

**Programme Specification**

**Title of Course:**

**BSc. (Honours) Environmental Science**

**BSc. (Honours) Environmental Science with Sandwich**

**BSc. (Honours) Environmental Science, Hazards and Disasters**

**BSc. (Honours) Environmental Science, Hazards and Disasters with Sandwich**

**Date Specification produced: December 2017**

**Date of proposed revisions: September 2020**

This Programme Specification is designed for prospective students, current students, academic staff and potential employers. It provides a concise summary of the main features of the programme and the intended learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. More detailed information on the teaching, learning and assessment methods, learning outcomes and content of each module can be found in the Course Handbook and Module Descriptors.

*Examples of completed programme specifications can be found on the* [*KU Programme Specification Archive*](http://www.kingston.ac.uk/programme-specifications/)

**SECTION 1: GENERAL INFORMATION**

|  |  |
| --- | --- |
| **Title:** | BSc (Honours) Environmental Science  BSc (Honours) Environmental Science with Sandwich  BSc (Honours) Environmental Science, Hazards and Disasters  BSc (Honours) Environmental Science, Hazards and Disasters with Sandwich |
| **Awarding Institution:** | Kingston University |
| **Teaching Institution:** | Kingston University |
| **Location:** | Penrhyn Road |
| **Programme Accredited by:** | Non accredited |

**SECTION2: THE PROGRAMME**

**A. Programme Introduction**

BSc. (Honours) Environmental Science is offered as a three-year full-time degree programme and a four-year degree programme including a sandwich year between Levels 5 and 6. The three-year programme may also be studied in part-time mode over six years.

A pathway is offered in BSc Environmental Science, Hazards and Disasters from Level 5. The pathway is distinguished from the parent course by 90 credits with additional distinction resulting in the choice of projects undertaken in Levels 5 and 6 (e.g. GG6400 Research Projects). The pathway will also be offered with the sandwich year and may be studied in part-time mode. Students have the final choice to choose the pathway or remain on the parent course on successful completion of Level 4.

Environmental Science is a highly practical subject, informed by rapidly developing local, national and international environmental concerns and challenges. The course encourages active learners and students to engage with a range of scientific and geographical disciplines to understand and critically evaluate the operation and performance of environmental processes and systems and their relationship to society. Students learn how to recognise, acquire and make sense of a range of environmental information, and synthesise data to gain insight into complex challenges and formulate scientifically rigorous solutions.

The pathway in Hazards and Disasters provides students with the opportunity to develop specific knowledge of an important environmental discipline, namely, the study of environmental hazards as they impact ecosystems and humans, develop techniques for their evaluation and monitoring, and apply discipline-specific skills to their management and mitigation.

Environmental Science draws on staff expertise in the Department of Geography, Geology and the Environment, from staff in the Faculty of Science, Engineering and Computing, and works closely with Kingston University Sustainability Hub (KUSH) to ensure knowledge and skills cross-over in our commitment, ensuring the course is compliant to the principles and values of sustainable development.

The course seeks to prepare students for environmental-related employment. We place a strong emphasis on the development of a range of employment-ready skills in a range of learning environments:

* Environmental Science learning and teaching is informed directly by staff who are actively engaged in a range of research and consultancy-based activities to embed environmentally-informed best practices to ensure a good match of graduate attributes, discipline specific exit skills and environmental-related workplace requirements.
* Kingston University Environmental Science graduates are recognised as having acquired a workplace ready portfolio of academic knowledge, skills, practical aptitude, initiative and confidence, and professional competences to apply themselves in diverse geographical and scientific contexts. The recognition of the contribution of environmental knowledge and skills at the local, national and international levels reflects in the continued demand for trained environmental graduates across businesses and government, public and private sectors.
* We place great emphasis on practical skills training. Practice is an important component of the Environmental Science course and we place particular emphasis on experiential learning such as practical exercises. In particular, fieldwork is a key component of our learning pathway and provides a range of real-world learning opportunities to identify, demonstrate and learn a range of practical employability skills. Our fieldwork programme develops field-based research skills incrementally from Level 4 to 6. Examples of residential fieldwork courses include the UK (e.g. Southwest England), Europe (e.g. Spain and Malta) and non-European settings (e.g. South Africa and Morocco).

Kingston University Environmental Science graduates are ideally placed to enter the workplace and apply their knowledge and practical skills training. To support the embedded nature of our employability skills, two important skills threads run through the course: an environmental research, study skills and project management thread, culminating in the production of the final year research project; and a digital literacies thread, with particular emphasis on environmental data acquisition, analysis and representation (e.g. GIS skills). The employability value of GIS skills cannot be understated and we have adopted an incremental approach to guide students’ GIS development, building incrementally from Level 4 to Level 6.

Students may also apply to study overseas as part of the overseas exchange programme (e.g. Erasmus) and we have a number of long-established international links, including co-participation in optional fieldwork activities.

Dependent on whether students choose the parent or pathway, the taught knowledge and skills portfolio will tailor students’ learning accordingly. Students choosing the parent course will specialise in disciplines of land, water and ecology; students choosing the Hazards and Disasters pathway will tackle a range of environmental hazard and disaster challenges, including practical skills training in a range of simulated case study scenarios (e.g. wildfires, floods, earthquake, environmental pollution incidences, etc.).

All Environmental Science students have the opportunity to apply for an optional sandwich year in a related workplace or voluntary sector environment. The responsibility belongs to the students but KU Talent, the Course Leader and Personal Tutor will support this application process. The sandwich year is overseen by the Course Leader, the Employer and the student to ensure the student gains credible experiences they can feed forward to their final year of study and supports their career ambitions. All Environmental Science students are encouraged to take this option and are supported in the development of pre-requisite skills.

**B. Aims of the Course**

The educational aims of the BSc honours degree in Environmental Science are to:

* provide students with an understanding of the key concepts of environmental systems and phenomena, and their relevance to modern society.
* enable students to develop a critical reflective, integrated and science-based approach to the study of environmental phenomena, and develop the ability to confidently apply their knowledge in diverse geographical and scientific contexts.
* develop the ability to identify, analyse and critically evaluate relevant primary and secondary information sources and to communicate and debate cogent and informed arguments.
* develop intellectual, practical and fieldwork skills in environmental research including the acquisition, analysis, interpretation and representation of data and information, including its critical appraisal, as a basis for independent study (e.g. in preparation for and execution of the final year research project).
* develop an enquiring, analytical and creative approach to study, encouraging independent judgement and critical self-awareness.
* develop the KU Graduate Attributes, and set and reflect on personal development ambitions to support employment and personal aspirations.
* promote an understanding of professional environmental practices and consultancy skills by active engagement with the wider practitioner community, including fieldwork and other forms of experiential learning.
* facilitate understanding of the relationship between environmental science and the values and concepts of sustainability in general, and in business and governance within a sustainable development context.
* prepare students for further study, research, employment and community engagement in a wide range of contexts where sustainability skills, knowledge and understanding can be applied.

Students opting to take the parent pathway in Environmental Science will additionally be able to:

* demonstrate an understanding of the key concepts which underpin the study of land-water interactions and their management.
* demonstrate an understanding of the key ecological concepts and their application.
* apply a range of technical skills (e.g. GIS) to monitor and evaluate natural landscapes and their management.

Students opting to take the pathway in Hazards and Disasters will additionally be able to:

* demonstrate an understanding of the key concepts which underpin the study and management of hazards and disasters.
* identify a range of hazards, understand the processes by which these become disasters and suggest appropriate management strategies.
* evaluate the advantages and disadvantages of different Disaster Risk Reduction strategies at a range of scales.
* apply a range of technical skills (e.g. GIS) to monitor, evaluate and manage hazard and disaster challenges.

Students opting to take the sandwich year will additionally be able to:

* apply and develop their environmental science knowledge in an appropriate professional setting and the opportunity to feed these acquired knowledge and skills back to their final year of study.
* gain first hand professional experience to develop skills and knowledge relevant to environmental science and to their career aspirations.

**C. Intended Learning Outcomes**

The course provides opportunities for students to develop and demonstrate knowledge and understanding specific to the subject, key skills and graduate attributes in the following areas. The programme outcomes are referenced to the QAA subject benchmarks for Earth Sciences, Environmental Sciences & Environmental Studies (2014) and the Framework for Higher Education Qualifications in England, Wales and Northern Ireland (2008), and relate to the typical student.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Programme Learning Outcomes** | | | | | |
|  | **Knowledge and Understanding**  On completion of the course students will be able to: |  | **Intellectual skills – able to:**  On completion of the course students will be able to: |  | **Subject Practical skills**  On completion of the course students will be able to: |
| A1 | Define and evaluate the nature of environmental systems and phenomena, scientific principles that underpin them, their changing nature over a range of interacting scales and the contemporary and historical interactions between people and their environment. | B1 | Critically evaluate and synthesise qualitative and quantitative information from a diverse range of primary and secondary sources. | C1 | Undertake subject related practical work such as primary information acquisition and analysis (e.g. laboratory investigation) with due regard to safety. |
| A2 | Be proficient in a range of techniques for the collection, analysis, interpretation and communication of environmental information. | B2 | Demonstrate the ability for independent and reflective learning. Appraise the arguments of others, rationalise complex contested environmental themes and evaluate sustainable/non-sustainable solutions environmental challenges. | C2 | Solve complex problems by use of appropriate learning technologies (e.g. GIS) and  design and execute environmental science project-based investigations with due regard to logistical and ethical issues. |
| A3 | Develop and practice a range of project management skills through practical experience of guided and independent field-based learning and investigations in a range of contrasting settings. | B3 | Construct reasoned arguments using appropriate supporting academic and practical evidence, and develop confidence in the ability to communicate reasoned arguments through verbal, written and digital media. | C3 | Develop experience in the use of support tools for effective communication. |
| A4 | Students opting for the Environmental Science parent will additionally be able to:  Demonstrate an understanding of the key concepts which underpin the study of land, water and ecology and how these interact with changing environmental systems. | B4 | Students opting for the Environmental Science parent will additionally be able to:  Evaluate the challenges posed by environmental change in land-water-ecological systems and the application of environmental science to further understanding of these changes and their management. | C4 | Take informed decisions and solve complex problems by use of appropriate learning technologies in the classroom and the field, understanding the perspectives of a variety of different stakeholders. |
| A5 | Students opting for the Hazards and Disasters pathway will additionally be able to:  Demonstrate an understanding of the key concepts which underpin the study and management of hazards and disasters and how these interact with changing environmental systems. | B5 | Students opting for the Hazards and Disasters pathway will additionally be able to:  Evaluate the advantages and disadvantages of different Disaster Risk Reduction strategies at a range of scales and from varying perspectives. | C5 | Students opting for a sandwich degree will additionally be able to:  Transcribe and apply the experiences of the practical work-based environment to academic study and chosen career aspirations. |
| A6 | Students opting for a sandwich degree will additionally be able to:  Practice their theoretical understanding and exemplify the relevance of environmental science in a contemporary work environment and enhance their professional skills portfolio. | B6 | Students opting for a sandwich degree will additionally be able to:  Synthesise the experiences of the practical work-based environment to the academic study of environmental science. |  |  |

In addition to the programme learning outcomes identified overleaf, the programme of study defined in this programme specification will allow students to develop a range of Key Skills as follows:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Key Skills** | | | | | | |
| **Self-Awareness Skills** | **Communication Skills** | **Interpersonal Skills** | **Research and information Literacy Skills** | **Numeracy Skills** | **Management & Leadership Skills** | **Creativity and Problem Solving Skills** |
| Take responsibility for own learning and plan for and record own personal development | Express ideas clearly and unambiguously in writing and the spoken work | Work well with others in a group or team | Search for and select relevant sources of information | Collect data from primary and secondary sources and use appropriate methods to manipulate and analyse this data | Determine the scope of a task (or project) | Apply scientific and other knowledge to analyse and evaluate information and data, and to find solutions to problems |
| Recognise own academic strengths and weaknesses, reflect on performance and progress, and respond to feedback | Present, challenge and defend ideas and results effectively, orally and in writing | Work flexibly and respond to change | Critically evaluate information and use it appropriately | Present and record data in appropriate formats | Identify resources needed to undertake the task (or project) and to schedule and manage the resources | Work with complex ideas and justify judgements made through effective use of evidence |
| Organise self effectively, agreeing and setting realistic targets, accessing support where appropriate and managing time to achieve targets | Actively listen and respond appropriately to ideas of others | Discuss and debate with others and make concessions to reach agreement | Apply the ethical and legal requirements in both the access and use of information | Interpret and evaluate data to inform and justify arguments | Evidence ability to successfully complete and evaluate a task (or project), revising the plan where necessary |  |
| Work effectively with limited supervision in unfamiliar contexts |  | Give, accept and respond to constructive feedback | Accurately cite and reference information sources | Be aware of issues of selection, accuracy and uncertainty in the collection and analysis of data | Motivate and direct others to enable an effective contribution from all participants |  |
|  |  | Show sensitivity and respect for diverse values and beliefs | Use software and IT technology as appropriate |  |  |  |

**D. Entry Requirements**

The minimum entry qualifications for the programme are:

* 96 UCAS points (CCC at A-level), with A-level or equivalent from subject areas including but not limited to Geography, Environmental Science, Chemistry and Biology or other relevant disciplines, plus min five GCSEs grades A to C to include Math and English.
* BTEC/advanced Diploma/Access/Foundation qualifications considered where relevant.
* Science foundation year
* We will consider a range of alternative qualifications or experience that is equivalent to the typical offer. Applications from international students with equivalent qualifications are welcomed.
* A minimum IELTS score of 6.0 (with a minimum score of 5.5 in R, L, S and W), TOEFL 88 (R=22, L=21, S=23, W=22) or equivalent is required for those for whom English is not their first language.
* Applications from mature students with relevant experience, interest and or commitment, are welcomed.
* Applications from holders of qualifications such as the International Baccalaureate are welcomed.
* International student applications with relevant qualifications and or interest experience and commitment (in the case of mature students) are welcomed.
* Other qualifications will be considered on a case by case basis.

**E. Course Structure**

This programme is offered in 3 year full-time, 4 year full-time with sandwich or 6 year part-time mode, and leads to the award of either BSc (Honours) Environmental Science or BSc (Honours) Environmental Science, Hazards and Disasters depending on the choice of pathway, defined at the commencement of Level 5 (students many change their pathway until the start of Level 5 because Level 4 is common to both). Entry is normally at Level 4 with A-level or equivalent qualifications (See section D). Transfer from a similar course is possible at Level 5 with passes in comparable Level 4 modules – but is at the discretion of the course team. Intake is normally in September.

**E1. Professional and Statutory Regulatory Bodies**

Accreditation from the Institute of Environmental Management (IEMA)

**E2. Work-based learning, including sandwich courses**

Work placements are actively encouraged. Work placements provide an opportunity to develop a range of employability skills through discipline-related employment and to bring these skills to bear at Level 6. In the Level 6 PTS we encourage students to reflect upon their personal experience of working in an applied setting, to focus on aspects of this experiences to their learning in Level 6 and the transferability of these skills to the workplace on graduation.

* Students are introduced to the sandwich year option in Level 4 Induction Week and are advised that they are able to change between the three- and four-year course at any point to the end of Level 5. Level 6 students returning from placement are invited to sessions with Level 5 students to discuss their experiences – this is typically integrated in to the learning pathway for GG5400 Design and Management of Projects that has the PTS embedded.
* The process of applying for a placement is discussed within the PTS at Level 4 and Level 5. Student are introduced to the KU Talent team and the roles and responsibility of KU Talent, the personal tutor and the students are explained.
* The personal tutor and the Course Leader will advise and support the student to secure the best possible work placement to match their developing career aspirations and personal environmental interests.
* The personal tutor and Course Leader will liaise with the student throughout the sandwich year and will visit the students and employer in the workplace.

**E3. Outline of Programme Structure**

**BSc. (Honours) Environmental Science (parent)**

|  |  |  |  |
| --- | --- | --- | --- |
| **LEVEL 4** | **LEVEL 5** | **OPTIONAL SANDWICH YEAR** | **LEVEL 6** |
| Digital Earth and Spatial Analysis (GG4020) | Cartography, Remote Sensing and Spatial Analysis (GG5155) |  | GIS: Transforming Geography and Environment (GG6140) |
| Introduction to Physical Geography and Environmental Hazards (GG4080) | Land, Water and the Environment (GG5020) | Land and Water Resources Management (GG6080) |
| Understanding the Environment (GG4030) | Ecology and Conservation (GG5180) | The Challenge of Climate Change (GG6070) |
| Research and Fieldwork Methods (GG4090) | Design and Management of Environmental Projects (GG5400) | Research Project (GG6400) |

**BSc. (Honours) Environmental Science, Hazards and Disasters (pathway)**

|  |  |  |  |
| --- | --- | --- | --- |
| **LEVEL 4** | **LEVEL 5** | **OPTIONAL SANDWICH YEAR** | **LEVEL 6** |
| Digital Earth and Spatial Analysis (GG4020) | Cartography, Remote Sensing and Spatial Analysis (GG5155) |  | GIS: Transforming Geography and Environment (GG6140) |
| Introduction to Physical Geography and Environmental Hazards (GG4080) | Geomorphology and Physical Hazards (GG5190) | Disaster Management (GG6130) |
| Understanding the Environment (GG4030) | Disasters, Society and Culture (GG5xxx) | The Challenge of Climate Change (GG6070) |
| Research and Fieldwork Methods (GG4090) | Design and Management of Environmental Projects (GG5400) | Research Project (GG6400) |

***Level 4***

**BSc. (Honours) Environmental Science (parent) AND BSc. (Honours) Environmental Science, Hazards and Disasters (pathway)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Level 4** (all core) | | | | |
| **Compulsory modules** | **Module code** | **Credit Value** | **Level** | **Teaching Block** |
| Digital Earth and Spatial Analysis | GG4020 | 30 | 4 | 1 and 2 |
| Introduction to Physical Geography and Environmental Hazards | GG4080 | 30 | 4 | 1 and 2 |
| Understanding the Environment | GG4030 | 30 | 4 | 1 and 2 |
| Research and Fieldwork Methods | GG4090 | 30 | 4 | 1 and 2 |

Progression to level 5 requires the completion of all modules.

Students exiting the programme at this point who have successfully completed 120 credits are eligible for the award of Certificate of Higher Education in Environmental Science

**Level 5**

**BSc. (Honours) Environmental Science (parent)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Level 5** (all core) | | | | |
| **Compulsory modules** | **Module code** | **Credit Value** | **Level** | **Teaching Block** |
| Cartography, Remote Sensing and Spatial Analysis | GG5155 | 30 | 5 | 1 and 2 |
| Design and Management of Environmental Projects | GG5400 | 30 | 5 | 1 and 2 |
| Ecology and Conservation | GG5180 | 30 | 5 | 1 and 2 |
| Land, Water and the Environment | GG5020 | 30 | 5 | 1 and 2 |

Progression to level 6 requires the completion of all modules.

Students exiting the programme at this point who have successfully completed 120 credits are eligible for the award of Diploma of Higher Education in Environmental Science.

**BSc. (Honours) Environmental Science, Hazards and Disasters (pathway)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Level 5** (all core) | | | | |
| **Compulsory modules** | **Module code** | **Credit Value** | **Level** | **Teaching Block** |
| Cartography, Remote Sensing and Spatial Analysis | GG5155 | 30 | 5 | 1 and 2 |
| Design and Management of Environmental Projects | GG5400 | 30 | 5 | 1 and 2 |
| Disasters, Society and Culture | GG5045 | 30 | 5 | 1 and 2 |
| Geomorphology and Geophysical Hazards | GG5190 | 30 | 5 | 1 and 2 |

Progression to level 6 requires the completion of all modules.

Students exiting the programme at this point who have successfully completed 120 credits are eligible for the award of Diploma of Higher Education in Environmental Science, Hazards and Disasters.

**Level 6**

**BSc. (Honours) Environmental Science (parent)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Level 6** (all core) | | | | | |
| **Compulsory modules** | | **Module code** | **Credit Value** | **Level** | **Teaching Block** |
| GIS: Transforming Geography and Environment | GG6140 | | 30 | 6 | 1 and 2 |
| Land and Water Resources Management | GG6080 | | 30 | 6 | 1 and 2 |
| The Challenge of Climate Change | GG6070 | | 30 | 6 | 1 and 2 |
| Research Project | GG6400 | | 30 | 6 | 1 and 2 |

Level 6 requires the completion of all modules.

**BSc. (Honours) Environmental Science, Hazards and Disasters (pathway)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Level 6** (all core) | | | | |
| **Compulsory modules** | **Module code** | **Credit Value** | **Level** | **Teaching Block** |
| GIS: Transforming Geography and Environment | GG6140 | 30 | 6 | 1 and 2 |
| Disaster Management | GG6130 | 30 | 6 | 1 and 2 |
| The Challenge of Climate Change | GG6070 | 30 | 6 | 1 and 2 |
| Research Project | GG6400 | 30 | 6 | 1 and 2 |

Level 6 requires the completion of all modules.

**F. Principles of Teaching Learning and Assessment**

This course has been designed in accordance with Kingston University Curriculum Design Principles defined in the KU Academic Framework. These include a conscious commitment to equality, diversity and inclusion, Constructive Alignment of activities and their assessment and associated feedback and personalised learning. The course is highly sensitive to the diversity of learning needs of our students (typically half of the course are non-UK students and many are mature students who must balance family commitments) to ensure inclusivity, on and off-campus engagement and student-to-student based peer support and supported group-based learning activities. Examples include the conscious choice of global case study examples to illustrate environmental phenomenon and the choice of fieldwork destinations and site that are culturally diverse.

The course adopts a range of learning and teaching methods that enable students to learn actively in all elements of the course and develop environmental skills and knowledge in the context of their personal development ambitions. Learning and Teaching methods are designed to suit the learning outcomes of each module within the context of the course learning objectives and the identification of learning pathways from Levels 4 to 6. For example, we have purposefully designed-in a study-skills and project management thread, from GG4090 Research and Fieldwork Methods with an emphasis on leaning-to-learn in higher education (appreciative of the differential backgrounds of the students we wish to attract), linking to GG5400 Design and Management of Environmental Projects at Level 5 including essential training and preparation for the final year research project) and culminating in GG6400 Research Project itself.

Environmental Science students typically inhabit multiple learning environments and students learn to blend their knowledge and experiences: lectures are used to introduce key theoretical concepts and methodologies; practical sessions and field-based investigations introduce specific methods and exemplify theoretical concepts; independent learning space (e.g. guided by tutorials and seminar reflection) allows in-depth insight to support key concepts, and group work is used to expose students to team working and managing integrated environmental projects. Fieldwork teaching and learning is an important component of our teaching and learning strategy. Fieldwork experiences serve several functions: developing a range of specific employment-ready field-based skills in a range of environmental settings; experiential exposure to a range of environmental challenges; exposure to environmental practitioners in the workplace to gain first hand experiences of the application of environmental theory in practice.



*Fieldwork is an integral part of the Environmental Science course and fieldwork experiences are effectively blended with knowledge and skills acquire in multiple learning spaces.*

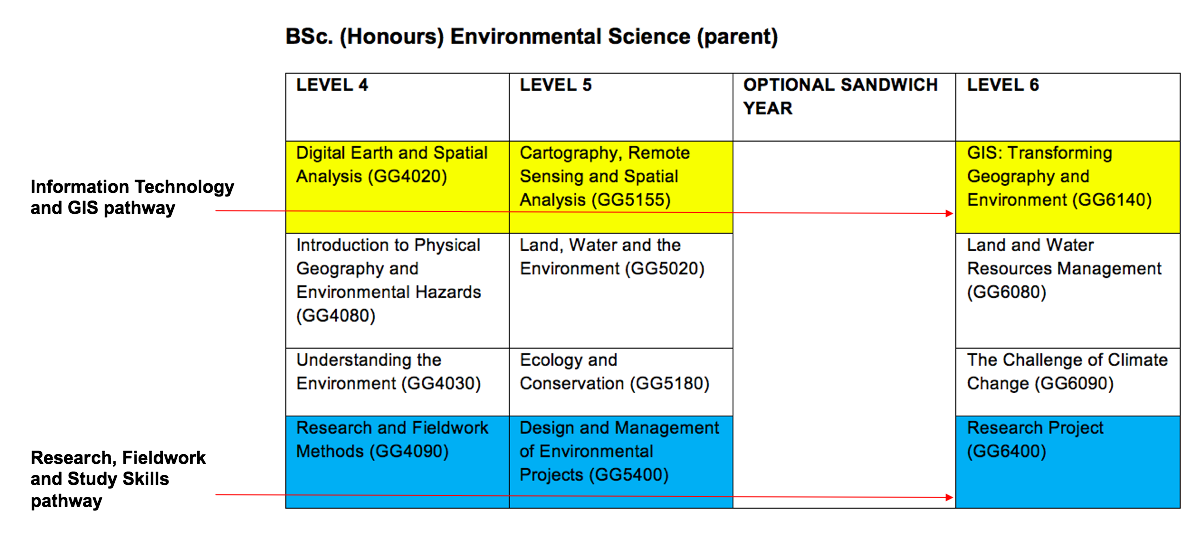
The Canvas Virtual Learning platform provides a virtual space to connect these environments and provide a consistent environment where students can archive and search learning materials (e.g. assessment and feedback) and interact and reflect of their learning outside of the classroom with their peers and staff (e.g. via discussion boards). Additionally, staff in the Department of Geography and Geology have a proven track record in Technology Enhanced Learning provision to support and enrich the student learning experience in Environmental Science. This includes promoting dialogic feedback (e.g. blog-based field reporting), mobile-based learning, and electronic feedback on assessments in a variety of formats.

The course places an emphasis on practitioner-based learning to raise awareness of professional applications of Environmental Science and instil a sense of professionalism in student learning. Fieldwork learning is a good example of this, where students can learn from experts in a range of UK, European and/or developing world settings. Guest speakers (e.g. experts in the field of hazard and disaster management in the case of the pathway) are a key feature of many learning activities and there are numerous opportunities to attend subject related guest talks, seminars and conferences at Kingston University (e.g. organised by the CEESR and KU Sustainability Hub) and other London-wide professional and academic institutions.

The course modules are committed to assessment *for* learning and employ a range of formative and summative assessment tasks to incrementally scaffold knowledge and skills, reflect of progress with respect to personal targets and professional aspirations. We have made conscious choices to provide diversity of assessment types that emphasise authenticity and choice to appeal across the range student strengths. Assessments include course work, oral presentations and debates, in-class tests, examinations, research reports, blogs, podcasts and poster presentations. The assessment regime for each module has been designed to provide numerous formative opportunities that allow students to practice and to receive feedback on their performance and benchmark their progress in preparation for summative assessments. Summative assessments may be synoptic and reflective of broader course learning objectives.

Students will undertake training in the design and management of environmental projects in all years. This culminates in Level 6 when students are required to complete a 30 credits independent environmental science research project that allows them to demonstrate and apply the knowledge and skills that they have acquired throughout the programme. The topic is initially developed in the Design and Management of Projects module at Level 5 and then progressed to completion through independent study at Level 6 under the guidance of a supervisor. The selection and management of the research project is carefully developed with the supervisor to allow the student to select a specialisation in a specific Environmental Science topic of interest, commonly tailored to their professional career aspirations and further raise awareness of professional practices and a sense of professionalism. Students have choice in their selection of final year research project and this will be guided by their personal tutor and will typically reflect the choice of the parent or pathway course.

Employment-readiness is central to our learning design (see also Section I). Employability skills are constructively aligned from the course level to the module level and closely managed and moderated by the Course Leader (common to the parent and pathway). Two specific employability skills pathways are identified in our learning design: Information Technology and GIS pathway and a Research, Fieldwork and Study Skills pathway. The latter includes the embedded Personal Tutorial System (see Section G).



**G. Support for Students and their Learning**

Students are supported by:

* A Module Leader for each module
* A Course Leader to help students understand the programme structure
* Personal Tutors to provide academic and personal support overseen by the Department’s Senior Tutor
* Science Engineering and Computing Academic Success Centre (SASC) and Maths Aid
* Student mentors (e.g. with fieldwork and project support)
* Technical support to advise students on IT and the use of software
* Dedicated programme administration office for all non-academic queries
* An Induction Week at the beginning of the programme
* Staff Student Consultative Committee
* Canvas – an on-line learning environment for every module
* Study Skills Centre that provides academic skills support
* International Office that provides support for those with English as a Second Language
* The Students’ Union
* Careers and Employability Service

Students opting for a sandwich degree will additionally be supported by the KU Talent, the Course Leader and the Personal Tutor.

A Personal Tutorial Scheme (PTS) supports the student’s learning and teaching at all levels. The PTS will:

* act as a central pillar of the pastoral care system building rapport between GG staff and environmental science students and supporting an environmental community of learners.
* support students in the development of their academic skills, providing appropriate academic advice and guidance while monitoring their academic progress and helping to identify individual needs.
* encourage students to be self-reliant, independent and confident self-reflective learners who use feedback to their best advantage and reflect on how their learning relates to a wider context and their personal and career progression and management.
* engage students with core values of sustainable development and align their learning closely to the principles of sustainability with guidance and engagement with KUSH.

The PTS is embedded into the programme and constructively aligned to the Learning Aims of the course and at each level, specifically to the Learning Objectives of the following modules:

* Level 4 - GG4090 Research and Fieldwork Methods: settling in and building confidence; assisting students in making the transition to Higher Education; encouragement of good academic habits and to gain the confidence to operate successfully in a university context, and; prepare students to make the most of feedback throughout their course.
* Level 5 - GG5400 Design and Management of Projects: broadening horizons; encouraging students to foster increasing independence to allow students to evaluate the ways in which their academic programme fits the ‘bigger’ global picture whilst encouraging students to draw inter-linkages and reflect on broader themes within and between their academic modules; responding effectively to feedback, and; consideration of employability skills and preparation for a sandwich year (where relevant).
* Level 6 – GG6400 Research Project: maximising success and exit velocity; make best use of the feedback they have received so that they can build on their strengths and take steps to address any weaknesses, and; encouraging students to reflect on the employability skills they have developed and move toward their professional life and/or further study.

For students on a sandwich year the Personal Tutor acts as a bridge between academic and professional study and the workplace; to encourage students to maximize their sandwich opportunities, and; evaluate the transferrable lessons of the sandwich in the transition to their final year of study.

**H. Ensuring and Enhancing the Quality of the Course**

The University has several methods for evaluating and improving the quality and standards of its provision. These include:

* External examiners
* Board of Study with student representation
* Annual Monitoring and Enhancement
* Periodic review undertaken at the subject level
* Student evaluation
* Moderation policies

**I. Employability Statement**

The Environmental Science course is geared towards the preparation of graduates for the workplace. Staff in the Department of Geography and Geology are engaged in research and consultancy activities that keep them in regular professional contact with practitioners across the spectrum of employers accepting applications from Environmental Science graduates. KU Talent provides a dedicated careers service that students at all levels will access and the course team will regularly invite staff from KU Talent to address the students to keep them updated with news and events (e.g. CV workshops, sandwich years and/or placements, careers events, etc.).

Employability skills are explicitly emphasised throughout the course, particularly in the final year Personal Tutorial System that includes and emphasis on the reflection of acquired skills over the period of study:

(1) Knowledge skills – Environmental Science students acquire specific environmental knowledge and the cognitive abilities to synthesise and apply this knowledge in a range of workplace settings. The final year Research Project provides an opportunity to for students to focus in areas of personal environmental interest and tailor their specific knowledge skills to their career aspirations.

(2) Practical skills – the acquisition of practical skills is essential preparation for students entering the workplace. Irrespective of whether Environmental Science students choose a career in an Environmental Science related discipline/s, the generic skills that must be acquired and practiced throughout the course in order to synthesise and evaluate multi-dimensional challenges at a variety of scales are valuable for most graduate jobs. Students seeking employment specifically within their subject area can be confident that they are trained and fully prepared for a range of practical tasks their employer will expect.

Additionally, for those students who take a sandwich year:

(3) Workplace skills – the experience of a one-year work sandwich to gain first hand experience of the challenges and opportunities offered to apply environmental skills in a practical context.

Graduates have found employment in a range of businesses, governance and associated sectors. Recent examples include: environmental consultancies (e.g. Halcrow), local government (e.g. Surrey County Council), environmental regulators (e.g. Environment Agency) and Businesses (e.g. Thames Water).

Other recent graduates have gone on to study at postgraduate level and Kingston University Environmental Science graduates have the opportunity to apply internally to study MSc. Environmental Management at Kingston University.

**J. Approved Variants from the UR**

**K. Other sources of information that you may wish to consult**

None specific

**Technical Annex**

|  |  |
| --- | --- |
| **Final Award(s):** | *BSc. (Honours) Environmental Science*  *BSc. (Honours) Environmental Science with sandwich*  *BSc. (Honours) Environmental Science, Hazards and Disasters*  *BSc. (Honours) Environmental Science, Hazards and Disasters with sandwich* |
| **Intermediate Award(s):** | *Cert HE, Ordinary degree* |
| **Minimum period of registration:** | *3 years full-time, 4 years sandwich full-time, 6 years part-time.* |
| **Maximum period of registration:** | *6 years* |
| **FHEQ Level for the Final Award:** | *Level 6* |
| **QAA Subject Benchmark:** | *Geography* |
| **Modes of Delivery:** | *Full-time and part-time* |
| **Language of Delivery:** | *English* |
| **Faculty:** | *Science, Engineering and Computing* |
| **School:** | *School of Engineering and Environment, Department of Geography, Geology and the Environment* |
| **JACS code:** | *This is the* [*Joint Academic Coding System*](http://www.qaa.ac.uk/WorkWithUs/Documents/jacs_codes.pdf) *(JACS) agreed jointly by UCAS and HESA.* |
| **UCAS Code:** | *F900: BSc. (Honours) Environmental Science*  *F901: BSc. (Honours) Environmental Science with sandwich*  *F820: BSc. (Honours) Environmental Science, Hazards and Disasters*  *F822: BSc. (Honours) Environmental Science, Hazards and Disasters with sandwich* |

**Development of Field/Course Learning Outcomes in Modules**

This map identifies where the field/course learning outcomes are summatively assessed across the modules for this field/course. It provides an aid to academic staff in understanding how individual modules contribute to the field/course aims, a means to help students monitor their own learning, personal and professional development as the field/course progresses and a checklist for quality assurance purposes.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Module code** | | **Level 4** | | | | **Level 5** | | | | | | **Level 6** | | | | |
| GG4020 | GG4030 | GG4080 | GG4090 | GG5020 | GG5040 | GG5155 | GG5180 | GG5190 | GG5400 | GG6070 | GG6080 | GG6130 | GG6140 | GG6400 |
| **Knowledge & Understanding** | A1 |  | S | S |  | S | S |  | S | S | S | S | S | S |  | S |
| A2 | S | S | S |  | S | S | S | S | S | S |  |  |  | S | S |
| A3 |  |  |  | S | S |  |  | S |  | S |  |  | S |  | S |
| A4 |  | S | S | S | S |  |  | S |  | S | S | S |  |  | S |
| A5 |  | S | S | S |  | S |  |  | S | S | S |  | S |  | S |
| **Intellectual Skills** | B1 | S | S |  | S | S | S | S | S | S | S |  |  | S | S | S |
| B2 |  | S |  | S | S | S |  | S |  | S | S | S | S |  | S |
| B3 | S | S | S | S | S | S | S | S | S | S | S | S | S | S | S |
| B4 |  | S | S | S | S |  |  | S |  | S | S | S |  |  | S |
| B5 |  | S | S | S |  | S |  |  | S | S | S |  | S |  | S |
| **Practical Skills** | C1 |  | S | S | S | S | S |  | S | S | S |  |  | S |  | S |
| C2 | S |  |  |  |  |  | S | S | S | S |  |  |  | S | S |
| C3 | S |  |  | S |  | S | S |  | S | S |  |  |  | S | S |
| C4 | S |  |  | S |  | S | S | S | S | S | S | S | S | S | S |

**Students will be provided with formative assessment opportunities throughout the course to practise and develop their proficiency in the range of assessment methods utilised.**