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UNIVERSITY OF
ABERDEEN



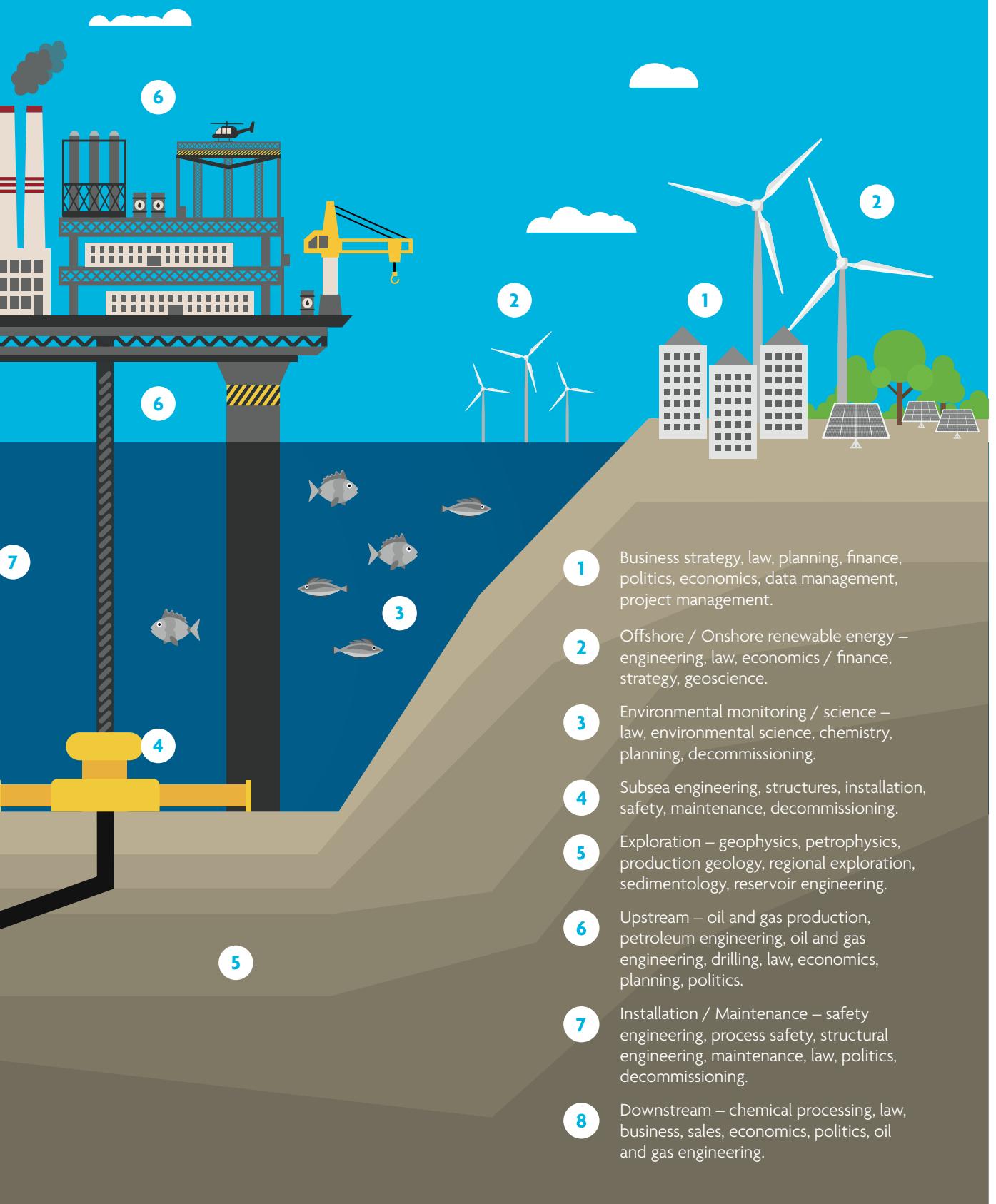
Driving Energy Transition



ENERGY MASTERS
PROSPECTUS 2020

We have a degree programme for every area and to suit every interest.

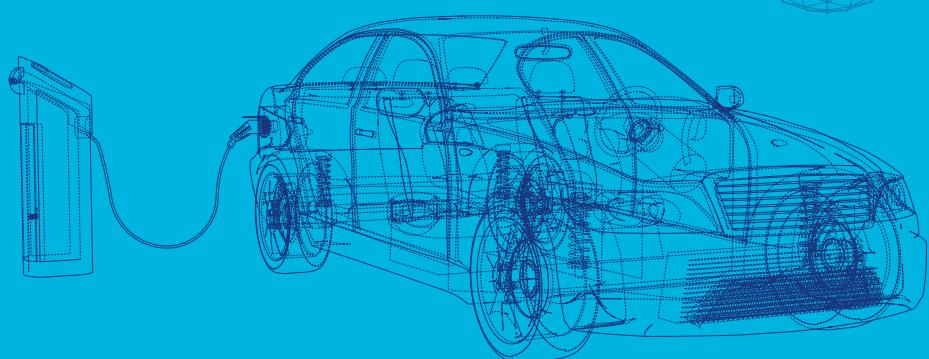




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For more information on the great study opportunities at the University of Aberdeen and how you can propel the next stage of your career visit:
abdn.ac.uk/energy



Introducing the *University of Aberdeen*

Our experience of delivering a wide range of energy-related degree programmes, coupled with our world-class energy-related research and our geographical location in **Europe's Energy Capital**, means we truly can bring our students closer to energy.

We offer energy-related Masters programmes across business, law, engineering, geosciences, natural sciences and computing; in fact we are one of the very few universities in the world to be able to offer such a breadth of programmes, backed up with the academic knowledge and experience.

We are also constantly moving with the industry, by refining programme content and developing new programmes in line with industry demand, ensuring our graduates have a long-term career in their chosen sector and discipline.

Leading the way on energy transition

For over 40 years we have combined our academic excellence with industry expertise to innovate and make positive change for the future of global energy. This tradition continues to this day, as we address some of the major challenges facing the energy sector, including the adoption of new digital technology, decommissioning and late life management and the transition to sustainable energy sources.

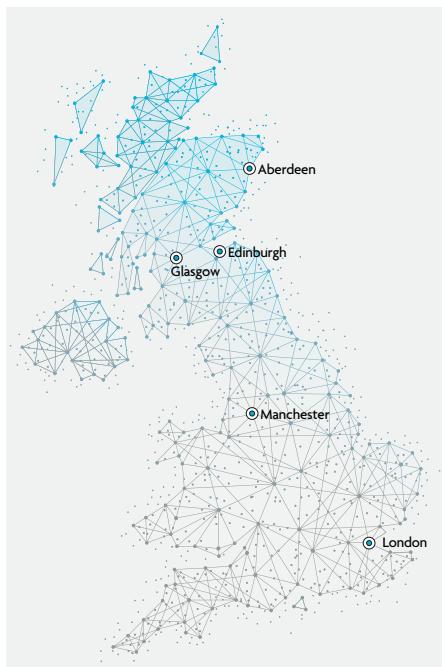
For example, over the next decade, around 100 platforms and 5,700 kilometres of pipeline on the UK Continental Shelf are forecast for decommissioning, presenting a significant technical and operational challenge and a valuable opportunity to develop the capability to meet this demand. The University of Aberdeen has joined forces with the Oil and Gas Technology Centre to create the new multi-million pound National Decommissioning Centre (NDC) to tackle these challenges, through industry-led research and development (see page 9 for more information).

In the area of renewable energy, the University has also recently established multi-disciplinary Centre for Doctoral Training (CDT), with funding from the Leverhulme Trust, to train a new generation of researchers to develop technologies that convert organic waste into sustainable materials.

Aberdeen researchers are also spearheading the development of technology capable of capturing CO₂ from large industrial emission sources, and turning it into valuable carbon-negative industry feedstocks and building materials for use in construction projects. A spin out company, Carbon Capture Machine (UK) Ltd is the sole European entrant to reach the finals of the NRG COSIA Carbon XPRIZE, a major international competition that incentivises the development of breakthrough carbon conversion technologies to reduce global CO₂ emissions.



Aberdeen – a world class *energy* city



Aberdeen has emerged as a truly global energy city since the 1970s, and the early days of oil and gas exploration and production in the North Sea.

Today, the city and its surrounding area is a major international centre of research and innovation in every aspect of the offshore oil and gas industry. Approximately 900 energy-related companies are located in Aberdeen, including most of the world's major internal operators to service companies.

The major technological challenges posed by the North Sea has had a major impact on the global energy industry, as products, services, knowledge and expertise pioneered here have been exported throughout the world.

As a result, Aberdeen is recognised globally as a centre for technological development, innovation and testing, and in particular, a centre of subsea engineering excellence.

In recent years, the non-hydrocarbon based sector has grown significantly across the region, mainly due to the large talent pool of energy engineers and scientists based in Aberdeen and the abundant wind and tidal energy resources off the Aberdeenshire coast.

In August 2016 for example, Hywind, the world's first floating wind farm was installed off the coast of Aberdeenshire by Equinor, while in 2018, work commenced on the European Offshore Wind Deployment Centre (EOWDC) in Aberdeen Bay, featuring the world's most powerful wind turbine.

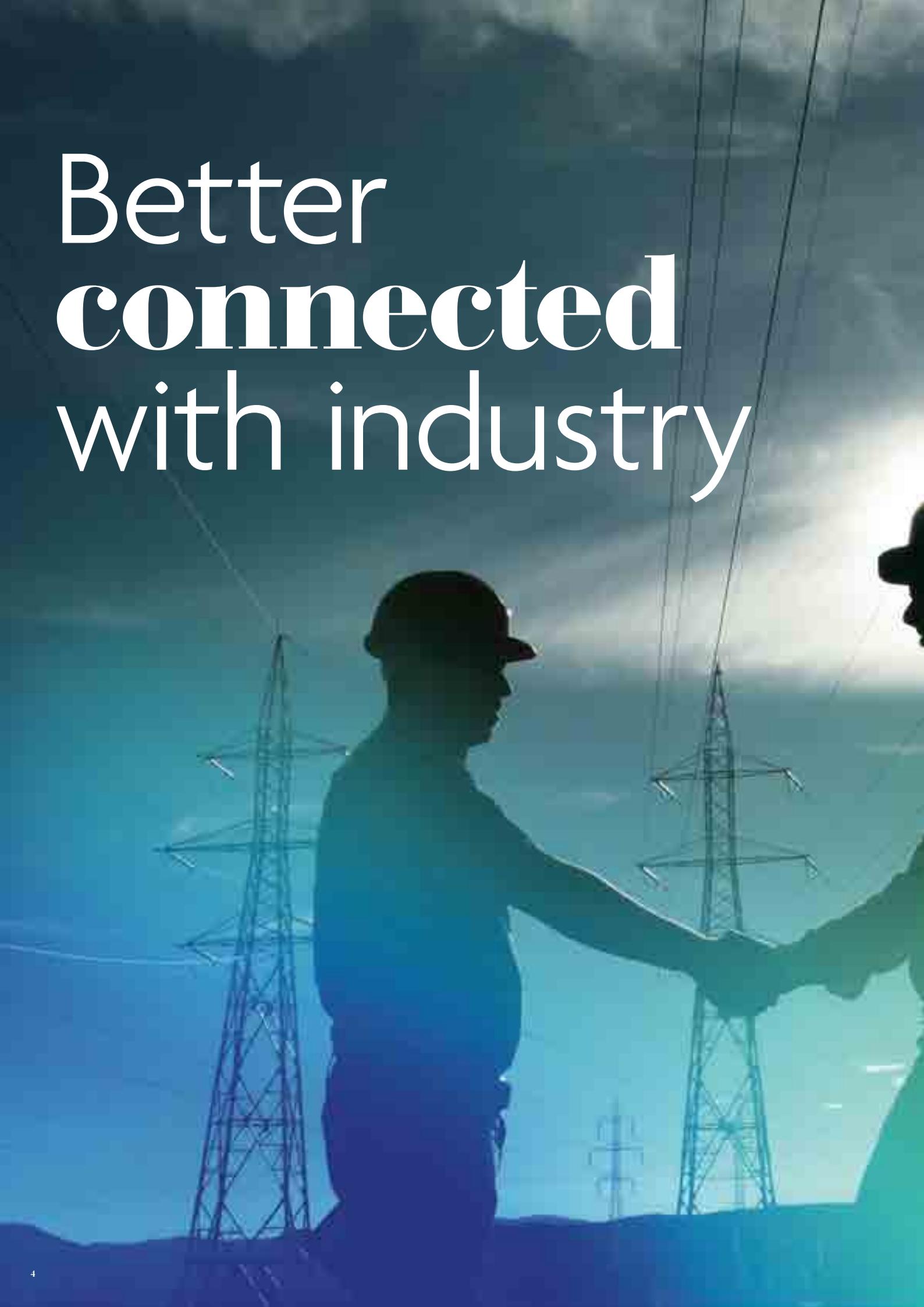
Energy companies with significant operations in Aberdeen include:

- Baker Hughes – a GE Company
- BP
- Chevron
- Dana Petroleum
- Equinor
- Haliburton
- Maersk
- Petrofac
- Repsol Sinopec Resources
- Royal Dutch Shell
- Schlumberger
- Subsea 7
- Total
- Wood

Aberdeen is a key city
that will help support,
drive and grow the
emerging renewable
energy industries.



Better connected with industry





**As an institution
we are unique.**

We have built strong links with industry over a number of years and this directly benefits our students in key areas.



Industry Advisory Boards
supporting degree development



Work placement opportunities



Industry supported student projects



National Decommissioning Centre



Guest lecturing and industry seminars



Industry funded events



Industry visits and workshops

ON-DEMAND LEARNING

Our flexible approach to learning means you can study full-time on campus or choose from a range of more flexible online options to fit around your work or family commitments.

Through online learning, you can study for an internationally recognised qualification, without being on campus. Online learning may be the ideal option for you if you wish to pursue a qualification that is equally as rigorous and valuable as an on-campus programme while studying at your own pace and at times that are most convenient for you.

Online Degrees and Awards

By studying for an online qualification at the University of Aberdeen, you will have all the practical advantages of fitting your learning around your location, work and personal commitments. Our online programmes are taught by the same outstanding academics as our on-campus programmes – the only difference is the flexible mode of delivery.

We use a variety of formats to help you learn, including videos, text, audio and case studies, and you can access various online resources through our award-winning Sir Duncan Rice Library. Communicating with academics, support staff and other students via email, discussion boards and Skype, you will be guided through your programme as you gain skills to take your career to the next level.

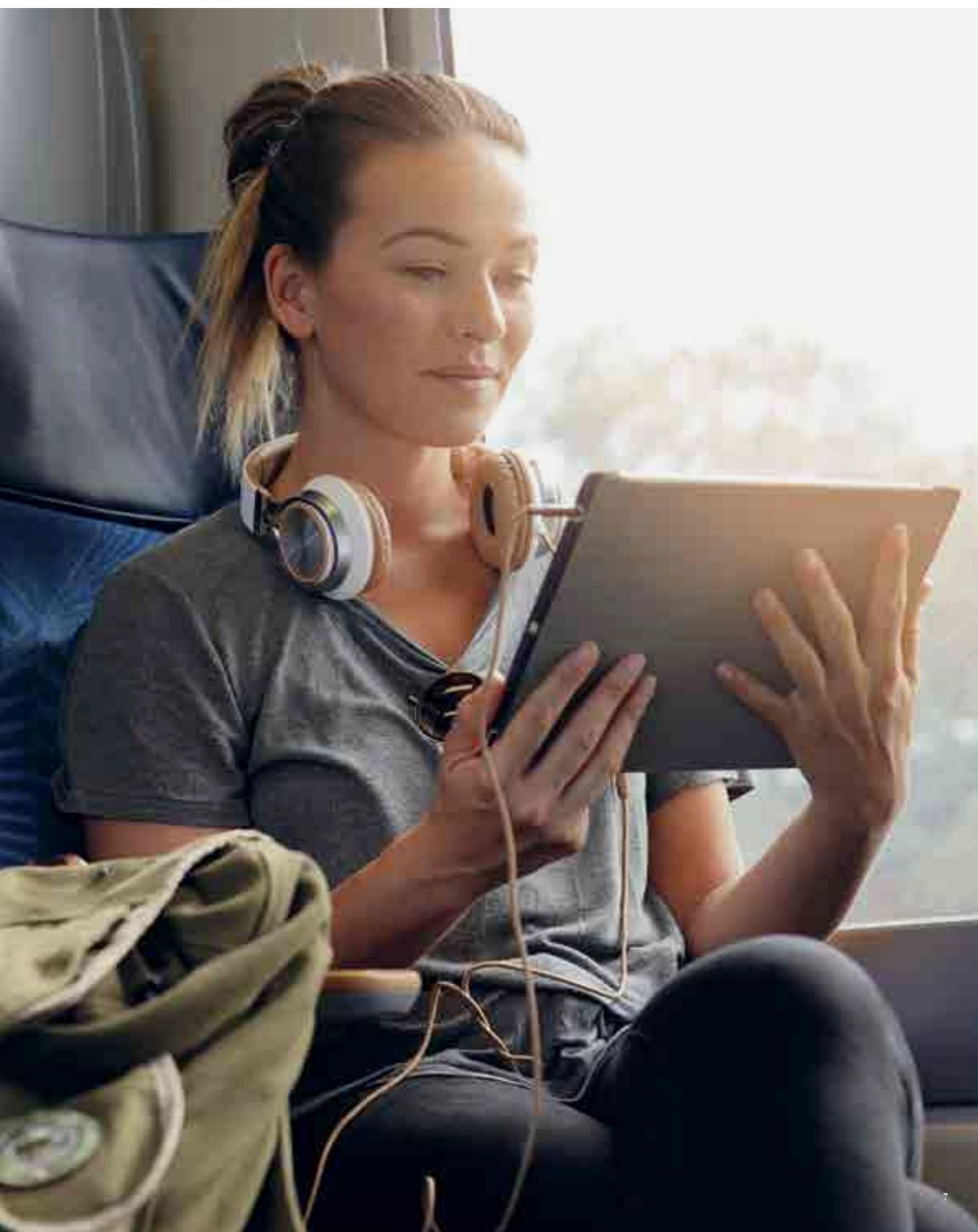
Online Short Courses

Part-time, online and delivered at Master's level, you can learn without having to take time off work or commit to the cost of a full degree. For the most part, course hours aren't fixed, so you can set your own study hours, while some courses are 'always-on', so you can enrol and study whenever you like, 24/7. You can build qualifications, including Master's degrees, one short course at a time.

Students taking individual short courses benefit from the same level of support as those taking full postgraduate programmes, including access to a full suite of learning resources you can access anywhere.

Find out more at on.abdn.ac.uk





The International Study Centre

Pre-Masters Programme

Our Pre-Masters Programme deepens your academic knowledge and improves your English language skills through university-style tuition. You'll also develop your career skills, gain international experience and gain practical tools for professional success.

What are the benefits of the pre-masters?

At the International Study Centre, depending on your English language level, you will study either twelve, seventeen or twenty-two weeks with us. The twelve week Pre-Masters Programme is a combination of academic and English language modules designed to ensure you gain the skills to succeed at a high ranking UK university.

If you need more support in raising your English language levels, the five or ten week Pre-sessional English course will give you intensive English language training so that you are ready to move to the academic part of the programme after five or ten weeks, providing you successfully complete the Pre-sessional course.

Progression to your degree

Following successful completion of the programme, and achieving the required grades, you can progress to your chosen Masters. For the grades required, visit abdn.ac.uk/isc



National Decommissioning Centre



The University of Aberdeen has partnered with the Oil & Gas Technology Centre (OGTC) to establish the National Decommissioning Centre (NDC). This multi-million-pound centre of excellence has been created with the support of the Scottish and UK governments to bring researchers and industry experts together to tackle the engineering, environmental, economic and legal challenges facing industry and government across the decommissioning life cycle, from mature basin management through to late life and decommissioning.

The NDC is based at a dedicated research facility in Newburgh, 10 miles from the main University of Aberdeen campus, where researchers have access to state-of-the-art facilities for the design and development of decommissioning technology.

The NDC's 'hub and spoke' model also supports collaboration between universities, research centres, industry and government agencies across the UK and internationally involving decommissioning technologies, predictive modelling, environmental assessment and the economics of decommissioning.

PhD, Masters and CPD Programmes

The NDC's Skills and Learning programme builds on our research expertise to support all levels of academia and industry, to help create competitive advantage for the oil and gas industry, and for decommissioning challenges in the wider energy sector.

The NDC Doctoral Training Programme is funded jointly by the Oil and Gas Technology Centre, the University of Aberdeen and our industry partners to allow PhD students to undertake integrated training across our research priority areas.

The University of Aberdeen also offers the MSc Decommissioning (see p31), the world's only Master's degree in decommissioning oil rigs, platforms and offshore structures, which provides advanced training in all of the key aspects associated with decommissioning such as engineering, project management, business, law and health, and safety and environment.

In addition, the NDC offers a 2-day accredited CPD course, Introduction to Offshore Decommissioning, which introduces the main principles, processes, considerations and techniques associated with the offshore decommissioning.

Find out more at www.ukndc.com

Introducing *Energy Business*

Our Business School delivers a diverse and flexible range of MSc degree programmes, including a number of hugely popular energy-related degree programmes.

Our MSc Petroleum, Energy Economics and Finance programme is one of the most respected programmes of its kind attracting the very best talent from around the globe each year.

Our MBA Energy Management is designed specifically to help develop business leaders of the future. It is perfectly placed in Europe's Energy Capital to access the relevant knowledge that future leaders will require.

World renowned oil and gas economics expert Professor Alex Kemp, actively teaches on our programmes so you get the chance to learn from the very best.

We are actively connected with the oil and gas, and wider energy industries. This means our students gain access to the latest industry thinking, challenges and solutions.

We have students from over 40 different nationalities studying in the School alone. This creates a positive learning environment and gives you the opportunity to create an international business network.

The programmes

- MBA Energy Management
- MSc Petroleum, Energy Economics & Finance
- MSc Strategic Studies and Energy Security
- MSc Law & Economics of Oil and Gas
- Online Study in Energy Economics and Finance

I'm gaining ***knowledge*** from lecturers who have been there and who have industry ***experience***, not just people who have studied the subject. That ability to teach us about real world situations is crucial.

Gopnauth Bobby Gossai Jr
PhD Economics



MBA ENERGY MANAGEMENT



On-Campus
Programme

Advance your career in this high-growth, profitable global sector with our specialised, industry-focused course. Whether you're already in the energy sector or you have the transferable skills to move into it, this course will give you a competitive advantage.

Our industry-led MBA programme is unique in the UK for developing the next generation of skilled, talented and knowledgeable professionals for higher-level positions within the energy industry. This course will provide you with the knowledge base and necessary analytical skills to understand the major challenges, financial models and decision-making processes that will characterise the energy industry in the coming decades.

Located in the energy capital of Europe, the University of Aberdeen plays a major role in the energy industry through research, consultancy, training and development. The MBA Energy Management was designed in consultation with leading energy industry professionals and organisations to ensure it is aligned with the competencies and skills needs of the industry. Our course has been endorsed by recognised industry bodies such as the Oil & Gas Academy of Scotland and The Energy Institute.

Why Study MBA Energy Management?

This programme enables you to focus your studies across a wide number of areas including Business Strategy, Project Management, Finance, Supply Chain Management and The Leadership Challenge. You will develop your business acumen, problem-solving skills and strategic thinking with a global perspective designed to help accelerate your career in the energy industry. The course will help to:

- Deepen your understanding of key energy industry structures
- Connect you with the key functional areas of energy businesses
- Develop your critical-thinking and strategic decision-making skills
- Sharpen your implementation skills as a leader and team member
- Enhance your global perspective via interaction with your peers

What you will study

The programme is continuously assessed through portfolios of practice-focused assignments. These assignments provide you with evidence of industry relevant skills which will serve as a professional development record, invaluable in supporting your career progression.

How you will study

You will study in a contemporary university environment and experience innovative teaching methods that give you the chance to interact with industry. The taught element of the programme is delivered through an inspiring mix of lectures, workshops, role-plays and simulation exercises. There are no exams – the programme focuses on real-world learning to help you gain relevant knowledge, quickly and effectively – with all assessment carried out through portfolio or work-based assignment.

Core Courses

- Business Strategy
- Operations and Project Management
- Business and Money
- Value and Markets
- The Leadership Challenge
- Business Model Innovation
- Managing Self and Others
- Managing Change

Elective Courses

- Supply Chain Management
- Talking to Teams
- Energy Finance
- Future Energies

The Business School has a track record of delivering MBA programmes for over 10 years.

The MBA Energy Management programme is a high calibre, relevant and exciting energy focussed programme, built upon our established energy industry research and consultancy excellence.

Our research intensive expertise is exemplified by world renowned energy economist, Professor Alex Kemp OBE and other academic experts on the programme. You will also learn from industry experts, giving you the skills required for a successful career in the Energy sector.

Careers

Our Alumni have enjoyed much success in the workplace with students securing employment with:

Bureau Veritas UK & Ireland, EY, KPMG, Royal Bank of Scotland, Stork Technical Services, Talisman Energy, Google, TAQA, BP, Npower, Citibank and Centrica to name a few.

School/department

Business School

Duration

12 months full-time

24 months part time

Intake

September and January

Entry requirements

Open to graduates from any discipline. Does not require business or management study to be completed at undergraduate level.

This programme is for you if you have a minimum of THREE years post-degree work experience; a track record of professional achievement and at least the equivalent of a British 2:2 (Hons) degree. OR a minimum of 5 years work experience; associated training and an excellent track record of professional achievement.

The English language requirements is an IELTS of 6.5 with 6.0 in writing and reading (or equivalent TOEFL iBT or PTE).

For more information:

www.abdn.ac.uk/study/english-requirements

Course info www.abdn.ac.uk/pgt/energy-mgmt

School info www.abdn.ac.uk/business

General info www.abdn.ac.uk/study

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MSc (ECON) PETROLEUM, ENERGY ECONOMICS AND FINANCE



On-Campus
Programme

The MSc Petroleum, Energy Economics and Finance is a course highly regarded for being both intellectually challenging and for providing the career-ready credentials that are essential to increase your appeal with employers within an energy economics context.

The University of Aberdeen is an established leader in teaching and research in the fields of energy and economics. Our MSc Petroleum Energy, Economics and Finance builds on the Business School's considerable strength in these fields. The programme incorporates significant input from the energy industry via active engagement with professional practice, multi-nationals and government agencies. With a recognised world expert in Energy Economics, Professor Alexander Kemp OBE, actively teaching on the programme, this is a course without equivalence in this arena.

Why Study Petroleum, Energy Economics and Finance?

Our Business School is home to two very relevant and internationally recognised research centres: the Aberdeen Centre for Research in Energy Economics and Finance (ACREEF) and the Scottish Experimental Economic Laboratory. Former students have worked with organisations such as the Scottish Government, BP and Total to create their dissertations. The course is accredited by The Energy Institute and a wide range of visiting speakers will share their insights of how the economic world of energy works.

What you will study

- Core courses
- Accounting
- Introduction to Energy & Petroleum Economics
- Introduction to Corporate Finance for Energy
- Economic Analysis for Energy
- Quantitative Methods for Energy Economics
- Real Options and Decision Making
- Issues in Energy Petroleum Economics
- Business Strategy
- Empirical Methods in Energy Economics
- Dissertation in Petroleum, Energy, Economics and Finance

In the first semester of this one-year MSc, you will study key micro and macroeconomic modelling techniques and spend time understanding the critical aspects of financial analysis. You'll also gain an in-depth understanding of energy and petroleum economics and explore issues such as global warming and renewables in an economic context. In the second semester, the focus is on strategic thinking using game theory to develop your analytical skills and investment decision-making. During summer term, you will complete a dissertation focused on a key topic in the petroleum and energy industries.

How you will be taught

As well as formal teaching, you will benefit greatly from visiting speakers currently working in the Energy Industry.

Careers

Most of our students specialise as analysts or consultants in the oil & gas industry or in government. Former students have found success in roles such as Strategy Analysts, Market Analysts, Commercial Analysts, Economists, and Oil & Gas Associates. Previous employers have included Centrica, Deloitte, ExxonMobil, Oil & Gas UK, Schlumberger and Total.

School/department

Business School

Duration

12 months full-time

Intake

September

Entry requirements

The minimum entry requirement for this programme is a degree at 2:1 (upper second class) UK Honours level (or a degree from a non-UK institution which is judged by the University to be of equivalent worth), with a strong background in quantitative methods.

The English language requirements is an IELTS of 6.5 with 6.0 in writing and reading (or equivalent TOEFL iBT or PTE).

For more information:

www.abdn.ac.uk/study/english-requirements

Course info www.abdn.ac.uk/pgt/peef

School info www.abdn.ac.uk/business

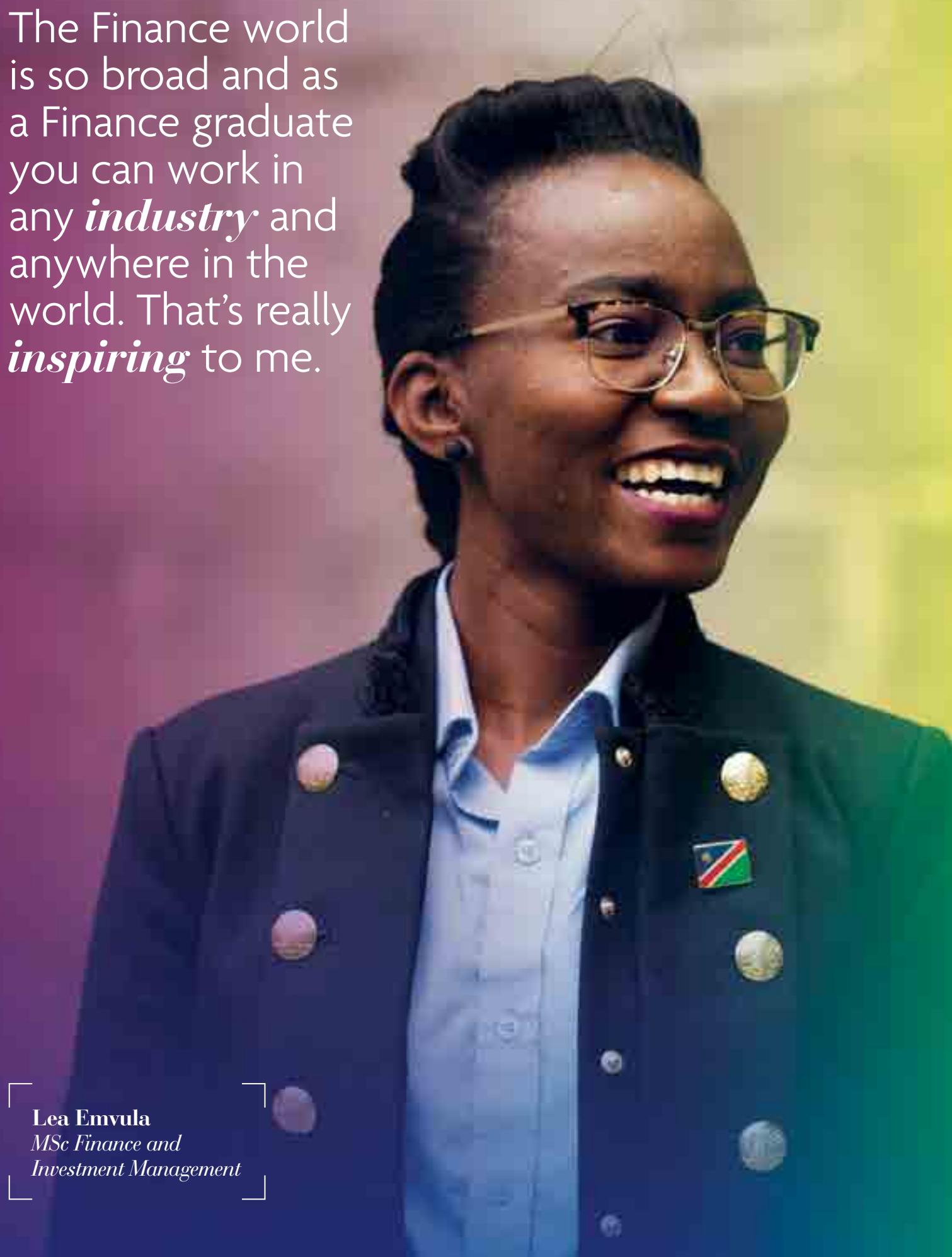
General info www.abdn.ac.uk/study

UoABusSchool

@uoabusschool

study@abdn.ac.uk

The Finance world is so broad and as a Finance graduate you can work in any *industry* and anywhere in the world. That's really *inspiring* to me.



Lea Emvula
MSc Finance and
Investment Management

MSc LAW AND ECONOMICS OF OIL AND GAS

On-Campus Programme

This unique and widely recognised Masters programme combines the core disciplines of Economics and Law to equip you with the essential skills required to pursue a successful career either in the global oil and gas industry or in related governmental organisations.

Why study Law and Economics of Oil and Gas?

The global oil and gas sector operates in a complex environment characterised by various influential factors such as government-controlled hydrocarbons, financial markets, the global crude oil market, economic uncertainty, licensing, taxation and contracts. These factors have a significant influence on both investment decision-making and government policy-making, so a comprehensive knowledge of related economics and law is essential. On this course, you will gain the real-world knowledge you need to enhance your career opportunities in legal and financial oil and gas contexts.

Why study with us?

The University of Aberdeen is a global leader in teaching and research in the field of energy and this MSc builds on our considerable strengths in these areas. Our Business School is home to two relevant and internationally recognised research centres: the Aberdeen Centre for Research (ACREEF) in Energy Economics and Finance and the Aberdeen University Centre for Energy Law (AUCEL). Studying here, you will benefit from interacting with leading researchers in the field of energy economics and law (AUCEL) – including one of the world's best recognised energy experts, Professor Alex Kemp OBE – and with a broad network of national and multi-national employers through our visiting speaker programme.

What you will study

This intellectually challenging programme will equip you with the intellectual, critical and practical skills fundamental to a successful career in this area of oil and gas. You will engage directly with professional practice, multi-nationals and government agencies. You will:

- Acquire the global perspectives essential to professional success
- Develop critical insights into current and emerging approaches
- Gain a well-rounded skillset with the tools to succeed
- Obtain insights into commercially oriented analysis
- Strengthen your capacity for social, geographical and cultural mobility

Core Courses

- State Control of Hydrocarbons
- Introduction to Corporate Finance for Energy
- Introduction to Energy & Petroleum Economics
- Accounting
- Real Options & Decision Making
- Issues in Energy & Petroleum Economics
- Contracting in Hydrocarbon Operations

Careers

Career opportunities range from positions within oil and gas companies, international law firms or government ministries. Past graduates have gone on to be Commercial Advisers, Energy Consultants, Investment Analysts, Market Analysts, and Oil and Gas Associates. Others have gone on to complete a PhD, or to pursue careers in politics, business or international finance.

School/department

Business School

Duration

12 months full-time

24 months part-time

Intake

September

Entry requirements

The minimum entry requirements for this programme is a degree at 2:1 (upper second class) UK Honours level (or a degree from a non-UK institution which is judged by the University to be of equivalent worth).

The English language requirements is an IELTS of 6.5 with 6.0 in writing and reading (or equivalent TOEFL iBT or PTE).

For more information:

www.abdn.ac.uk/study/english-requirements

Course info www.abdn.ac.uk/pgt/law-econ-og

School info www.abdn.ac.uk/business

General info www.abdn.ac.uk/study

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 study@abdn.ac.uk

PG Cert ENERGY ECONOMICS & FINANCE

Online
Programme

The PgCert in Energy Economics and Finance combines the disciplined study of economic principles with a deep understanding of the dynamic, constantly evolving energy industry. Studied online, this modular programme is both intellectually challenging and delivers the career credentials to help increase your appeal to employers.

Why study this course?

The global energy sector is a complex environment characterised by various influential factors such as resource constraints, government policy and international agreements. In order to succeed in this sector, a comprehensive knowledge of the relative economics is essential. This programme will help you to analyse issues such as oil price behaviour, enhance your knowledge of economic modelling techniques, and provide you with the fundamental economic skills and knowledge required to pursue a successful career in the energy sector.

Why study with us?

Our Business School is internationally recognised for its world leading research and home to two highly-rated relevant research centres: the Aberdeen Centre for Research in Energy Economics and Finance (ACREEF) and the Aberdeen University Centre for Energy Law (AUCEL). These strong research foundations ensure active engagement with energy multinationals and government agencies around the world.

What will you gain?

This programme is designed to expand your knowledge of world energy markets and to develop an in-depth understanding of relevant economic theory. You'll learn how to understand and analyse the drivers of energy demand and supply, how investment decisions are made, and how governments design and implement their energy policies. You will:

Develop quantitative skills to better utilise data to inform strategic decisions

Learn to analyse energy markets and the micro and macro impacts of various stimuli

Acquire the global perspectives essential to professional success in this sector

Develop critical insights into current and emerging approaches energy finance

Strengthen your capacity for professional, geographical and cultural mobility

What you will study

- Strategic Economic Analysis for Energy Markets
- Investment Analysis for Energy
- Petroleum Economics and Policy
- Quantitative Methods for Energy Economics

Each course will account for 15 SCQF level 11 credits.

How you will study

This programme is taught via self-directed, online study with tutoring support. You can enrol in to any module at anytime. Modules can be taken individually and you'll have 18 months to complete each module. This means you can study at your own pace, while also engaging with your tutors and fellow students through module-specific interactive webinars and forums. Assessment consists of a series of essays, exercises, tests and mock exams – that you will self-assess against detailed model answers.

Careers

This programme is designed both for professionals in the energy sector and for others who want to develop a career in government, consultancy, or the environmental or regulatory departments of energy and other companies. The programme reaches beyond corporate interest alone to cover any career path that needs high quality graduates with an excellent understanding of the energy sector.

School/department

Business School

Duration

Up to 18 months to complete each course

Intake

Any month

Entry requirements

There are no formal entry requirements.

The English language requirements is an IELTS of 6.5 with 6.0 in writing and reading (or equivalent TOEFL iBT or PTE).

For more information:

www.abdn.ac.uk/study/english-requirements

Course info www.abdn.ac.uk/pgt/energy-economy-finance

School info www.abdn.ac.uk/business

General info www.abdn.ac.uk/study

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MSc STRATEGIC STUDIES AND ENERGY SECURITY

On-Campus Programme

This programme draws on the University of Aberdeen's expertise in international security and the energy sector to deliver detailed understanding of global energy security, in the context of how different countries and regions operate today.

The MSc Strategic Studies and Energy Security combines the study of national and internal security with courses in energy politics, energy economics and energy law to equip students with the practical skills needed to understand the character of international security as it relates to energy security.

The aim of this programme is to understand the costs and benefits of the strategies deployed, often of a military nature, to address energy security issues and to enhance our understanding of the difficulties encountered when attempting to assess the prospects for stability and security in key, pivotal 'energy-rich' and 'energy-poor' regions of the international system. In addition, you will study the enduring influence of certain core strategic issues, inherent in the management of power and coercion, on the international system regardless of levels of economic and social development.

The University of Aberdeen plays a central role in developing new technology across the energy sector while also working closely with industry, government and regulatory bodies in developing energy policy and frameworks.

Our location at the heart of the Energy Capital of Europe means that our students benefit from direct industry involvement with our programmes, including industry advisory panels, guest lectures, field trips, site visits, networking and careers events, and industry supported student projects.

What you will study

- Strategic Theory
- Energy Politics
- Energy Economics
- Global Security Issues
- International Energy Security
- Dissertation in Strategic Studies

How You Will Be Taught

As well as formal teaching, you will benefit greatly from visiting speakers currently working in the energy industry.

How you will be assessed

Courses are assessed by continuous assessment or by written examination or a combination of these, as prescribed by each course co-ordinator.

School/department

Social Science

Duration

12 months full-time (MSc)

24 months part-time (MSc)

Intake

September and January

Entry requirements

An upper second class honours degree or a recognised equivalent in International Relations, Politics, History, Geography, Economics, Law and cognate disciplines such as Business Studies.

The English language requirements is an IELTS of 6.5 with 6.0 in writing and reading (or equivalent TOEFL iBT or PTE).

For more information:

www.abdn.ac.uk/study/international/english-requirements.php

Course info www.abdn.ac.uk/pgt/sses

School info www.abdn.ac.uk/socsci

General info www.abdn.ac.uk/study

 [universityofaberdeen](#)

 [@aberdeenuni](#)

 study@abdn.ac.uk

Introducing *Energy Law*

Our School of Law hosts the highly respected Aberdeen University Centre for Energy Law (AUCEL) comprising one of the largest and most able teams of energy faculty in any European law school.

The research centre was created in order to promote the research activities of the many members of the School having an interest in Energy Law matters, as well as fostering an environment for collaborative work.

The Centre also provides a broad range of study options for students wishing to specialise in the field of energy law and for professionals who are either already working in the sector, or who are interested in moving into the area. Our programmes prepare lawyers for work in a complex and evolving environment; the focus being not only upon current practice but also upon emerging trends.

Within our 3 LLM programmes students can choose either the with dissertation option, i.e. legal research on a topic of your choice, or with professional skills: which is intensive group working on energy project scenarios, teaching practical skills for the workplace.

In addition, the LLM Oil and Gas Law is now available to study online, enabling students to access an Aberdeen education wherever they are in the world without interrupting current commitments.

The centre benefits from being located within the University of Aberdeen, an institution with a proven track record of carrying out research across the whole spectrum of the energy sector. Our research active Academic staff work closely with organisations and governments in key energy cities around the world so our students are learning from the very best.

In the Complete University Guide 2020 the School of Law is ranked 9th in the UK, out of more than 90 law schools.

The School of Law has an international cohort of students and staff. This also creates a positive environment of inclusion and interaction where you will get the chance to make friends for life.

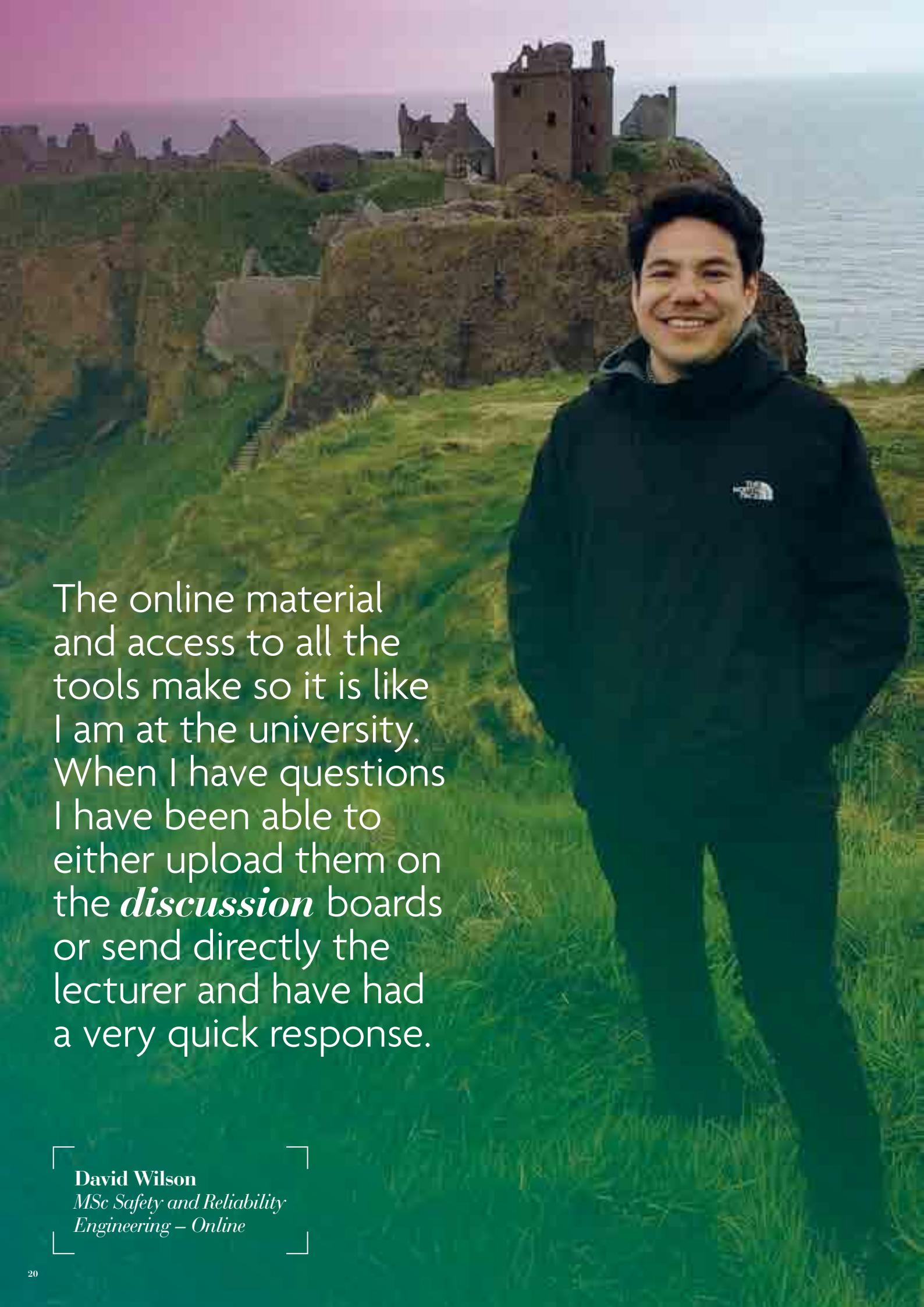
The programmes

- LLM Energy & Environmental Law
- LLM Energy Law
- LLM Oil & Gas Law
- LLM Natural Resources Law
- MSc Energy Politics & Law

I enjoy living and studying in Aberdeen because of the extraordinary *cultural diversity* of its population and the permanent feeling of being *welcome*.



Diego Bustamante Gil, Mexico
LLM Oil and Gas Law

A photograph of a man with dark hair and a beard, wearing a dark green hoodie with a small white logo on the chest. He is smiling and looking towards the camera. In the background, there is a large, multi-story stone castle or fortification built into a grassy hillside overlooking a body of water under a clear sky.

The online material
and access to all the
tools make so it is like
I am at the university.
When I have questions
I have been able to
either upload them on
the ***discussion*** boards
or send directly the
lecturer and have had
a very quick response.

□ □
David Wilson
*MSc Safety and Reliability
Engineering – Online*
□ □

LLM ENERGY AND ENVIRONMENTAL LAW

On-Campus
Programme

Dealing with some of the biggest current challenges facing our global society, this programme links energy and environmental topics from multiple perspectives of domestic, regional and international law.

The unique aspect of the programme, and the factor which distinguishes this degree from its competitors, is the close examination of the nature of energy and the environment, as encapsulated by the concept of sustainable development. The programme looks at the current environmental challenges, including the organisation of our energy system in the 21st century.

Topics of study include: environmental damage in the upstream energy sector; law's role in enabling a low carbon energy transition; the regulation of the green economy and the protection of our natural resources as a precondition for a sustainable future.

A core theme emphasised throughout this programme is that neither energy demands nor the case for environmental protection can be considered in isolation. Solutions at a local, national and global level must balance carefully these two at times competing concerns, not least in the light of current claims for a transition to a low carbon society.

The speed at which energy law and environmental law are evolving, both domestically and internationally, not only offers you the opportunity to engage with cutting-edge materials but to obtain an advanced qualification in a fascinating, commercially and socially important field.

What you will study

As part of the programme, you must take the following courses:

- Critical Legal Thinking and Scholarship

Plus

- LLM Dissertation or relevant Professional Skills Course

In addition, you will study at least three of the courses listed below. A fourth course may be chosen from any other LLM programme.

- Energy, Innovation and Law
- International Investment Law & Arbitration in the Energy Sector
- International Energy and Environmental Law
- Low Carbon Energy Transition: Renewable Energy Law
- Oil and Mining Resources for Good
- Low Carbon Energy Transition: Nuclear Energy and Carbon Capture and Storage
- Corporate Environmental Liability
- Principles of Environmental Regulation
- Downstream Energy Law

How you will be taught

Teaching is organised on a modular basis. There are two 12-week semesters, the first in September, the second in January. Students can join the programme in either September or January. Examinations are held in December and May. Professional skills is taught through an intensive two week course after the May exams with following assessments to be submitted during the summer. The dissertation is submitted in August each year. You are strongly advised to consult the Law School webpages for updates to the programme syllabus.

How you will be assessed

Assessment is based on a combination of continuous assessment and written examination at the end of the relevant semester. Continuous assessment takes the form of presentations and written essays.

All students take an initial course in research skills and critical analysis. If taking the dissertation route, you will write a dissertation on a topic within the specialism. The dissertation is prepared and written between January and August. For the with Professional Skills route, students are assessed through a group presentation and report and through two long individual reports between May and August.

School/department

School of Law

Duration

12 months full-time

24 months or 36 months part-time

Intake

September and January

Entry requirements

An upper second class honours degree in Law or another relevant discipline, or equivalent professional experience, for instance in some aspect of energy.

References are not required in order for applicants to submit an application.

They are not usually required in order for a decision to be made but in certain cases applicants may be asked to provide a single academic reference at the request of the academic selector.

The English language requirements is an IELTS of 6.5 with 6.0 in writing and reading (or equivalent TOEFL iBT or PTE).

For more information:

[www.abdn.ac.uk/study/international/
english-requirements.php](http://www.abdn.ac.uk/study/international/english-requirements.php)

Course info www.abdn.ac.uk/pgt/energy-law-d
www.abdn.ac.uk/pgt/energy-law-ps

School info www.abdn.ac.uk/law

General info www.abdn.ac.uk/study

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The global energy sector currently offers tremendous career opportunities for those with the right legal skills and qualifications. This programme prepares and equips you with the skills and knowledge for working in the challenging environment of the energy sector.

Among the multiple challenges facing the world today, the provision of sufficient energy at appropriate prices to promote and sustain growth whilst at the same time accommodating climate change concerns, must feature near the top of any list.

Law is a vital aspect of the global energy sector as it has a key role to play in terms of:

- International agreements among states and the commercial energy sector, in relation to both energy security and climate change
- International agreements among the multiple factors within the sector, in relation to the legislation and regulation that touches every aspect of the energy chain

This programme will prepare you for working in this challenging environment. It encompasses a spectrum of courses which provide the opportunity to study the interconnected issues of energy provision, sustainable growth and climate change concerns.

The programme offers the unique opportunity to study the regulation of downstream and upstream energy markets, including the liberalisation of electricity and natural gas markets, access to pipeline infrastructure, licensing of electricity production and of upstream energy activities. It also focuses on the promotion of renewable energy sources.

You can also study investment protection in the energy sector and gain knowledge of the rapidly developing field of international investment arbitration.

What you will study

The following courses are available on the programme and you must complete four courses and a dissertation.

In addition you will choose at least 3 courses from the following listed below. A fourth course can be chosen from any other LLM programme.

- Energy, Innovation and Law
- Contracting in Hydrocarbon Operations
- International Investment Law & Arbitration in the Energy Sector
- State Control of Hydrocarbons
- Principles of Environmental Regulation
- Oil and Mining Resources for Good
- Low Carbon Energy Transition: Renewable Energy Law
- International Energy and Environmental Law
- Low Carbon Energy Transition: Nuclear Energy and Carbon Capture and Storage
- Corporate Environmental Liability
- Downstream Energy Law

How you will be taught

Teaching is organised on a modular basis. There are two 12 week semesters, the first beginning in September and finishing in December, the second at the end of January and finishing in May. Professional skills is taught through an intensive two week course after the May exams with following assessments to be submitted during the summer. Examinations are held in each semester, in December and May. The dissertation is planned and written between March and August.

How you will be assessed

Assessment is based on a combination of coursework submitted during the semester and a written examination at the end of the relevant semester. Assessment is based on a combination of All students take an initial course in research skills and critical analysis. If taking the dissertation route, you must complete a dissertation on a topic within the specialism.

As a full-time student, you will commence work on your dissertation in January, with a final submission date in August each year. Guidance on the writing of a dissertation is given. Students taking the Professional Skills route are assessed through a group presentation and report and through two long individual reports between May and August.

School/department

School of Law

Duration

12 months full-time

Intake

September and January

Entry requirements

An upper second class honours degree in Law or another relevant discipline, or equivalent professional experience, for instance in some aspect of energy.

References are not required in order for applicants to submit an application.

They are not usually required in order for a decision to be made but in certain cases applicants may be asked to provide a single academic reference at the request of the academic selector.

The English language requirements is an IELTS of 6.5 with 6.0 in writing and reading (or equivalent TOEFL iBT or PTE).

For more information:

www.abdn.ac.uk/study/international/english-requirements.php

Course info www.abdn.ac.uk/pgt/energy-law-d
www.abdn.ac.uk/pgt/energy-law-ps

School info www.abdn.ac.uk/law

General info www.abdn.ac.uk/study

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LLM OIL AND GAS LAW

Online and
On-Campus
Programme

Providing students with the opportunity to examine and critically assess key legal issues in the oil and gas sector both in the UK and in other leading jurisdictions.

This programme provides you with the skills and knowledge necessary to work in and on the legal aspects of the exciting global industry.

The programme covers both private law aspects of the sector, such as joint ventures and contractual arrangements, and also public law and regulatory aspects, such as environmental protection, health and safety regulation and taxation.

The focus is upon setting practical and real problems in a wider conceptual context with the aim that you should not just know, but understand the relevant areas of oil and gas law. Although there is an emphasis on UK oil and gas law this is very much set in a global oil and gas context.

Home to one of the largest and most impressive teams of oil and gas faculty in any European law schools, our Law School, provides an unrivalled breadth and depth of industry knowledge and experience.

What you will study (on campus)

The following courses are compulsory.
As part of the programme you must take the following courses:

- Critical Legal Thinking and Scholarship
- State Control of Hydrocarbons
- Contracting in Hydrocarbon Operations
- Either LLM Dissertation or Professional Skills Oil and Gas: Exploration and Production, the latter course being taken in the summer irrespective of programme start date.

Choose one course from the list below, plus an additional course from any LLM. You can then choose an additional two courses, one of which can be taken from any LLM programme, the other from the list below:

- Corporate Environmental Liability
- Energy, Innovation and Law
- Downstream Energy Law
- International Energy and Environment Law
- International Investment Law and Arbitration Law in the Energy Sector
- Oil and Mining Resources for Good

The programme is designed to help you develop the analytical skills and knowledge to provide you with a firm foundation for employment in the sector.

What you will study (online)

The following courses are compulsory:

- Critical Legal Thinking and Scholarship
- Petroleum Law: Resource Management
- Regulatory Law for Petroleum Operations
- Decommissioning of Offshore Installations: Regulatory Aspects
- Co-operative Contracts in the Oil and Gas Industry

60 credits are then chosen from the following optional courses:

- Risk Allocation in Oilfield Service Contracts
- Governance and Petroleum Developments
- Decommissioning of Offshore Installations: Commercial Aspects
- Investment Disputes in the Oil and Gas Context
- Negotiation Skills
- Mediation Theory and Practice
- Core Principles of World Trade Organisation
- International Sale of Goods
- International Investment Law

The Professional Skills option requires on campus attendance in the summer to complete an intensive two-week course.

How you will be taught

There are two 12-week semesters, the first beginning in September, the second in January. Examinations are held in December and May. The dissertation is submitted in August each year. Final assignments on the Professional Skills programme are also submitted in August.

How you will be assessed

Assessment is based on a combination of written examination at the end of the relevant semester and one or more course essays. The dissertation, is planned and written between March and August each year. The Professional Skills Module is assessed through a combination of attendance at, and participation in, classes, preparatory work, two simulated practical exercises and submission of two final assignments.

School/department

School of Law

Duration

12 months full-time

27 months online

Intake

September and January

Entry requirements

An upper second class honours degree in Law or another relevant discipline, or equivalent professional experience, for instance in some aspect of energy.

References are not required in order for applicants to submit an application.

They are not usually required in order for a decision to be made but in certain cases applicants may be asked to provide a single academic reference at the request of the academic selector.

The English language requirements is an IELTS of 6.5 with 6.0 in writing and reading (or equivalent TOEFL iBT or PTE).

For more information:

[www.abdn.ac.uk/study/international/
english-requirements.php](http://www.abdn.ac.uk/study/international/english-requirements.php)

Course info www.abdn.ac.uk/pgt/oilgas-law-d
www.abdn.ac.uk/pgt/oilgas-law-ps

School info www.abdn.ac.uk/law

General info www.abdn.ac.uk/study

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Designed for students wishing to develop an advanced interdisciplinary knowledge in energy management, regulatory agencies, stakeholder engagement, and NGO/policy advisory roles.

This programme provides you with the ability to analyse political and legal energy issues and also provide you with knowledge of energy economics. The programme will equip you with an in-depth, all round ability to analyse energy issues and enable you to find employment in an energy-related activity.

Courses offered cover:

- The politics of energy and of electricity market reform
- How economics and legal issues affect political and commercial decisions in energy
- How the law affects the oil and gas industry
- Commercial domestic and international political regulation of energy markets
- The politics and law of renewable energy
- International energy security issues such as oil crises
- The law and politics of climate change

The University of Aberdeen plays a central role in developing new technology across the energy sector while also works closely with industry, government and regulatory bodies in developing energy policy and frameworks.

Our location at the heart of the Energy Capital of Europe means that our students benefit from direct industry involvement with our programmes, including industry advisory panels, guest lectures, field trips, site visits, networking and careers events, and industry supported student projects.

What you will study

Core courses:

- Energy Politics (Semester 1)
- Introduction to Energy Economics (Semester 1)
- International Energy Security (Semester 2)
- Project (Semester 3)

Electives:

- Either - Low Carbon Energy Transition: Renewable Energy Law (Semester 1) or State Control of Hydrocarbons (Semester 1)
Low Carbon Energy Transition: Nuclear Energy and Carbon Capture and Storage (Semester 2)
or Downstream Energy Law (Semester 2)

The Semester 3 project element may be based on work experience or collaboration with an energy industry organisation.

How you will be taught

Teaching is delivered through the Department of Politics and International Relations (PIR), the School of Law and the Business School. The Programme Director, Dr David Toke, leads the teaching from PIR. He is internationally recognised for his research and public policy impact in various aspects of energy, including renewable energy and international energy policy comparisons.

How you will be assessed

Assessment methods vary from course to course and include essays, reports, exercises and presentations. Courses are generally 100% continuous assessment. The MSc in Energy Politics and Law requires you to pass the project and the five module courses.

School/department

School of Social Science

Duration

12 months full-time

24 months part-time

Intake

September and January

Entry requirements

An upper second class honours degree in a relevant discipline, or equivalent professional experience, for instance in some aspect of energy.

References are not required in order for applicants to submit an application.

They are not usually required in order for a decision to be made but in certain cases applicants may be asked to provide a single academic reference at the request of the academic selector.

The English language requirements is an IELTS of 6.5 with 6.0 in writing and reading (or equivalent TOEFL iBT or PTE).

For more information:

[www.abdn.ac.uk/study/international/
english-requirements.php](http://www.abdn.ac.uk/study/international/english-requirements.php)

Course info www.abdn.ac.uk/pgt/energy-politics

School info www.abdn.ac.uk/socsci

General info www.abdn.ac.uk/study

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Our innovative Masters programme allows students the opportunity to develop the relevant skills and knowledge in managing natural energy resources for future generations.

This programme will equip students with the knowledge, and skills, to develop sound governance regimes within areas that raise the most fundamental issues for humanity.

The University of Aberdeen has long held a reputation as a leader in teaching, and research, in the energy resources sector and this programme will give students a competitive advantage in highly relevant and rapidly developing sector. Our growing population has a major impact on the world's natural resources. Indeed, this issue will only grow as the pressure to meet humanity's developing demands. Hence, international and domestic law must address the legal implications of ownership, extraction distribution and management of natural resources. This unique programme focuses on the legal and regulatory issues associated with society's use of and exploitation of the natural world.

Topics include

- Introduction to natural resources law
- Oil and mining resources for good
- International energy and environmental law
- State control of hydrocarbons
- Principles of environmental regulation
- Corporate environmental liability
- International investment law and arbitration in the energy sector

How you will study

Teaching is organised on a modular basis. There are two eleven-week semesters. Examinations are held at the end of each semester in December and May. The dissertation is submitted in August.

The variety of assessments in the programme ensures that students apply theory to practical situations in order to become expert at being able to analyse and reason issues thoroughly.

Moreover, students will gain transferrable skills including: enhanced ability to undertake advanced research in the field; an opportunity to undertake group work activities; ability to synthesise ideas and present work in oral and written assignments, plus students will undertake critical analysis.

School/department

School of Law

Duration

12 months

Intake

September or January

Entry requirements

A 2:1 honours degree (or equivalent) in Law is required to be accepted onto this programme. Relevant practical experience in a related field will also be beneficial.

The English language requirement is an IELTS of 6.5 with a 6.0 in Writing (or equivalent TOEFL IBT or PTE).

For more information:
[www.abdn.ac.uk/study/international/
english-requirements.php](http://www.abdn.ac.uk/study/international/english-requirements.php)

Course info www.abdn.ac.uk/pgt/nr-law

School info www.abdn.ac.uk/law

General info www.abdn.ac.uk/study

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Introducing *Engineering*

Our professionally-accredited programmes meet the highest professional standards. We enjoy an excellent reputation as a result of our insistence on the highest standards, our strong commitment to the best teaching practices and curriculums designed by experts in their fields. Our study programmes will give you the best possible start to your professional career.

Aberdeen is known as the Energy Capital of Europe. The city and surrounding area is home to over 900 energy-related companies and is a major international centre of research and innovation in every aspect of energy, including oil and gas, subsea technology, renewables and decommissioning.

The School of Engineering at the University of Aberdeen plays a central role in researching and developing new technology alongside leading international companies and industry regulators.

Our location at the heart of the Energy Capital of Europe means that our students benefit from direct industry involvement with our programmes, including industry advisory panels, guest lectures, field trips, site visits, networking and careers events, and industry supported student projects.

We deliver teaching in world-class facilities, including specialist laboratories dedicated to particular subjects such as:

- Satellite communications
- Computer-aided design
- Electrical machines
- Materials testing
- Laser welding
- Hydraulics and fluids
- Concrete
- Large structures
- Geotechnics

Our engineering programmes take a multi-disciplinary approach to learning, and benefit from input from colleagues in other departments across the University including geology, chemistry, computing, and mathematics, as well as on occasion business and law.

**Ranked #2
in the World**

for Petroleum Engineering
CEO World Magazine, 2017

Entry Requirements

Full details of entry requirements are on the individual programme information pages that follow, but the table provides a general guide to the undergraduate backgrounds considered for different postgraduate programmes.

Undergraduate Degree Subjects	Advanced Mechanical Engineering	Advanced Chemical Engineering	Advanced Structural Engineering	Decommissioning	Offshore Engineering	Offshore Structural Engineering
Civil Engineering	•		•	•	•	•
Mechanical Engineering	•		•	•	•	
Electrical/Electronic Engineering				•	•	
Petroleum Engineering		•		•	•	
Chemical Engineering	•	•		•	•	
Other Engineering	•		•	•	•	
Physics				•	•	
Mathematics				•	•	
Chemistry		•		•		
Geology/Geoscience				•		



O&G Engineering	O&G Structural	Project Management	Renewable Energy	Safety & Reliability	Subsea Engineering	Petroleum Engineering	Process Safety
•	•	•	•	•	•	•	•
•		•	•	•	•	•	•
•		•	•	•	•	•	•
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MSc PETROLEUM ENGINEERING

Online and
On-Campus
Programme

The MSc Petroleum Engineering programme is designed with industry support, and includes the study of petroleum geology, to produce world-class petroleum engineers, who are fully prepared to take up roles in the upstream oil and gas industry.

This programme delivers the necessary knowledge and skills required for an integrated study and evaluation of a prospect, leading to a viable oil and gas field development plan.

Drawing upon a long established track record of excellence in teaching and research, the MSc Petroleum Engineering is delivered jointly by the School of Engineering and the Department of Geology and Petroleum Geology along with industry-based tutors covering a broad range of courses including the fundamentals of petroleum geoscience, enhanced oil recovery, reservoir simulation and well and production engineering. There is also a particular focus on formation evaluation and reservoir engineering and simulation.

The MSc Petroleum Engineering develops your skills so you are able to appraise and select the appropriate technologies for safe production recovery of hydrocarbon oil and gas and includes hands-on experience of using industry standard simulation software in all aspects of petroleum engineering.

Aberdeen is known as the Energy Capital of Europe. The city and surrounding area is a major international centre of research and innovation in every aspect of the offshore oil and gas industry. Approximately 900 energy-related companies are located in Aberdeen.

The School of Engineering plays a central role in researching and developing new technology, working alongside leading international companies and our location at the heart of the energy industry also means that our degree programmes benefit from direct industry involvement, including industry advisory panels, guest lectures, field trips, site visits, networking and careers events, and industry supported student projects.

What you will study

- Fundamentals of Petroleum Geoscience
- Petrophysics, Core Analysis and Formation Evaluation
- Reservoir Engineering
- Enhanced Oil Recovery
- Reservoir Simulation
- Well and Production Engineering
- Well Testing: Analysis and Design
- Field Development and Petroleum Economics

Project/Dissertation

As a full-time student, taking the MSc Programme over 12 months, a dissertation is to be prepared on work undertaken during the final individual project, which will normally be specified in collaboration with industrial partners, supervised either in the School of Engineering or externally and carried out from May to September.

How you will be taught

The taught part of the programme is delivered over two semesters: September to late December, and January to May. The courses are taught by staff from the School of Engineering and School of Geosciences. In addition, a number of industrial-based external lecturers contribute to the programme to give examples of how theoretical concepts are currently being applied in industry.

After the written examinations in May, students registered for the MSc degree will commence an industry-based project where this can be arranged or school-based project, and at the end of this period, an individual project report, in the form of a dissertation, has to be handed in and examined. Oral examination of some students on all aspects of the programme may be required by the External Examiner. The final assessment takes account of performance in all parts of the programme and examinations.

How you will be assessed

The principal method of assessment is through end of course written examinations and continuous assessment. Examinations for the first semester courses are in December and those for the second semester are in May. Candidates are normally expected to pass all examinations and all project submissions. As an MSc student, you must submit a dissertation on your project, and may be required to undergo an oral examination.

Accreditation

This programme is accredited by the Institute of Mechanical Engineers (IMechE) and the Energy Institute (EI).

School/department

School of Engineering

Duration

12 months full-time

27 months online

Intake

September and January

Entry requirements

Our minimum entry requirement is a UK Honours degree (or equivalent) in any branch of engineering at 2:1 (upper second class) or above. Students with a 2:1 degree in Geology, Physics, Chemistry or Mathematics may also be considered if they can demonstrate 2+ years of relevant work experience.

Engineering or Applied Maths graduates with a 2:2 may also be considered if they can also demonstrate 2+ years of relevant experience.

All international students, even if you have been educated in the medium of English, must meet our English Language requirements (www.abdn.ac.uk/study/international/english-requirements.php).

This programme requires that you meet the 'Postgraduate Standard' level of English proficiency.

An International Pre-Masters course is available for this programme through our International Study Centre (www.abdn.ac.uk/isc)

Course info www.abdn.ac.uk/pgt/petroleum-eng

School info www.abdn.ac.uk/engineering

General info www.abdn.ac.uk/study

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MSc OIL AND GAS ENGINEERING

Online and
On-Campus
Programme

Delivered from the centre of the Energy Capital of Europe, this programme provides students with a theoretical and practical grounding in the key technologies to pursue careers in the upstream and downstream oil and gas industry.

The MSc Oil and Gas Engineering programme is designed to create future leaders of the industry. The wide range of subjects taught, including engineering, geology and chemistry, ensures that you will have a strong appreciation of all key elements of the industry lifecycle and of the different areas of engineering required, as an understanding of how they work together to deliver projects safely and efficiently.

The interdisciplinary nature of the programme means it is suitable for students from different engineering backgrounds, including mechanical, civil, electrical, or chemical engineering, as well as other relevant engineering backgrounds.

The programme is fully accredited by IMechE and Energy Institute which means you can be assured that your teaching is recognised by relevant bodies and that you are getting the best possible experience.

Aberdeen, which is known as the Energy Capital of Europe. The city and surrounding area is a major international centre of research and innovation in every aspect of the offshore oil and gas industry. Approximately 900 energy-related companies are located in Aberdeen, including world leaders such as Baker Hughes (a GE Company), BP, Chevron, Halliburton, Maersk, Petrofac, Repsol Sinopec Resources, Royal Dutch Shell, Schlumberger, Total and Wood.

The School of Engineering plays a central role in researching and developing new technology to maximise recovery of oil and gas, working alongside leading international. The University's location at the heart of the oil and gas industry also means that our degree programmes benefit from direct industry involvement, including industry advisory panels, guest lectures, field trips, site visits, networking and careers events, and industry supported student projects.

What you will study

- Reservoir Engineering
- Fundamentals of Petroleum Geoscience
- Project Management
- Fundamental Safety Engineering & Risk Management Concepts
- Flow Assurance
- Facilities Engineering
- Oil and Gas Chemistry
- Well and Production Engineering

In addition, students complete an individual project. The topic of the project is normally specified in collaboration with industrial partners, supervised either in the School of Engineering or externally. Please note that an industry placement is not compulsory and cannot be guaranteed.

If you are registered for the MSc degree, you will start your project in May. Submitted projects are examined by external examiners. Some students will be selected to complete a further oral examination on all aspects of the programme.

Examples of projects undertaken by previous students include:

1. Comparison of analytical and numerical horizontal well productivity calculations for a fluvial/deltaic reservoir
2. Production tubing size and gas lift optimisation for deepwater subsea development
3. The use of polymer flooding to boost oil recovery in the North Sea

How you will be taught

The taught part of the programme consists of two semesters. In addition, a number of industrially-based external lecturers contribute to the programme to give examples of how theoretical concepts are currently being applied in industry.

How you will be assessed

The principal method of student assessment is through written examinations. Examinations for the first semester courses are in December and those for the second semester are in May.

Accreditation

This programme is fully accredited by the Institute of Mechanical Engineers (IMechE) and the Energy Institute (EI).

School/department

School of Engineering

Duration

12 months full-time
27 months online

Intake

September and January

Entry requirements

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) in any branch of Engineering at a 2:1 (upper second) class or above, or Honours degree in Maths or Physics at 2:1 or above with the approval of the Programme Co-ordinator.

All international students must meet our English Language requirements (www.abdn.ac.uk/study/international/english-requirements.php).

This programme requires that you meet the 'Postgraduate Standard' level of English proficiency.

An International Pre-Masters course is available for this programme through our International Study Centre (www.abdn.ac.uk/isc)

Course info www.abdn.ac.uk/oge

School info www.abdn.ac.uk/engineering

General info www.abdn.ac.uk/study

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MSc RENEWABLE ENERGY ENGINEERING

Online and
On-Campus
Programme

The demand for renewable energy engineers is expected to continue to grow as governments and companies look to diversify from hydrocarbons and reduce emissions. This programme teaches the advanced skills needed to design, build and optimise renewable energy infrastructure of the future.

This programme has been designed to provide you with a detailed knowledge of all major renewable energy sources and the engineering skills associated with them, including geothermal, solar, biomass, hydro, marine and wind. In addition, there are courses covering legislative, planning and economic considerations associated with renewable energy, and the integration of renewable energy to the grid.

The course included in this programme cover both the theoretical knowledge and advanced technical skills in demand from this ever evolving sector.

Teaching is by specialist staff drawn from our engineering school as well as from the energy industry, to ensure that students are exposed to the latest developments and future needs of the renewable energy industry.

One of the main features of the programme is its interdisciplinary nature, being suitable for students with mechanical, civil, electrical, chemical and other suitable engineering backgrounds. In special cases, the programme is also open to students with other relevant science backgrounds, including Physics, Chemistry and Applied Maths.

Aberdeen is known as the Energy Capital of Europe. In recent years, non-hydrocarbon based energy has grown significantly, mainly due to the large talent pool of energy engineers and scientists based in the Aberdeen region and the abundant wind and tidal energy resources off the Aberdeenshire coast.

Accreditation

This programme is accredited by the Institute of Mechanical Engineers (IMechE), the Energy Institute (EI) and the Institution of Engineering and Technology.

What you will study

- Electrical Systems for Renewable Energy
- Renewable Energy 1 (Solar and Geothermal)
- Renewable Energy 2 (Biomass)
- Fundamental Concepts in Safety Engineering
- Renewable Energy 3 (Wind, Marine and Hydro)
- Energy Conversion and Storage
- Renewable Energy Integration to Grid
- Legislation, Planning and Economics

Dissertation/Project

For full-time students taking the MSc Programme over 12 months, a dissertation is to be prepared on work undertaken during the final individual project, which will normally be specified in collaboration with industrial partners, supervised either in the School of Engineering or externally.

How you will be taught

The taught part of the programme consists of two semesters: the first running from September to December, and the second from January to May.

The courses are assessed both by written examination and coursework.

After the second semester written examinations in May, students registered for the MSc degree start an industry or school-based project, where this can be arranged, and at the end of this period, an individual project report, in the form of a dissertation, has to be handed in.

How you will be assessed

The principal method of assessment is through written examinations. Examinations for the first semester courses are in December and those for the second semester are in May. You will be expected to pass all examinations and all project submissions. MSc candidates must submit a dissertation on their project, and may be required to undergo an oral examination.

School/department

School of Engineering

Duration

12 months full-time

27 months online

Intake

September

Entry requirements

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) in any branch of Engineering at a 2:1 (upper second) class or above; or honours degree in a relevant Physical Sciences subject or Mathematics also at 2:1 or above. Students with a 2:2 and 2-3 years of relevant experience may also be considered.

All international students, even if you have been educated in the medium of English, must meet our English Language requirements (www.abdn.ac.uk/study/international/english-requirements.php).

This programme requires that you meet the 'Postgraduate Standard' level of English proficiency.

An International Pre-Masters course is available for this programme through our International Study Centre (www.abdn.ac.uk/isc)

Course info www.abdn.ac.uk/pgt/renewable-energy

School info www.abdn.ac.uk/engineering

General info www.abdn.ac.uk/study

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MSc DECOMMISSIONING

Online and
On-Campus
Programme

The world's first and only Masters degree in decommissioning oil rigs, platforms and offshore structures.

Over the next decade, around 100 platforms and 7,500 kilometres of pipeline on the UK Continental Shelf are forecast for decommissioning, with costs estimated to be £59 billion to 2050. The industry aims to reduce this figure by 35%, a target set by the Oil & Gas Authority.

The aim of this programme is to provide students with a broad range of knowledge and expertise in the physical process of taking offshore platforms out of service, including engineering, project management, business, law, health and safety, and environmental studies.

The MSc Decommissioning was designed in collaboration with major operators, supply chain companies and regulatory bodies and features guest lectures from leading decommissioning industry experts. In addition, many students have the opportunity to undertake industry-based projects as part of the programme.

The degree is taught through a number of core and optional courses and students will have the chance to develop and further research a specific area of interest to them through their MSc final project dissertation with real-world application to their business.

The degree opens up career opportunities in specific areas, such as law, engineering, project management, business consultancy, economics and financial management and is aimed both at recent graduates from a broad range of degree backgrounds as well as those already working within the oil and gas sector or its related industries.

Students will learn from world-class academics, many of whom have worked in or alongside industry.

While the UK Continental Shelf (UKCS) is currently the largest decommissioning market in the North Sea, there are significant opportunities in key regions around the globe where skills and knowledge of the decommissioning process are a huge advantage for future careers.

What you will study

- Offshore Structures and Subsea Systems
- Well Plugging and Abandonment
- Decommissioning of Offshore Installations: Regulatory Aspects
- Petroleum Economics and Project Evaluation
- Marine Environmental Impact Assessment
- Process Shut Down, Structural Decommissioning
- Group Project in Comparative Assessment

In addition, students will be able to specialise by choosing one of the following areas:

- Decommissioning of Offshore Installations: Commercial Aspects
- Engineering Risk and Reliability Analysis
- Applied Marine Ecology and Ecosystem Management

How you will be taught

The taught part of the programme consists of two semesters: the first running from September to December, and the second from January to May.

The courses are assessed both by written examination and coursework.

After the second semester written examinations in May, students registered for the MSc degree start an industry or school based project, where this can be arranged, and at the end of this period, an individual project report, in the form of a dissertation, has to be handed in and examined by External Examiners, who will may also make an oral examination of some students on all aspects of the programme.

National Decommissioning Centre

The University of Aberdeen is the recognised leader in offshore oil and gas decommissioning and is home to the newly established National Decommissioning Centre. With support from the UK Government, the NDC, it brings together researchers, industry and regulatory bodies to work together to develop and deploy decommissioning technology.

School/department

School of Engineering

Duration

12 months full-time

27 months online

Intake

September

Entry requirements

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) in any branch of Engineering, Geosciences, Law, Economics, Business or other science, technology or commercial subjects at a 2:1 (upper second) class or above. Students with at least an HND combined with significant relevant experience may also be considered.

All international students, even if you have been educated in the medium of English, must meet our English Language requirements (www.abdn.ac.uk/study/international/english-requirements.php).

This programme requires that you meet the 'Postgraduate Standard' level of English proficiency.

An International Pre-Masters course is available for this programme through our International Study Centre (www.abdn.ac.uk/isc)

Course info www.abdn.ac.uk/pgt/decommissioning
School info www.abdn.ac.uk/engineering

General info www.abdn.ac.uk/study

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MSc SUBSEA ENGINEERING

Online and
On-Campus
Programme

The MSc Subsea Engineering is widely regarded as one of the best programmes of its kind in the UK. The programme is designed to prepare highly trained engineers for industry, by focusing on the fundamental skills and technical knowledge that are in demand by the subsea sector today.

With 40% of all the world's subsea installations located in the North Sea, Aberdeen is Europe's leading centre for subsea development and operation. A cluster of world-leading subsea technology companies has developed around Aberdeen over the last four decades, including TechnipFMC, Aker Solutions, GE Oil & Gas, Subsea 7 and Bibby Offshore, supported by an extensive network of supply chain companies.

The University's location at the heart of the oil and gas industry also means that our degree programmes benefit from direct industry involvement, including industry advisory panels, guest lectures, field trips, site visits, networking and careers events, and industry supported student projects.

The MSc Subsea Engineering programme focuses on the fundamental skills and technical knowledge needed to prepare graduate engineers for technical leadership roles within the subsea industry, including:

- Increased technical knowledge and understanding of the development and operation of subsea technologies and systems, from wellhead to topside structure interconnections.
- Intellectual and practical skills so that you can apply sound engineering principles and analysis methods to the design and installation of subsea systems, and can use and adapt appropriate analysis tools and techniques, specialist design software and standards for design improvements and performance optimisation.
- The opportunity to further enhance your transferable and personal skills in self-study, communication, report writing, project and time management, and problem solving.
- An awareness of the roles and challenges of a practising subsea engineer for technical leadership and managerial responsibility.

What you will study

- Subsea Integrity
- Offshore Structures & Subsea Systems
- Engineering Risk & Reliability Analysis
- Subsea Controls
- Subsea Construction, Inspection & Maintenance
- Pipelines & Soil Mechanics
- Riser Systems & Hydrodynamics
- Flow Assurance

Individual Project – previous student projects include:

1. Leakage detection in subsea flowlines.
2. Investigation of multiphase boosting technology in the North Sea oil and gas fields.
3. The investigation of a combined Riser Mooring concept for offshore Australia FPSO developments.

How you will be taught

The courses are completely modular in structure. A choice of exit levels is provided to suit the needs of the participants. As a full-time student you will complete 4 modules per semester while as a part-time student you will complete up to 2.

How you will be assessed

The modules are assessed by a combination of coursework and written examination. The distance learning coursework is submitted to the course tutor online and marks and comments will be returned.

Accreditation

Fully accredited by the Institute of Marine Engineering, Science & Technology (IMarEST) and Institution of Mechanical Engineers (IMechE), the Institution of Civil Engineers (ICE), the Institution of Structural Engineers (IStructE), the Institute of Highway Engineers (IHE) and the Chartered Institution of Highways & Transportation (CIHT).

School/department

School of Engineering

Duration

12 months full-time

27 months online

Intake

September

Entry requirements

Our minimum entry requirement is a UK Honours degree (or equivalent) in any branch of Engineering at a 2:1 (upper second) class or above. Applicants with slightly lower qualifications (e.g. a UK equivalent lower second class honours degree) may be considered if they can demonstrate they have 5, or more, years of professional experience judged by the University to be of direct relevance to the programme.

All international students, even if you have been educated in the medium of English, must meet our English Language requirements (www.abdn.ac.uk/study/international/english-requirements.php).

This programme requires that you meet the 'Postgraduate Standard' level of English proficiency.

Please note: for Distance Learning students, access to a high speed Internet connection is necessary.

An International Pre-Masters course is available for this programme through our International Study Centre (www.abdn.ac.uk/isc)

Course info www.abdn.ac.uk/subseaengineering

School info www.abdn.ac.uk/engineering

General info www.abdn.ac.uk/study

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MSc GLOBAL SUBSEA ENGINEERING

Study in
Scotland &
Australia

The MSc Global Subsea Engineering programme offers a unique opportunity for students to engage and learn in an internationally collaborative environment centred around two major energy hubs: Aberdeen, Scotland and Perth, Western Australia.

This 12 month masters programme draws on the niche expertise of the University of Aberdeen and Curtin University in the field of subsea engineering and offers a seamless global education experience where students spend time at each institution.

The programme provides an in-depth understanding of subsea infrastructure, construction and maintenance, subsea surveying and installation, safety and regulation. It has been designed to produce the career-ready engineers that the highly technical subsea industry requires. Upon completion students will be awarded a degree recognising their study at both institutions.

This exciting new partnership between the University of Aberdeen and Curtin University enables students to develop and apply the technical expertise required for working in the oil and gas industry in an international context.

Students will gain an awareness of the roles and challenges of a practising subsea engineer as well as the knowledge, understanding and skills necessary for technical leadership and managerial responsibility.

The geographical location of the two universities puts us in the unique position of being able to offer a curriculum that is highly relevant to the needs of employers, alongside cutting-edge research.

What you will study

The first semester will be taught at the University of Aberdeen and covers the following:

- Subsea Construction, Inspection and Maintenance
- Subsea Control
- Subsea Integrity
- Offshore Structures and Subsea Systems

Students will then spend their second semester at Curtin University, studying:

- Phase Behaviour and Flow Assurance
- Umbilicals and Risers
- Safety, Reliability and Integrity Management
- Flowlines and Pipelines

Finally, students will return to Aberdeen and complete an individual project.

It is also possible to study this programme undertaking the first semester and project in Australia with the second semester being held in Aberdeen. Please note that students must be eligible for the relevant student visas in both countries and are responsible for ensuring these arrangements are made in a timely manner.

How you will be taught

The courses are assessed both by written examination and coursework.

After the second semester written examinations, students registered for the MSc degree start an industry or school based project, where this can be arranged, and at the end of this period, an individual project report, in the form of a dissertation, has to be handed in.

How you will be assessed

The principal method of assessment is through written examinations. Examinations for the first semester courses are in December and those for the second semester are in May. You will be expected to pass all examinations and all project submissions. MSc candidates must submit a dissertation on their project, and may be required to undergo an oral examination.



School/department

School of Engineering

Duration

12 months full-time

Intake

September

Entry requirements

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) in any branch of Engineering at a 2:1 (upper second) class or above. Students with a 2:1 in Applied Maths or Physics or a 2:2 in Engineering plus 2-3 years of relevant experience may also be considered.

All international students, even if you have been educated in the medium of English, must meet the minimum English language requirements of both institutions.

Curtin University:

[international.curtin.edu.au/apply/
english-prerequisites](http://international.curtin.edu.au/apply/english-prerequisites)

The University of Aberdeen:

[www.abdn.ac.uk/study/international/
requirements-pg-266](http://www.abdn.ac.uk/study/international/requirements-pg-266)

This programme requires that you meet the 'Postgraduate Standard' level of English proficiency.

Course info www.abdn.ac.uk/pgt/global-subsea-eng
School info www.abdn.ac.uk/AbdnEngineering
General info www.abdn.ac.uk/study

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MSc OFFSHORE ENGINEERING

Online and
On-Campus
Programme

Aimed at both practising engineers and recent graduates, this programme is designed to equip students with the skills needed to work in a wide variety of roles in the offshore engineering sector, including oil and gas and renewables.

The MSc Offshore Engineering programme draws upon the School of Engineering's strengths in both subsea engineering and renewable energy engineering, to investigate modern applications of offshore engineering including marine renewables and subsea oil and gas.

The programme is designed to be accessible to applicants from a wide range of engineering disciplines such as civil, petroleum or mechanical engineering, but also electrical and electronic engineers interested in a career in subsea controls.

A unique strength of the MSc Offshore Engineering programme at Aberdeen is the inclusion of courses on marine renewables and marine environment impact assessments, alongside courses on subsea construction, which gives our graduates greater opportunities across the wider field of marine energy. In particular, this aspect of the programme appeals to engineers working within the subsea oil and gas industry, who are looking to diversify towards offshore renewable energy.

Scotland is leading the way in tidal stream and wave energy projects. The Scottish Government has a target 100% of gross electricity consumption to come from renewables by 2020, of which offshore wind is expected to make the greatest contribution. The established engineering expertise and offshore experience based in the northeast of Scotland means that Aberdeen has emerged as a hub for offshore renewable engineering in recent years.

What you will study

- Offshore Structures & Subsea Systems
- Subsea Construction, Inspection and Maintenance
- Electrical Systems for Renewable Energy
- Engineering Risk and Reliability Analysis
- Hydro, Marine, and Wind Energy
- Marine Environmental Impact Assessment

Additional options include:

- Subsea Control
- Subsea Integrity
- Pipelines and Soil Mechanics
- Renewable Energy Integration to Grid

How you will be taught

The courses are completely modular in structure. A choice of exit levels is provided to suit the needs of the participants. As a full-time student you will complete four modules per semester while as a part-time student you will complete up to two.

Careers

This programme provides knowledge and skills aimed at the offshore engineering sector, including both oil and gas and renewables.

School/department

School of Engineering

Duration

12 months full-time
27 months part-time online

Intake

September

Entry requirements

Minimum requirements for this programme are a 2:1 (upper second class) UK Honours degree, or an Honours degree from a non-UK institution which is judged by the University to be of equivalent worth in any branch of Engineering.

Students with a 2:1 in Applied Mathematics or Physics may also be considered on a case-by-case basis.

Those with a 2:2 Honours degree in Engineering may also be considered if they can demonstrate 3+ years of relevant industry experience.

All international students, even if you have been educated in the medium of English, must meet our English language requirements (www.abdn.ac.uk/study/international/english-requirements.php)

This programme requires that you meet the "Postgraduate Standard" level of English proficiency.

An International Pre-Masters course is available for this programme through our International Study Centre (www.abdn.ac.uk/isc)

Course info www.abdn.ac.uk/pgt/offshore-eng

School info www.abdn.ac.uk/engineering

General info www.abdn.ac.uk/study

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MSc OIL AND GAS STRUCTURAL ENGINEERING

The future of the industry will be dependent on a new generation of world-leading engineers. This MSc programme has been developed jointly with industry as an effective means of transferring knowledge and skills from senior experts in industry and the University to the new generation of structural engineers.

Available as part-time (by distance learning) only, this MSc programme is normally taken over three years (maximum of 6 years), consisting of two modules at a time in each of the two semesters, in each year.

The programme attracts students from all over the world making the learning experience truly international.

The programme is aimed at you, as a practising structural engineer. Therefore, whilst a good honours degree is a prerequisite, this MSc also requires you to have practical structural engineering experience to provide the context for the taught material.

You will have the opportunity to interact with your fellow learners and with the tutor via module-specific online discussion boards and email.

What you will study

- Design of Connections
- Fatigue and Fracture Mechanics
- Structural Dynamics
- Conceptual Design of Top-Side Modules
- Blast and Fire Resistant Structures
- Brownfield Structural Engineering
- Petrochemical Structural Engineering
- Finite Element Methods
- Conceptual Design of Jackets and Subsea Structures
- Design of Stiffened Plates
- Re-Assessment of Existing Structures by Structural Reliability Analysis
- Design of Jacket Attachments

Half of the modules are delivered by structural engineers who are well respected for their experience and expertise in the oil and gas industry.

The remaining modules are delivered by world-class, research active, teaching staff at the University of Aberdeen.

This mix of Industry and academia has produced a high value, demanding programme delivering in-depth fundamental understanding and practical application.

The modules have been selected to provide maximum relevance to current and future Industry requirements. The modules listed are subject to continued monitoring and re-appraisal by an Advisory Board of Industry Representatives.

How you will be taught

To enable you to remain in your employment, the MSc is only available as a part-time programme and is taught entirely via the University's online virtual learning environment. The online delivery is a staged release of teaching materials and coursework assignments with online tests after each teaching block. Teaching blocks are normally three weeks apart. Half of the modules will also have an end of module Examination – in January or May/June – which can either be at Aberdeen or at an agreed Higher Education establishment/British Council office convenient for the student's own location anywhere in the world.

Please note: this programme is only offered as a part-time, online option.

How you will be assessed

Assessment is by a mix of examination and coursework for most modules with half of the modules being by coursework alone.

Accreditation

Fully accredited by the Institution of Civil Engineers (ICE), the Institution of Structural Engineers (IStructE), the Institute of Highway Engineers (IHE) and the Chartered Institution of Highways & Transportation (CIHT).

School/department

School of Engineering

Duration

33 months – Sept to June part-time (MSc) 21 months – Each of these three periods is 1, 2 or 3 times 12 less the three months of the final summer. 9 months part-time (PgCert)

The above indicates the minimum amount of time required to complete the programme. Students study up to two modules in each of the University's semesters which start in September and January. Some students elect to study fewer modules, thereby extending the time taken to complete the programme.

Intake

September

Entry requirements

A 2.1 Honours degree in Civil or Structural Engineering, or equivalent. Applicants with other relevant qualifications will be considered if they also have significant relevant Structural Engineering professional experience. Ideally all applicants must have at least 2 years (depending on its nature) of relevant experience.

All international students, even if you have been educated in the medium of English, must meet our English Language requirements (www.abdn.ac.uk/study/international/english-requirements.php).

This programme requires that you meet the 'Postgraduate Standard' level of English proficiency.

Course info www.abdn.ac.uk/ogse

School info www.abdn.ac.uk/engineering

General info www.abdn.ac.uk/study

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MSc OFFSHORE STRUCTURAL ENGINEERING

Online Programme

This programme was designed and developed with senior engineers working in the offshore industry to transfer the very latest knowledge and skills to the next generation of structural engineers. The programme delivers professional online training for professional engineers working in the offshore oil and gas and renewables sector.

The MSc Offshore Structural Engineering is designed for practising Structural Engineers. While a good honours degree is a pre-requisite, this MSc also requires you to have practical Structural Engineering experience, to provide the context for the taught material.

The entire programme of courses covers a range of relevant theoretical and practical subjects which have been selected to present you with the latest industry thinking and key engineering skills required for this crucial area of expertise. Examples of the former include, Finite Element Methods and Structural Dynamics, whereas examples of the latter include a number of Conceptual Design modules, the design of steelwork connections and structures for offshore renewables.

What you will study

- Structural Dynamics
- Design of Connections
- Conceptual Design of Topsides Modules
- Fatigue and Fracture Mechanics
- Blast and Fire Resistant Structures
- Brown Field Structural Engineering
- Structures for Offshore Renewables
- Finite Element Methods
- Conceptual Design of Jackets and Subsea Structures
- Design of Stiffened Plates
- Re-Assessment of Existing Structures by Structural Reliability Analysis
- Design of Jacket Attachments

How you will be taught

The programme is delivered entirely online, on a part time basis, so that you can remain in employment while studying. You will interact with other students on the programme and with lecturers and industry based tutors via module-specific online discussion boards and email. To sustain a good teaching experience and ensure good access to, and feedback from, the industry-based tutors especially, places on the programme are limited.

Please note: this programme is only offered as a part-time, online option.

How you will be assessed

In each semester one module will be assessed by a combination of coursework and a final exam. The other module will be assessed by coursework only.

School/department

School of Engineering

Duration

33 months part-time online

Intake

September

Entry requirements

Minimum requirements for this programme are a 2:1 (upper second class) Honours degree in Civil or Structural Engineering, or equivalent, with ideally 1 or 2 years (depending on its nature) of relevant experience.

Flexibility may be shown to those with 2:2 (lower second class) Civil or Structural Engineering degrees who have significant professional experience. First Class Civil or Structural Engineering students with little experience may be considered after consideration of degree transcripts.

All international students, even if you have been educated in the medium of English, must meet our English language requirements (www.abdn.ac.uk/study/international/english-requirements.php)

This programme requires that you meet the "Postgraduate Standard" level of English proficiency.

Course info www.abdn.ac.uk/pgt/ose

School info www.abdn.ac.uk/engineering

General info www.abdn.ac.uk/study

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I really loved the way the course is designed. It is ***challenging***, but at the same time it gives a good ***integration*** between other subjects such as drilling, production, geology and petrophysics.

Mohammed Ghouse Mohiuddin, Oman
MSc Petroleum Engineering

MSc ADVANCED CHEMICAL ENGINEERING



A flexible, industry-focused programme, delivering advanced skills in chemical and process engineering for multiple industry sectors, including oil and gas, pharmaceuticals, food and environmental science.

You will study the essential areas of chemical engineering in great detail, including Separation & Product Purification and Air & Water Pollution Control and learn about Catalyst & Reactor Design, and Process Design, Layout & Materials. In addition, you will choose further optional courses based on your career interests in subjects such as Clean Energy, Process Safety, Management and Human Factors Engineering.

The programme culminates in an Individual Research Project, which you will undertake on an agreed topic.

The School of Engineering at the University of Aberdeen is known as a centre of excellence in Chemical engineering research, in areas including carbon capture, biofuel, energy storage and pharmaceutical manufacturing. We also have excellent industry links, with national and international chemical, pharmaceuticals and oil & gas companies such as Scottish Water, GSK, Halliburton and Shell.

What you will study

- Separation and Product Purification
- Air & Water Pollution Control
- Catalyst and Reactor Design
- Process Design Layout & Materials
- Individual Research Project

Optional courses include:

- Computational Fluid Dynamics
- Upstream Oil and Gas Processing
- Process Risk Identification & Management
- Loss of Containment
- Catalyst and Reactor Design
- Process Design Layout & Materials
- Process Plant, Equipment & Operations
- Mathematical Optimisation
- Applied Risk Analysis and Management
- Human Factors Engineering

Careers

Graduates of this programme will find employment opportunities in research and development as well as in industrial fields including oil and gas processing, petrochemicals, fine chemicals and beverages, clean energy, environmental waste management, materials, agrochemicals, process safety, consultancy, and many technical areas.

School/department

School of Engineering

Duration

12 months full-time
27 months part-time online

Intake
September

Entry requirements

Our minimum entry requirement is a 2:1 (upper second class) UK Honours degree, or an Honours degree from a non-UK institution which is judged by the University to be of equivalent worth in Chemical Engineering or other related engineering discipline.

Those with a High 2:2 Honours degree in Engineering may also be considered if they can demonstrate 2+ years of relevant experience.

All international students, even if you have been educated in the medium of English, must meet our English language requirements (www.abdn.ac.uk/study/international/english-requirements.php)

This programme requires that you meet the "Postgraduate Standard" level of English proficiency.

An International Pre-Masters course is available for this programme through our International Study Centre (www.abdn.ac.uk/isc)

Course info www.abdn.ac.uk/pgt/adv-chem-eng

School info www.abdn.ac.uk/engineering

General info www.abdn.ac.uk/study

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MSc ADVANCED STRUCTURAL ENGINEERING

Online and
On-Campus
Programme

With the advancement of technology, structural engineering, originally part of civil engineering, has emerged as a critical part for many other sectors, from aerospace to renewable energy. This programme has been designed to be suitable for students from a range of engineering backgrounds, including mechanical, civil, aerospace, automotive and energy.

The MSc Advanced Structural Engineering offers a highly flexible curriculum, which allows you to design your course of study to suit your particular needs and interests, based on your academic background and the career sector you are interested in working in after graduation.

This programme is designed to produce a new generation of professionals, equipped with comprehensive understanding of various aspects of structural engineering and its applications in a wide range of industrial sectors such as civil and construction, aerospace, automotive, renewable energy, and oil and gas.

Students following the civil, aerospace, automotive, oil & gas and wind energy paths, in addition to the core courses, select specialist courses in their particular subject area.

The MSc Advanced Structural Engineering offers is also distinctive because it offers courses such as Advanced Composite Materials, Lightweight Structures and Engineering Optimisation, which are crucial for students interested in pursuing a career in Aerospace, Automotive or Wind Energy sectors, where lightweight structures made of advanced composite materials and highly optimised for their performance play a key role.

What you will study

- Advanced Composite Materials
- Structural Vibration
- Mathematical Optimisation
- Lightweight Structures
- Individual Project in Advanced Structural Engineering

Additional options include:

- Offshore Structural Design
- Fire and Explosion Engineering
- Computational Fluid Dynamics
- Riser Systems and Hydrodynamics
- Engineering Risk and Reliability Analysis
- Finite Element Methods

Assessment

Assessment is based on a combination of Exam and continuous assessment. Coursework are designed to maximise the students' engagement with the current knowledge and the state-of-the-art-of the practice. Most of courses have in-course assessments. In-course assessments have a variety of forms, such as tests, individual reports, presentations and group projects. Feedback on in-course assessments is normally provided before the exams. Formative assessments are also used to enable students to practice problem solving and build confidence in their independent learning.

Careers

Graduates of this programme will be able to apply for a range of roles in numerous civil and construction, aerospace, automotive, renewable energy, and oil and gas companies as well as private and public research and development organisations.

School/department

School of Engineering

Duration

12 months full-time

27 months part-time online

Intake

September

Entry requirements

Minimum requirements for this programme are a 2:1 (upper second class) Honours degree in Civil, Mechanical, Automotive, Aerospace, Energy or Structural Engineering, or equivalent.

Those with a 2:2 Honours degree in a relevant Engineering discipline may also be considered if they can demonstrate 2+ years of relevant industry experience and keen motivation.

All international students, even if you have been educated in the medium of English, must meet our English language requirements (www.abdn.ac.uk/study/international/english-requirements.php)

This programme requires that you meet the "Postgraduate Standard" level of English proficiency.

An International Pre-Masters course is available for this programme through our International Study Centre (www.abdn.ac.uk/isc)

Course info www.abdn.ac.uk/pgt/adv-structural-eng
School info www.abdn.ac.uk/engineering

General info www.abdn.ac.uk/study

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MSc ADVANCED MECHANICAL ENGINEERING

Online and
On-Campus
Programme

This programme emphasises the application of computational techniques and packages to solve complex engineering problems. It offers students a broad range of advanced subjects across the mechanical engineering disciplines to prepare students to excel in various industrial sectors.

The MSc Advanced Mechanical Engineering is the latest addition to our world-class suite of engineering programmes, opening up a broader range of career opportunities in many areas of mechanical engineering and related areas, including automotive, energy, defence and manufacturing.

The programme provides graduate engineers with an in-depth technical understanding of advanced mechanical topics, particularly in the area of computational mechanics, mechanical response of engineering materials and reliability engineering.

In addition, the programme is designed to enhance the skills of experienced engineers who have been already working in industry and equip graduates with transferable skills required for demanding employment.

The programme emphasises the application of computational techniques and packages to solve complex engineering problems through core courses. Students can also tailor the programme to their career interests through their individual project and choice of optional courses.

What you will study

- Computational Fluid Dynamics
- Numerical Simulation of Waves
- Finite Element Methods
- Mathematical Optimisation
- Engineering Risk and Reliability Analysis

In addition, students will be able to specialise by choosing optional courses from the following areas:

- Fire and Explosion Engineering
- Structural Vibrations
- Project Management
- Risers Systems and Hydrodynamics
- Hydro, Marine and Wind Energy

How you will be taught

The taught part of the programme consists of two semesters: the first running from September to December, and the second from January to May.

The courses are assessed both by written examination and coursework.

After the second semester written examinations in May, students registered for the MSc degree start an industry or School based project, where this can be arranged, and at the end of this period, write an individual project report, in the form of a dissertation.

How you will be assessed

The principal method of assessment is through written examinations. Examinations for the first semester courses are in December and those for the second semester are in May. You will be expected to pass all examinations and all project submissions. MSc candidates must submit a dissertation on their project, and may be required to undergo an oral examination.

School/department

School of Engineering

Duration

12 months full-time

27 months part-time online

Intake

September

Entry requirements

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) in Mechanical, Material, Civil, Chemical or Aerospace Engineering at a 2:1 (upper second) class or above. Students with a 2:2 and 2-3 years of relevant experience may also be considered.

All international students, even if you have been educated in the medium of English, must meet our English Language requirements (www.abdn.ac.uk/study/international/english-requirements.php).

This programme requires that you meet the 'Postgraduate Standard' level of English proficiency.

An International Pre-Masters course is available for this programme through our International Study Centre (www.abdn.ac.uk/isc)

Course info www.abdn.ac.uk/pgt/advanced-mech-eng
School info www.abdn.ac.uk/AbdnEngineering
General info www.abdn.ac.uk/study

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MSc PROCESS SAFETY

Online and
On-Campus
Programme

This programme examines the primary technologies and operations involved in upstream oil and gas processing, with a particular focus on operational safety, risk assessment and risk management.

The School of Engineering at the University of Aberdeen has focused on safety-related teaching and research for over 25 years and is today established as one of the key centres for safety engineering teaching and research in the UK.

The MSc Process Safety is developed with the Institution of Chemical Engineers (IChemE) and industry to produce qualified Process Safety Engineers.

On this programme, you will be exposed to the major issues and challenges facing industry today, including operational safety, risk assessment and management and develop a professional approach to managing these accordingly.

This programme is distinctive because it is designed for students with a chemical engineering background, or those with a background in Petroleum or Mechanical Engineering, with good chemical/chemistry knowledge.

A major component of the MSc Process Safety programme is understanding and managing risk. You will be introduced to the tools and processes used to identify, assess and manage risk, taking such issues as process operations and human factors into account.

Aberdeen is known as the Energy Capital of Europe. The city and surrounding area is home to over 900 energy-related companies and is a major international centre of research and innovation in every aspect of the offshore oil and gas industry.

The University's location at the heart of the oil and gas industry means that our degree programmes benefit from direct industry involvement, including industry advisory panels, guest lectures, field trips, site visits, networking and careers events, and industry supported student projects.

What you will study

- Process Risk Identification and Management
- Upstream Oil & Gas Processing
- Loss of Containment
- Computational Fluid Dynamics
- Applied Risk Analysis & Management
- Process Plant, Equipment and Operations
- Process Design, Layout & Materials
- Human Factors Engineering
- Individual Project in Process Safety

How you will be taught

The programme consists of two semesters: September to December, and January to May. After the written examinations in May, students registered for the MSc degree start an industry or school-based project, where this can be arranged, and at the end of this period an individual project report, in the form of a dissertation, has to be submitted and examined by our External Examiners, who will may also make an oral examination of some students on all aspects of the programme. The final assessment takes account of performance in all parts of the programme and examinations.

How you will be assessed

The principal method of student assessment is through written examinations candidates are normally expected to pass all examinations and all projects submissions. MSc candidates must submit a dissertation on their project, and may be required to undergo an oral examination.

School/department

School of Engineering

Duration

12 months full-time

27 months online

Intake

September

Entry requirements

Our minimum entry requirement for this programme is a 2:1 (upper second class) UK Honours degree (or an honours degree from a non-UK institution which is judged by the University to be of equivalent worth) in Chemical Engineering, alternatively Mechanical or Petroleum Engineering at 2:1 or above with evidence of strength in key aspects of Chemical Engineering.

Even if you have been educated in the medium of English you must meet our English Language requirements. These are located at www.abdn.ac.uk/study/international/english-requirements.php.

This programme requires that you meet the 'Postgraduate Standard' level of English proficiency.

Course info www.abdn.ac.uk/pgt/process-safety

School info www.abdn.ac.uk/engineering

General info www.abdn.ac.uk/study

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The University's
excellent reputation
in engineering teaching
and its close links with
industry was too good
an opportunity to miss.



Alan Ross, UK

MSc Subsea Engineering
Analysis Engineer, Subsea 7

MSc PROJECT MANAGEMENT

Online programme

Empowering managers to deliver the financial and operational success of projects across all industries, through a solid grounding in the principles and practice of project management.

The online MSc Project Management is an APM-accredited programme which has been designed specifically to meet the requirements of practising professionals.

Ideally suited to project management professionals from any industry sector who are looking to up-skill, or managers looking to move into project management roles, this programme provides advanced education and training in areas including project planning, budgets and controls, quality and risk management, and commercial and contractual issues.

Flexibility and a firm grounding in current practice are the principal features of the MSc Project Management. The courses on the programme are completely modular in structure and have been carefully developed to provide a variety of levels of provision, suiting your individual needs. This includes a choice of exit levels, which means you can study part-time towards a Postgraduate Certificate, Diploma or full MSc qualification while continuing in employment.

Topics covered

- Project Management Essentials
- Organisations and People
- Project Planning and Control
- Budgets and Financial Control
- Commercial and Contractual Issues
- Quality and Risk Management
- Group Project
- Managing Project Teams
- Programme & Portfolio Management
- Individual Project

How you will be assessed

The modules are assessed by a combination of coursework and written examination. The distance learning coursework is submitted to the course tutor electronically. If you are a distance learning student, you will need to arrange a suitable examination venue at a convenient Higher Education Institution or British Council Office. Each module can be taken as a stand-alone credit bearing unit for the purposes of Continuing Professional Development. A choice of exit levels is also provided to suit your needs.

School/department

School of Engineering

Duration

27 months online

Intake

September and January

Entry requirements

Relevant experience in Project Management is a prerequisite. In general, applicants are expected to hold a degree in an appropriate subject; however alternative qualifications, combined with an appropriate level of significant and relevant experience, may also be considered as a means for entry.

Applicants with no formal higher educational qualifications should not be deterred from applying for this course.

All international students, even if you have been educated in the medium of English, must meet our English Language requirements (www.abdn.ac.uk/study/international/english-requirements.php).

This programme requires that you meet the 'Postgraduate Standard' level of English proficiency.

Course info www.abdn.ac.uk/projectmanagement

School info www.abdn.ac.uk/engineering

General info www.abdn.ac.uk/study

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MSc SAFETY AND RELIABILITY ENGINEERING

The ongoing developments in safety and reliability remains a primary focus for the industry. Greater effort is now being put into assessing the safety and reliability of complex engineering systems, and of ensuring that existing facilities can continue to be operated safely and economically.

The School of Engineering at the University of Aberdeen is a world-class centre for research and teaching in safety and reliability engineering. One of the objectives of the School is to continually develop and deliver world-class teaching and research in safety and reliability engineering aimed at educating the safety engineers of the future.

The MSc Safety and Reliability Engineering for Oil and Gas and the MSc Safety and Reliability Engineering provide advanced education and training for graduate engineers in the area of safety engineering, reliability engineering, and loss prevention.

There is a continuing demand for individuals with specialist knowledge in these areas across many industry sectors including oil and gas, chemicals, transport and construction, partly a result of the legal requirements to assess and control industrial risks to people and the environment and partly because of the need to create high integrity engineering systems in many industries.

Safety engineering is not a subject which is adequately covered in most undergraduate degrees, so this MSc programme brings together those topics relating to the safety and reliability of engineering products and systems, including the legislative framework, in a unified approach.

MSc Safety and Reliability Engineering for Oil and Gas

The MSc Safety and Reliability Engineering for Oil and Gas provides an integrated approach to safety and reliability issues across most of the traditional branches of engineering, and will allow you to specialise in offshore engineering, technical safety, reliability, legislations and regulations or human factors. You will be taught by staff from the School of Engineering, Institute of Mathematics, School of Psychology and the Department of Environmental and Occupational Medicine. In addition to the above, a number of lectures are given by industrially-based practising safety and reliability specialists.

Campus study is fully accredited by the Institution of Mechanical Engineers (IMechE), the Institution of Civil Engineers (ICE), the Institution of Structural Engineers (IStructE), the Institute of Highway Engineers (IHE) and the Chartered Institution of Highways & Transportation (CIHT).

MSc Safety and Reliability Engineering

The MSc Safety and Reliability Engineering provides the same level of quality and expertise as the MSc Safety and Reliability Engineering for Oil and Gas, but with broader applications for other industries such as nuclear, defence, transport, aerospace, manufacturing and process industries.

What you will study

- Fundamental Safety Engineering & Risk Management Concepts
- Statistics & Probability for Safety, Reliability & Quality
- Fire & Explosion Engineering
- Offshore Structures & Subsea Systems
- Advanced Methods for Risk & Reliability Assessment
- Applied Risk Analysis & Management
- Process Design, Layout and Materials
- Human Factors Engineering
- Individual Project

As a full-time student taking the MSc programme over 12 months, a dissertation is to be prepared on work undertaken during the final individual project, which will normally be specified in collaboration with industrial partners, supervised either in the School of Engineering or externally.

Please note that an industry placement is not compulsory and cannot be guaranteed. If you are a part-time student who is sponsored by your company or working for a company approved by the University, a dissertation is to be prepared on approved project work carried out within that company during the second or third year of the programme.

How you will be assessed

Assessment is by continuous assessment and/or written assignment.

"I had six-years of professional experience before coming to the programme, yet the programme really strengthened the knowledge that I previously lacked."

Fari Aditya Gatam, Indonesia, MSc Safety and Reliability Engineering for Oil and Gas

School/department

School of Engineering

Duration

12 months full-time

27 months online

Intake

September

Entry requirements

Our minimum entry requirement for these programmes 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) in any branch of Engineering, Mathematics or Physics at a 2:1 (upper second) class or above. Applicants with slightly lower qualifications e.g. a UK equivalent 2:2 (lower second class honours degree) may be considered if they can demonstrate they have 2-3 years, of professional experience judged by the University to be of direct relevance to the programme.

All international students, even if you have been educated in the medium of English, must meet our English Language requirements (www.abdn.ac.uk/study/international/english-requirements.php).

This programme requires that you meet the 'Postgraduate Standard' level of English proficiency.

An International Pre-Masters course is available for this programme through our International Study Centre (www.abdn.ac.uk/isc)

Course info www.abdn.ac.uk/safetyengineering

School info www.abdn.ac.uk/engineering

General info www.abdn.ac.uk/study

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Introducing *Geosciences*

Geology degrees have been awarded at the University of Aberdeen for more than 150 years. Our unique position in Europe's Energy Capital means we have long-established links with the oil, gas and renewable industries, which will benefit graduates as they progress through their career.

We have created a world-class learning environment and we pride ourselves on being a close community of staff and students, working together and sharing experiences.

Organisations that we work with across a number of areas include – Apache, Statoil, Baker Hughes, BP, Chevron, Conoco Phillips, Dana Petroleum, Halliburton, BP, Shell, Pemex and Saudi Aramco, to name a few. These links, and more help us deliver world-class teaching and research tailored to industry needs.

We deliver our programmes from world-class facilities with a number of our MSc programmes having dedicated study and teaching space available.

Our flagship MSc Integrated Petroleum Geoscience programme was first launched in 1973, due to a recognised demand from industry.

Over the past 40 years the programme has been developed in line with industry needs and informed by industry experts.

The programme today is one of the most highly regarded Petroleum Geology Masters programmes in the world, with over 97% of graduates entering straight into careers in the industry or further research.

Local, national and international field trips play a major part in all our postgraduate teaching. Some are organised directly through the department as part of the degree programme, whereas others are organised through the active student chapters, which offer great networking opportunities and form an essential bridge into careers.

Recent additions to our portfolio of MSc degree programmes now means we offer one of the most industry relevant, comprehensive and careers focussed Geoscience portfolios in the UK.

The Degree Programmes

- MSc Environmental Partnership Management
- MSc Geographical Information Systems
- MSc Geophysics
- MSc Integrated Petroleum Geoscience
- MSc Oil and Gas Enterprise Management
- MSc Petroleum Data Management

Full details of entry requirements are on the individual programme information pages that follow, but the below table looks to give you a simple summary of where the different undergraduate degree subjects fit in.

Undergraduate Degree Subjects	Environmental Partnership Management	Integrated Petroleum Geoscience	Geophysics	Geographical Information Systems	Oil & Gas Enterprise Management	Petroleum Data Management
Geology	•	•	•	•	•	•
Geophysics	•	•	•	•	•	•
Engineering	•		•	•	•	•
Physics	•		•	•	•	
Mathematics	•		•	•	•	
Chemistry	•			•	•	
Other Geoscience	•			•	•	•
Business Related	•			•	•	
Computing	•			•	•	
Environmental	•		•	•		

I believe that as a result of this *knowledge* and the *analytic skills* that I have acquired, more doors of *opportunities* will be open for me.

Farida Bayari, Nigeria
MSc Oil and Gas
Enterprise Management

MSc INTEGRATED PETROLEUM GEOSCIENCE

On-Campus Programme

Running since 1973 and recognised as one of the leading courses of its kind in the world, this programme provides world-renowned training in the practical and technical skills required by the global hydrocarbon exploration and production industry.

With an excellent reputation as one of the top vocational training pathways, graduates from this programme are highly sought after by industry. This programme is also an ideal springboard into further research at PhD level and above.

Over the last decade, more than the vast majority of our MSc graduates have gained employment in the oil industry or gone straight on to funded PhD research.

The MSc Integrated Petroleum Geoscience programme will:

- Teach the geoscience skills needed to ensure you are well prepared to embark upon a petroleum industry career.
- 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.
- Enhance your interpersonal and transferable skills relevant to the hydrocarbon industry today.
- Give you access to a dedicated space, including a computing room with high-spec server blades. A range of analytical equipment, state-of-the-art industry software packages are available for the courses and projects.

What you will study

Components of the programme 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 covered by the following courses:

- Geophysics and Petrophysics
- Applied Sedimentology
- Production Geology
- Regional Exploration
- Professional Skills incorporating International Field Trip

How you will be assessed

Practical work, projects and reports will be assessed continuously throughout the programme. Examinations are held in December and May on the preceding term's curriculum. An oral examination will be held. You will also be expected to present a final report on a relevant and approved major topic.

School/department

Geology & Petroleum Geology

Duration

12 months full-time

Intake

September

Entry requirements

Our normal, minimum entry requirements for this programmes 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.

All international students, even if you have been educated in the medium of English, must meet our English Language requirements (www.abdn.ac.uk/study/international/english-requirements.php).

This programme requires that you meet the 'Postgraduate Higher' level of English proficiency. Poorly written personal statements may lead to applications being rejected.

An International Pre-Masters course is available for this programme through our International Study Centre (www.abdn.ac.uk/isc)

Course info www.abdn.ac.uk/ipg

School info www.abdn.ac.uk/geosciences

General info www.abdn.ac.uk/study

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Developed on the back of a recognised need for qualified Geophysicists within industry, this programme will equip students with the skills needed for careers in the hydrocarbon, minerals exploration or associated service industries, as well as undertaking broader geophysics research.

A unique geophysics course with top class facilities, approachable and knowledgeable staff on the doorstep of the UK oil & gas hub. Learn essential geophysical skills through doing: fieldwork, practical classes, self-study and lectures. Benefit from individual mentorship from industry and academic researchers and gain confidence in using geophysical software and equipment.

Explore the theory of geophysics and its application to a multitude of research and industry problems across a variety of scales, via a curriculum that covers the broad fundamentals and new technologies.

Expand your geophysical knowledge and skills to gain an essential qualification for employment or research. Geophysics is thriving in the UK, with a vibrant research community alongside an influential and dynamic industry.

Why study Geophysics

- Follow our recent graduates into exciting careers; over half are working in a geophysics industry or lecturing, a quarter are undertaking geophysics PhD research and the remainder are employed in the digital technology sector.
- Learn from experienced geophysics staff and key industry experts, delivered in world-class facilities with dedicated teaching and study space.
- Gain hands-on experience in using industry-standard software suites.
- Acquire geophysical data with our large pool of geophysics equipment (including passive seismometers, seismic reflection/refraction, ground penetrating radar, resistivity, magnetometers and dGPS).
- Develop your own ideas, strategies and solutions during the self-directed geophysics project with dedicated academic and industry mentorship.
- Experience local, national and international fieldwork as part of the MSc programme and through active student chapters.
- Enhance your interpersonal, business, presentation and communication skills. Work both as a team and individually, and immerse yourself in new experiences and influences.

What you will study

- Earth Physics, Structure and Processes
- Seismic Reflection Processing, Imaging and Quantitative Interpretation
- Time Series Analysis and Signal Processing
- Field Geophysical Data Acquisition
- Seismology and Earth Imaging
- Borehole Geophysics and 4D Reservoir Monitoring
- Geophysical Inverse Theory and Statistics
- Topics in Advanced Applied Geophysics
- Project in Geophysics
- Individual Project in geophysics, supported directly by industry where appropriate

How you will be taught

The taught part of the programme is delivered over two semesters: September to December, and January to May. The courses are taught by staff from School of Geosciences. In addition, a number of industry based external lecturers contribute to the programme to give examples of how theoretical concepts are currently being applied in industry.

How you will be assessed

Continuous assessment will play a major part in the programme, as well as course specific project work and exams. One-third of the overall assessment will be attributed to an individual project involving original research or applied work. Students may gain direct support from industry during the individual project.

School/department

Geology & Petroleum Geology

Duration

12 months full-time

Intake

September

Entry requirements

Our minimum entry requirement for this programme is a 2:1 in Geophysics, Maths, Physics, Computing or a Geology degree which included Geophysics as well as proven maths ability such as A-level or Advanced Higher maths at C or better, or Higher maths at B or better would also be eligible, or its international equivalent.

All international students, even if you have been educated in the medium of English, must meet our English Language requirements (www.abdn.ac.uk/study/international/english-requirements.php).

This programme requires that you meet the 'Postgraduate Standard' level of English proficiency.

Course info www.abdn.ac.uk/pgt/geophysics

School info www.abdn.ac.uk/geosciences

General info www.abdn.ac.uk/study

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MSc PETROLEUM DATA MANAGEMENT

Online and
On-Campus
Programme

There is a growing demand from the sector for professional petroleum data managers, possessing expertise seen as critical to maximising economic recovery.

The oil and gas industry continues to be a major provider of energy and employment globally and needs highly-skilled data managers in order to maximise current and future opportunities. Such talent will support the industry in finding ways to reduce operational costs, increase exploration success, and reduce risk; all factors which are key to achieving industry success.

The aims of the Petroleum Data Management programme is to provide advanced education and training for petroleum data managers and for those aspiring to move into the oil and gas sector. This is not an Information Technology degree, but rather an industry-led programme that deals with the specific aspects of managing physical and digital data that are used across the hydrocarbons industry to understand and evaluate the subsurface and the petroleum reserves located there. The content reflects the overview of all key data management activities of relevance to petroleum data managers working in multi-disciplinary teams.

The Petroleum Data Management programme has been set up through an agreement between the University of Aberdeen and Common Data Access Ltd (CDA), a not-for-profit subsidiary of Oil & Gas UK, which provides data management services to the UK oil and gas industry. The programme is supported by leading multinational companies including Shell, Total and Chevron.

"Good data management is key to unlocking the real value of technical and analytical applications. As an industry, we are experiencing a tremendous growth in data and to manage it successfully we will need a pipeline of talent with strong earth science and engineering skills. The Master's programme at Aberdeen University, as well as other strategically located programs, will enable the next generation of skilled data managers to advance their careers in the oil and gas industry."

Danny Bush, Unit Manager Subsurface Workflows,
Chevron Energy Technology Company

What you will study

- Fundamentals of Petroleum Geoscience
- The Nature of Geological and Geographical Data
- Petroleum Data Governance
- Petroleum Data Quality Management
- Exploring Geological and Geographical Data
- Service & Project Management
- Data Science: From Data to Insight
- Law, Business, Security:
Petroleum Data Management

In addition, upon successful completion of these taught courses, students undertake an extended, independent, and self-directed project. This will be assessed by means of a written report and an oral presentation.

School/department

Geology & Petroleum Geology

Duration

12 months full time, on campus
27 months, online

Intake

September

Entry requirements

A 2:1 (upper second class or above) UK Honours degree in a science discipline, or a science-based Honours degree from a non-UK institution which is judged by the University to be of equivalent worth. Those with a 2:2 (lower second-class Honours) degree may be considered if they can demonstrate they have at least 2 years of professional experience judged by the University to be of direct relevance to the programme. Please include a personal statement making your case and an employer reference letter in this case.

Applicants with other qualifications may also be considered if they can demonstrate 3+ years' relevant experience in data management in the petroleum industry. A strong personal statement and references will be required in this case.

All International students, even if you have been educated in the medium of English, must meet our English Language requirements (www.abdn.ac.uk/study/international/english-requirements.php).

This programme requires that you meet the 'Postgraduate Standard' level of English proficiency.

Course info www.abdn.ac.uk/pgt/pdm

School info www.abdn.ac.uk/geosciences

General info www.abdn.ac.uk/study

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MSc OIL AND GAS ENTERPRISE MANAGEMENT

On-Campus Programme

This dynamic, engaging and interactive programme provides a unique insight into the oil and gas industry. The programme places an emphasis on the practical application of economics, technology, lateral thinking and management techniques. This multidisciplinary degree is taught in partnership with industry experts, as well as specialists from across the University.

This programme provides comprehensive training in the essential aspects of the oil and gas industry, and remains up to date with the many recent advances in science and technology directly applied to industry. Subject areas studied include: geology, economics, psychology etc.

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.

Aberdeen is widely recognised as the Energy capital of Europe. This means the University is ideally located to work alongside industry leaders, offering students a world class centre for research and education, learning from experts in their field.

Every year, the programme attracts students from wide variety of backgrounds, and appeals to both recent graduates, and industry professionals looking to increase their knowledge, skills and qualifications.

Previous students have included Geologists, Engineers and Business Managers.

What you will study

This programme covers a broad range of subjects in order to encompass all aspects related to the oil industry, from exploration, appraisal through production and decommissioning.

The course will also examine the impact of environmental, human and cultural factors on the oil industry, this will be presented via a series of case studies.

Courses include:

- Geoscience in Oil Exploration
- Introduction to Energy Economics
- Drilling and Well Engineering
- Management in Engineering: Production, Risk Management and Psychology
- Portfolio Optimisation
- Commercial Law and Regulatory Frameworks
- Remediation Technology for Geosciences
- Research Skills, Professional Development and Field Study
- Individual Project

How you will be assessed

Assessment comprises practical exercises, research papers, essays and exams. Some of the courses include 'games' spread over several days, and which require team and negotiating skills, as well as knowledge of technology and economics.

School/department

Geology & Petroleum Geology

Duration

12 months full-time

Intake

September and January

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, Commerce, Business or Finance or other relevant degree.

All international students, even if you have been educated in the medium of English, must meet our English Language requirements (www.abdn.ac.uk/study/international/english-requirements.php).

This programme requires that you meet the 'Postgraduate Higher' level of English proficiency. Poorly written personal statements may lead to applications being rejected.

An International Pre-Masters course is available for this programme through our International Study Centre (www.abdn.ac.uk/isc)

Course info www.abdn.ac.uk/ogem

School info www.abdn.ac.uk/geosciences

General info www.abdn.ac.uk/study

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MSc ENVIRONMENTAL PARTNERSHIP MANAGEMENT

On-Campus Programme

Future success in sustainable development will increasingly rely upon private sector, non-profit and governmental bodies working in partnership. This programme is designed to develop the future generation of eco-entrepreneurs who have the passion and skills to lead environmental partnerships and projects of the future, responding to the UN Sustainable Development Goals.

Sustainable development – the balancing of environmental, economic and social goals – is the greatest challenge facing the planet today. While international initiatives often state the goals and targets needed to achieve sustainable development, a significant gap exists in developing the skills, practices and processes that advance good governance.

In the context of global challenges such as climate change, energy, biodiversity, food, new and innovative forms of collaboration are needed to bring together societal, business and scientific interests.

The MSc in Environmental Partnership Management is an innovative and exciting programme aimed at providing future leaders with the skills and tools needed to develop the green economy. It responds to the gap for skilled graduates and environmental professionals who can work across society, business and government in building partnerships for sustainable development as cited in the UN SDGs. The MSc will combine knowledge on environmental and social issues together with practical business skills to enable the design, management and delivery of effective partnerships and employment ready graduates.

What you will study

- Students will study four courses in the first semester and four courses in the second. These eight courses will be made up of six core and two electives. The partnership project completed in semester three completes the MSc.
- Collaboration & Partnership 1: Principles
 - Contemporary Environmental Challenges
 - Planning, Land and Environmental Law
 - Collaboration & Partnership 2: Practice
 - Governance and Political Economy of Sustainability
 - The Leadership Challenge
 - Partnership project – this involves collaboration (potentially in the form of a placement) with a supporting partner organisation/agency (eg with SEPA, SNH, the National Park Authority, NGO, industry partner or a Community group).
 - Operations and Project Management

How you will be taught

The MSc is taught by experts in environmental policy, energy, water resources, coastal management, tourism, agriculture, transport and rural communities from the Geography and Environment department, with staff from the Business School offering elements of management training that make up part of the MBA. An exciting component of the course is the opportunity to learn about principles and practise of partnership and collaboration from a range of expert speakers from businesses, governments and NGOs.

How you will be assessed

Courses are assessed by continuous assessment, written examination or a combination of these.

School/department

Geography & Environment

Duration

12 months full-time

24 months part-time

Intake

September and January

Entry requirements

A 2:2 (Hons) degree in Geography, Environmental Science, Environmental Management, Marine Science, Geology, Soil Science, Ecology, Planning, Zoology, Forestry, Agriculture, Business Management, Psychology, Biology, Sociology and Economics. 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 environmental studies and management and/or have experience in data analysis.

All international students, even if you have been educated in the medium of English, must meet our English Language requirements (www.abdn.ac.uk/study/international/english-requirements.php).

This programme requires that you meet the 'Postgraduate Standard' level of English proficiency.

Course info www.abdn.ac.uk/pgt/env-partners-mgmt
School info www.abdn.ac.uk/geosciences

General info www.abdn.ac.uk/study

 [environmentalpartnerships](#)

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MSc GEOGRAPHICAL INFORMATION SYSTEMS

Building on 30 years of excellence in the postgraduate teaching of remote sensing (drones and UAVs), photogrammetry, GIS, visualisation, digital mapping and cartography, this programme promotes the integrated study and application of the geospatial technologies through theory and practice. These are all crucial skills for the global energy industry today.

This programme draws upon a wide range of international, national, and local expertise in the following areas:

- Coastal and marine sciences
- Landscape ecology and landscape change
- Archaeology
- Integrated coastal management
- Offshore hydrographic and underwater survey
- Renewable energy
- Geology and hydrocarbon exploration
- Environmental risks and hazards
- Marine and terrestrial spatial planning
- Precision agriculture
- Climate change
- Field data collection.

You will use state of the art tools and techniques such as underwater remote sensing, image data acquisition using UAVs, mobile GIS mapping and spatial apps.

Geospatial technologies are of increasing importance in many areas of commercial, industrial, and government employment; for example in:

- Nature conservation agencies
- Hydrocarbon exploration and Management
- Offshore and hydrographic survey
- Oilfield exploration and management
- Environmental consultancy
- Civil and coastal engineering projects
- Environmental modelling
- Precision agriculture
- Coastal zone management and Marine Spatial Planning
- Decommissioning

What you will study

The GIS programme covers the fundamental techniques and tools for acquiring, storing, processing, classifying, visualising and analysing spatially referenced data, and their application to the study of the environment. Topics include:

- History, Origins, Evolution and Implementation of GIS
- Introduction to GIS Tools, Techniques, Cartography and Geovisualisation
- WebGIS and Internet Mapping
- Database Systems and Big Data
- Advanced Spatial Analysis and Programming
- Fundamentals and Advanced Applications of Map Algebra
- UAV Remote Sensing, Monitoring and Mapping
- Current Applications of GIS

How you will be taught

Teaching is through a combination of illustrated lectures, practical demonstrations, student-led seminar discussions, learning, and fieldwork, making use of Internet resources, group practical work and lectures/seminars with experts in a range of application fields.

How you will be assessed

Assessment is done through a combination of written assignments and lab reports as prescribed for each course, plus a dissertation/report/paper. Students present their work in an annual Presentations Workshop.

School/department

Geography & Environment

Duration

12 months full-time

27 months online

Intake

September and January

Entry requirements

The normal minimum entry requirement is a 2:2 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.

All international students, even if you have been educated in the medium of English, must meet our English Language requirements (www.abdn.ac.uk/study/international/english-requirements.php).

This programme requires that you meet the 'Postgraduate Standard' level of English proficiency.

An International Pre-Masters course is available for this programme through our International Study Centre (www.abdn.ac.uk/isc)

Course info www.abdn.ac.uk/gis

School info www.abdn.ac.uk/geosciences

General info www.abdn.ac.uk/study

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The field trips on the course have been amazing! You get to visit ***world class*** geology in the Spanish Pyrenees and Utah, USA and really apply your geological knowledge

Aimie McSeveney, UK
Msc Integrated
Petroleum Geoscience

Science programmes



MSc DATA SCIENCE

On-Campus
Programme

There is an increasing demand for data scientists across all industry sectors, from energy to healthcare and from tech to finance, retail and beyond. This programme enables graduates of various disciplines to take advantage of the growing career opportunities in this field, by teaching the essential Computational Thinking (CT) and data analysis skills needed by employers today.

Over the last 5 years, there has been an enormous increase in demand for Data Scientists across the energy sector. As the volume, diversity and complexity of data being gathered continue to increase, the key challenge facing organisations today is how to make sense of data, and more importantly how to use data to inform business decisions.

To solve this problem, energy companies increasingly need big data specialists who not only are highly skilled in a wide range of statistical and data analysis tools, but who can go far beyond classical statistics and machine learning to gain real insights from data. The MSc Data Science programme is specifically designed to address this challenge.

Unlike many other data science programmes, this MSc goes beyond statistics and big data, to use a Computational Thinking (CT) approach to data science, one that applies logical thinking, sequencing and algorithms to create solutions to problems.

The multidisciplinary focus of the programme also means that it is open to qualified applicants from across a wide range of academic backgrounds, including science, technology, engineering and medicine (STEM), but also business and social sciences.

What you will study

- Introduction to Programming
- Introduction To Data Science
- Statistics & Time Series
- Data Visualisation
- Machine Learning
- Advanced Statistics
- Audio, Image & Video Analysis
- Case Studies
- Project

This programme has been designed in collaboration with industry partners, including Wolfram Research, to ensure that the algorithms, tools and workflows required by industry are covered. You will also gain proficiency in the use of Wolfram Mathematica programme.

The overall objective of this programme is to create experts who can combine their mathematical modelling and programming skills with an ability to work effectively in multidisciplinary teams to extract knowledge and insights from data.

According to Prospects.ac.uk, entry-level salaries for Data Scientists range from £19,000 to £25,000. With a few years' experience you could expect to earn £30,000 to £50,000, while experienced, high-level, data scientists or contractors can earn upwards of £60,000, in some cases reaching more than £100,000.

Graduates of this programme will be well placed to pursue careers such as:

- Business Intelligence Analyst
- Data Architect
- Data Mining Engineer
- Data Scientist

How you will be taught

The courses are assessed both by written examination and coursework. After the second semester written examinations, students registered for the MSc degree start an industry or school based project, where this can be arranged, and at the end of this period, an individual project report, in the form of a dissertation, has to be handed in.

School/department

School of Natural and Computing Science

Duration

12 months full-time

Intake

September

Entry requirements

This programme is open to applicants presenting a 2:2 (lower second class) Honours degree or equivalent in any subject.

The English language requirement is an IELTS of 6.5 with a 6.0 in Writing (or equivalent TOEFL IBT or PTE).

For more information, visit www.abdn.ac.uk/study/international/english-requirements.php

This programme requires that you meet the 'Postgraduate Standard' level of English proficiency.

An International Pre-Masters course is available for this programme through our International Study Centre (www.abdn.ac.uk/isc)

Course info www.abdn.ac.uk/pgt/data-science

School info www.abdn.ac.uk/ncs

General info www.abdn.ac.uk/study

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MSc ARTIFICIAL INTELLIGENCE

On-Campus
Programme

Artificial Intelligence (AI) is changing how we live, work and socialise. This programme will expose you to all aspects of AI, from its fundamentals to cutting edge techniques, enabling you to work in this dynamic, fast-moving field.

The energy sector is changing rapidly in response to the opportunities and challenges posed by new emerging technologies. Energy companies are increasingly adopting AI technologies such as machine learning to analyse seismic data, optimise performance operations and improve safety and efficiency from exploration and production (upstream), through to transport (midstream) and refining (downstream).

In 2019, the UK Oil and Gas Authority (OGA) launched the UK's first oil and gas National Data Repository (NDR), which contains 130 terabytes of geophysical, infrastructure, field and well data covering more than 12,500 wellbores, 5,000 seismic surveys and 3,000 pipelines. This AI-driven platform is now being used by companies to explore new fields and assist in increased production from maturing wells.

The MSc Artificial Intelligence programme covers the theoretical underpinning of a wide variety of AI-related techniques including data and text mining, machine learning (deep learning), reasoning, natural language generation, knowledge representation, and distributed AI systems as well as the technology, techniques, tools, software and methodologies used to apply these underlying theories to real-world problems. Students also learn how to engineer and evaluate AI systems.

What you will study

- Foundations of Artificial Intelligence
- Engineering Artificial Intelligence Systems
- Machine Learning
- Evaluation of Artificial Intelligence Systems
- Data Mining and Visualisation
- Natural Language Generation
- Knowledge Representation and Reasoning
- Software Agents and Multi-agent Systems

The MSc project provides students with the opportunity to develop their own AI research project, under the supervision of a member of staff. Typical projects include extending, improving or adapting existing AI theories or techniques to solve different problems, comparing competing techniques or tools to solve a particular problem, and so on. Students will improve their problem-solving and communication skills, as well as broaden, deepen and consolidate knowledge obtained in other components of the degree.

This programme is aimed at graduates with a primary qualification in Computer Science or related subject area with a solid background in Java, C, C++, algorithms problem-solving and data structures.

Our close industry links mean you will have opportunities to apply your skills through training and networking events and industrial placements organised through organisations such as the Data Lab, Intel AI Academy, IBM, Intelligent Plant, and Aberdeen City Council.

The School of Natural and Computing Science works closely with The Data Lab, an leading international innovation centre for data and AI, whose mission is help Scotland maximise value from data and lead the world to a data powered future.

The MSc Artificial Intelligence is one of 11 Data Lab MSc programmes currently offered in Scotland, which means eligible students can benefit from funding and projects through the Data Lab, including numerous industry supported seminars and networking events. Find out more at www.thedatalab.com

How you will be taught

The courses are assessed both by written examination and coursework. After the second semester written examinations, students registered for the MSc degree start an industry or school based project, where this can be arranged, and at the end of this period, an individual project report, in the form of a dissertation, has to be handed in.

School/department

School of Natural and Computing Science

Duration

12 months full time (36 months part time)

Intake

September

Entry requirements

A Computing Science degree at 2:2 (lower second class) UK Honours level (or an Honours degree from a non-UK institution which is judged by the University to be of equivalent worth). Key subjects must include Java, C, C++, Algorithms problem-solving and Data Structures.

Applicants with a 2:2 or equivalent in Engineering (e.g. Electronic/Electrical Engineering) will be reviewed by the selectors for suitability on a case-by-case basis.

The English language requirement is an IELTS of 6.5 with a 6.0 in Writing (or equivalent TOEFL IBT or PTE). For more information, visit www.abdn.ac.uk/study/international/english-requirements.php

This programme requires that you meet the 'Postgraduate Standard' level of English proficiency.

An International Pre-Masters course is available for this programme through our International Study Centre (www.abdn.ac.uk/isc)

Course info www.abdn.ac.uk/pgt/ai

School info www.abdn.ac.uk/ncs

General info www.abdn.ac.uk/study

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Being able to apply the *fundamentals* of energy economics and finance to address real-world problems widened my perspective and *prepared* me for working in industry.



Sermphon Klaiseengern
*MSc Petroleum, Energy
Economics and Finance*

MSc ENVIRONMENTAL SCIENCE

Online and
On-Campus
Programme

Training students to interpret and understand changes and threats in the environment today to develop and apply solutions for the future.

This multidisciplinary MSc programme aims to train students to recognise and understand the threats and conflicts in the environment today and appreciate the steps required to develop solutions.

The systematic approach of this programme enables our students to deal with all scales of the environment. Throughout your studies you will have various opportunities to participate in work outdoors and apply theoretical and field work knowledge to real life situations.

You will also gain experience using a range of tools for biological, chemical and physical measurement as well as models and data handling methods.

Most importantly, at Aberdeen, you will be part of a community that will help improve your knowledge and awareness of environmental science.

What you will study

The taught part of the MSc Environmental Science programme involves students taking eight courses over two terms. Course options are varied and normally chosen from those available within the environmental sciences timetable. However, other courses may be selected from those available through the School of Biological Sciences' level 5 modular options.

Compulsory courses include Environmental Pollution, Core Skills in Environmental Science and Application of GIS. Optional courses include Environmental Analysis, Global Soil Geography, Environmental Impact Assessment, Remediation Technology and Environmental Management Plan.

The taught element is followed by a three-month individual research project. The research project can cover any area of environmental science and is undertaken under the supervision of a member of staff who is an expert in your chosen field. Many projects are also done in collaboration with an external organisation.

How you will study

The teaching of our MSc Environmental Science programme includes lectures, extensive laboratory and field work as well as self-directed learning and tutorials to support the course material.

The teaching of our MSc Environmental Science programme includes lectures, extensive laboratory and field work as well as self-directed learning and tutorials to support the course material. Our class sizes are small and we have a low student to tutor ratio, which means you will have the full support of your group tutors.

Our diverse teaching methods are coupled with the use of latest digital technology to ensure course content is accessible to all students through a wide range of electronic formats.

The majority of courses regularly extend activities and learning to outdoor field work, visits by industry experts and insights into real-life situations and problem solving.

The dedicated research project you will undertake in the third semester of the MSc provides opportunities for you to develop your abilities and skills, generate hypotheses and design ways of testing them and to analyse, report and discuss your findings. You will learn to take responsibility for implementing your own plans and modifying them as necessary. The project is written up in the form of a scientific manuscript.

Assessment methods

The degree programme is assessed on the basis of performance in the research project and continuous assessment of coursework.

Professional accreditation

Our MSc Environmental Science is an IEMA approved programme which means you automatically qualify for GradIEMA professional status - showing you are part of the next generation of leaders in sustainability.

You can also fast-track an application to PIEMA (Practitioner Status) once you have gained enough experience to complete a work-based competence assessment.

IEMA Student Membership is also free on approved programmes, underpinning your studies with an invaluable toolkit of resources.

School/department

School of Biological Sciences

Duration

12 months full-time

24 months part-time

Intake

September

Entry requirements

Prospective students should have a UK 2:1 honours degree (or international equivalent) in a biological, environmental or physical science, geography or other relevant subject.

Applicants with a UK 2:2 honours degree (or international equivalent), particularly with some relevant experience, may also be considered. We also consider individuals with degrees in a wider range of disciplines who are clearly motivated by the programme and have some relevant experience.

In recent years students who have completed the programme successfully have come from backgrounds including biology, zoology, ecology, chemistry, physics, engineering, geology, geography, agriculture, psychology, and health sciences.

Interviews will be required for applicants with non-conventional qualifications.

International applicants must also meet the English Language Requirements of the University. www.abdn.ac.uk/study/international/english-requirements.php

Course info www.abdn.ac.uk/msc/environmental-science

School info www.abdn.ac.uk/sbs

General info www.abdn.ac.uk/study

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[UoABiologicalSciences](#)

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[@uoabiosci](#)

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I chose the University of Aberdeen because of its **reputation** for energy studies. In the whole of the UK, it was the **best** in terms of course content.

Adesola Opeyemi
Adetoye, Nigeria
*MSc Renewable
Energy Engineering*

FUNDING AND SCHOLARSHIPS

The University of Aberdeen offers a substantial portfolio of scholarships and bursaries aimed at supporting students, some of which are funded by external sponsors. The financial level of contribution per scholarship varies and where some will cover the complete cost of study, others will contribute a sum of money towards it.

Coping with the financial responsibility of full-time study is a major concern for many people. For those who require assistance, our scholarships can prove to be a very welcome support. There is competition for all our scholarships but we would encourage you to apply for any scholarship that is relevant to you and your programme of study. The best place to start your search is on our online funding database, which lists all the bursaries and scholarships available each year. It also includes details on the level of funding contribution and eligibility criteria for each, as this will vary between different scholarship and bursary schemes.

In addition to scholarships funded by the University of Aberdeen, you may be eligible to apply for scholarships which are:

- Offered/supported by the UK Government
- Offered by the University of Aberdeen
- Offered by Industry specific organisations
- Offered by local governments, government related bodies and charities to their own citizens looking to study in the UK
- Offered to individuals studying for a specific discipline or subject

You will find the most up-to-date list of scholarships available here:

www.abdn.ac.uk/study/international-scholarships-and-funding.php

www.abdn.ac.uk/funding

Your home country Ministry for Education



POSTGRADUATE RESEARCH OPPORTUNITIES

Our energy research sees geologists, chemists and engineers working closely with economists and legal experts to maximise opportunities for production of hydrocarbons and renewable energy in the most cost-effective manner, including conventional and unconventional hydrocarbons.

We are analysing how behaviour and choice is adapting transport infrastructure, the built environment and energy efficiency initiatives to enable us to better manage and respond to demand for future energy supply.

We are examining methods to facilitate new energy production, be this related to cross border co-operation, ownership and licensing, environmental management, or risk mitigation. Lawyers work with economists, engineers, geologists and environmental scientists to ensure the resources needed to meet energy demand are effectively deployed.

We investigate materials science, flow assurance, and instrumentation, combined with research into industrial safety and human factors, focused towards maximising the operational efficiency of oil and gas assets by maximising production and minimising cost.

Our researchers are working to optimise the integration of electrical energy generated from wind and marine resources into regional grid distribution systems to ensure a stable and reliable supply for corporate and domestic users.

This is just a flavour of our work and an example of some of the areas that we offer postgraduate research opportunities in.



Apply here:

www.abdn.ac.uk/study/postgraduate-research/how-to-apply-1639.php

For a full list of PhD opportunities, visit:
www.abdn.ac.uk/study/postgraduate-research/current-phd-opportunities-1640.php

Centre for Energy Law:

www.abdn.ac.uk/law/research/centre-for-energy-law

Centre for Applied Dynamics Research:

www.abdn.ac.uk/engineering/research/centre-for-applied-dynamics-research-128.php

Centre for Innovative Building Materials and Technology:

www.abdn.ac.uk/engineering/research/centre-for-innovative-building-materials-and-technologies-314.php

Centre for Transport Research (CTR):
www.abdn.ac.uk/ctr

Chemistry research in energy:

www.abdn.ac.uk/study/postgraduate-research/research-areas/861/chemistry

Industrial Psychology Research Centre (IPRC): www.abdn.ac.uk/iprc

Institute for Complex Systems and Mathematical Biology (ICSMB): www.abdn.ac.uk/icsmb

LRF Centre for Safety & Reliability Engineering: www.abdn.ac.uk/engineering/research/lrf-safetyeng-127.php

National Decommissioning Centre: www.ukndc.com

Research in Petroleum Geology: www.abdn.ac.uk/study/postgraduate-research/research-areas/875/geology-and-petroleum-geology/

The Aberdeen Centre for Research in Energy Economics and Finance (ACREEF): www.abdn.ac.uk/research/acreef

I chose Aberdeen because it is situated in the *heart* of the oil and gas *industry* in the UK.

Shakwa Nyambe, Namibia
LLM Oil & Gas Law with Professional Skills

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Life defining
learning

www.abdn.ac.uk/study

Disclaimer:

Every effort has been made to ensure the accuracy of the information contained within this prospectus 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.

The University of Aberdeen continues to pursue best practice and high standards of service for all students. If you would like to receive this document in an alternative format, please contact the Marketing and Student Recruitment Service for more information.

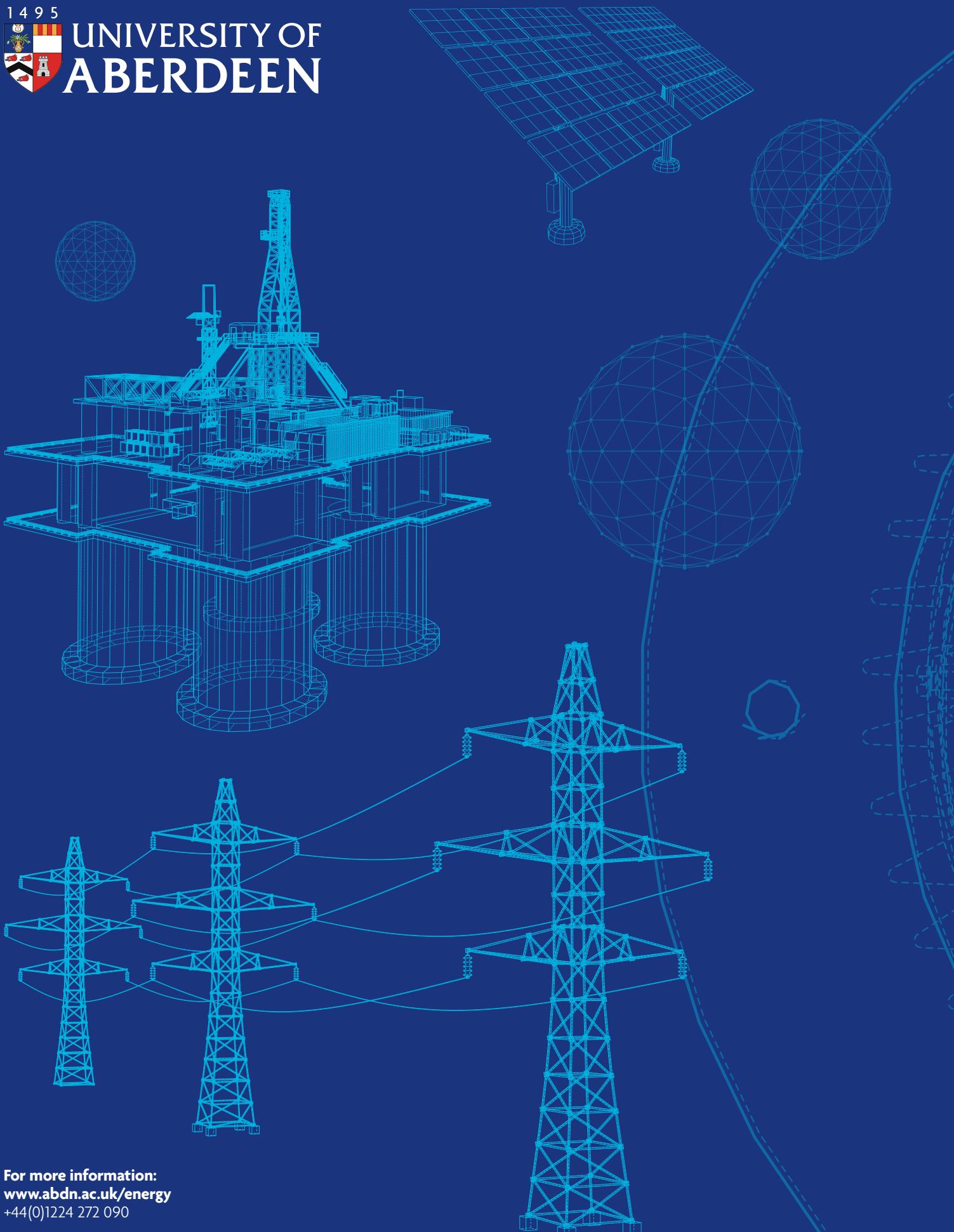
Tel: +44 (0)1224 272 090

Email: study@abdn.ac.uk

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For more information:

www.abdn.ac.uk/energy

+44(0)1224 272 090

study@abdn.ac.uk

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