

GO BEYOND BOUNDARIES



School of Geosciences Postgraduate Guide

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Archaeology

-> GLOBAL TOP 100 PROGRAMME FOR ARCHAEOLOGY

(QS World University Rankings by Subject 2024)

MSc Archaeology

Programme Overview

The MSc in Archaeology provides an 'umbrella' programme to appeal to archaeology students from a range of backgrounds interested in pursuing specific archaeological subjects under the banner of a broad degree designation.

Teaching is research-led and ties into current projects run by the staff at the department, who are prominent researchers and fieldworkers in Northern Europe, Scandinavia, Northeast Asia, the North Atlantic and the circumpolar region from Siberia to the Canadian Arctic.

You will learn about theory and method in archaeological research. The flexibility of our offering means you can choose courses based on your interests, such as Viking archaeology, museum studies, bioarchaeology, osteoarchaeology, and palaeopathology. You can also learn key Geographical Information System (GIS) tools and techniques used in archaeology, and develop practical skills in cartography and geo-visualisation.

The University's extensive museum collections present unique opportunities to explore contemporary issues around the preservation and communication of archaeological finds, particularly in relation to osteoarchaeology.

This programme can be taken as preparation for higher research, as a professional qualification, or purely out of interest. This programme is also appropriate as a conversion course for students new to archaeology but with a background in a cognate discipline.

Careers

An Archaeology degree can be the gateway to many other professions, and the training in analytical and communication skills acquired by our graduates make them employable in a wide variety of fields including industry, commerce and research. The degree also forms a strong foundation for PhD research.

A significant percentage of graduates are employed in private or university-based archaeological units and consultancies. These professionals are responsible for mitigating the impact to archaeological sites in relation to different forms of development.

Other graduates go on to research, teaching and curatorial posts in universities, museums and private institutions and work in a range of areas from interpreting ancient environments to communicating archaeology to the public. In addition to more traditional occupations, a growing number of Archaeologists are now employed by a range of governmental and nongovernmental heritage organisations.

Start Dates

September

Mode of Study/Duration

Full-time/12 months Part-time/24 months

Further Information

For the latest information on courses offered on this programme, please refer to www.abdn.ac.uk/pgt/archaeology

MSc Archaeology of the North

Programme Overview

The MSc Archaeology of the North is the only programme of its type in the world, investigating the material culture and heritage of the far northern hemisphere, a region that includes Scotland and the North Atlantic, Scandinavia and Baltic Europe, high latitude North America, and Northeast Asia.

With an emphasis on colonisation and culture contact, lifeways, and worldviews, this programme will help you develop a thorough understanding of the theory and practice specific to northern archaeology, as well as a strong foundation for further study or professional employment. You will also develop a detailed competence in a specialist regional or chronological field, chosen from a range of options across the entire northern world.

The University of Aberdeen is an excellent location to study archaeology due to the vast number of archaeologically significant locations in Aberdeenshire, and the Highlands and Islands. Aberdeen is just a ferry ride away from UNESCO World Heritage Sites on Orkney and Shetland.

Careers

An Archaeology degree can be the gateway to many other professions, and the training in analytical and communication skills acquired by our graduates make them employable in a wide variety of fields including industry, commerce and research. The degree also forms a strong foundation for PhD research.

A significant percentage of graduates are employed in private or university-based archaeological units and consultancies. In addition to more traditional occupations, a growing number of archaeologists are now employed by a range of governmental and non-governmental heritage organisations. Graduates of the MSc Archaeology of the North programme have moved into a variety of careers including field archaeology, academia, and research. Graduates have also continued their studies at the PhD level.

Start Dates

September

Mode of Study/Duration

Full-time/12 months Part-time/24 months

Further Information

For the latest information on courses offered on this programme, please refer to www.abdn.ac.uk/pgt/archaeology-north



MSc Bioarchaeological Science

Programme Overview

Bioarchaeological Science is at the forefront of the scientific study of the human past. This programme incorporates the study of human osteoarchaeology and palaeopathology along with the advanced study of human remains through genetic and isotopic analysis. You will learn the latest scientific techniques for the extraction, analysis and presentation of DNA, protein, stable isotope and lipid data.

This programme draws on the Archaeology Department's expertise in human osteology to enable you to develop the knowledge and skills required to identify and interpret human remains from archaeological deposits. In addition, you will learn how the study of ancient genes and genomes through the use of techniques such as next-generation sequencing and population genetics is transforming our understanding of the human past, human evolution, and the biohistory of other species.

You will also learn the theoretical knowledge and practical skills needed in order to identify and interpret palaeopathological changes observed in archaeological human remains and to understand what these changes can tell us about ancient diseases.

This MSc covers the knowledge and skills pertinent to the study of ancient remains and is aimed at students interested in pursuing biomolecular archaeology professionally. However, the skills you will develop over the course of this programme have multiple applications beyond archaeology, making it suitable for students with a background in other disciplines including anthropology, earth sciences, genetics, history, and zoology.

Careers

The broad-based nature of archaeology enables graduates to compete strongly in the employment market. Today, archaeologists in the UK work in an increasingly wide range of professions.

Bioarchaeology in particular is a rapidly developing field of study. Upon graduation you will be well-placed to pursue a career as a professional archaeologist, either for archaeology companies or for universities, museums, local authorities, or other heritage sector organisations. The knowledge and skills taught on this programme are highly transferable and also have multiple applications beyond archaeology, for example in medical sciences.

Start Date September

Mode of Study/Duration

Full-time/12 months Part-time/24 months

Further Information

For the latest information on courses offered on this programme, please refer to www.abdn.ac.uk/pgt/ bioarchaeological-science/



MSc Biomolecular Archaeology

Programme Overview

This unique programme combines the study of ancient biomolecules in archaeology with advanced genetic, biomedical and evolutionary research to offer important insights and perspectives on key topics fundamental to human society such as our evolutionary origins, our rich biological and cultural diversity, ancient health and disease, life history patterns, and past responses to environmental and climate change. It also offers insights to similar questions but for other, non-human organisms such as wild and domestic plants and animals.

The MSc Biomolecular Archaeology provides a set of analytical tools important not only for archaeologists, but also for biologists, ecologists, environmental scientists, and biomedical professionals, to gain direct insights to past biological diversity.

With a practical and applied focus, this programme combines cutting-edge biomolecular research with archaeological and evolutionary approaches and methods. Students from a range of backgrounds will be equipped with the theoretical and practical skills required for analysing the most commonly preserved ancient biomolecules, with specific emphasis on palaeogenetics, genome sequencing and bioinformatics.

You will study key cross-disciplinary topics such as human evolution, plant and animal domestication, human diets and migrations, ancient pathogens, and human adaptations to past environments. You will also have the opportunity to learn how biomolecules degrade and preserve in archaeological materials, and how they are extracted and analysed, the strategies and tools used in analysing DNA sequence data. You will also develop your own, original biomolecular archaeology research project with support from specialists in our dedicated laboratories, gaining a more comprehensive understanding of a topic within bioarchaeological science that is of interest to you.

Careers

The broad-based nature of archaeology enables graduates to compete strongly in the employment market. Today, archaeologists in the UK work in an increasingly wide range of professions.

Bioarchaeology in particular is a rapidly developing field of study. Upon graduation you will be well-placed to pursue a career as a professional archaeologist, either for archaeology companies or for universities, museums, local authorities, or other heritage sector organisations. The knowledge and skills taught on this programme are highly transferable and also have multiple applications beyond archaeology, for example in medical sciences.

Start Dates

September

Mode of Study/Duration

Full-time/12 months Part-time/24 months

Further Information

For the latest information on courses offered on this programme, please refer to www.abdn.ac.uk/pgt/biomoleculararchaeology/

MSc Cultural Heritage

Programme Overview

The MSc Cultural Heritage builds on the established archaeological expertise of the University of Aberdeen to provide you with the knowledge and skills to enter the professional world of cultural heritage.

Study heritage institutions and sites in Scotland and further afield to understand the social, political and regulatory frameworks within which cultural heritage professionals operate today. You will learn about current policy and practice and apply your knowledge at heritage sites, working directly with heritage professionals and local communities.

This MSc programme provides essential training in the practical and theoretical elements of culture and heritage and is aimed at those who wish to pursue opportunities in heritage agencies and organisations, professional heritage research units, local authorities, museums or the education sectors.

You will benefit from the close working relationships between the Department of Archaeology and a range of local, national, and international museums, local authorities, agencies, and other organisations within the growing heritage sector. You will also benefit from our location in north-east Scotland, which provides easy access to numerous ancient sites and institutions where you will undertake in situ fieldwork to learn about the key issues in cultural heritage through lively discussions and hands-on exercises.

With three distinct study pathways, the MSc Cultural Heritage allows you to choose optional courses based on your particular interests or career aspirations. Along with developing your knowledge of the cultural heritage sector, you have the opportunity to gain practical experience with the option of a work placement, as well as opportunities to undertake a community heritage project during your studies.

Careers

Upon completion of the MSc Cultural Heritage you are equipped with both the theoretical and practical knowledge and skills needed by employers within the heritage sector, including museums, local authorities and government agencies, historic trusts, and other cultural and conservation bodies.

Graduates of this programme have gone on to roles in curation, archaeology and heritage consultation, teaching, tourism management, and research. This programme also prepares you for further study at the PhD level.

Start Dates September or January

Mode of Study/Duration Full-time/12 months

Part-time/24 months

Further Information

For the latest information on courses offered on this programme, please refer to www.abdn.ac.uk/pgt/culturalheritage/



MSc Osteoarchaeology

Programme Overview

The MSc Osteoarchaeology will equip you with the knowledge and practical skills to unlock the rich stories of the human past, allowing you to understand some of the major trends in the development of human lifeways and societies. By using the unique archaeological collections of the University of Aberdeen combined with the latest osteoarchaeological approaches and techniques, this programme provides students with the knowledge and practical skills to analyse human skeletons from archaeological contexts.

This programme draws on the Archaeology Department's expertise in human osteology to enable you to develop the knowledge and skills required to identify and interpret human remains from archaeological deposits. In addition, you will learn how the study of ancient genes and genomes through the use of techniques such as next-generation sequencing and population genetics is transforming our understanding of the human past, human evolution, and the biohistory of other species.

You will also learn the theoretical knowledge and practical skills needed in order to identify and interpret palaeopathological changes observed in archaeological human remains and to understand what these changes can tell us about ancient diseases.

This MSc covers the knowledge and skills pertinent to the study of ancient remains and is aimed at students interested in pursuing osteoarchaeology professionally. However, the skills you will develop over the course of this programme have multiple applications beyond archaeology, making it suitable for students with a background in other disciplines including anthropology, earth sciences, genetics, history, and zoology.

Careers

The specialist training in analytical and communication skills acquired by our graduates make them employable in a wide variety of fields including industry, commerce and research. The degree also forms a strong foundation for PhD research.

A significant percentage of graduates are employed in private or university-based archaeological units and consultancies. In addition to more traditional occupations, a growing number of archaeologists are now employed by a range of governmental and non-governmental heritage organisations.

Start Dates

September

Mode of Study/Duration

Full-time/12 months Part-time/24 months

Further Information

For the latest information on courses offered on this programme, please refer to www.abdn.ac.uk/pgt/ osteoarchaeology



Geography and Environment

Studies Ist in the uk for each and environmental studies

(Overall Satisfaction, National Student Survey 2024)

MLE Rural Surveying & Rural Property Management

Programme Overview

The MLE is the only Masters programme of its kind in Scotland, accredited by the Royal Institution of Chartered Surveyors (RICS) and designed to allow graduates to proceed to the Assessment of Professional Competence and full professional membership of the RICS.

This programme provides a range of knowledge and skills to meet the future challenges facing landowners and land managers. You will develop a comprehensive understanding on land management, public policy, law, planning, economics, and valuation as they pertain to rural surveying and rural property management.

You will learn from highly qualified and motivated staff, including staff with considerable practical experience in rural planning and property, agriculture, rural tourism, valuation, planning, environmental projects and diversification.

Through group and individual projects, research, lectures, estate visits, and field work – including a multi-day trip to the Highlands or Lake District – you will gain a comprehensive understanding of traditional land management and emerging and topical issues including environmental and conservation activities, tourism projects, countryside access, diversification and renewable energy initiatives. You will also develop the business skills necessary for successful decision-making and rural business management.

Careers

The programme is designed for students from any discipline. Upon graduation you will have the option of entering a career in chartered surveying (Rural or Environmental Professional Groups) having already made progress towards your APC. Career options include areas such as land agency, estate management, countryside management, and rural policy and development. Graduates with a Rural Surveying Masters are particularly highly sought-after by leading land agency firms throughout the UK such as Strutt and Parker, Bidwells, and Savills.

Graduates of this programme have secured employment with landed estates including Buccleuch Estates, Moray Estates, Strathmore Estates, and Dunecht Estates; conservation bodies such as Scottish Natural Heritage and Royal Society for the Protection of Birds (RSPB); and public authorities including national parks and local authorities.

Start Dates

September

Mode of Study/Duration

Full-time/12 months Part-time/24 months

Further Information

For the latest information on courses offered on this programme, please refer to www.abdn.ac.uk/pgt/mle



MSc Geographical Information Systems

Online Study Available

Programme Overview

Geospatial technologies are of increasing importance in many areas of commercial, industrial, and government employment, including nature conservation agencies, civil and coast engineering projects and marine and coastal zone management. As a result, the demand for courses in Geographical Information Systems (GIS) and related technologies has grown considerably.

Building on 30 years of excellence in postgraduate teaching of remote sensing, GIS, geo-visualisation, digital mapping and cartography, this programme promotes the integrated study and application of the geospatial technologies through theory and practice.

You will gain a comprehensive understanding of fundamental GIS techniques, tools, and geovisualisation, and data processing, and their application to the study of the environment. You will also develop skills in remote sensing, online mapping, database design, spatial analysis, and programming, all of which are in high demand across multiple industries worldwide.

Throughout the programme you will use state of the art tools and techniques such as satellite imagery, hydrographic data, UAV image data acquisition, digital image processing software, soft-copy photogrammetry, mobile GIS mapping and spatial apps. You will also benefit from the University of Aberdeen's location; based in the north-east of Scotland, we are in close proximity to some of the most environmentally important and geographically varied landscapes in the whole of the UK, including the Cairngorms National Park.

You will have the opportunity to engage with industry professionals through

our close working relationships with organisations including Andrews Survey, Fugro, Shell, Chevron, EGCP Ltd, Esk River and Fisheries Trust, Aberdeen Harbour Board, SEPA, Scottish Natural Heritage (SNH), Caringorms National Park, James Hutton Institute, and the Crown Estate.

Careers

The demand for professionals with geospatial skills continues to grow across a number of sectors including urban development and planning, environmental management, agriculture, energy, government, and beyond. This programme focuses on developing several key GIS skills in demand by employers, and acquiring practical experience and specialist knowledge, so you will be wellplaced to pursue a career in a variety of fields upon graduation.

Graduates have gone on to work in a variety of roles in the commercial sector, environmental agencies, local and national government, research and academia, in roles including project officer, programmer, sales manager, GIS engineer, senior consultant, GIS specialist, and project manager.

Start Dates September/January

Mode of Study/Duration

On campus Full-time/12 months Part-time/24 months **Online** Part-time/24 months

Further Information

For the latest information on courses offered on this programme, please refer to www.abdn.ac.uk/pgt/gis

MSc Sustainability Transitions

Programme Overview

This programme is designed to train the future generation of innovators and thinkers who have the passion and ambition to deliver on the UN's Sustainable Development Goals and become true sustainability leaders which the world needs.

While societies and economies are embarking on complex transitions to more sustainable practices in order to mitigate climate change and address contemporary environmental challenges, there is a shortage of leaders with the necessary skills and knowledge to take this agenda forward and help make the world a more sustainable place. Such transitions require corresponding changes in governance structures, institutional frameworks, legal regulations, public perception and consumption patterns.

This programme provides a comprehensive understanding of what sustainability transitions entail, covering a wide range of the economic, technological, policy, and social challenges faced by different sectors in different parts of the world.

You will be taught by experts in a range of fields including energy transitions, coastal management, land management, tourism, and transport. Your studies are supplemented by multiple field trips and visits to organisations that champion sustainable practices, which helps you to engage with government, industry and business.

Careers

Each industry, community, region, and country faces sustainability challenges of a different kind, with the need to reconcile numerous conflicting objectives often remaining the most serious one. Never before has the world needed qualified professionals to lead transitions to sustainability more than now. Upon completing this programme you will possess the analytical, interdisciplinary and problem-solving skills that will make you well-placed for a sustainabilityfocused career across a range of sectors. Previous graduates have gone into roles in construction services, transportation, health and leisure, consultancy, energy, NGOs, and beyond.

Start Date

September/January

Mode of Study/Duration

Full-time/12 months Part-time/24 months

Further Information

For the latest information on courses offered on this programme, please refer to www.abdn.ac.uk/pgt/sustainabilitytransitions/



MSc Sustainable Water Management

Programme Overview

Our water systems are under increasing pressure from a variety of sources, including climate change, population growth, and waste. At the same time, water is fundamental to many of the UN's Sustainable Development Goals including climate, energy, the environment, food security, equality, and health.

The MSc Sustainable Water Management is designed to equip you with the tools to tackle the complex environmental and socio-economic challenges related to water resource management, from flood management and hydraulic modelling to climate resilience and ecosystem-based adaptation.

With three pathways available, you can choose your courses based on your particular interests:

Hydrological sciences pathway – focuses on the technical and environmental science skills

Water and Society pathway – focuses on the socio-economic aspects of sustainability

Open pathway – a combination of both hydrological sciences and socio-economic aspects

This MSc programme is founded on the School of Geosciences' strong international profile in hydrology and water resource management. You will also avail of the excellent interdisciplinary strengths in areas of water science, policy, and water resources law through optional courses offered by other Schools across the University.

Careers

The global water crisis is worsening in part because of a shortage of water professionals, with an estimate that the world will fall short of at least 10 million water professionals in the coming decade. The strong interdisciplinary focus of this programme is ideal preparation for a career in the expanding water sector, where a wide variety of career opportunities can be found across the public, private, and charity sectors.

Water management career opportunities are found with government, regulators, and environmental and conservation agencies involved in river and coastal maintenance, flood defences and flood warning systems such as the Environment Agency (England and Wales) and the Scottish Environment Protection Agency (SEPA). Career opportunities can also be found in environmental consultant, NGOs, policy transformation, and charities working on sustainable development projects around the world.

Start Dates

September

Mode of Study/Duration

Full-time/12 months Part-time/24 months

Further Information

For the latest information on courses offered on this programme, please refer to www.abdn.ac.uk/study/pgt/swm/



Geology and Geophysics

→ 1ST IN THE UK FOR EARTH SCIENCES

(Overall Satisfaction, National Student Survey 2024)

MSc Geophysics (with Pathways)

Programme Overview

Developed in response to a recognised need for qualified geophysicists, this programme equips students with the skills for careers in the energy transition, hydrocarbon and minerals exploration, renewable energy, environmental sciences, earth data science and machine learning, and associated service industries, or broader geophysics research.

There are two pathways available:

- Geophysics Pathway for those interested in a career in a broad range of industries with advanced geophysics activities (primarily energy sector, environmental and construction sectors, marine exploration) or in geophysics research (through PhD)
- Energy Resources Geophysics Pathway – for those interested in a career in the energy industry (either fossil fuels or renewables), consultancy, government or policy

You will learn from experienced geophysics staff and key industry experts, delivered in world-class facilities with dedicated teaching and study space and through fieldwork.

You will explore the theory of geophysics and its application to a multitude of research and industry problems across a variety of scales while gaining hands-on experience in using a variety of geophysics equipment including broadband seismometers, seismic reflection/ refraction, ground penetrating radar, resistivity tomography, magnetometers and differential GPS.

Careers

Successful completion of the MSc Geophysics (with Pathways) will enhance your employability with oil and gas operators, mineral exploration companies, dedicated geophysics service companies related to renewable energy, civil and environmental engineering, and beyond. A majority of our graduates have gone into a geophysics industry career or continued education at the PhD level, with other graduates employed in digital technology, consultancy, and other sectors. Potential careers include data analyst, environmental consultant, exploration geoscientist, marine geophysicist, seismologist, and more.

Start Dates

September

Mode of Study/Duration Full-time/12 months

Further Information

For the latest information on courses offered on this programme, please refer to www.abdn.ac.uk/pgt/geophysics



MSc Integrated Petroleum Geosciences

Programme Overview

Running since 1973, the IPG programme is internationally regarded as one of the top vocational training pathways into the energy industry.

Based in the heart of the UK energy sector, this programme provides world-renowned training in the practical and technical skills required by the global hydrocarbon exploration and production industry. Input and support from the energy industry, including major oil and gas operators, ensures the IPG programme remains current and relevant, particularly as we move forward toward Net Zero.

The curriculum focuses on all aspects of upstream geoscience, including exploration, field appraisal and development, maximising recovery from mature fields, as well as considerations for repurposing depleted fields for carbon storage. Hands-on field-based study is a crucial part of this programme, with UK and international field trips where you will apply and develop your subsurface analysis and core logging skills.

The close ties between the University of Aberdeen and the energy industry mean you can benefit from industry training and projects, as well as professional mentorship and career networking opportunities from companies such as Equinor, Harbour Energy, Neo Energy, Baker Hughes, Hess and Shell.

Careers

It is clear Hydrocarbons will play an important role in ensuring our energy supply for decades to come and form a crucial role in Net Zero targets. Exploration and production roles will be required going forward meaning this remains a vibrant industry to enter.

By laying down the fundamentals in subsurface investigation, the programme will also equip you with the knowledge to branch into other careers that involve examining the subsurface, including emerging geoenergies such as CCUS.

Over 90% of our graduates have been employed in the oil and gas, energy, and applied industries, or progressed on to funded PhD research. A large number of graduates now hold very senior roles in some of the world's major oil and gas companies.

Start Dates

September

Mode of Study/Duration

Full-time/12 months

Further Information

For the latest information on courses offered on this programme, please refer to www.abdn.ac.uk/pgt/ipg



MSc Oil and Gas Enterprise Management

Programme Overview

This long-established, interdisciplinary programme provides the essential commercial, legal, and scientific skills needed to progress to senior management level positions in the international hydrocarbons industry.

Taught by industry-based experts who bring with them the latest industry trends and techniques, this MSc develops your business, legal and technological skills to provide a thorough understanding of the entire oil and gas lifecycle, from exploration & production (E&P) through to commercialisation, within the broad economic and legal context of the oil and gas industry.

Industry-led teaching is further supported by input from researchers and academic experts from across the University of Aberdeen, including from the School of Geosciences, Business School, and School of Law.

The University's location at the heart of the oil and gas industry means you will benefit from direct access to industry, not only through lectures from industry experts, but also through field trips, site visits and industry-supported projects as well as numerous other networking and careers events that take place in Aberdeen.

Careers

Because the MSc Oil and Gas Enterprise Management covers such a broad range of multidisciplinary courses and incorporates industry-led teaching, you will graduate with a set of high-demand skills applicable to numerous roles and sectors.

Each year over 90% of our graduates on average move into employment or further research, with the vast majority moving into the oil and gas industry. Graduates have gone into roles including procurement engineering, project management, business development, consultancy, commercial law and regulation, and more.

Start Dates

September/January

Mode of Study/Duration Full-time/12 months

Further Information

For the latest information on courses offered on this programme, please refer to www.abdn.ac.uk/pgt/ogem



MSc Petroleum Data Management

Online Study Available

Programme Overview

The MSc Petroleum Data Management has been designed in partnership with industry to meet the growing demand for professional petroleum data managers possessing expertise seen as critical to maximising economic recovery.

The aim of this programme is to provide education and training at a postgraduate level for data managers both working in the petroleum sector or aspiring to work in the sector.

You will gain skills and expertise and be well-placed to move into advanced data management roles that will meet the growing demand and expectations of the global oil and gas industry. More specifically, you will learn to manage the physical and digital data used across the industry to understand and evaluate the subsurface and the petroleum reserves located there.

This programme was established through a partnership between the University of Aberdeen and Common Data Access Ltd, a not-for-profit subsidiary of OEUK, the representative body for the UK offshore energy industry.

Careers

Good data management is key to industry success, and with a tremendous industry growth in data the need for professionals able to manage this is higher than ever. The programme curriculum has been developed with input from industry partners, ensuring that it meets the everevolving industry needs.

Graduates of the MSc Petroleum Data Management have gone into roles including commercial analysis, data consultancy, environmental consultancy, project management, and more.

Start Dates September

Mode of Study/Duration

On campus Full-time/12 months Part-time/24 months **Online** Part-time/24 months

Further Information

For the latest information on courses offered on this programme, please refer to www.abdn.ac.uk/pgt/pdm



MSc Sustainable Energy Geoscience

Programme Overview

Sustainable energy is a rapidly developing area of research and technological innovation. This programme, based in the heart of the UK energy sector, draws on the ground-breaking research being conducted at the University of Aberdeen in geothermal energy, carbon capture and storage, sequestration and other geoenergies to equip students with the subsurface skills required for the rapidly evolving energy transition sector.

Our understanding of subsurface workflows and resources is critical to many of the new clean energy technologies associated with the energy transition, and the growing demand for critical minerals needed to produce clean technologies such as wind turbines, batteries and electric vehicles.

At the heart of this programme is a focus on developing a strong technical understanding of rocks and fluids in the subsurface, and how to model, monitor and verify their presence using geophysical, petrophysical and other techniques.

This knowledge is then applied to a wide range of low carbon energy solutions including sustainable mineral extraction, geothermal flow and subsurface storage. Your learning is enhanced with handson field-based study, with UK and international field trips incorporated into the curriculum.

Careers

Energy companies are diversifying their portfolios to include low carbon energies and technologies such as offshore wind, hydrogen and carbon capture and storage. A number of large-scale low carbon projects are now underway in the UK and around the world, and projects are expected to expand as we move towards a net-zero economy.

The UK government expects 220,000 positions will be required to support the energy transition in the UK over the next 10 years.

The MSc Sustainable Energy Geoscience equips you with the subsurface skills required for the rapidly evolving energy transition sector across multiple themes relating to energy extraction and storage. The skills-based approach will also prepare you for complementary roles such as data analytics and policy evaluation.

Start Dates September

Mode of Study/Duration Full-time/12 months

Further Information

For the latest information on courses offered on this programme, please refer to www.abdn.ac.uk/pgt/sustainableenergy-geoscience



Planetary Sciences

→ 1ST IN THE UK FOR EARTH SCIENCES

(Overall Satisfaction, National Student Survey 2024)

MSc Planetary Sciences

Programme Overview

We live in a time of unprecedented investment and collaboration in space exploration led by the 'big six' space agencies, an ever-growing list of national space agencies, and private companies who are keen to compete in the rapidly expanding spaceflight sector.

The ambitious plans for the following decades include sending humans back to the moon, establishing a colony on Marrs, searching for life near Saturn, sending missions to probe the metalcore of a dead planet, and exploring the hidden ocean on Jupiter's moon Europa. These plans pose significant scientific and technological challenges that can only be overcome through an interdisciplinary approach.

This programme draws on the Department of Planetary Science's diverse expertise to provide you with a detailed understanding of the pioneering research and technological developments that will guide the future development of space exploration.

You will learn from a Department actively involved in current and future missions to Mars, with staff who are involved in the Planetary Protection Boards of NASA and ESA, and the Mars Sample Return Scientific Advisory Team

The interdisciplinary training included in this programme will help you develop key technical research skills needed for a career in deep space exploration such as remote sensing, spectroscopy, and instrument design. These skills may also be applied to other industries such as instrument design, geology, microbiology and environmental sciences, planetary sciences, and data analysis in remote sensing.

Careers

The UK space industry is booming. Findings from the UK Space Agency reveal that as of 2022, year-on-year growth of the UK space sector outpaces the wider economy by 5%.

The growth in the space industry has, however, placed stress on skills supply – the growth in the number of people with the required skills has not kept pace with growth in demand.

This programme will provide you with the key technical skills and subject understanding to become an expert in the space industry. You will also be well-placed for a career in other sectors including environmental consultancy, exploration geology, policymaking and advising, research and academia, or to continue your studies at the PhD level.

Start Dates

September/January

Mode of Study/Duration On campus

Full-time/12 months Part-time/24 months **Online** Part-time/24 months

Further Information

For the latest information on courses offered on this programme, please refer to www.abdn.ac.uk/pgt/planetarysciences Our planetary scientists have developed an instrument known as HABIT (HabitAbility: Brine, Irradiation, and Temperature), which will go to Mars as part of the ExoMars mission. HABIT will, among other things, produce liquid water on Mars to support future exploration of the planet.

Find out more at www.abdn.ac.uk/<u>habit</u>



If you would like more information on studying at the University of Aberdeen, visit abdn.ac.uk/study, email: study@abdn.ac.uk or call +44 (0)1224 272090

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Every effort has been made to ensure the accuracy of the information contained within this guide but it is subject to alteration without notice. The University reserves the right to make variations to the contents or methods of delivery of programmes and courses, to discontinue programmes and courses and to merge or combine programmes and courses. The University is constantly developing new programmes and courses, so please visit our website for the latest information.