ROYAL HOLLOWAY
University of London

PROGRAMME SPECIFICATION

This document describes the **Graduate Diploma in Geology**. This specification is valid for new entrants from **September 1986**.

The aims of the programme are:

- to provide a sound basis for the study of the Geological Sciences relating to the natural environment, meeting the general requirements of the subject benchmarking statement
- to provide students with knowledge of the science, and equip them with discipline-specific and transferable skills
- to provide students with core knowledge and a range of key skills.
- to offer a range of specialist courses and research projects which allow students to develop expertise and research interests in their chosen field.
- to produce graduates who are equipped with knowledge and skills appropriate for careers in the Earth Sciences and other disciplines.
- to equip students to carry out independent advanced studies in the Earth Sciences.

Further information

This document provides a summary of the main features of the programme(s), and of the outcomes which a student might reasonably be expected to achieve if full advantage is taken of the learning opportunities provided. Further information is contained in the College prospectus, the College Regulations and in various handbooks issued to students upon arrival. Whilst Royal Holloway keeps all its information for prospective applicants and students under review, programmes and the availability of individual courses are necessarily subject to change at any time, and prospective applicants are therefore advised to seek confirmation of any factors which might affect their decision to follow a specific programme. In turn, Royal Holloway will inform applicants and students as soon as is practicable of any substantial changes which might affect their studies.

Learning outcomes

The programme draws substantially on the active research of teaching staff in the field of study. On successful completion of the programme a student should have an understanding of their chosen branch of Geology at a level appropriate for a graduate qualification, enabling them to continue to more advanced postgraduate study. In general terms the programme provides opportunities for students to develop and demonstrate the following learning outcomes:

Knowledge and understanding

- a sound knowledge of the geological processes, concepts and ideas relevant to the chosen field of study;
- the interaction between these processes in the consideration of the Earth as a dynamic system through time;
- an appreciation of current developments in the field, and of the issues and controversies associated with such developments;
- the practical application of the Earth Sciences to resource exploitation, civil and environmental engineering and environmental hazards as appropriate to the chosen field of study;

- the social and political role of the Earth Sciences in the exploitation and conservation of geological resources as appropriate to the chosen field of study.

Skills and other attributes

- recognise and apply different theories, concepts and principles;
- develop a strategy for tackling a geological problem;
- collect and document different types of geological data using appropriate techniques and methodologies;
- apply appropriate numerical, statistical and instrumental techniques to the analysis of geological data;
- recognise applicable theories or formulate new hypotheses for the interpretation of geological information;
- apply appropriate statistical and logical tests to hypotheses;
- synthesise data and information to present a concise, reasoned summary of results;
- carry out independent, innovative research into a topic and present the results to a professional standard;
- recognise the importance of applying professional standards in geology;
- the attainment of a reasonable standard of numeracy;*
- the use of appropriate computer technology including word processing, spreadsheet, database, graphical and presentation packages and communication using the internet;*
- use of libraries and the retrieval of information from diverse sources, including the world wide web, and the referencing of source materials;*
- the ability to assemble information, analyse and synthesise results and present them in a variety of reporting formats including short, concise written reports, longer dissertations, presentation as posters and verbally in seminars;*
- the ability to work independently on a research project;*
- working in a team, setting goals by discussion, and sharing information and ideas to develop a collective outcome to a problem;*
- personal motivation;
- the ability to work autonomously and with others;
- self-management;
- the ability to work towards and meet deadlines;
- intellectual integrity;
- awareness of responsibility;
- ability to learn independently and to take advantage of life-long learning;
- flexibility and adaptability;
- creativity;
- enhanced skills of oral presentation.

* transferable skills

Back to top

Teaching, learning and assessment

The learning outcomes are embedded within the core and optional courses available to the students. A progression of knowledge and understanding is achieved by starting with a basic grounding, which is subsequently reinforced and developed through application to specialist topics. In stages one and two, different aspects are taught in an interrelated, interdependent way; the continuum of the subject matter being broken only for the purposes of assessment as whole or half course units. In stages three and four, specialist topics are more self-contained, with some integration provided through a core course. Practical classes comprise 60% of the timetabled study time, reflecting the emphasis on learning through studying maps, rocks, minerals, fossils and classwork exercises. Lectures are used to introduce material and provide a context for private study. Tutorials supplement and reinforce knowledge and understanding. A comprehensive field programme provides opportunities for students to apply concepts developed in the classroom and lecture theatre and is considered to be a fundamental aspect of the teaching programme. Field

and laboratory project work carried out as individuals or in teams represents an opportunity for students to develop in-depth knowledge of specialist areas.

Transferable, laboratory and field skills are identified within the learning outcomes of course units and summarised in a skills progression chart in the undergraduate handbook. A progression of skills development is provided through the introduction of most basic skills in stages one and two, a core course of Advanced Concepts and Techniques in Geology in stage three, and the opportunity to apply skills to specialised areas in stages three and four. All skills tuition is provided by staff of the department within a geological context with the exception of information technology and library-use courses, which are provided by central services. Most of the teaching of techniques and skills is carried out as part of practical and field classes, with some introductory material provided in lectures. Tutorials also play an important role: guidance notes for personal advisers include details of appropriate skills tuition at different levels.

Summative Assessment (which counts towards the final course marks) of knowledge, understanding and skills is by means of formal examinations, coursework practical exercises, literature research reports, fieldwork exercises and reports, oral presentations and independent dissertations. Field-work and research projects provide opportunities to develop and integrate a wide range of discipline-specific and transferable skills and students are encouraged to regard these as an important forum for demonstrating their abilities In addition to comments on submitted course work and feedback provided during practical classes, oral presentations will contribute to formative assessment (i.e. assessment which provides advice and feedback on students' progress but does not contribute to final course marks).

Full details of the assessment for the individual courses can be obtained from the Department.

Back to top

Details of the programme structure(s)
The Diploma programme is designed to be completed in 52 weeks full time, or 104 weeks part time. Full time students will normally submit their dissertations by early September in their academic year of study, having completed their study and assessment of the other components by late May. Part time students will normally complete 1.5 taught course units in Year I and the remaining 1.5 taught course units and their dissertations by early September of year 2.

The programme is based on taking taught courses with a total value of 3 course units, and an independent project with a value of one course unit. Courses to a value of at least two course units must be at third year level. The courses selected should be appropriate to the training requirements of the student and the postgraduate course that they hope to go on to.

Students can select a maximum of one course unit from:

GL2200 Stratigraphic and Sedimentological Analysis (0.5 unit)
GL2210 Stratigraphy and Earth History (0.5 unit)
GL2320 Natural and Man-made Geohazards (0.5 unit)
GL2400 Igneous and Metamorphic Geology (0.5 unit)
GL2410 Geochemistry (0.5 unit)
GL2500 Applied Geophysics (0.5 unit)
GL2600 Structural Analysis and Remote Sensing (0.5 unit)
GL2810 History of Life (0.5 unit)

Students must select at least two course units from:

GL3001 Advanced Concepts and Techniques in Geology (1 unit)
GL3210 Advanced Topics in Sedimentology (0.5 unit)
GL3250 Regional Tectonic Analysis (0.5 unit)
GL3300 Aqueous Geology (0.5 unit)

GL3340 GIS and Remote Sensing (0.5 unit)
GL3460 Volcanology (0.5 unit)
GL3510 Planetary Geology and Geophysics (0.5 unit)
GL3600 Advanced Techniques in Tectonic and Structural Interpretation (0.5 unit)
GL3750 Mineral Resources (0.5 unit)
GL3800 Applied Micropalaeontology (0.5 unit)
GL3940 Methods of Environmental Investigation (0.5 unit)

In addition students must take:

GL3131 Independent Project

Please note that not all courses run each year. A full list of courses including optional courses for the current academic year can be obtained from the Department.

Back to top

Progression and award requirements
Progression throughout the year is monitored through performance in formative coursework assignments. Part-time students must normally pass all their taught course elements in the first year before proceeding to the second year, although the Sub-Board of Examiners may allow a part-time student to proceed to the second year if they have a fail mark in only 0.5 course units, compensated by a good pass mark in the other. Part-time students who have two failure marks in one or more course units at the end of the first year will normally be required to resit those units before proceeding to the second year of the programme.

In order to qualify for the award of a Diploma, students must obtain a weighted average mark over all components of the course of 40% or more. To continue to a postgraduate course students will normally be required to obtain a weighted average mark of at least 50%.

One resit / resubmission of any failed courses may be allowed at the discretion of the Sub-Board of Examiners.

Back to top

Student support and guidance
- The Programme Director meets with the students on a regular basis to advise on academic, pastoral and welfare issues.
- Course coordinators, tutors and project supervisors provide a back-up system of academic, pastoral and welfare advice.
- Induction programme for orientation and introduction to the Department and College by the Course Director.
- All staff available and accessible through an open-door system.
- Detailed Departmental handbooks and course resources.
- Departmental Staff Student Committee
- Extensive supporting materials and learning resources in College libraries and computer centre.
- Dedicated Departmental computing facilities.
- College Careers Service and Departmental Careers Service liaison officer.
- Access to all College and University support services, including Student Counselling Service, Health Centre and the Education Support Unit for students with special needs.

Back to top

Admission requirements
Applicants will normally be required to have demonstrated evidence of some formal training and achievement in Geology, Geophysics or related subjects, or a first degree in another science subject with some additional evidence of experience of, or interest in, Geology. Students whose first

language is not English may also be asked for a qualification in English Language at an appropriate level. For further details please refer to the Prospective Students web page. The programme is primarily intended for students from overseas with a first degree in Geology (or related subject), but who require a further qualification to be eligible for admission to a postgraduate programme. Candidates with other qualifications and/or relevant professional experience may be considered on an individual basis. It may also be helpful to contact the Admissions Office for specific guidance on the entrance requirements for particular programmes.

Back to top

Further learning and career opportunities

The Diploma programme provides a firm foundation for postgraduate study and research, and for careers in Geology. Graduates of the programme have gone on to Mastrs and PhD degrees at Royal Holloway and elsewhere. There are PhD opportunities in the Department of Earth Sciences. The Diploma also provides graduates with range of intellectual, personal and social skills that are transferable to a wide variety of employment opportunities. Students on the programme are able to take advantage of the resources available in the department and at the College Careers service. For more details on further learning and career opportunities please refer to the Careers Service.

Back to top

Indicators of quality and standards

Royal Holloway's position as one of the UK's leading research-intensive institutions was confirmed by the results of the most recent Research Assessment Exercise (RAE 2008) conducted by the Higher Education Funding Council (HEFCE). The new scoring system for the RAE 2008 measures research quality in four categories, with the top score of 4* indicating quality that is world-leading and of the highest standards in terms of originality, significance and rigour. 60% of the College's research profile is rated as world-leading or internationally excellent outperforming the national average of 50%. The College is ranked 16th in the UK for research of 4* standard and 18th for 3* and 4* research. The Department of Earth Sciences was ranked joint 7th in the top 10 universities in the country in terms of proportion of 3* and 4* research, with 70% of its research profile being of 3* and 4* standard.

Back to top

List of programmes

The programme is taught entirely by staff at Royal Holloway, University of London, and leads to an award of the University of London. The Banner programme code is given in parentheses.

Graduate Diploma in Geology

Graduate Diploma in Geology (1481)

Back to top