

**Royal Holloway, University of London**  
**Course specification for an undergraduate award**  
**BSc Geology with Integrated Foundation Year (F6oF)**

**Section 1 – Introduction to your course**

This course specification is a formal document, which provides a summary of the main features of your course and the learning outcomes that you might reasonably be expected to achieve and demonstrate if you take full advantage of the learning opportunities that are provided. Further information is contained in the University prospectus, and in various handbooks, all of which you will be able to access online. Alternatively, further information on the University's academic regulations and policies can be found [here](#). Further information on the University's Admissions Policy can be found [here](#).

Your degree course in BSc Geology with an Integrated Foundation Year is delivered in four stages, each of which comprises one year of full-time study during which you must follow modules to the value of 120 credits.

The Foundation Year prepares you for university study by offering a rigorous introduction to university-level study methods and skills, transitioning from FHEQ Level 3 to FHEQ Level 4. It provides progressive structures in which you are able to gain ever-wider knowledge and understanding of approaches to your chosen degree subject, together with embedded good academic practice and study skills, leading towards increasingly discipline-specific modules which facilitate greater levels of specialisation and individual choice through specialist options. The mandatory modules include the fundamentals of geology or geoscience with a range of geological and geoscience subjects, including an independent research project tested by a wide variety of assessment methods including (but not limited to) short written reports, Moodle-based quizzes, verbal and poster presentations, and a dissertation.

Undergraduate courses in Geology are characterised by the provision of a broad base in skills and knowledge in stages one and two, followed by opportunities for specialisation in stage three. The courses also have strong compulsory spines of fieldwork culminating in an independent mapping project. Training in data collection, data analysis and presentation of reports is provided in core modules along with a range of transferrable skills that contribute to the successful progression of Earth Science graduates into a wide range of careers. Teaching and learning in the course are designed to provide graduates with a sound basis of knowledge and skills in the geological sciences akin to those required by a professional geologist. Specialist modules offered in stage three are closely informed by the active research of staff, particularly in the general areas of "Ancient and Modern Earth Systems" (modern atmospheres, surface processes, palaeobiology, ancient Earth systems), Tectonics and Basins (sedimentology, mountain evolution, uplift, and erosion, numerical modelling, seismic interpretation, lithospheric and asthenospheric processes) and Geochemistry (palaeoceanography, crust-mantle evolution, plumes and ridges, volcanic arcs).

While Royal Holloway keeps all the information made available under review, courses and the availability of individual modules, especially optional modules are necessarily subject to change at any time, and you are therefore advised to seek confirmation of any factors which might affect your decision to follow a specific course. In turn, Royal Holloway will inform you as soon as is practicable of any significant changes which might affect your studies.

The following is a brief description for some of the most important terminology for understanding the content of this document:

*Degree course* – May also be referred to as 'degree programme' or simply 'programme', these terms refer to the qualification you will be awarded upon successful completion of your studies.

*Module* – May also be referred to as 'course', this refers to the individual units you will study each year to complete your degree course. Undergraduate degrees at Royal Holloway comprise a combination of modules in multiples of 15 credits to the value of 120 credits per year. On some degree courses a certain number of optional modules must be passed for a particular degree title.

| Section 2 – Course details   |   |   |   |
|--|---|---|---|
| <b>Date of specification update</b>  | June 2024   | <b>Location of study</b>  | Egham Campus  |
| <b>Course award and title</b>  | BSc Geology with an Integrated Foundation Year  | <b>Level of study</b>   | Undergraduate   |
| <b>Course code</b>   | 3669  | <b>UCAS code</b>  | F6oF  |
| <b>Year of entry</b>   | 2025/26   |   |   |
| <b>Awarding body</b>   | Royal Holloway, University of London  |   |   |
| <b>Department or school</b>  | Department of Earth Sciences<br>School of Life Sciences and the Environment   | <b>Other departments or schools involved in teaching the course</b> | IFY: Centre for the Development of Academic Skills (CeDAS)  |
| <b>Mode(s) of attendance</b>   | Full-time   | <b>Duration of the course</b>                                       | 4 years   |
| <b>Accrediting Professional, Statutory or Regulatory Body requirement(s)</b> | Geological Society of London<br>To satisfy the accreditation requirements of the Geological Society of London you will need to meet certain conditions. |   |   |
| <b>Link to Coursefinder for further information:</b>                         | <a href="https://www.royalholloway.ac.uk/studying-here/">https://www.royalholloway.ac.uk/studying-here/</a>   | <b>For queries on admissions:</b>                                   | <a href="https://royalholloway.ac.uk/applicationquery">https://royalholloway.ac.uk/applicationquery</a> |

| Section 3 – Degree course structure   |             |  |         |            |   |
|---|-------------|--|---------|------------|---|
| 3.1 Mandatory module information  |             |  |         |            |   |
| The following table summarises the mandatory modules which students must take in each year of study |             |  |         |            |   |
| Year  | Module code | Module title   | Credits | FHEQ level | Module status<br>(Mandatory Condonable MC or<br>Mandatory Non-Condonable MNC) |
| 0   | FY0012      | Introduction to Foundation Life Sciences and the Environment | 15      | HE Level o | MC  |
| 0   | FY0013      | Foundation Mathematics for Life Scientists                   | 15      | HE Level o | MC  |
| 0   | FY0014      | Foundation Statistics for Life Sciences                      | 15      | HE Level o | MC  |
| 0   | FY0015      | Environmental Science for Foundation Life Sciences           | 15      | HE Level o | MC  |
| 0   | FY0017      | Organ Systems  | 15      | HE Level o | MC  |
| 0   | FY0021      | Global and Planetary Health                                  | 15      | HE Level o | MC  |
| 0   | GL0998      | Earth Sciences Practical Skills                              | 15      | HE Level o | MC  |
| 0   | GL0999      | Earth Sciences Project                                       | 15      | HE Level o | MC  |
| 1   | GL1101      | Evolving Earth   | 30      | 4          | MC  |
| 1   | GL1201      | Dynamic Planet   | 30      | 4          | MC  |
| 1   | GL1301      | Human Interactions with the Earth                            | 30      | 4          | MC  |
| 1   | GL1500      | Physics and Chemistry of the Earth                           | 15      | 4          | MC  |
| 1   | GL1900      | Earth Scientists Toolkit                                     | 15      | 4          | MC  |
| 2   | GL2200      | Stratigraphy and Past Sedimentary Environments               | 15      | 5          | MC  |
| 2   | GL2210      | Geological Evolution and Deep Time Synthesis                 | 15      | 5          | MC  |
| 2   | GL2400      | Igneous and Metamorphic Geology                              | 15      | 5          | MC  |

|   |        |                                      |    |   |    |
|---|--------|--------------------------------------|----|---|----|
| 2 | GL2410 | Geochemistry                         | 15 | 5 | MC |
| 2 | GL2901 | Earth Scientists Mapping Toolkit     | 15 | 5 | MC |
| 2 | GL2902 | Earth Scientists Practical Toolkit   | 15 | 5 | MC |
| 2 | GL2905 | Earth Scientists Digital Toolkit     | 15 | 5 | MC |
| 3 | GL3010 | Techniques in Earth Sciences         | 15 | 6 | MC |
| 3 | GL3905 | Independent Geological Field Mapping | 30 | 6 | MC |

This table sets out the most important information for the mandatory modules on your degree course. These modules are central to achieving your learning outcomes, so they are compulsory, and all students on your degree course will be required to take them. You will be automatically registered for these modules each year. Mandatory modules fall into two categories: 'condonable' or 'non-condonable'.

In the case of mandatory 'non-condonable' (MNC) modules, you must pass the module before you can proceed to the next year of your course, or to successfully graduate with a particular degree title. In the case of mandatory 'condonable' (MC) modules, these must be taken but you can still progress or graduate even if you do not pass them. Please note that although Royal Holloway will keep changes to a minimum, changes to your degree course may be made where reasonable and necessary due to unexpected events. For example: where requirements of relevant Professional, Statutory or Regulatory Bodies have changed and course requirements must change accordingly, or where changes are deemed necessary on the basis of student feedback and/or the advice of external advisors, to enhance academic provision.

### 3.2 Optional modules

In addition to mandatory modules, there will be a number of optional modules available during the course of your degree. Although Royal Holloway will keep changes to a minimum, new options may be offered, or existing ones may be withdrawn. For example, where reasonable and necessary due to unexpected events, where requirements of relevant Professional, Statutory or Regulatory Bodies (PSRBs) have changed and course requirements must change accordingly, or where changes are deemed necessary on the basis of student feedback and/or the advice of External Advisors, to enhance academic provision. There may be additional requirements around option selection; please contact the Department for further information.

Year 0 – all modules are mandatory.

Year 1 – all modules are mandatory.

In Year 2, you must choose modules to the value of 15 credits.

In Year 3, you must choose modules to the value of 75 credits.

#### Section 4 - Progressing through each year of your degree course

For further information on the progression and award requirements for your degree, please refer to Royal Holloway's [Academic Regulations](#).

Progression throughout the year/s is monitored through performance in summative or formative coursework assignments. Please note that if you hold a Student Visa and you choose to leave (or are required to leave because of non-progression) or complete early (before the course end date stated on your CAS), then this will be reported to UKVI.

To progress from the Foundation Year to Year One you must achieve a stage average of at least 40% and either pass 120 credits or pass modules to the value of between 90-105 credits and achieve a Fail outcome of at least 30% in the remaining credits. Opportunities for resits are detailed in the [Academic Regulations](#).

Once progression has been confirmed, you may choose your preferred pathway which will normally be the BSc Geology but can be chosen from one of the other undergraduate degrees offered by the department.

All first-year undergraduate students are required to take and pass the non-credit bearing Moodle-based Academic Integrity module SS1001 to progress into the second year of study (unless their course includes the alternative mandatory SS1000 module). The pass mark for the module assessment is stated in the on-line Academic Integrity Moodle module. Students may attempt the assessment as often as they wish with no penalties or capping. Students who meet the requirements for progression as stipulated in the [Academic Taught Regulations](#) but fail to pass the Moodle-based Academic Integrity module will not be permitted to progress into their second year of academic study.

**BSc Geology (years 1 to 3)** – although full-time attendance is the normal mode of study this degree is also available in part time mode, whereby students would normally take 60 credits per year. The order in which these modules should be taken needs to be agreed with the UG Education Lead in Geology. The Foundation Year (year 0) cannot be taken in part time mode.

You may also opt to take a 'year in industry' after the 2<sup>nd</sup> stage and before the final stage of study. This will lead to a five-year course. The 'with a year in industry' course is available in full time mode only. More details can be obtained from the department and reviewing the BSc Geology and BSc Geology with a Year in Industry course specification in the [Degree Course Library](#).

## Section 5 – Educational aims of the course

For the Foundation Year:

- to develop the mathematical and scientific concepts and techniques needed for level 4 study in Geology;
- to equip you with the basic experimental, programming or practical techniques required for scientific degrees;
- to start the process of independent project work in science with support of expert academics;
- to put in context scientific knowledge and developments into a wider context of history, society and globalisation.

The aims of the Honours Degree course in Geology are:

- To understand the physical Earth and the dynamic processes that continue to alter and change our environment by understanding the geology of our planet
- to provide a sound and extensive basis for the study of the Geological Sciences, meeting the requirements for course accreditation by the Geological Society where appropriate and the general requirements of the subject benchmarking statement;
- to provide you with knowledge of the science, and equip them with discipline-specific and transferable skills;
- to provide a flexible and progressive structure in which you are able to gain knowledge, understanding and appropriate skills relating to distinctive research specialisms;
- to offer a range of specialist modules and research projects which allow you to develop expertise and research interests in your chosen field;

to equip you with the knowledge and skills appropriate for a career in the Earth Sciences, and generally to provide you with a range of personal attributes relevant to the world beyond Higher Education, enabling you to engage in lifelong learning and to contribute to the wider community.

| <b>Section 6 - Course learning outcomes</b>  |   |   |  |
|--|---|---|--|
| In general terms, the courses provide opportunities for students to develop and demonstrate the following learning outcomes. ( <i>Categories – Knowledge and understanding (K), Skills and other attributes (S), and Transferable skills (*)</i> ) |   |   |  |
| <b>Level 3</b>   | <b>Level 4</b>  | <b>Level 5</b>  | <b>Level 6</b>   |
| Knowledge of and ability to apply mathematics to scientific and computational problems.  | Gain an appreciation of whole Earth systems, Earth materials and processes; in theory, in the field, and in the laboratory. (K) | Develop a deeper understanding of whole Earth systems, Earth materials and processes; in theory, in the field, and in the laboratory. (K)             | Synthesise and apply real world applications of whole Earth systems, Earth materials and processes, through guided independent research, e.g., in independent field mapping. (K) |
| Working knowledge of a least one programming high level programming Language.  | Appreciate deep time perspectives, including the age of the Earth and key stages in its history. (K)                            | Interpret deep time perspectives, including through stratigraphic mapping, structural history and integrated analysis. (K)                            | Understand Earth as a planet through deep time, its relationship with other planets and the significance of its biosphere. (K)   |
| Start to take responsibility and developing the individual learning, communication and research skills.  | Understand human interactions with the Earth system. (K*)   | Understand the complex nature of human interactions with the Earth system on many timescales, and the challenges for sustainability. (K*)             | Understand the practical application of geoscience to the human realm, e.g. in addressing climate change, and to support sustainable development. (K*)                           |
|  | Be able to employ the basic tools in the Earth Scientist’s toolkit, including field and laboratory equipment. (S)               | Learn advanced skills in the Earth Scientist’s toolkit, including geochemical and geophysical methods and digital skills in programming and GIS. (S*) | Demonstrate effective use of practical and digital skills from the Earth Scientists toolkit through significant independent work. (S*)   |
|  | Practice oral and written communication skills. (S*)  | Employ oral and written communication skills in scientific debate and hypothesis testing. (S*)  | Present scientific understanding through effective oral and written communication skills. (S*)   |

## Section 7 - Teaching, learning and assessment

Teaching and learning on your course is closely informed by the active research of staff, particularly in the areas of:

- **Geodynamics and Sedimentary Systems** (Earth-structure and lithospheric dynamics; Geological fault and fracture evolution; Planetary remote sensing; Sedimentology of marine systems)
- **Global Environmental Change** (Marine bioturbation; Paleogene life and climate; Reconstructing ancient landscapes)
- **Physics and Chemistry of Earth Processes** (Earth and oceanic geochemistry; Environmental chemistry of soils and surface waters; Greenhouse gas monitoring;
- **Mineral resources** (Modern atmospheric chemistry)

In general terms, the course provides an opportunity for you to develop and demonstrate the learning outcomes detailed herein.

Teaching and learning is mostly by means of lectures; seminars; practical field and laboratory work; study groups; oral presentations and guided independent study. Assessment of knowledge and understanding is typically by formal examinations, coursework, examined reports, online quizzes and exercises, oral presentations and the dissertation.

Contact hours come in various forms and may take the form of time spent with a member of staff in a lecture or seminar with other students. Contact hours may also be laboratory or, studio-based sessions, project supervision with a member of staff, or discussion through a virtual learning environment (VLE). These contact hours may be with a lecturer or teaching assistant, but they may also be with a technician, or specialist support staff.

The way in which each module on your degree course is assessed will also vary. Assessments designated as 'summative' will receive a mark which will count towards your overall mark for the module, and potentially your degree classification, depending on your year of study. On successful completion of the module you will gain the credits listed.

More detailed information on modules, including teaching and learning methods, and methods of assessment, can be found via the online [Module Catalogue](#). The accuracy of the information contained in this document is reviewed regularly by the university, and may also be checked routinely by external agencies.



| <b>Section 8 – Additional costs</b>  |  |
|--|--|
| <p>There are no single associated costs greater than £50 per item on this degree course.</p> <p>The department will provide you with a set of essential field work equipment, for example a hard hat, compass. Some of the mandatory modules involve attending a field trip; these costs are paid for by the department.</p> |  |
| <p><b>These estimated costs relate to studying this particular degree course at Royal Holloway. General costs such as accommodation, food, books and other learning materials and printing etc., have not been included, but further information is available on our website.</b></p>  |  |

| <b>Section 9 – Indicators of quality and standards</b>  |   |
|---|---|
| <b>QAA Framework for Higher Education Qualifications (FHEQ) Level</b>   | 4-6   |
| <p>Your course is designed in accordance with the FHEQ to ensure your qualification is awarded on the basis of nationally established standards of achievement, for both outcomes and attainment. The qualification descriptors within the FHEQ set out the generic outcomes and attributes expected for the award of individual qualifications. The qualification descriptors contained in the FHEQ exemplify the outcomes and attributes expected of learning that results in the award of higher education qualifications. These outcomes represent the integration of various learning experiences resulting from designated and coherent courses of study.</p> |   |
| <b>QAA Subject benchmark statement(s)</b>   | <a href="http://www.qaa.ac.uk/quality-code/subject-benchmark-statements">http://www.qaa.ac.uk/quality-code/subject-benchmark-statements</a> |
| <p>Subject benchmark statements provide a means for the academic community to describe the nature and characteristics of courses in a specific subject or subject area. They also represent general expectations about standards for the award of qualifications at a given level in terms of the attributes and capabilities that those possessing qualifications should have demonstrated.</p>  |   |

**Section 10– Intermediate exit awards (where available)**

You may be eligible for an intermediate exit award if you complete part of the course as detailed in this document. Any additional criteria (e.g. mandatory modules, credit requirements) for intermediate awards is outlined in the sections below.

| Award                                    | Criteria   | Awarding body                          |
|--|--|--|
| Diploma in Higher Education (DipHE)      | Pass in 210 credits of which at least 90 must be at or above FHEQ Level 4 and at least 120 of which must be at or above FHEQ Level 5 | Royal Holloway and Bedford New College |
| Certificate in Higher Education (CertHE) | Pass in 120 credits of which at least 90 must be at or above FHEQ Level 4  | Royal Holloway and Bedford New College |