Our Programmes

MSc Archaeology of the North
MSc Geographical Information Systems
MLE Land Economy (Rural Surveying, RICS accredited)
MSc Integrated Petroleum Geoscience
MSc Oil and Gas Enterprise Management
Why Aberdeen

Founded in 1495, the University of Aberdeen is the fifth-oldest university in the UK, and combines ancient tradition with the best in modern teaching and study facilities. The University has a student population of around 16,000 and a large international community of students drawn from 120 different countries. Ranked in the top 1% of universities in the world, the University has an excellent reputation for teaching quality and research and has had, over the years, five Nobel Prize winners. In the 2008 Research Assessment Exercise (RAE), 90% of Aberdeen’s research activity was assessed to be of international quality and 55% world-leading or internationally excellent.

Aberdeen, Scotland’s third-largest city is a prosperous and attractive city with a population of 250,000. Big enough for the ‘big city’ experience, student-friendly Aberdeen is still small enough to make it easy for students to find their way around and make friends. From the bustling city centre, it is just a short distance to the tranquillity of the nearby hills and countryside of one of the most beautiful parts of Scotland. Aberdeen also caters for all tastes in arts, culture, leisure and entertainment, and communication and travel links are excellent, with an international airport and trains and coaches that connect easily with all parts of the UK and Europe.

At Aberdeen, ancient buildings sit side by side with modern, newly refurbished, first-class laboratories. The spectacular new £57m university library is one of the largest and best equipped in the UK, and computing facilities are up to the minute, hosting the largest wireless campus in Europe.

About the School

The School of Geosciences is formed of a diverse and eclectic collection of academic staff who share an interest in the Earth. In our School we try to answer some of the biggest questions, such as how our planet originated, how humans interact with it, and how we can live on it in a sustainable way. Our research and teaching takes students from the origins of life to the future of transport; from the deepest ocean to the crest of the Himalayas; from Stone Age villages to the canyons of New York City. As we are part of the College of Physical Sciences, we have close working relationships with chemists, engineers, mathematicians, physicists and computer scientists.

Our School is built around three core academic disciplines: Archaeology, Geography and Geology, which all rely on knowledge of the surface of the Earth and how we humans use it; each has a distinct identity and contributes to the School by teaching undergraduate and postgraduate students. Interdisciplinary teaching is encouraged and joint honours degrees are encouraged. The School’s disciplines are united in teaching and researching field-based subjects; we all believe in the value of showing students real-life examples as illustrated by the School motto – The classroom is anywhere; the laboratory is everywhere.
MSc Archaeology of the North

Equipping you with research skills to investigate the material culture and heritage of the far northern hemisphere, a region that includes Scotland, the North Atlantic, Scandinavia and Baltic Europe, northern Russia and the circumpolar region through Siberia, the North Pacific and high-latitude North America.

Department: Archaeology

Duration: 12 months full-time (MSc)
9 months full-time (PgDip)
24 months full-time (MSc)
21 months full-time (PgDip)

Intake: September

English Postgraduate Standard Proficiency: (see ‘How to Apply’)

Entry Requirements
Candidates will normally have a 2:1 Honours level degree or equivalent, preferably in Archaeology or a related discipline. Mature students who do not meet the normal entry requirement but who have appropriate professional experience may also be considered.

Overview
The taught MSc in Archaeology of the North is the only degree of its kind in the world, reflecting the unique research focus of the Department of Archaeology at Aberdeen.

With an emphasis on colonisation and culture contact, lifeways and world-views, every graduate is provided with a thorough knowledge of the theory and practice specific to northern archaeology, together with the foundation for further study or professional employment. In addition every graduate will have acquired detailed competence in a specialist regional or chronological field, chosen from a range of options across the entire northern world.

The degree can be taken as preparation for higher research, as a professional qualification or purely for interest.

Topics Covered
> Northern Worlds
> Northern Cultures and Peoples
> Theories and Methods in Research*
> Advanced Archaeological Approaches in Northern Research*

* Subject to agreement, the course can be replaced with one from a sister discipline, such as Anthropology of the North.

Dissertation
Following successful completion of the taught modules, students are allowed to advance to the dissertation, which involves in depth original research on a topic chosen in consultation with the student’s advisor. Students who complete the taught modules, but who do not wish to write a dissertation, may thereafter be awarded the Postgraduate Diploma (PgDip).

Assessment
Assessment for each taught module is on the basis of one 3000-word essay and one 3000-word project on topics relevant to the course, chosen in consultation with the student’s supervisor. The nature of the project may vary from course to course and include reports, exercises and presentations.

For more information visit: www.abdn.ac.uk/archnorth
Building on 20 years of excellence in postgraduate teaching of remote sensing and GIS this programme promotes the integrated study and application of the geospatial technologies through theory and practice, combining core techniques, practical skills and environmental applications.

Department: Geography & Environment

Duration:
- 12 months full-time / 24 months part-time (MSc)
- 9 months full-time / 20 months part-time (PgDip)
- 4 months full-time / 8 months part-time – over 2 years (PgCert)

Intake: September

English Proficiency: Postgraduate Standard (see ‘How to Apply’)

Entry Requirements
The normal minimum entry requirement is a 2nd Class Honours Degree or equivalent qualification, in Agriculture, Computing Science, Ecology, Engineering, Environmental Science, Forestry, Geography, Geology, Geomatics, Marine and Coastal Science, Physics, Spatial Planning, Plant Science, Zoology or a cognate subject. Candidates with degrees in other subject areas will be considered if they can demonstrate interest, aptitude and experience in a field relevant to the application of geospatial technology.

Overview
Aspects of geospatial technologies are of increasing importance in many areas of employment concerned with the landscape, for example in national and local government (where the appearance of ‘Geodata Service Units’ is increasing), in nature conservation agencies, in hydrocarbon exploration and oilfield management, in environmental consultancy, civil engineering projects and marine and coastal zone management.

In recent years the demand for courses in Geographical Information Systems (GIS) and the related technologies has grown considerably. A recent survey suggests that demand by employers for graduates with skills in the application of geospatial technology will continue to grow particularly in the practical application of spatial knowledge and understanding to environmental problems.

The Geographical Information Systems programme covers the fundamentals of techniques and tools for acquiring, storing, processing, classifying, visualising and analysing spatially referenced data of the Earth, and their application to the study of the Earth. This includes databases, Global Positioning Systems (GPS), digital mapping and cartography, airborne and satellite remote sensing, digital image processing, Geographical Information Systems, Internet mapping, field data capture and mobile GIS.

The programme draws upon a wide range of international, national, and local expertise in the coastal and marine sciences, landscape ecology and landscape change, coastal management, renewable energy, geology and hydrocarbon exploration, risks and hazards, spatial planning, cartography, field data collection, and archaeology.

Topics Covered
- Introduction to Database Systems
- Fundamentals of Geographical Information Systems, and Spatial Analysis
- Fundamentals of Cartography, Map Design and Geovisualisation
- Fundamentals of Image Acquisition, Analysis and Processing
- Research Design and Methods
- Applied Image Analysis and Processing
- Current Issues and Applications of the Geospatial Technologies
- Applied GIS Project Planning & Spatial Analysis

Dissertation
Students who complete the programme at an appropriate standard will be permitted to take the dissertation in Geographical Information Systems. Those leaving with a Postgraduate Diploma will complete a project report instead.

Assessment
Assessment is by a combination of written assignments and laboratory reports as prescribed for each course, summative written examinations covering the four courses in the first half-session, and a dissertation (M.Sc. candidates) or a project report (Diploma candidates). An oral examination is also required.
Teaching
Teaching in the first half-session is by a combination of illustrated lectures, practical demonstrations and student-led seminar discussions on pre-arranged topics. During the second half-session the balance changes towards more student-centred learning making use of internet resources, group practical work and lectures/seminars with experts in a range of application fields.

Careers
The Geographical Information Systems programme continues to have a very successful employment record in the commercial sector, environmental agencies, local and national government, research, and academia, with a wide range of jobs from environmental consultancy, project officers, programmers, sales managers to researchers.

Students are also encouraged to join a professional society such as the Association for Geographic Information (AGI), the Remote Sensing Society (RSS), or the British Cartographic Society (BCS). Career opportunities are highlighted through site visits, guest lectures, and chances to work with organisations as part of the Diploma Project or M.Sc. Dissertation. This programme provides students with the practical experience, specialist knowledge and problem-solving skills to pursue careers in any of these fields.

For more information visit www.abdn.ac.uk/gis
MLE Land Economy
(Rural Surveying, RICS accredited)

Fully accredited by the Royal Institution of Chartered Surveyors (RICS) in Rural Surveying/Rural Property Management, this programme is a fast track course for graduates seeking entry into the Rural Professional Group of the Royal Institution of Chartered Surveyors (RICS).

Department: Geography & Environment

Duration: 12 months full-time (MSc)
9 months full-time (PgDip)

Intake: September

English Postgraduate Standard Proficiency: (see ‘How to Apply’)

Entry Requirements
The MLE (Rural Surveying) programme is designed for graduates from any discipline. Our minimum entry requirement for this programme is a UK Honours degree (or an honours degree from a non-UK institution which is judged by the University to be of equivalent worth) at a 2:2 (lower second) class or above. Mature students who do not meet the minimum entry requirement but who have appropriate professional experience will also be considered.

Overview
This is the only programme of its kind in Scotland accredited by the Royal Institution of Chartered Surveyors (RICS), allowing graduates to proceed to the RICS Assessment of Professional Competence and full professional membership of the RICS.

Land Economy (Rural Surveying/Rural Property Management) is concerned with the management of land and its resources, rural businesses and their associated activities and interests. This postgraduate degree provides a range of knowledge and skills e.g. land management, public policy, law, planning, economics, and valuation, integrated to meet the future challenges facing landowners and land managers. Understanding of traditional land management (agriculture, forestry, sporting) and emerging land uses (environmental and conservation activities, countryside access and leisure, steading conversions, telecommunication masts and wind turbines) is combined with an understanding of the business skills necessary for successful decision-making and rural business management. As a rural land and business manager the student/graduate is concerned not only with practical land management but also with the financial, legal, planning, and policy contexts within which decisions are made and business interests managed.

Topics Covered
- Land and Environmental Economics
- Forestry and Game Management
- Agricultural Principles and Practice
- Planning Land and Environmental Law
- Valuation for Rural Surveyors
- Rural Business Management
- Rural Policy in Practice
- Research Methods
- Dissertation (Masters students only)
- Case Study (PgDip students only)

Highly qualified and motivated staff will teach you, including those with considerable practical experience. A variety of teaching and assessment methods are used. All courses involve lectures, seminars and project work although the relative balance varies as you progress through the programme. Courses typically involve two or three hours of lectures. There are half-day, whole day, and four day field visits (for example, to Highland estates) for general experience and in relation to specific assessments. These regularly involve leading practitioners in the field. Project-work includes a mix of individual and group exercises. Residential field visits include a group project based visit to a national park.

Assessment
Courses are assessed via submitted coursework and written examinations. As you progress greater emphasis is placed on the application of knowledge and skills, project work increases and examinations are fewer. Projects focus on local estates, rural businesses, and farms and are designed to incorporate the types of task expected in the workplace.
Careers
Graduates have the option of entering a career in chartered surveying (Rural or Environmental Professional Groups) having already made progress towards their APC (Assessment of Professional Competence). Career options include such areas as land agency, estate management, countryside management, and rural policy and development. Diploma and Masters graduates in Rural Surveying are particularly highly sought-after by the leading land agency firms throughout the UK: Smiths-Gore, Strutt and Parker, Bidwells and Savills to name but a few. Many of these firms visit the Department as part of their annual recruitment strategy. Other graduates have secured employment with landed estates (Buccleuch Estates, Moray Estates, Strathmore Estates, Dunecht Estates), conservation bodies (SNH, RSPB) and public authorities (National Parks, Local Authorities).

For more information please visit www.abdn.ac.uk/landeconomy
Regarded as perhaps the best of its kind in the world, this programme has been running since 1973, and has achieved an excellent reputation as one of the top vocational training pathways.

Department: Geology & Petroleum Geology

Duration: 12 months full-time (MSc)

Intake: September

English Proficiency: Postgraduate Standard (see ‘How to Apply’)

Entry Requirements
Our normal, minimum entry requirements for this programme is a degree, or equivalent qualification at 2.1 (upper second class) or above, in Geology, Geophysics or in combined honours containing a minimum of 50% earth sciences modules.

Overview
"When I think of the applied geology departments in the world, the University of Aberdeen is in the top 5."
Professor Paul Weimer, President of the American Association of Petroleum Geologists; August 2011.

Graduates of the MSc Integrated Petroleum Geosciences degree are highly sought after by industry, illustrated by the fact that nearly all our MSc students have industry based final projects. The training offered in this programme is also an ideal springboard into a career based on further research at PhD level and above.

Students learn the geoscience skills needed for hydrocarbon exploration and production, so that course graduates are ready to embark upon a petroleum industry career. In particular, the programme provides an all-round preparation for a wide-range of employment in a mobile, dynamic, wealth creating industry, and to show how integration of information across discipline boundaries can provide solutions to industrial problems.

Through the programme students also develop the knowledge needed to communicate with and work alongside specialists in the other engineering and scientific disciplines involved in hydrocarbon exploration and production, in small, multi-disciplinary teams.

We also aim to ensure students enhance their inter-personal and transferable skills which are of relevance to the hydrocarbon industry today; developing presentation and report-writing skills; team working abilities; stimulating creative thinking and problem-solving ability; and fostering initiative and self-discipline.

Topics Covered
The programme recognizes the increasingly diverse backgrounds of the students, as more first degree programmes are modularised with significant non-geological components. The programme content is designed as far as possible to fill in the gaps for such students, although we rely on the students to work at making up for their own weaknesses, under our guidance. Numeracy skills are important; we advise students to assess their own needs for additional training.
Components of the course focus on all aspects of upstream geoscience, from initial exploration for new prospects, through field appraisal and development, to maximising recovery from mature and declining fields. Topics covered include: seismic interpretation, petrophysical analysis, geochemical evaluation, sedimentology, structural analysis, and reservoir modelling. Skills in the analysis of the subsurface are further developed by field work on outcrops and by hands-on experience with core logging.

These topics are grouped under the following teaching areas:

> Geophysics and Petrophysics
> Applied Sedimentology
> Production Geology
> Regional Exploration
> Professional Skills incorporating International Field Trip
> Final Project

**Assessment**

Practical work, projects and reports are assessed continuously throughout the programme with written examinations being held in January and April on the preceding Term's curriculum. An oral examination will also be held. Candidates will be expected to present a final report on a relevant and approved major topic.

**Careers**

Over the last decade, more than 95% of the MSc graduates have immediately been employed in the oil industry or gone straight on to funded PhD research. The industry does, however, have a crudely cyclic recruitment pattern, and employment prospects fluctuate with the oil price and global politics. The trend of the oil majors in the early 1990s to “down-sizing and outsourcing” saw a shift in first destinations of our graduates towards the service and consultancy sector. At present the oil majors are desperately short of qualified staff, so have increased direct recruitment of MSc graduates.

For more information visit [www.abdn.ac.uk/ipg](http://www.abdn.ac.uk/ipg)
MSc Oil and Gas Enterprise Management

Encompassing modules in the latest science and technology in geology, geophysics and engineering, entrepreneurial and negotiation skills, petroleum economics, psychology, accountancy, safety engineering and environmental sciences, this programme places emphasis on the practical application of studies, technology, lateral thinking and management techniques.

Department: Geology & Petroleum Geology

Duration: 12 months full-time (MSc)
9 months full-time (PgDip)

Intake: September & January

English Proficiency: Postgraduate Standard (see "How to Apply")

Entry Requirements
Our minimum entry requirement for this programme is a Honours degree at a level of Upper Second-Class (2.1) or above, or its international equivalent, preferably in Geology, Geophysics, Engineering, Law, Economics, or other relevant degree.

Overview
"When I think of the applied geology departments in the world, the University of Aberdeen is in the top 5." Professor Paul Weimer, President of the American Association of Petroleum Geologists; August 2011.

The MSc in Oil and Gas Enterprise Management provides a broad training in oil industry matters; especially those pertaining to how relatively small oil companies can work with National Oil Companies (NOCs) and energy ministries to better exploit their hydrocarbon resources. In this respect training in commercialisation, economics and law will be important, as will an understanding of how science and technology can be applied at the cutting edge to improve hydrocarbon exploration success and recovery.

The target audience for this programme are geologists, engineers and business managers working in NOCs and energy ministries, but the course would equally appeal to graduates and professionals seeking to increase their knowledge, skills and qualifications.

Aberdeen is one of the world's Oil and Gas capitals. Its geographic position has maintained its dominance of the European hydrocarbon exploration and production environment for many years. The city has the highest population of Oil Industry professionals in all sectors, and rivals Calgary, Jakarta and Houston. The University of Aberdeen is the premier location for Industry contact for research and education. With so many industry-funded staff members, and with large numbers of outstanding professionals at hand, we are in the enviable position to educate personnel who wish to have accelerated learning in the Oil Industry.

Topics Covered
The MSc in Oil and Gas Enterprise Management covers a broad range subjects and courses in order to encompass all the aspects related with the oil industry environment. Students will be presented with all of the business drivers in these areas of technology, from exploration, appraisal through production and decommissioning. World experts in all of these areas of expertise are on our doorstep in Aberdeen. Environmental, human and cultural impact of the oil industry is presented, and safety engineering and issues, using a series of case studies, is included. Students will be expected to research beyond each of these areas and produce papers reviewing aspects of technology and how it impacts on the business.
Key areas covered include:
> Spatial Planning and the Energy Sector
> Finding Oil: Geoscience in Exploration & Production
> Overview of the Energy Industry
> Engineering from Borehole to Surface 1
> Engineering from Borehole to Surface 2
> Portfolio Optimisation
> Fiscal Systems, Commercial Law & Reporting
> Dealing & Negotiation
> Reservoir Characterisation
> Dissertation In Hydrocarbon Enterprise

Highly trained individuals with an international experience unparalleled in any other research centre teach these areas. The emphasis is on practical application of studies, lateral thinking and management techniques. Many of the courses include 'games' spread over several days which require team and negotiating skills, as well as a knowledge of technology and economics, which draw the various courses together. Team-building, geological fieldwork and an offshore safety course are all part of the course.

We take advantage of our position as the European Oil Capital by organising a series of excursions to examine aspects of the Oil Industry and the geology of the North Sea.

**Assessment**
Assessment is by assessed practical exercises, written examinations and submitted research papers & essays.

**Careers**
Our graduate employment record is one of the best in the country with Aberdeen trained geologists working in every part of the world, many in prominent positions within industry and academia.

For more information visit [www.abdn.ac.uk/ogem](http://www.abdn.ac.uk/ogem)
How to Apply

To apply please visit www.abdn.ac.uk/postgraduate/apply

Complete application forms must consist of:
> A completed Postgraduate Application Form
> Academic transcript to date (and degree certificate if graduated)
> Proof of proficiency in English

All international students, even if you have been educated in the medium of English, must meet our English Language requirements. All Engineering programmes require that you meet the ‘Postgraduate Standard’ level of English proficiency. For more information please visit www.abdn.ac.uk/international/english

If your first language is not English, it is important that your proficiency in English is good in order for you to study successfully at the University of Aberdeen. Without this ability you will find great difficulty in understanding lectures, producing written work and sitting examinations.

If you are in doubt about your proficiency in English, contact the British Council office or its equivalent in your country.

The majority of our programmes require ‘Postgraduate Standard’ level of English; however, you should note that our Geology & Petroleum Geology programmes require English proficiency to be at the ‘Postgraduate Higher’ level.

> One Academic Reference
  > A reference is only required if your first degree is from outwith the UK.
  > If you hold a recent degree from a UK institution you do not need to supply references.
  > If you have graduated some time ago and/or are applying based on relevant experience an employer reference is acceptable in place of an academic reference.

The College of Physical Sciences Graduate School is there to assist with every step of the Admissions Process and also administers many of the funding opportunities available to students. If you are in any doubt concerning any aspects of your application, or have any questions relating to postgraduate Engineering programmes please don’t hesitate to get in touch:

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www.abdn.ac.uk/cops/graduate

Finance and Funding

> Tuition fees will depend on your domiciled status. For up-to-date information on fees visit www.abdn.ac.uk/registry/tuitionfees

> Our Funding Database is the quickest and easiest way to search for any funding sources that may apply to you

> Graduates of the University of Aberdeen can take advantage of our Alumni Discount Scheme

For full information on funding opportunities available at the University visit www.abdn.ac.uk/postgraduate/funding
COME HERE.
GO ANYWHERE.

For more information:
Visit: www.abdn.ac.uk/cops/graduate
Tel: +44(0)1224 272655
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