SECTION 1: KEY PROGRAMME DETAILS

PART A: PROGRAMME INFORMATION	
Highest Award	BSc (Hons) Geology
Interim Award	BSc Geology
Interim Award	DipHE Geology
Interim Award	CertHE Geology

Awarding Institution	UWE Bristol
Teaching Institution	UWE Bristol
Delivery Location	Frenchay Campus
Study Abroad / Exchange / Credit Recognition	Placement X Sandwich Year ✓ Credit Recognition X Year Abroad ✓
Faculty Responsible For Programme	Faculty of Environment & Technology
Department Responsible For Programme	FET Dept of Geography & Envrnmental Mgmt
Professional Statutory or Regulatory Body (PSRB) Links	Geological Society
Professional Statutory or Regulatory Body (PSRB) Links	Institution of Environmental Sciences (IES)
Apprenticeships	
Mode of Delivery	Sandwich

ENTRY REQUIREMENTS	UCAS Tariff Points:

	For the current entry requirements see the UWE public website.
For Implementation From	1 Sep 2018
ISIS Code/s	Programme Code F600-SEP-SW-FR-F600 Other codes: JACS Geology HECoS 100395: Geology UCAS SLC

SECTION 2: PROGRAMME OVERVIEW, AIMS and LEARNING OUTCOMES

PART A: PROGRAMME OVERVIEW, AIMS and LEARNING OUTCOMES

1. (Programme) Overview (c. 400 words)

This programme allows students to examine the physical structure and composition of the Earth in terms of minerals, rocks and fossils. Students will investigate both internal and surface processes operating on Earth over a wide range of timescales. Students will also study life on Earth, its origin, evolution and diversity through time and the occurrence and exploitation of natural resources. Linked to this will be a consideration of environmental management, natural and technical hazards and their impact on society. Sustainability is a handrail theme that permeates through all three levels of the programme.

2. Educational Aims (c. 4-6 aims)

The programme aims to equip students to work as geologists or in other related employment.

Specific educational aims are:

To enable students to develop knowledge, understanding and skills in Geology.

To encourage a critical understanding of key theories and concepts in Geology.

Within the BSc(Hons) Geology programme, placements aim to provide appropriate training and experience that will:

Enrich programme activities.

Assist students to appreciate the practical relevance of the programme subject matter.

Provide the opportunity for students to apply their knowledge and gain experience in a professional environment.

Place students in a situation which will enable them to observe the economic, social and administrative framework within which organisations operate.

Assist students to appreciate the contribution of other professions and the need for co-ordination of effort in problem solving for the benefit of stakeholders/clients/users.

Students on the sandwich (SW) programme take a placement year after completing their first two levels of study. As a connection between university study and work, the placement allows the application of academic knowledge to a professional environment.

PART A: PROGRAMME OVERVIEW, AIMS and LEARNING OUTCOMES

In BSc(Hons) Geology the placement is related to module UBGLVX-15-3 Placement. On successful completion of this module students will be able to:

Analyse an organization in terms of structure, strategy, operations and ethos.

Demonstrate how a subject specialism may be applied to and be influenced by a professional organisation.

Evaluate the relationship between academic material and professional practice.

Demonstrate the development of their professional competence through reflective practice.

Critically evaluate the relationship between academic theory and professional context.

Demonstrate key skills in communication, self-management, IT in context, problem formulation and decision making, awareness of professional literature, teamwork.

The student must be in approved employment for a minimum of 24 weeks (equivalent to 1000 hours, enabling longer part-time placements to be set up). A placement position must be authorised in advance by the module leader.

To enable students to develop a range of field, laboratory, analytical and communication skills that will be necessary in a range of graduate employment positions.

To enable students to use an evidence-based approach in problem identification and solution.

To produce graduates who can make informed judgements and devise creative and innovative solutions in relation to environmental management and the sustainable exploitation of natural resources, in particular mineral, water and energy resources.

3. Programme and Stage Learning Outcomes (c. 6-8 outcomes)

Programme (Learning) Outcomes (POs)

Knowledge and Understanding

A1	The structure and composition of the Earth
A2	The principles of stratigraphy and the relationships between strata
A3	The composition and structure of minerals and rocks
A4	The origin of life on Earth, its diversity and evolution over time
A5	The evolution of the Earth's continental and oceanic crust
A6	Processes operating internally and on the Earth's surface over different temporal and spatial scales
A7	The use and management of natural and geological resources
A8	Human impact on Earth surface processes
A9	Methods of geological data acquisition, analysis and presentation
A10	The skills and actions necessary to acquire graduate-level employment

Intellectual Skills

B1	Formulate and test a hypothesis
B2	Plan, evaluate and conduct a programme of research and produce a report

PART A: PROGRAMME OVERVIEW, AIMS and LEARNING OUTCOMES

B3	Select and use principles and procedures in a variety of situations
B4	Research and synthesise information from a variety of sources
B5	Construct arguments logically, identifying any flaws in reasoning and contrasting their merits
B6	Analyse, evaluate, interpret and integrate data from a variety of sources
B7	Think and learn creatively and critically, articulating original ideas and identifying preferred learning styles

Subject/Professional Practice Skills

C1	Use appropriate geological laboratory and field equipment in a safe, accurate and precise manner
C2	Carry out good laboratory and field practice according to local, national and international health and safety, risk assessment and ethics regulations
C3	Employ a wide variety of field and laboratory data acquisition skills
C4	Make judgement on the suitability of different strategies in natural resources exploitation
C5	Conduct appropriate analytical procedures
C6	Use appropriate specialist geoscience software
C7	Write coherent and well-referenced academic essays
C8	Write rigorous scientific reports with correct referencing
C9	Deliver effective presentations using verbal and visual media
C10	Develop and adaptable and flexible approach to learning and work
C11	Submit competitive applications fro graduate and employment positions

Transferable Skills and other attributes

D1	Complete a range of, sometimes complex, tasks independently by thinking logically, demonstrating resilience and solving problems
D2	Communicate knowledge effectively using a range of media
D3	Demonstrate numerical, statistical and analytical skills appropriate to a geoscientist
D4	Use Information and Communications Technology competently and with confidence
D5	Work independently and as a member of a group, with an ability to respect and understand others' perspectives
D6	Identify and use appropriate resources (human and technological) to enable the successful completion of a task
D7	Manage their time effectively and meet deadlines
D8	Critically reflect on their learning and demonstrate how it can be transferred to other situations
D9	Develop a strong sense of self and the life-long learning skills to make an ongoing contribution to society

PART B: Programme Structure

1. Structure

Year 1

Year 1 Compulsory Modules

Code	Module Title	Credit	Type
UBGLYD-30-1	Dynamic Earth 2019-20	30	Compulsory
UBGMP8-30-1	Earth Materials 2019-20	30	Compulsory
UBGMN8-15-1	Geological Field Skills 2019-20	15	Compulsory
UBGMMP-15-1	Geological Maps 2019-20	15	Compulsory
UBGMQ8-15-1	Living Earth 2019-20	15	Compulsory
UBGMPP-15-1	Stratigraphy of the British Isles 2019-20	15	Compulsory

Year 2

Year 2 Compulsory Modules

Code	Module Title	Credit	Type
UBGMLP-15-2	Geotechnics 2020-21	15	Compulsory
UBGML8-15-2	Hydrogeology 1 2020-21	15	Compulsory
UBGMK8-15-2	Igneous and Metamorphic	15	Compulsory

	Petrology 2020-21		
UBGMJN-30-2	Research in Geology 2020-21	30	Compulsory
UBGMP9-30-2	Sedimentary Environments and Palaeoecology 2020-21	30	Compulsory

Year 2 Optional Modules
Students choose 15 credits from the modules below:

Code	Module Title	Credit	Type
UBGMRA-15-2	Tectonic Processes and Landforms 2020-21	15	Optional
UBGMLE-15-2	Understanding Coastal Dynamics 2020-21	15	Optional
UBGMLV-15-2	Understanding River Dynamics 2020-21	15	Optional

Year 3
The student must take 120 credits from the modules in Year 3.

Year 3 Compulsory Modules

Code	Module Title	Credit	Type
UBGMQD-30-3	Final Year Project 2021-22	30	Compulsory
UBGMM8-15-3	Geotechnical Hazards 2021-22	15	Compulsory
UBGMKP-15-3	Hydrogeology 2 2021-22	15	Compulsory
UBGMPQ-30-3	Structural Geology and Geophysics 2021-22	30	Compulsory

Year 3 Optional Modules
The student must take 30 credits from the modules in Optional Modules.

Code	Module Title	Credit	Type
UBGMNP-15-3	21st Century Economic Geology 2021-22	15	Optional
UBGLF1-15-3	Applied Sedimentology 2021-22	15	Optional
UBGMSU-30-3	GIS and Remote Sensing Applications 2021-22	30	Optional

UBGMQQ-15-3	Independent Project (Geology) 2021-22	15	Optional

Year 4
The student on the Sandwich delivery and who have completed the placement year must take the 15-credit placement module.

Year 4 Compulsory Modules
The student on the Sandwich delivery and completing the placement year must take the 15-credit placement module.

Code	Module Title	Credit	Type
UBGLVX-15-3	Placement 2022-23	15	Compulsory

PART C: Higher Education Achievement Record (HEAR) Synopsis

This programme allows students to examine the physical structure and composition of the Earth in terms of minerals, rocks and fossils. Students will investigate both internal and surface processes operating on Earth over a wide range of timescales. Students will also study life on Earth, its origin, evolution and diversity through time and the occurrence and sustainable exploitation of natural resources. Sustainability is a handrail theme that permeates through all three levels of the programme. Graduates from this programme will have a wide subject knowledge and field, analytical and communications skills to work as geologists or in other graduate employment.

PART D: EXTERNAL REFERENCE POINTS AND BENCHMARKS

QAA Subject Benchmark Statement for Earth Sciences, Environmental Sciences and Environmental Studies (2014):

The subject coverage and knowledge from the QAA subject benchmark statement (SBS) informed the design of the programme so that graduates will have appropriate knowledge of the main aspects of Earth Sciences, listed in the SBS as -

A holistic view of the present and past interactions between components of the Earth system, including the effects of extraterrestrial influences on these interactions.

The cycling of matter and the flows of energy into, between and within the solid Earth, the Earth's surface, the hydrosphere, the atmosphere and the biosphere.

The study of the biological, chemical and physical processes that underpin our understanding of the structure, materials and processes relevant to the Earth and planetary bodies.

The central paradigms in the Earth sciences: uniformitarianism (the present is the key to the past); the extent of geological time; evolution (the history of life on Earth); and plate tectonics.

Geological time, including the principles of stratigraphy, the stratigraphic column, the methods of geochronology, the rates of Earth processes, major events in Earth history, the evolution of life as

PART D: EXTERNAL REFERENCE POINTS AND BENCHMARKS

revealed by the fossil record, the quaternary and anthropocene.

Collection and analysis of Earth science data in the field, and subsurface, the appropriate presentation, manipulation and extrapolation of these sometimes incomplete data in both two and three-dimensions, including the generation of geological maps and cross sections.

The study of structures, materials and processes that includes an appreciation of temporal and spatial variations at appropriate scales.

The study of the structure, the composition and the materials of the solid Earth (core, mantle, crust, asthenosphere, lithosphere and so on), the hydrosphere, the atmosphere, the cryosphere and the biosphere, and the processes operating within and between them.

An understanding of other planetary bodies.

Earth science terminology, nomenclature and classification of rocks, minerals, fossils, and geological structures.

The identification of rocks, minerals, fossils, and geological structures.

Surveying and measurement both in the field and laboratory, and using quantitative and instrumental techniques.

An awareness that the understanding and knowledge gained from the subject and its application has to be considered within a wider socio-economic and environmental context.

The threshold level of intellectual, practical, communications personal and professional skills expected for graduates from this programme were also linked to the SBS where threshold levels of performance are given as:

Intellectual skills (knowledge and understanding).

Graduates of an honours degree in Earth Science demonstrate:

Knowledge and understanding of subject-specific theories, paradigms, concepts and principles;
An ability to integrate evidence from a range of sources to test findings and hypotheses;
An ability to consider issues from a range of interdisciplinary and multidisciplinary perspectives;
An ability to analyse, synthesise, summarise and critically evaluate information;
An ability to define complex problems and to develop and evaluate possible solutions;
A critical approach to academic literature, data and other sources of information.

Practical skills

Graduates of an honours degree in Earth Science demonstrate an ability to:
Conduct fieldwork and laboratory investigations competently (as appropriate);
Describe and record observations in the field and laboratory;
Interpret and evaluate practical results in a logical manner;
Undertake laboratory and fieldwork ethically and safely;
Plan, conduct and present an independent project with appropriate guidance;
Prepare, manipulate and interpret data using appropriate techniques;
Use appropriate numerical and statistical techniques;
Use appropriate technologies in addressing problems effectively.

Communication skills

Graduates of an honours degree in Earth Science demonstrate:
An ability to communicate effectively to a variety of audiences using a range of formats;
Good interpersonal communication skills to enable effective team working;

PART D: EXTERNAL REFERENCE POINTS AND BENCHMARKS

An ability to argue a case in an effective manner.

Personal and professional skills

Graduates of an honours degree in Earth Science demonstrate an ability to:

Work effectively as a team member;
Recognise and respect the views of others;
Demonstrate an awareness of the importance of risk assessment and relevant legislation;
Develop the skills for autonomous learning;
Identify and work towards targets for personal, career and academic development;
Reflect on the process of learning and to evaluate personal strengths and weaknesses;
Display an appreciation of developing their graduate skills relevant to career pathways.

QAA Framework for Higher Education Qualifications in England, Wales and Northern Ireland (FHEQ) (2008):

Descriptors used to inform the nature and characteristics of the main qualifications at each level Cert HE, Dip HE and BSc.

QAA Code of Practice for the Assurance of Academic Quality and Standards in Higher Education: Students with Disabilities (1999).

Equality Act (2010).

Special Education Needs and Disability Act (SENDA 2001):

Reference points 3-5 indicate the need to ensure consideration is given to the means, where possible, of enabling disabled students' participation in all aspects of the programme. There is no distinction in the University's admissions policy with regard to disability and it aims to make all reasonable adjustments so that students can study the course of their choice. However, due to field work and some laboratory requirements, students with certain mobility and visual disabilities may be unable to achieve some of the programme learning outcomes.

University of the West of England Access Agreement 2016/17:

This strategy links to social mobility, widening participation and giving those who are able to succeed at University the opportunity to do so. The programme will provide equitable opportunities as required by the Agreement.

The Geological Society of London requirements for accreditation:

Departments applying for accreditation are required to demonstrate that their programmes introduce students to the major aspects of their degree subject and specifically that appropriate skill levels are attained in specified topics. The guidelines issued by the Geological Society have contributed to defining the learning outcomes for this programme.

Chartered Institution for Water and Environmental Managers:

The requirements for accreditation of the academic content of the course(s) relate to the disciplines of the water and environmental management professions as specified in the Institution's Charter and Bye-Laws. CIWEM has accredited a number of the department's programmes since 2004 there is confidence that BSc Geology will meet the requirements.

University Teaching and Learning Policies: University of the West of England Learning 2020 Strategy:

The key aspirations have fed into the design of this programme in particular:
Inspiring, well connected and passionate colleagues (see reference point 9 below);

PART D: EXTERNAL REFERENCE POINTS AND BENCHMARKS

Innovative learning strategies and environments, with considered use of TEL;
Relevant, authentic and engaging assessment strategies;
Experiencing practice-based learning within and out of the university;
A leading-edge research-informed and scholarly focus.

Staff research interests and expertise:

Programme content is founded upon the strengths of active staff research. Current staff members have expertise in Quaternary geology, sedimentology, fluvial and coastal systems, natural hazards, sustainability and environmental management. New research-active staff will be appointed to the Department to complement and broaden existing expertise.

Earth Science in the National Curriculum:

Geology in the National Curriculum was revised in 2013 to enable candidates to study Earth internal and surface processes, evidence of past life and the uses made of geological materials, addressing environmental, technological and economic issues. The BSc Geology programme will provide students with the opportunity to develop their understanding and skills further and help them to prepare for graduate level employment.

The programme team has sought feedback from BSc Geography and BEng Civil and Environmental Engineering students. There have also been discussions with potential employers. These discussions have highlighted the discipline themes that are important to practice and employability and these themes have informed curriculum design. In addition, the programme team's considerable experience of programme design and delivery has been important to the design.

Quality and standards are not static, and will be constantly reviewed as the programme is delivered. Evaluation and improvement of quality and standards of learning will be informed by:

Professional accreditation and review;
Periodic programme review;
Subject external examiners;
Student feedback on modules, student fora, APT and NSS;
Stakeholder feedback;
Staff performance and development review.

PART E: REGULATIONS

Approved to University Regulations and Procedures