

Programme Specification¹

1. Programme Title(s) and Code(s):

Programme Title	UCAS Code	GU Code
BSc Honours in Geology		F604A-2208

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2018-19

3. SCQF Level (see Scottish Credit and Qualifications Framework Levels):

10

4. Credits:

480

5. Entrance Requirements:

Please refer to the current undergraduate prospectus at: https://www.gla.ac.uk/undergraduate/degrees/earthscience

6. ATAS Certificate Requirement (see <u>Academic Technology Approval Scheme</u>):

ATAS Certificate not required

7. Attendance Type:

Full Time

8. Programme Aims:

Geology is the study of the Earth, its structure, composition, and history, and its hazards and resources. Geology uses rocks, minerals and fossils to provide an integrated understanding of whole Earth processes in 4D, linking the deep Earth, its crust, the surface, and associated environments. This knowledge is applied to contemporary geological and socio-environmental problems, including natural and anthropogenic change and

¹ This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if full advantage is taken of the learning opportunities that are provided. More detailed information on the learning outcomes, content and teaching, learning and assessment methods of each course can be found in course handbooks and other programme documentation and online at www.gla.ac.uk/

The accuracy of the information in this document is reviewed periodically by the University and may be checked by the Quality Assurance Agency for Higher Education.

the sustainable development of resources.

The aims of the Geology programme encompass a detailed understanding of all aspects of geology, and their synthesis into a comprehensive view of the Earth. The BSc programme builds from an introduction to geology and its applications into a broader and deeper understanding in the Honours courses – the programme involves theoretical study and extensive practical work in the laboratory and field, including geological mapping, Earth observation, and spatial and numerical analysis.

The programme aims to:

- Enable students to develop their capacity to learn and in particular to develop their;
 - o ability to synthesize a range of geological data and apply to Earth problems
 - o descriptive, observational, interpretation and communication skills
 - o problem-solving capacities and reasoning skills in theoretical, laboratory and field solutions
- Provide students with the knowledge-base, transferable skills and employability skills that they will require in further study and graduate employment

9. Intended Learning Outcomes of Programme:

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

By the end of this programme students will be able to:

- Demonstrate advanced theoretical and practical knowledge and understanding of the central facts, concepts and terminology of Geology, of major geological paradigms, and the application of these skills to societal-economic problems.
- Demonstrate detailed theoretical and practical knowledge of the core geological subjects (Igneous, Sedimentary, and Metamorphic Geology, Mineralogy, Geochemistry and Isotopes, Palaeontology, Stratigraphy, Structural Geology, Global Tectonics, Geological Maps, Geophysics, Applied and Economic Geology, GIS and Remote Sensing, Geomorphology, Geological Synthesis, Geological Fieldwork) and in a range of options subjects.
- Critically assess and synthesize literature and other sources of information and use evidence to formulate and test hypotheses.
- Collect, record and analyse field, numerical and spatial data, and present results and interpretations in scientific reports, to solve geological problems.
- Plan and execute projects both independently and as part of a team.
- Present outputs in appropriate ways for both specialist and non-technical audiences, including verbally, in writing, and graphically.
- Demonstrate competence in safety techniques and the assessment of risks for field work.

10. Typical Learning and Teaching Approaches:

Learning and teaching are effected by the following methods:

Lecture Format: Lectures, IT instruction, Video presentations, Lecture-demonstrations.

Practical and Field Format: Laboratory work, Project work, Database/modelling work, Reports/Essays, Group discussion, Seminar instruction and presentations, Skills workshops (laboratory/field), Independent geological mapping research dissertation, Team-working skills, Problem-solving work, Library work, Report/technical/site report writing instruction. Small group work.

Private study.

11. Typical Assessment Methods:

Written degree examinations

Including essay format and practical testing

Formal continuous assessment of coursework (formative and summative) includes:

• Essays, seminars, research project reports, laboratory reports, field reports, mapping project report, rock and thin section descriptions, map-based exercises, problem-solving/teamwork reports.

Informal continuous assessment of coursework includes:

 Verbal feedback on description and interpretation of rocks and their geological relationships in the laboratory and field.

12. Programme Structure and Features:

Structure

Course Title	Course Code	Credits	Core	Optional	Semester(s) taught
Year 1 Earth Science and the Environment 1X Earth Science and the Environment 1Y Level 1 course in a second subject Level 1 course in a third subject Exit point: Certificate of Higher Education	EARTH1001 EARTH1002	20 20 40 40	Y		1 2
Year 2 Earth Science and the Environment 2A Earth Science and the Environment 2B Level 2 courses in a second subject Exit point: Diploma of Higher Education	EARTH2010 EARTH2011	30 30 60	Y		1 2
Year 3 Igneous Geology: Geochemistry,	EARTH4072	30	Y		1
Geochronology and Volcanology Sedimentary Geology: Environments	EARTH4071	30	Υ		1
and Basin Fill Geological Skills: Spatial, Numerical,	EARTH4078	30	Υ		2
Geophysical and Field Methods Metamorphic and Structural Geology Exit point: Designated Degree in Geology	EARTH4073	30	Y		2
Year 4	EARTHAOA				
Stratigraphy and Regional Tectonic Synthesis	EARTH4081	20	Y		1
Independent Geological Mapping Dissertation Students will choose 60 credits worth of options courses from a list including:	EARTH4079P	40	Y		1+2
Economic Minerals and Resources;	EARTH4074	20		Υ	1
Engineering Geology; Geomorphology – Tectonics and	EARTH4075 EARTH4076	20 20		Y	2
Surface Processes; Hydrogeology and Environmental	EARTH4083	20		Υ	1
Geochemistry; Climates – Past and Future;	EARTH4084	20		Υ	1
Petroleum Geology and Sequence	EARTH4085	20		Ý	2
Stratigraphy; Planetary Science.	EARTH4086	20		Υ	2

Features

The programme will enable students who will not normally possess any prior knowledge of geology to understand the scope, main areas and boundaries of the discipline.

The programme features a variety of field classes, including residential field classes both overseas and in the UK, where students will develop key geological skills. Students will undertake an independent geological mapping dissertation in the summer between Year 3 and Year 4, during which they will conduct independent research on field-based geological problems.

Regulations
This programme will be governed by the relevant regulations published in the University Calendar. These regulations include the requirements in relation to: (a) Award of the degree
(b) Progress
(c) Early exit awards(d) Entry to Honours (For undergraduate programmes, where appropriate)
www.gla.ac.uk/services/senateoffice/policies/calendar/
13. Programme Accredited By:
14. Location(s):
Glasgow
15. College:
College of Science and Engineering
16. Lead School/Institute:
Geographical and Earth Sciences [REG30400000]
17. Is this programme collaborative with another institution:
No
18. Awarding Institution(s):
University of Glasgow
19. Teaching Institution(s):
University of Glasgow
20. Language of Instruction:
English
21. Language of Assessment:
English

22. Relevant QAA Subject Benchmark Statements (see <u>Quality Assurance Agency for Higher Education</u>) and Other External or Internal Reference Points:

This Programme Specification is informed by the QAA Benchmark Statement for Earth Sciences, Environmental Sciences and Environmental Studies (ES3): http://www.qaa.ac.uk/en/Publications/Documents/SBS-earth-sciences-14.pdf and by the SCQF Level descriptors: http://www.scqf.org.uk/levels.asp

23. Additional Relevant Information (if applicable):

Support for students is provided by the Postgraduate/Undergraduate Adviser(s) of Studies supported by University resources such LEADS (www.gla.ac.uk/myglasgow/leads/), Counselling & Psychological Services (www.gla.ac.uk/services/counselling/), the Disability Service (www.gla.ac.uk/services/counselling/), and the Careers Service (www.gla.ac.uk/services/careers/).

Will seek accreditation from the Geological Society and the Institution of Environmental Sciences

24. Online Learning:				
No				
25. Date of approval:	02/02/2018			