



**UNIVERSITY
OF LONDON**

Programme Specification 2021–2022

Petroleum Geoscience

MSc
PGDip
Individual modules

Important document – please read

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Important information regarding the Programme Specification

About this document

Last revised 13 January 2021

The Programme Specification gives a broad outline of the structure and content of the programme, the entry level qualifications, as well as the learning outcomes students will achieve as they progress. Some of the information referred to in this programme specification is included in more detail on the University of London website. Where this is the case, links to the relevant webpage are included.

Where links to external organisations are provided, The University of London is not responsible for their content and does not recommend nor necessarily agree with opinions expressed and services provided at those sites.

If you have a query about any of the programme information provided, whether here or on the website, registered students should use the *ask a question* tab in the Student [Portal](#); otherwise the *Contact Us* button at the bottom left hand corner of every webpage should be used.

Terminology

The following language is specific to the Petroleum Geoscience programme:

Module: Individual units of the programme are called modules. Each module is a self-contained, formally-structured learning experience with a coherent and explicit set of learning outcomes and assessment criteria worth 20 credits, except for the research module which is worth 60 credits.

Key revisions made

Programme specifications are revised annually. The quality committee of Royal Holloway, as part of its annual review of standards, confirms the programme structure and the educational aims and learning outcomes, and advises on any development in student support.

Where changes have been made which may impact on continuing students, these are listed below. For all new students, the programme and general information provided in this document is correct and accurate and will be applicable for the current year.

Significant changes made to the programme specification 2021–2022:

The PGCert Petroleum Geoscience (exit qualification only) may now be awarded with merit or distinction if the criteria given in Section 8 of the Programme Regulations are met.

Candidates for the award of the MSc or PGDip Petroleum Geoscience may be automatically raised into the next class subject to meeting the criteria outlined in Section 8 of the Programme Regulations.

Alternative assessments during the Coronavirus (COVID-19) outbreak

In line with our current General Regulations, the University may offer you alternative assessments where necessary. This includes holding online timed assessments in place of written examinations, which are usually held at examination centres. Please note that this statement replaces any published information relating to assessments or written examinations in any of our materials including the website. Previously published materials relating to examinations should therefore be read in conjunction with this statement.

The University of London continues to work towards supporting the academic progression of all its students. The University also continues to be mindful of the health and wellbeing of its students during this pandemic, whilst protecting the academic standards of its awards.

Programme title and name of qualifications

Postgraduate Degrees of the University of London may be classified. The award certificate will indicate the level of the academic performance achieved by classifying the award. The classification of the degree will be based on the ratified marks from the completed assessments.

The classification system for the MSc, Postgraduate Diploma and Postgraduate Certificate (exit qualification only) in Petroleum Geoscience is as follows:

Distinction; Merit; Pass.

Specific rules for the classification of awards are given in the [Programme Regulations](#), under Scheme of Award

Programme title

Petroleum Geoscience

Qualifications

Master of Science in Petroleum Geoscience

Postgraduate Diploma in Petroleum Geoscience

Intermediate qualifications

The intermediate qualification for this programme is the Postgraduate Diploma. Students may not normally receive an intermediate qualification and continue to a higher qualification, even if they are registered on the intermediate qualification. If permitted to progress from the Postgraduate Diploma to the MSc, the Postgraduate Diploma must be surrendered prior to the award of the MSc being made.

The specific rules are given in the [Programme Regulations](#) under Progression within the programme.

Exit qualifications

The exit qualifications for this programme are:

- Postgraduate Diploma in Petroleum Geoscience
- Postgraduate Certificate in Petroleum Geoscience

An exit qualification is an intermediate qualification for which the student may not have registered at the outset but which may be awarded on completion of specific modules (or credit accumulated) in a longer programme of study, if the student leaves the programme.

Students cannot register for the Postgraduate Certificate because this is granted as an exit qualification only. Students who for academic or personal reasons are unable to complete the 180 credits required for the Masters award may exit with the completion of 60 or 120 credits and be awarded a Postgraduate Certificate or Postgraduate Diploma respectively.

Exit qualifications are granted at the discretion of the Board of Examiners and once a student has accepted an exit qualification they will not normally be permitted to continue their study of the same award with the University of London.

Programme Specification 2021–2022 Petroleum Geoscience (MSc/PGDip/Individual modules)

Full details of the Scheme of Award are included in the [Programme Regulations](#).

Individual modules

There is also provision for individual modules of the programme to be taken on a stand-alone basis. All of the modules from the MSc, with the exception of the Project, may be taken as individual modules.

Qualification titles may be abbreviated as follows:

Master of Science – MSc

Postgraduate Diploma – PGDip

Postgraduate Certificate – PGCert

Level of the programme

The Frameworks for Higher Education Qualifications of UK Degree-Awarding Bodies (FHEQ) forms part of the UK Quality Code for Higher Education of the [Quality Assurance Agency for Higher Education](#) (QAA).

The awards are placed at the following Levels of the Framework for Higher Education Qualifications (FHEQ):

- MSc Petroleum Geoscience Level 7
- PGDip Petroleum Geoscience Level 7
- PGCert Petroleum Geoscience Level 7

All individual modules are offered at Level 7.

QAA subject benchmarks group(s)

For further information about benchmarks see the [QAA website](#).

The QAA has not produced a benchmark statement for Geology at postgraduate level.

Awarding body

University of London

Registering body

www.london.ac.uk

University of London

Academic direction

Royal Holloway, University of London

Accreditation by professional or statutory body

Not applicable

Language of study and assessment

English

Mode of study

Study is by distance and flexible study. For the module Petroleum Systems PGM651, students have to take part in a residential workshop in the UK that includes 10–14 days of fieldwork and group project work.

Programme structures

The MSc Petroleum Geoscience consists of six mandatory 20 credit modules and an independent research project and report, worth 60 credits.

The PGDip Petroleum Geoscience consists of six mandatory 20 credit modules.

Full details of the Scheme of Award are included in the [Programme Regulations](#).

Maximum and minimum periods of registration

The maximum and minimum periods of registration, from a student's effective date of registration, are:

Award	Minimum	Maximum*
MSc degree	Two years	Five years
Postgraduate Diploma	Two years	Five years
Credit bearing individual modules	One year	Two years

*Extensions to the registration period may be granted on request, in accordance with paragraph 1.5 of the [General Regulations](#).

Study materials are made available after registration and on payment of the applicable fee.

Credit value of modules

Further information about the credit systems used by universities in the UK and Europe is provided by the [Quality Assurance Agency](#) and the [European Credit Transfer and Accumulation System](#).

Where credits are assigned to each module of a programme, credit indicates the amount of learning carried out in terms of the notional number of study hours needed, and the specified Frameworks for Higher Education Qualifications of UK Degree-awarding Bodies (FHEQ) credit level indicates the depth, complexity and intellectual demand of learning involved. The details below indicate the UK credits and the European Credit Transfer and Accumulation System (ECTS) values.

For the MSc Petroleum Geoscience programme, credits are assigned as follows:

- Mandatory modules: 20 UK credits, 10 ECTS credits per module
- Independent research project and report (MSc only): 60 UK credits, 30 ECTS credits.

One UK credit equates to a notional ten hours of study.

Recognition of prior learning

Recognition of prior learning is a generic term for the process by which we recognise and, where appropriate, award credit for learning that has taken place at the University of London, or elsewhere, before entry onto a programme of study.

Where the prior learning covered a similar syllabus to a module/course on the University of London programme, credit will be awarded as if you took the University of London module/course.

See the [General Regulations](#) (Section 3) and [Programme Regulations](#) for more rules relating to prior learning.

For this programme the University of London may recognise your prior learning and grant you credit towards the award. Details on how to apply for recognition of prior learning can be found on our website.

Entrance requirements

Applicants must submit an application in line with the procedures and deadlines set out on the [website](#).

Entrance requirements for a postgraduate award, or Individual modules, vary. Full details are provided on the programme page under the [Entry requirements](#) tab.

We consider qualifications from around the world. Details are available [here](#) and in the [Qualifications for Entrance](#) schedule.

English language requirements

All applicants must satisfy the English language requirements for the programme. These are set out in detail on the [website](#).

Where an applicant does not meet the prescribed English language proficiency requirements but believes that they can demonstrate the requisite proficiency for admission the University may, at its discretion, consider the application.

Internet access and computer specification

Students will require regular access to a computer with an internet connection to use the University of London's online resources and systems. A webcam may be required in the event that online timed assessments (if offered) are proctored, and in such a case it is a student's responsibility to ensure that they have a webcam.

The computer should have at least the following minimum specification:

- A 7" screen or larger.
- An html5 compliant browser (e.g. recent versions of Chrome or Firefox but not Internet Explorer).
- A good internet connection.
- A pdf reader.
- A word processor capable of generating pdf documents.

Independent research project report (MSc only)

For the independent research project (necessary to complete the MSc), applicants must demonstrate that they have access to interpretation software, data and local expert supervision. The software and data are required to undertake the research project and a local mentor (e.g. a manager in their company) is required to help with day to day issues regarding that data and software. The mentor does not participate in the assessment but should be able to provide technical advice and support. Usually this means applicants should be currently in employment with an oil and gas company, but exceptions can be made for students who can arrange data, software and supervision by other means.

Fieldtrip requirements

The module Petroleum Systems PGM651 includes fieldwork in the UK which takes place on 10–14 consecutive days usually in late April or early May.

Student must have suitable field equipment for the trip, including boots, warm clothes, and a waterproof jacket.

Students who require a visa to visit the UK should check visa requirements with their local British embassy and allow plenty of time if a visa application must be made. Royal Holloway can supply an invitation letter to registered students to support an application but cannot guarantee that a visa will be issued.

Students with access requirements

The University of London welcomes applications from disabled students and/or those who have access requirements. The University will make every effort to provide reasonable adjustments to enable those with a disability, learning difficulty or access requirements to have the same opportunity as all other students to successfully complete their studies.

The University is committed to managing the application procedure and the programme itself to ensure that services are accessible for all students and that an inclusive environment is created. Students with a disability, or others who may need access arrangements to assist in taking assessments, should complete the relevant section of the application form, or contact the [Inclusive Practice Manager](#). A separate room or other arrangements may be considered.

Requests are considered by a University panel, whose purpose is to ensure that students with disabilities and/or specific access requirements are neither advantaged nor disadvantaged by such arrangements when compared with other students. These considerations remain separate from the academic selection processes.

For further information, see the [Inclusive Practice Policy](#).

Sources of funding and scholarships

Information about potential sources of funding and scholarships is updated annually and, where available, is included in the prospectus web pages.

For further information see the [website](#).

Educational aims and learning outcomes of the programmes

Learning outcomes of the programmes

Teaching and learning in the programmes are closely informed by the active research of staff. The aims of the programme are:

- to provide systematic understanding and knowledge of the tectonic, structural and sedimentological controls that govern the distribution and occurrence of hydrocarbons in sedimentary basins;
- to provide vocational training in the analytical tools and practical techniques that will enable students to understand hydrocarbon occurrences on all scales from basin wide petroleum systems to reservoir models of individual fields;
- to encourage a critical understanding and awareness of current issues and developments in petroleum geoscience;
- to foster students' intellectual development and independent learning ability required for continuing professional and personal development.

Learning outcomes: subject-specific knowledge and understanding

Graduates from these programmes will be expected to have an extensive knowledge of:

- the tectonic process associated with the formation of sedimentary basins;
- the geodynamic evolution of sedimentary basins;
- the principles of seismic data processing;
- the application of seismic attribute analysis to hydrocarbon reservoir characterisation;
- structural styles associated with sedimentary basins and hydrocarbon prospects, and the mechanisms by which such structures form;
- the principles of stratigraphic analysis, with specific emphasis on sequence stratigraphy;
- clastic depositional environments and their application to hydrocarbon reservoirs;
- carbonate depositional environments and their application to hydrocarbon reservoirs;
- the formation of source rocks and the formation, migration and trapping of hydrocarbons, including the formation of fault seals;
- fracture distribution in hydrocarbon reservoirs and its effects on fluid flow;
- the appraisal, risking and economic analysis of hydrocarbon prospects including an understanding of recent and current developments in these fields and of the issues and controversies associated with such developments; a sound knowledge of the theories and methods used to enhance understanding of the issues; a critical approach to the gathering, analysis and interpretation of data relating to the development of new ideas and concepts in petroleum geoscience.

Learning outcomes: intellectual and transferable skills

Graduates from these programmes will be expected to be able to:

- interpret seismic data and use that interpretation for structural, stratigraphic and sedimentological analysis, and for the appraisal of hydrocarbon prospects and accumulations;
- interpret well log data and use that interpretation for stratigraphic and sedimentological analysis, and for the appraisal of hydrocarbon prospects and accumulations;

- design and execute original research, using appropriate methods of data collection and analysis, develop and test hypotheses to explain the observations and to critically evaluate the outcomes;
- report and communicate complex ideas arising from such work in a clear and concise manner.

Learning, teaching and assessment strategies

Teaching and learning draws on the methods and concepts used in the study of geosciences. It is also strongly informed by the current research interests in geosciences of the core teaching team at Royal Holloway. The main methods used to develop knowledge and understanding are through online materials which include slide presentations with voice-over, animations, video clips, practical exercises, quizzes and documents containing text and diagrams. These materials are supplemented by online forums associated with each module and a field-based study session with module tutors. There is an independent research project and report at the end of the programme. Assessment is by practical coursework assignments, online tests, written examination papers and the independent research project and report. Full details of the assessments for individual modules are included in the programme handbook.

Assessment criteria for the programme take into account the level at which these skills have been achieved.

Assessment methods

In line with our current General Regulations, the University may offer students alternative assessments where necessary. This includes holding online timed assessments in place of written examinations, which are usually held at examination centres.

For each module students will be assessed by written examination and coursework. Questions are structured to allow students to demonstrate that they have acquired appropriate knowledge and understanding. The way that students manage data, solve problems, evaluate ideas and the organisational skills they use to structure their written answers allows the standard of intellectual and transferable skills to be assessed.

Each mandatory module will be assessed by one two-hour unseen written examination and coursework comprising one or more individual assignments. The weighting ratio between the unseen written paper and the coursework for each mandatory module is 80:20. The written examinations take place on one occasion each year, normally in May/June. These are held at established centres worldwide. The Project will be assessed by the research project and report.

Individual modules

A student may choose whether or not to be formally assessed in the credit bearing individual modules for which they are registered. Students who choose to be formally assessed will be examined in the same way as those undertaking a full award.

Full details of the dates of all examinations are available on the [website](#).

Student support and guidance

The following summarises the support and guidance available to students:

- [Student Portal](#): for accessing student induction, study skills support, careers and employability resources, student wellbeing advice.
- Virtual Learning Environment (VLE): This provides access to materials for each module studied.
- The VLE also includes a range of additional study resources such as:
 - Online discussion areas which allow students to communicate with each other; and
 - Past examination papers.
- [Student Guide](#): This provides information which is common to all students and gives guidance on a range of matters from the start of a student's relationship with the University of London through to their graduation.
- Programme Handbook: This tells students how to access available resources and assessment and examinations procedures. This is found on the [Student Portal](#).
- Module subject guides for each module studied; these introduce and develop the topics.
- The Programme Director at Royal Holloway is available for online consultation to advise students on academic, pastoral and welfare issues.
- Module coordinators, tutors and project advisors provide a back-up system of academic, pastoral and welfare advice.
- Project mentors are designated by the student from their workplace to provide advice and support only on data and software for the Independent research project report (PGM051). The mentor does not participate in the assessment.
- A Departmental Staff/Student Committee for MSc students considers issues raised by students on the MSc or Postgraduate Diploma in Petroleum Geoscience offered through the University of London.
- Access to support services via remote access to Royal Holloway facilities such as the Disability and Dyslexia Services for students with additional learning needs to provide further advice where required.
- [Programme Regulations](#).
- [The Online Library](#): This provides a range of full-text, multidisciplinary databases where journal articles, book reviews and reports can be found.
- University of London library: Registered students may use the resources located within the Senate House Library.
- A University of London email account and web area for personal information management.

There is further information on support and guidance in the [Programme Handbook and Student Guide](#).

Quality evaluation and enhancement

The University of London delivers the majority of its flexible and distance learning programmes through a collaboration between the University of London Worldwide and member institutions of the University of London. However some of the flexible and distance learning programmes draw solely on academic input from the University of London, and are delivered without academic lead by a member institutions. The policies, partnerships (where applicable) and quality assurance mechanisms applicable for the programmes are defined in the following key documents: The Quality Framework, the [Quality Assurance Schedules, Guidelines for Examinations, General Regulations](#) and, for each programme, [programme-specific regulations](#).

Awards standards

All University of London qualifications have to align with the [Frameworks for Higher Education Qualifications of UK Degree-Awarding Bodies](#) to assure appropriate standards for each qualification. In addition, every programme that is developed by a member institution of the University of London (or a consortium with representation by more than one member institution) will be developed to the same standard as would be applied within the institution concerned. Proportionate and robust approval procedures, including external scrutiny and student engagement are in place for all programmes. Learning materials are written and all assessments are set and marked by academic staff who are required to apply the University's academic standards.

Review and evaluation mechanisms

Some of the key mechanisms in place to assure the standards of all University of London qualifications and the quality of the student experience, include:

- Annual programme reports: produced for all programmes in order to review and enhance the provision and to plan ahead;
- Independent external examiners: submit reports every year to confirm that a programme has been assessed properly and meets the appropriate academic standards;
- Annual student information statistics: prepared for all systematic reporting within the University of London;

Improvements are made as necessary to ensure that systems remain effective and rigorous.

Student feedback and engagement

The principal channel for collecting feedback from students is the Student Experience Survey. Carried out every two years, this collects feedback from the student body on a range of topics relating to the student lifecycle. The results are analysed externally and then considered in a number of different ways, including by the programme team, principal committees and the senior leadership team. Details of any resulting actions taken are published on the VLE and the Student Portal.

Additionally, on completion of their programme of study students will be invited to take a survey that seeks to measure what they have gained from their studies.

There are also opportunities for students to get involved in governance. An undergraduate and postgraduate student member is appointed by the University to the majority of committees through an annual appointment round. Some programmes also recruit student members at the programme level. Students are frequently invited to take part in quality review processes such as Periodic Programme Reviews, Programme approval, Thematic Reviews, MOOC review panels and ad hoc focus groups. Opportunities such as these are advertised through social media and on the website. More information can be found on the [website](#).

Students can also apply to join the Student Voice Group, which meets four times a year to consider initiatives for enhancing student experience. Notes from these meetings are published on the Student Portal.

After graduation

Further study

Successful completion of the programme can allow students to progress to a higher level award in the subject area.

Graduate employment routes

At registration, students are asked to complete a small number of questions relating to where they are in their career planning. This data is used to assist with the implementation of employability strategies and interventions.

Graduates of the programme have a very successful record of gaining employment in the oil and gas exploration and production industry in roles ranging from exploration geologists to reservoir engineers and processing geophysicists.

The Alumni Community

Upon finishing a course of study, graduates automatically become part of the University of London alumni community, a diverse global network of more than one million graduates in over 180 countries, providing lifelong links to the University and to each other.

Alumni are encouraged to keep in touch after they graduate and to become active members of the alumni community; in return they receive a number of benefits and services, including an extensive programme of events and engagement opportunities.

More information is available on the alumni [webpage](#).

Follow the alumni community on social media: [Facebook](#), [Instagram](#), [LinkedIn](#)