: Employability and Sustainability	Group video project Workbook
reflect on their own learning and the links between course material and their own lives.	Greening Business: Employability and Sustainability	Group report Workbook
describe the ways in which people interact with their environment and their approaches to dealing with environmental problems	People and the Environment	Essay Exam

perform calculations involving simple population dynamics models	Biodiversity, Ecology and Environment	Multiple choice questions
recognise and describe minerals in hand specimen and thin section using a hand lens, petrological microscope and related techniques	Introductory Geology for the Environmental Sciences	Practical assessment
use techniques for the acquisition, interpretation, analysis and visualisation of geoscience data (e.g. geological maps)	Introductory Geology for the Environmental Sciences	Computer task Report Practical assessment
interpret geological maps in order to understand the geological structure and stratigraphy of specific study areas, and be able to synthesise observations and interpretations within a geological report	Introductory Geology for the Environmental Sciences	Report
identify and critically discuss -- by applying relevant conceptual tools -- the social, political, economic, and cultural factors that have led to the problem of 'unsustainability'	The Politics of Sustainability	Book review Time-line project Exam
Assess solutions to problems of managing disturbed/degraded/disadvantaged areas and demonstrate an understanding of environmental management issues in a range of environments and contexts	Environmental and Sustainability Impact Assessment and Research Planning	Report Field course portfolio
Apply theoretical knowledge and understanding of environmental science and sustainability issues to specific social, geographical and environmental contexts	Environmental and Sustainability Impact Assessment and Research Planning	Report Field course portfolio Research proposal
understand the use of relevant theoretical frameworks to analyse corporate governance and social responsibility issues	Corporate Governance and Social Responsibility	Group work assignment Exam
systematically and critically evaluate corporate governance, social issues, and environmental issues	Corporate Governance and Social Responsibility	Group work assignment Exam
distinguish between a range of perspectives on environmental issues and appreciate how environmental issues may be understood as political issues	Environmental Politics and Policy	Portfolio of writing assignments Class test Research paper
apply conceptual tools in order to analyse critically environmental	Environmental Politics and Policy	Portfolio of writing assignments

problems and controversies		Class test Research paper
carry out an in depth, interdisciplinary sustainability analysis of a specific case, using well-defined tools, as part of team and in a timely fashion	Environment and Sustainability Case Study	Sustainability analysis Group presentation Group report
apply theoretical concepts and ethical principles in the field of sustainability in order to analyse critically a complex 'real life' case or problem	Environment and Sustainability Case Study	Sustainability analysis Group presentation Group report

Key or Transferable Skills (graduate attributes)		
Learning Outcome *Successful students will be able to:*	**Module in which this is delivered**	**Principal forms of assessment (of the Level Outcome) used**
communicate ideas and arguments effectively in a range of written and oral formats including the use of standard academic requirements such as referencing	Studying the Environment	Portfolio
work with team members to identify, distribute and undertake tasks necessary to complete a project.	Studying the Environment	Portfolio
reflect on and evaluate his/her own learning experience in order to improve the learning experience in future stages of the programme	Studying the Environment	Reflective Learning Journal
communicate professionally in video format the conclusions and recommendations for future improvements from research into an aspect of the sustainability operations of the University	Greening Business: Employability and Sustainability	Group video project
gather and synthesizing information and use this information to discuss, in written form, a variety of environmental issues	People and the Environment	Essay Exam
develop an argument and assemble a coherent analysis that is communicated effectively, using an appropriate academic writing style and correctly apply the Harvard system of referencing	The Politics of Sustainability	Book review Time line project Exam
participate with confidence in tutorial discussions, having	The Politics of Sustainability	Time line project

prepared effectively in advance. Skills of effective speaking, listening, and question posing will be developed		
communicate effectively in written form about an environmental issue, including possible solutions and barriers to their adoption, in an interesting, engaging and informative way	Human Impacts on the Environment: Scientific Perspectives	Essay
search for and assimilate information from the literature on a key environmental issue	Human Impacts on the Environment: Scientific Perspectives	Essay
carry out a personal skills audit in relation to their work placement and identify their skills gaps and translate these into achievable learning outcomes	Work placement module	Portfolio of reflective exercises
relate academic theory learnt as part of the taught degree to real situations in the work place	Work placement module	Portfolio of reflective exercises Report
develop needed work-related skills through practice	Work placement module	Portfolio of reflective exercises Report
critically evaluate their learning from the work placement	Work placement module	Report
enhance their career knowledge	Work placement module	Portfolio of reflective exercises Report
Design a piece of research achievable as a third year dissertation project and applicable to the field of Environment & Sustainability; showing an ability to synthesize the research literature, select appropriate techniques for data collection and analysis, and conduct research ethically and safely	Environmental and Sustainability Impact Assessment and Research Planning	Research proposal
identify and formulate effective arguments	Environmental Politics and Policy	Portfolio of writing assignments Class test Research paper
communicate effectively verbally and in writing	Environmental Politics and Policy	Portfolio of writing assignments Class test Research paper
source, interpret and synthesize literature that is relevant to a chosen topic	Dissertation	Dissertation

critically review relevant literature within the dissertation	Dissertation	Dissertation
plan, design and execute, using appropriate research methods and processes, an independent piece of research relevant to Environment and Sustainability	Dissertation	Dissertation
communicate effectively and persuasively the results of independent research in written form	Dissertation	Dissertation
work as a team member and make individual contributions to team process and products (presentation and report)	Environment and Sustainability Case Study	Group presentation Group report
synthesise research and communicate the results of an analysis in different forms (written and graphic) to different audiences (lay-people and specialists)	Environment and Sustainability Case Study	Group presentation Group report
Reflect on and critically evaluating a team project, including the quality of the process and final products and the quality of one's own contributions to the team	Environment and Sustainability Case Study	Reflective analysis
plan and carry out a piece of collaborative research	Environment and Sustainability Case Study	Group presentation Group report
Explain specialist material in lay terms using appropriate illustrations	Clean Technology	Poster Lay-person summary

9. Final and intermediate awards

Credits required for each level of academic award are as follows:

Honours Degree	360 credits	You will require at least 120 credits at levels 4, 5 and 6 You must accumulate at least 270 credits in Environment and Sustainability (out of 360 credits overall), with at least 90 credits in each of the three years of study, to graduate with a named single honours degree in Environment and Sustainability. The default award for the Single Honours Environment & Sustainability is a BSc Honours degree. However, students who successfully complete at Level 6 60 credits or more of Social Sciences modules receive a BA Honours degree. The 60 credits can be made up from Education, Human Geography, Politics and Criminology based modules, and may include the 30 credits from the Dissertation if it is of a social science

		nature.
Diploma in Higher Education	240 credits	You will require at least 120 credits at level 4 or higher and at least 120 credits at level 5 or higher
Certificate in Higher Education	120 credits	You will require at least 120 credits at level 4 or higher

Environment and Sustainability with International Year: in addition to the above students must pass a module covering the international year in order to graduate with a named degree in Environment and Sustainability with international year. Students who do not complete, or fail the international year, will be transferred to the three-year Environment and Sustainability programme.

Environment and Sustainability with Work Placement Year: in addition to the above students must pass a non-credit bearing module covering the placement year in order to graduate with a named degree in Environment and Sustainability with placement year. Students who do not complete, or fail the Placement year, will be transferred to the three-year Environment and Sustainability programme.

10. How is the Programme assessed?

The wide variety of assessment methods used within Environment and Sustainability at Keele reflects the broad range of knowledge and skills that are developed as you progress through the degree programme. Teaching staff pay particular attention to specifying clear assessment criteria and providing timely, regular and constructive feedback that helps to clarify things you did not understand and helps you to improve your performance.

Students experience a wide-range of assessment types throughout the Environment and Sustainability degree programme, the exact combination of assessments and split between coursework and exams is dependent on the option module choices that students make throughout their degree. The range of assessments that students will encounter has been designed to promote engagement with employability skills and subject-specific skills.

The following list is representative of the variety of assessment methods used within Environment and Sustainability:

- **Unseen closed and open book examinations** in different formats test students' knowledge and understanding of the subject. Examinations may consist of essay, short answer and/or multiple choice questions, and paper comprehension.

- **Technical reports** require you to describe the process and progress of a scientific investigation, including engagement with and analysis of scientific data, and present this is a clear and concise format. Some technical reports may require you to make recommendations.

- **Poster presentations:** enable students to develop their communication skills and summarize the findings of their research in a clear, concise and professional format. Posters may be presented in the form of a 'conference-style' presentation session whereby students give an oral summary of their work. Posters may be completed in small groups or as individuals.

- **Oral presentations** assess individual students' subject knowledge and understanding. They also test their ability to work effectively as members of a team, to communicate what they know orally and visually, and to reflect on these processes as part of their own personal development.

- **Field Course Portfolios** document a range of activities and exercises undertaken in the field, either individually or in small groups.

- **Field Notebooks** allow you to document and record your field-based observations, including the use of field sketching, to enable you to better understand the unfamiliar field environment in which you are working in.

- **Reflective Diaries** enable you to critically reflect on your learning experiences, for example as part of a

work placement experience. They are assessed on the quality of this reflection and on their ability to respond constructively to the challenges and difficulties they encounter in the process of their own creative development and learning.

- **Essays** allow you to demonstrate your ability to articulate ideas clearly using argument and reasoning skills and with close reference to the contexts and critical concepts covered in the modules. Essays also develop and demonstrate research and presentation skills (including appropriate scholarly referencing).

- **Laboratory reports** – structured proformas and full lab reports are formal summaries of work carried out in the laboratory and test students' understanding of the practical aspects of the programme and develop the skills necessary to enable students to present and analyse their results.

- **Class tests** taken either conventionally or online via the Keele Learning Environment (KLE) assess students' subject knowledge and their ability to apply it in a more structured and focused way.

- **Dissertations** enable students to explore in depth an area of particular interest through a substantial piece of focused research and writing, and test their ability to formulate and answer research questions.

- **Research projects and reports** test student's knowledge of different research methodologies and the limits and provisional nature of knowledge. They also enable students to demonstrate their ability to formulate research questions and to answer them using appropriate methods.

- **Peer assessment:** in some cases students will be involved in marking other students' work, usually with a prescriptive marking guide. This helps students to appreciate where marks are gained and lost and gives them the opportunity to see the common mistakes made by other students.

- **Reviews** of other scholars' work test students' ability to identify and summarise the key points of a text and to evaluate the quality of arguments and the evidence used to support them. In the case of work based on empirical research, reviews also assess students' knowledge of research methodologies and their ability to make critical judgements about the appropriateness of different strategies for collecting and analysing data.

- **Group videos** demonstrate students' ability to present research in a video format, requiring careful consideration of the key material to be included, and how best to effectively communicate a message. Such project also require students to gain experience in working effectively in a group environment

Marks are awarded for summative assessments designed to assess your achievement of learning outcomes. You will also be assessed formatively to enable you to monitor your own progress and to assist staff in identifying and addressing any specific learning needs. Feedback, including guidance on how you can improve the quality of your work, is also provided on all summative assessments within three working weeks of submission, unless there are compelling circumstances that make this impossible, and more informally in the course of tutorial and seminar discussions.

11. Contact Time and Expected Workload

This contact time measure is intended to provide you with an indication of the type of activity you are likely to undertake during this programme. The data is compiled based on module choices and learning patterns of students on similar programmes in previous years. Every effort is made to ensure this data is a realistic representation of what you are likely to experience, but changes to programmes, teaching methods and assessment methods mean this data is representative and not specific.

Undergraduate courses at Keele contain an element of module choice; therefore, individual students will experience a different mix of contact time and assessment types dependent upon their own individual choice of modules. The figures below are an example of activities that a student may expect on your chosen course by year/stage of study. Contact time includes scheduled activities such as: lecture, seminar, tutorial, project supervision, demonstration, practical classes and labs, supervised time in labs/workshop, fieldwork and external visits. The figures are based on 1,200 hours of student effort each year for full-time students.

Activity	Year 1 (Level 4)	Year 2 (Level 5)	Year 3 (Level 6)
Scheduled learning and teaching activities	22%	26%	13%
Guided independent Study	78%	68%	87%
Placements	0%	6%	0%

12. Accreditation

This programme is accredited by the Institution of Environmental Sciences (IES). Students enrolled on IES accredited programmes may apply for Student Membership of the institution which provides a range of benefits: http://www.ies-uk.org.uk

This programme is also accredited by the Institute of Environmental Management and Assessment (IEMA). Students on IEMA accredited programmes may apply for free Student Membership of the IEMA which provides a range of benefits: https://www.iema.net/

13. Regulations

The University Regulations form the framework for learning, teaching and assessment and other aspects of the student experience. Further information about the University Regulations can be found at: http://www.keele.ac.uk/student-agreement/

For full details, please view the Course Regulations (Annex B).

Students should note that it is not possible to take both the Work Placement Year and International Year options.

A student who has completed a semester abroad will not normally be eligible to transfer onto the International Year option.

14. What are the typical admission requirements for the programme?

Subject	A-level	Subjects not included	International Baccalaureate	BTEC	Access to Higher Education Diploma	GCSE requirements
Environment and Sustainability (Single Honours)	ABC / BBB	None	32 points	DDM	Obtain Access to Higher Education Diploma with 30 Level 3 credits at Distinction	Maths and Science @ C (or 4) English Language @ C (or 4)

Applicants who are not currently undertaking any formal study or who have been out of formal education for more than 3 years and are not qualified to A-level or BTEC standard may be offered entry to the University's Foundation Year Programme.

Applicants for whom English is not a first language must provide evidence of a recognised qualification in English language. The minimum score for entry to the Programme is Academic IELTS 6.0 or equivalent.

Please note: All non-native English speaking students are required to undertake a diagnostic English language assessment on arrival at Keele, to determine whether English language support may help them succeed with their studies. An English language module may be compulsory for some students during their first year at Keele.

Accreditation of Prior Learning (APL) is considered on a case-by-case basis and those interested should contact the Programme Director. The University's guidelines on this can be found here: http://www.keele.ac.uk/qa/accreditationofpriorlearning/

15. How are students supported on the programme?

Personal Tutors: All students are allocated a Personal Tutor for the duration of their studies as part of the University's Personal Tutor system. The role of the Personal Tutor is to meet formally with their tutees at least once per semester to discuss progress and performance, to discuss profiling/ PDP, and to offer support and advice. In addition, to a personal tutor allocated to the student, students are encouraged to seek support from any of the Environment and Sustainability teaching and administrative staff. Students can make arrangements to see their Personal Tutor or other staff at any time and an open door policy is operated by the majority of the teaching staff so students can easily get in contact with staff either personally or via email or phone. There are very strong communication links between students and staff and a friendly and supportive environment throughout the Environment and Sustainability programme.

Work Placement Tutor: All students undertaking the work placement degree programme will be provided with an academic tutor, based at Keele. Students will be expected to find their own work placements however, support will be provided throughout the placement process. This will involve support ensuring the appropriateness of the placement prior to starting the Placement Year, and email/telephone/face-to-face contact with the academic tutor throughout the placement at regular intervals.

Use of e-learning/the Keele Learning Environment (KLE): All modules are supported by learning materials that are accessible to students via the KLE. The School supports the University's policy on module support on the KLE.

Health and Safety: All students admitted to the programme are expected to read the Geography, Geology and Environment Safety Handbook. Students are required to sign an agreement that they have read this Handbook, and that they will abide by the rules and regulations governing the efficient working, safety and welfare of all members both within the University and in the field. The handbook can be accessed from: http://www.keele.ac.uk/eesg/handbooks/

Students with disabilities: Students with disabilities or medical problems, who are admitted onto the Environment and Sustainability degree programme, will meet with a member of the University's Disability Services department, and the Environmental and Sustainability Course Director and the Geography, Geology and Environment Disability Officer where appropriate, at the very start of the course in order to discuss any special requirements.

Procedures will then be implemented according to the nature of the student's disability or medical problem. These procedures can range, for example, from allowing extra examination time for students diagnosed as dyslexic, to allocating additional staff or demonstrators to field classes to help students with mobility problems.

Careers: In addition, to the University's central Careers service there is a specific Environment and Sustainability careers tutor. Students are encouraged to seek the careers tutor for any help with deciding on postgraduate programmes and funding opportunities, discussing career options, discussing option choices in relation to specific career routes, and for help and assistance in applying for jobs and placements. Within the Keele Learning Environment there is a dedicated page to careers including several subject specific careers sites.

16. Learning Resources

The Geography, Geology and Environment section of the School has its own building (the William Smith Building) that contains well-equipped laboratories and lecture theatres that are used throughout the Environment and Sustainability programme. This concentration of teaching into one building enables students to identify with a specific base within the University. The foyer provides pleasant surroundings for students to meet and socialise with their peers. The Office is currently open during the week from 9.00am to 5.00pm to answer student queries and deal with administrative tasks such as the handing in and return of assignments. Teaching on specific modules takes place elsewhere in the University when there is a need for more specialised teaching facilities allowing the Environment and Sustainability programme to benefit from a wide-range of cutting-edge teaching facilities and analytical instrumentation based elsewhere within the University. Students also have access to computing facilities within the School of Geography, Geology and the Environment Sciences.

17. Other learning opportunities

Study abroad (semester)

Students on the Environment and Sustainability programme have the potential opportunity to spend a semester abroad in their second year studying at one of Keele's international partner universities.

Exactly which countries are available depends on the student's choice of degree subjects. An indicative list of countries is on the website (http://www.keele.ac.uk/studyabroad/partneruniversities/); however this does not guarantee the availability of study in a specific country as this is subject to the University's application process for studying abroad.

No additional tuition fees are payable for a single semester studying abroad but students do have to bear the costs of travelling to and from their destination university, accommodation, food and personal costs. Depending on the destination they are studying at additional costs may include visas, study permits, residence permits, and compulsory health checks. Students should expect the total costs of studying abroad to be greater than if they study in the UK, information is made available from the Global Education Team throughout the process, as costs will vary depending on destination

Whilst students are studying abroad any Student Finance eligibility will continue, where applicable students may be eligible for specific travel or disability grants. Students studying in Erasmus+ destinations may be eligible for grants as part of this programme. Students studying outside of this programme may be eligible for income dependent bursaries at Keele.

Students travel on a comprehensive Keele University insurance plan, for which there are currently no additional charges. Some governments and/or universities require additional compulsory health coverage plans; costs for this will be advised during the application process.

Study Abroad (International Year)

A summary of the International Year, which is a potential option for students after completion of year 2 (Level 5), is provided at Annex A.

Fieldwork

Fieldwork is an essential part of the training in the field of Environment and Sustainability, providing both the opportunity to acquire and practice field-based skills, to develop skills of observation and recording and to work as effective members of a team.

Keele is ideally located to be able to integrate a large component of field work into its environmental programmes with a wide range of habitats in easy reach. These include the Keele campus itself with its lake system and extensive woodlands, in addition to the mining and industrial heritage of the local area providing ideal opportunities for the study of the impact of these activities on the environment. The field courses in the second year provide the opportunity to investigate environmental science and management issues and environmental change within an unfamiliar environment. Students are also encouraged to make the most of other opportunities for field work with external organisations such as Operation Wallacea, which can form part of students third year independent project work.

18. Additional costs

Field Course Costs

All students will do mandatory field courses as part of their degree programme. There is a range of field courses and these are provided at no cost. Independent project work carried out by students for their Dissertation may be associated with additional costs.

The University provides significant financial support for the compulsory fieldwork elements of the degree programme and the costs of travel and accommodation for compulsory field courses are fully paid for by the University up to and including Year 2.

ALL Environment and Sustainability students undertake an independent research project in their final year, which MAY include fieldwork. Students are responsible for organising their own transport and accommodation

as well as paying any costs incurred whilst carrying out fieldwork. These costs are extremely variable as they are dependent on where the student carries out their project. Costs are minimal if the project work is undertaken in the students' local area.

IMPORTANT: Students are expected to have adequate clothing for field trips. We reserve the right to change the venues of field courses due to both cost and academic considerations. Some field courses are fully or partly catered for. Others are self-catered and students are expected to purchase meals (e.g. lunch and/or evening meal).

Environment and Sustainability Work Placement Costs

Students will be responsible for organising their own work placement, with the support of the module tutors. This allows students to choose when and where to carry out their work placement, taking into consideration the potential living and travel expenses incurred and the effect on other times available to earn money. Students are encouraged to consider the potential costs incurred in carrying out the work placements at the time of setting these up. Further guidance and support on these considerations is available from the module tutors.

Activity	**Estimated cost**
Field courses - compulsory	£0
Field courses – optional	£0
Equipment - waterproof clothing and footwear for field courses	£150
Total estimated additional costs	**£150**

We try to ensure that core text books are supplied by the library in adequate number or are available as E-books. However, students may choose to purchase their own copies of books for ease of access.

As to be expected there will be additional costs for inter-library loans and potential overdue library fines, print and graduation.

These costs have been forecast by the University as accurately as possible but may be subject to change as a result of factors outside of our control (for example, increase in costs for external services). Forecast costs are reviewed on an annual basis to ensure they remain representative. Where additional costs are in direct control of the University we will ensure increases do not exceed 5%.

We do not anticipate any further costs for this undergraduate programme.

NB: as detailed in the Course Regulations (Annex B), should you be required to retake the Introductory Environmental Chemistry module you will be charged additional fees.

19. Quality management and enhancement

The quality and standards of learning in Environment and Sustainability are subject to a continuous process of monitoring, review and enhancement.

- The Learning and Teaching Committee of the School of Geography, Geology and the Environment is responsible for reviewing and monitoring quality management and enhancement procedures and activities across the School.
- Individual modules and the Environment and Sustainability Programme as a whole are reviewed and enhanced every year in the annual programme review which takes place at the end of the academic year and as part of the University's Curriculum Annual Review and Development (CARD) process.
- The programmes are run in accordance with the University's Quality Assurance procedures and are subject to periodic reviews under the Internal Quality Audit (IQA) process.

Student evaluation of, and feedback on, the quality of learning on every Environment and Sustainability module takes place every year using a variety of different methods:

- The results of student evaluations of all modules are reported to module leaders and reviewed by the Programme Committee as part of the Curriculum Annual Review and Development (CARD) process.

- Findings related to the Environment and Sustainability Programme from the annual National Student Survey (NSS), and from regular surveys of the student experience conducted by the University, are subjected to careful analysis and a planned response at programme and School level.

- Feedback received from representatives of students in all three years of the Environment and Sustainability Programme is considered and acted on at regular meetings of the Student Staff Voice Committee.

The University appoints senior members of academic staff from other universities to act as external examiners on all programmes. They are responsible for:

- Approving examination questions
- Confirming all marks which contribute to a student's degree
- Reviewing and giving advice on the structure and content of the programme and assessment procedures

Information about current external examiner(s) can be found here:
http://www.keele.ac.uk/qa/externalexaminers/currentexternalexaminers/

20. The principles of programme design

The Environment and Sustainability Programme described in this document has been drawn up with reference to, and in accordance with the guidance set out in, the following documents:

a. UK Quality Code for Higher Education, Quality Assurance Agency for Higher Education: http://www.qaa.ac.uk/quality-code

b. QAA Subject Benchmark Statement: Earth Sciences, Environmental Sciences and Environmental Studies (2014): https://www.qaa.ac.uk/quality-code/subject-benchmark-statements?indexCatalogue=document-search&searchQuery=earth%20sciences&wordsMode=AllWords

c. Accreditation guidelines of the Institution of Environmental Sciences: https://www.the-ies.org/accreditation

d. Keele University Regulations and Guidance for Students and Staff: http://www.keele.ac.uk/regulations

21. Document Version History

Date of first approved version (v1.0): 22nd September 2017

Revision history

Version number[1]	Author	Date	Summary of and rationale for changes
1.1	Ian Oliver	28.03.18	Additional year 3 optional module added
1.2	Ian Oliver	27.04.18	Change of year 2 optional module and additional year 3 optional module added
1.3	Ian Oliver	21.09.18	Accreditation information added for the IEMA
1.4	Ian Oliver	April 2020	Level 6 module change: 'Environment and Sustainability Case Study' removed

[1] 1.1, 1.2 etc. are used for minor changes and 2.0, 3.0 etc. for major changes (as defined in the University's Guidance on processes supporting curriculum changes)

Annex A

Environment & Sustainability with International Year

International Year Programme
Students registered for Single Honours Environment & Sustainability may either be admitted for or apply to transfer during their period of study at Level 5 to the Single Honours 'Environment & Sustainability with International Year'. Students accepted onto this programme will have an extra year of study (the International Year) at an international partner institution after they have completed Year 2 (Level 5) at Keele. Students who successfully complete both the second year (Level 5) and the International Year will be permitted to progress to Level 6. Students who fail to satisfy the examiners in respect of the International Year will normally revert to the Environment & Sustainability and progress to Level 6 on that basis. The failure will be recorded on the student's final transcript. Study at Level 4, Level 5 and Level 6 will be as per the main body of this document. The additional detail contained in this annex will pertain solely to students registered for 'Environment & Sustainability with International Year'.
International Year Programme Aims
In addition to the programme aims specified in the main body of this document, the international year programme of study aims to provide students with: 1. Personal development as a student and a researcher with an appreciation of the international dimension of their subject 2. Experience of a different culture, academically, professionally and socially
Entry Requirements for the International Year
Students may apply to the 4-year programme during Level 5. Admission to the International Year is subject to successful application, interview and references from appropriate staff. The criteria to be applied are: • Academic Performance (an average of 60% across all modules at Level 5 is normally required) • General Aptitude (to be demonstrated by application for study abroad, interview during the 2nd semester of year 2 (Level 5), and by recommendation of the student's personal tutor, 1st and 2nd year tutors and programme director)
Student Support
Students will be supported whilst on the International Year via the following methods: • Phone or Skype conversations with Study Abroad tutor, in line with recommended Personal Tutoring meeting points. • Support from the University's Global Education Team
Learning Outcomes
In addition to the learning outcomes specified in the main text of the Programme Specification, students who complete a Keele undergraduate programme with International Year will be able to: i) Describe, discuss and reflect upon the cultural and international differences and similarities of different learning environments ii) Discuss the benefits and challenges of global citizenship and internationalisation

iii) Explain how their perspective on their academic discipline has been influenced by locating it within an international setting.

In addition, students who complete 'Environment & Sustainability with International Year' will be able to:

iv) apply their experiences abroad to the specific Graduate Attributes associated with their Environmental Science degree programme;
v) integrate, apply and develop fundamental environmental science principles to describe and explain phenomena and solve problems in the context of selected topics within contemporary Environmental Science

These learning outcomes will all be assessed by the submission of a satisfactory individual learning agreement, the successful completion of assessments at the partner institution and the submission of the reflective portfolio element of the international year module.

Course Regulations

Students registered for the 'Environment and Sustainability with International Year' are subject to the course specific regulations (if any) and the University regulations. In addition, during the International Year, the following regulations will apply:

Students undertaking the International Year must complete 120 credits, which must comprise *at least 40%* in the student's discipline area.

This may impact on your choice of modules to study, for example you will have to choose certain modules to ensure you have the discipline specific credits required.

Students are barred from studying any Environment and Sustainability module with significant overlap to Level 6 modules to be studied on their return. Significant overlap with Level 5 modules previously studied should also be avoided.

Additional costs for the International Year

Tuition fees for students on the International Year will be charged at 15% of the annual tuition fees for that year of study, as set out in Section 1. The International Year can be included in your Student Finance allocation, to find out more about your personal eligibility see: www.gov.uk

Students will have to bear the costs of travelling to and from their destination university, accommodation, food and personal costs. Depending on the destination they are studying at additional costs may include visas, study permits, residence permits, and compulsory health checks. Students should expect the total costs of studying abroad be greater than if they study in the UK, information is made available from the Global Education Team throughout the process, as costs will vary depending on destination.

Students studying in Erasmus+ destinations may be eligible for grants as part of this programme. Students studying outside of this programme may be eligible income dependent bursaries at Keele.

Students travel on a comprehensive Keele University insurance plan, for which there are currently no additional charges. Some Governments and/or universities require additional compulsory health coverage plans; costs for this will be advised during the application process.

Annex B: BSc/BA Environment and Sustainability Course Regulations

BSc/BA Environment and Sustainability (SH)

BSc/BA Environment and Sustainability with Work Placement Year

BSc/BA Environment and Sustainability with International Year

These regulations supplement the relevant University Academic Regulations which are to be found on the University website and in the University Calendar. In the event of a contradiction or other discrepancy between these regulations and University Academic Regulations, the University Academic Regulations shall be authoritative, unless approval has been given by Senate for a variation from the University Academic Regulations.

1. Attendance Requirements

Students are required to attend all practical classes, tutorials, seminars, field courses and lectures. Attendance at all these sessions is monitored and checked by the academic support staff. Any absences due to exceptional circumstances should be notified as soon as possible to the School Office who will then pass on this information to tutors, as necessary. Any exceptional circumstances must be notified using the appropriate form following University regulations. Students who display a poor attendance record for no good reason are likely to be subject to disciplinary action. In addition, when taking modules from subjects other than those in the School of Geography, Geology and the Environment students must inform themselves of, and abide by, any additional attendance and notification requirements of that particular School.

Self-certification of illness as a reason for absence from compulsory classes will be accepted for no more than three occasions per Semester. Any subsequent absence for reasons of illness must be accompanied by a doctor's note.

Individual modules within the Environmental Science programmes have specific attendance regulations:

Life Science (LSC) module attendance
Attendance at practical classes, tutorials and seminars is compulsory in the School of Life Sciences. Registers will be taken at all compulsory sessions. It is the student's responsibility to ensure that they are recorded on the register as present. The office should be contacted by telephone on (01782) 733028 or (01782) 733677 or by e-mail at lifesci-office@keele.ac.uk as soon as possible to report an absence.

Failure to attend one compulsory session without good cause will result in an informal warning letter from the year tutor. Failure to attend any subsequent sessions without good cause will lead to the issuing of a formal warning from the Head of School. A maximum of two formal warnings will be issued and a fourth absence will result in a 3rd and final warning from the Director of Academic Services, which could result in the requirement to **withdraw** from the University.

The following School (Life Sciences) regulations will also apply:

- A student who is absent without good cause from 50% or more of the compulsory sessions in any module may be deemed to have failed the module.
- Self-certification of illness as a reason for absence from compulsory classes will be accepted for no more than two classes per module. Any subsequent absence for reasons of illness must be accompanied by a doctor's note.

Chemical Science (CHE) module attendance
Attendance at practical sessions is compulsory. **You cannot pass Introductory Environmental Chemistry unless you gain a mark of at least 40% for the practical component of the module.** Unsatisfactory attendance will result in automatic failure of the module. Students who fail Introductory Environmental Chemistry will need to

re-take the module the following academic year and will be **charged additional fees** to do so. You must arrive in good time for the commencement of laboratory sessions and may only leave prior to the end time with the express permission of the academic staff member in charge of the laboratory.

2. Regulations governing fieldwork

Students are expected to read the online Safety Handbook for the School of Geography, Geology and the Environment at registration in Year 1. Students are required to sign an agreement that they have read the Safety Handbook, and that they will abide by the rules and regulations governing the efficient working, safety and welfare of all members both within the School and in the field

Students are required to follow all instructions provided by course staff within the Safety and Field Course Handbooks and in person in the field. This includes instructions given be postgraduate demonstrators. Students must make staff aware of any pre-existing medical conditions or other issues that may be relevant to field course safety prior to attending the field course.

Students, who by thoughtless actions or rowdy behaviour put the course, other students and the reputation of the University in jeopardy, will be immediately sent home to face disciplinary procedures by the University. Additionally, they will be required to attend the next scheduled field course as a re-assessment and at their own expense. Examples of serious misconduct include: wilful damage to property, injury to persons, ingestion of alcohol or illegal substances in the field so as to endanger themselves or other members of the course, improper use of safety equipment and/or failure to attend commitments.

3. Form and submission of in-course assessments:

The form and submission of coursework are determined by module leaders and announced in module documentation. Unless otherwise stated, work should be word processed. Students must familiarise themselves with the module documentation for information about how specific coursework assessments should be submitted. When taking modules from subjects other than those from within Geography, Geology and the Environment, students must inform themselves of, and abide by, the assessment and submission requirements of that School.

In the absence of agreed exceptional circumstances, work submitted late but within one week of the deadline will be marked to a maximum of 40%. Work submitted more than one week late will be given a mark of zero. Requests for extensions to deadlines should be made to the relevant module tutor and the Programme Director in advance of the coursework deadline using the University's exceptional circumstances online system.

Marks indicated on returned work are provisional and subject to change until ratified by the appropriate examination board. Although marked assignments are returned to students to provide feedback, any work that counts towards the final degree result has to be made available for consultation by the External Examiner at the end of the programme. Students must be in a position to be able to resubmit work in good condition when required by the School.

4. Re-assessment and alternative assessment of missed work

Reassessment, or alternative work to replace a missed assessment supported by exceptional circumstances, may sometimes take a different form from the original assessment where it is not feasible to recreate the original circumstances of assessment, for example in the case of fieldwork, group work or peer-assessed activities. Appropriate alternative assessments may be substituted in these situations. Where fieldwork is missed and supported by exceptional circumstances where appropriate students may be given the option of taking the field course the following year or completing alternative assessment.

5. Field work expenses

Fieldwork is a compulsory part of the Environmental Science degree programme and forms components of assessed modules. The University provides significant financial support for the compulsory fieldwork elements of the degree programme and the costs of travel and accommodation for compulsory field courses are fully paid for by the University up to and including Year 2.

ALL Environmental Science students undertake an independent research project in their final year, which MAY include fieldwork. Students are responsible for organising their own transport and accommodation as well as paying any costs incurred whilst carrying out fieldwork. These costs are extremely variable as they are dependent on where the student carries out their project. Costs are minimal if the project work is undertaken in the students' local area.

6. Requirements governing Study Abroad

Students spending a semester abroad in year two must agree a programme of study with the Study Abroad tutor before they leave, and must agree any changes that become necessary. They should study an equivalent number of credits to that which they would have studied at Keele. They must submit a portfolio of work on their return. Marks will be converted into their Keele equivalents according to the agreement between Keele and the partner universities.

7. Regulations governing the 4-year 'with work placement' degree programme

Students have the opportunity to apply directly for the 4-year 'with work placement year' degree programme, or to transfer onto the 4-year degree programme at the end of Year-1 and in Year-2 at the end of Semester 1. Students who are initially registered for the 4-year degree programme may transfer onto the 3-year degree programme at any point in time, prior to undertaking the year-long work placement. Students who fail to pass the work placement year, and those who fail to meet the minimum requirements of the work placement year module (minimum 30 weeks full time (1050 hours), or equivalent, work placement), will be automatically transferred onto the 3-year degree programme.

Students opting to undertake the work placement year are strongly encouraged to take the existing Year-2 optional Work Placement module to help prepare for their work experience.

To be eligible for the work placement year, students must have a good University attendance record and be in 'good academic standing'. They must also have passed all Year-1 and Year-2 Semester 1 modules with an overall module average of > 55%. If a student chooses to start their work placement prior to the August of their placement year, then the student MUST ensure that they negotiate time off to attend any relevant field courses. Failure to attend field-courses due to a work placement position will not be considered as exceptional circumstances.

Students undertaking work placements will be expected to complete a Health and Safety checklist prior to commencing their work experience and will be required to satisfy the Health and Safety regulations of the company or organisation at which they are based.