

RENEWABLE ENERGY

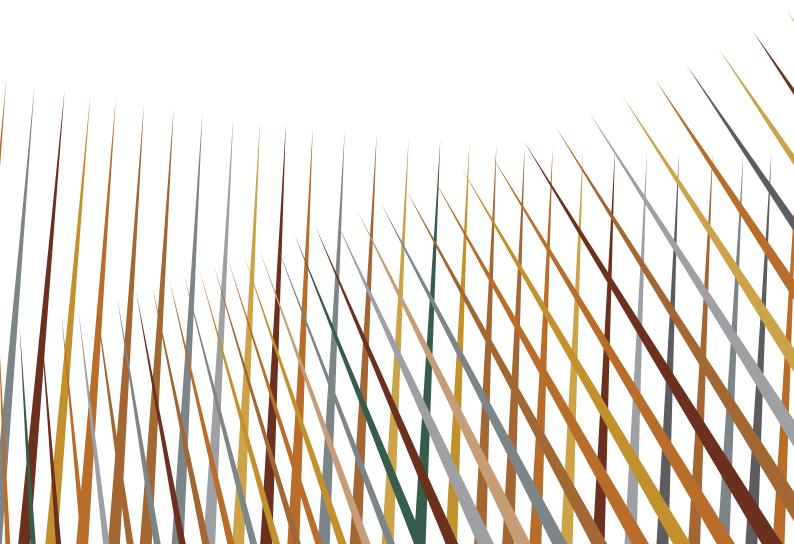
UNDERGRADUATE STUDY 2013 ENTRY







CORNWALL CAMPUS









Key information

	UCAS CODE	TYPICAL OFFER
MEng Single Honours Renewable Energy	H221	AAB-ABB; IB: 34-32
BSc Single Honours Renewable Energy	F802	AAB-BBB; IB: 34-30

For further details on all our entry requirements, please see our Renewable Energy pages at www.exeter.ac.uk/undergraduate/degrees/renewable

CORNWALL CAMPUS, NEAR FALMOUTH

Website: www.exeter.ac.uk/renewable-energy

Email: cornwall@exeter.ac.uk Phone: +44 (0)1326 371801



Climate change is the number one threat to civilisation in the 21st century and developing renewable energy is key to helping to stop it. We accepted our first students in 2003 and produced the UK's first ever graduates in renewable energy in 2006 and have continued to expand since. Our pioneering degree programmes have prepared our graduates to take the lead in providing practical, economic and socially acceptable renewable energy engineering solutions to environmental problems caused by fossil fuel use. If you want to 'do your bit' and have a rewarding and challenging career while doing so, this is the subject for you.

Why study Renewable Energy at the University of Exeter?

Renewable energy is produced from sources that are replenished as they are used, such as the wind, water flowing in streams, rivers and seas, the sun and sustainably grown crops. In order to harness these sources and reduce our dependency on finite reserves of oil, coal and gas, renewable energy professionals need to understand the scientific principles of renewable energy technology and have the management skills to ensure that UK and international carbon emission reduction targets are met. They must also understand the effect of human activities on the environment and the socioeconomic and business issues influencing delivery of the technology.

Our Renewable Energy programmes are taught at our Cornwall Campus near Falmouth and are part of the University's Camborne School of Mines (CSM). In recent years CSM has rapidly developed its renewable energy portfolio.

CSM is home to the Peninsula Research Institute for Marine Renewable Energy (PRIMaRE), a multi-million pound, international research facility that provides research and development in support of marine energy projects such as the Wave Hub, a globally important commercial wave energy hub, located off the north coast of Cornwall. It also has expertise in wind, thermal technologies, renewable energy policy, electrical power and networks, distributed generation and the effects of climate change.

Practical vocational training involving extensive field work and an industrial placement

Expertise in energy policy, marine renewables, bio-fuels, electrical power and networks, wind, solar photovoltaic and thermal technologies

Accredited for progression to Incorporated and Chartered Engineer (CEng) by the Energy Institute Superb facilities include a renewable energy laboratory, bio-diesel testing rig and wind turbine Excellent employment prospects in this rapidly developing sector.

Industrial support from many of the key companies in the industry

Our Renewable Energy degree programmes have been tailored to meet the needs of the booming renewable energy sector. Strong links with a wide variety of companies together with our research strengths allow us to offer these programmes with substantial backing from the renewable energy industry.

Our superb facilities and student resources include a fully-equipped renewable energy laboratory, bio-diesel and photovoltaic (PV) testing rigs, wind turbine, field station and state-of-the-art IT equipment. Local commercial renewables developments are plentiful – recent developments include new wind farms, repowered and scaled-up older wind farms, the UK's first solar PV farms and a world-leading wave energy development. Our new Environment and Sustainability Institute building will be amongst the most sustainable in the country. These, together with field trips, including a week long international trip and a 2-3 month work placement, provide a practical context that complements the taught material.







Degree programmes

How your degree is structured

Our programmes are modular and you progress through your degree by studying modules and accumulating credits as you successfully complete them; you have to complete 120 credits per year in order to progress through the programme. Credit values are proportional to the study time allocated to a module; for example, a 15-credit module will comprise roughly 150 hours of study, both taught and in private study. Modules are assessed by a combination of coursework and exams. Further details on the modules making up the programme can be found at the back of this brochure.

For up-to-date details of all our programmes and modules, please check www.exeter.ac.uk/renewable-energy

Single Honours

MEng Renewable Energy BSc Renewable Energy

These are practical, vocational programmes for individuals seeking a professional role in the rapidly expanding and strategically important energy sector. We receive extensive industrial support from industry leaders including Bill Dunster Architects, Compact Power, Cornwall Light and Power, EDF Energy, GL Garrad Hassan, Geoscience, Ocean Power Technologies, Scottish and Southern Energy and Wardell Armstrong International. Exemplifying this, our relationship with REG Windpower Ltd means Renewable Energy students have full access to the data acquisition system for the two 850kW wind turbines the company has recently built 500 metres from the campus.

The general aims of the two programmes are identical but the MEng provides you with a direct route to completing the higher educational base required for registration as a Chartered Engineer as well as increasing your knowledge as a practical engineer. The fourth year of the MEng programme focuses on deepening knowledge, understanding and capability in the key areas of wind energy, marine renewables and electrical and electronic engineering for renewable energy. It has more emphasis on selfdirected learning under supervision and gives you the opportunity to develop and enhance your analysis and design skills, and to deploy creative and innovative thinking by undertaking an extended project with an industrial partner.

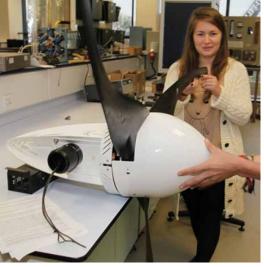
Team working and communication skills are honed by embarking on a group project. You'll gain a high level of technical and ethical competence, extend your understanding of commercial, economic and business issues and develop a professional outlook.

Year 1 First term modules concentrate on developing your core engineering and mathematical skills and they address the diverse range of renewable energy sources, their extents and exploitation methods in detail. In the second term you'll study the physical and engineering sciences governing both natural processes and power conversion technology.

Year 2 Second year modules strike a balance between training in the physical sciences and technology, and developing your capability in the economic, legal and management aspects. In the summer vacation you'll carry out a minimum six week industrial placement, for which you will usually be paid.

Students studying BSc Renewable Energy who can demonstrate a high level of academic performance may be eligible to transfer onto MEng Renewable Energy. This will typically require achievement of a minimum 60 per cent mark at the end of the second year of study.

Year 3 Third year modules are designed to build on the previous two years to enable study of specialist areas in order to gain deep knowledge, understanding and ability. You'll choose from a range of optional modules which have been arranged so that you can select studies of a more technical nature or from a broader management track, or you can mix-and-match according to your preferences. For technically orientated modules a theme of resource assessment, power conversion design, performance monitoring and economic appraisal recurs. The remaining modules consider the more generic issues that span all the technologies or enhance your knowledge of more policy related elements of the discipline.







Throughout the third year you will work on an individual research project in your area of interest, under the supervision of a member of academic staff. Previous projects include:

- Design, manufacture, assembly and installation of a borehole-sized selfrectifying turbine
- Carbon and energy balance for uranium mining
- Performance monitoring of a domestic scale wind turbine
- Thermographic imaging of houses to identify heat loss through inadequate insulation
- Computational fluid dynamics modelling of wind resources for a wind farm in Greece
- Performance testing of an aviation turbojet engine fuelled with methyl ester

- Resource assessment and feasibility study of micro-hydro options for Penponds Mill, Camborne
- Ground-based wind anemometry using SODAR sensors
- Assessment of opportunities for future energy sustainability for the Isles of Scilly
- Establishment of a real-time wave energy/ surf prediction model

Through your selection of options, choice of dissertation topic and choice of vacation placement, you are in control of the content of over half of your third year programme.

Year 4 (MEng only) Your fourth year will allow you to develop a much deeper understanding of key renewable energy disciplines. Continuing to build on knowledge and experience gained in the preceding three years you will be pushed to develop greater understanding in the options you choose to pursue, be they more technical studies of wind or wave energy or more advanced policy. A module in professional behaviour and ethics directly relates to the role of the MEng in making you a rounded professional engineer. A project based around an additional industrial placement will allow you to apply yourself and your skills to real problems faced by real companies, while a group design project sees students working together, with all contributing to and taking responsibility for the final output.

I chose to study the BSc in Renewable Energy because I wanted to do something with an engineering background and have a career which would help me make a difference.

My study groups and seminars have been really interesting and lecturers make the time to see students on a one-to-one basis. The landscape of Cornwall is beautiful and there's a real sense of community due to the smaller size of the campus.

The people here are great and I've found it easy to settle in and make new friends. If I had to choose three of the best aspects of being a student in the CSM it would be the challenging course material, the fantastic lecturers and the chance to get a great degree at the end of it!







Learning and teaching

Formal teaching and learning methods vary between modules but typically include lectures, laboratory classes, practical work, seminars, tutorials, computer-based learning packages, and residential or one-day field-based activities. You will typically have 18-20 hours of formal contact time per week. You'll be expected to spend roughly the same amount of time in independent learning and some work will be expected during the vacations.

We're actively engaged in introducing new methods of learning and teaching, including increasing use of interactive computer-based approaches to learning through our virtual learning environment where the details of all modules are stored in an easily navigable website. Students can access detailed information about modules and learning outcomes and interact through activities such as the discussion forums.

Facilities

The campus is equipped with the latest facilities for teaching and research. The renewable energy laboratory contains technology for the study of geothermal and biomass heating; water flows; hydroelectric turbines; photovoltaics; solar thermal; fuel cells; air flow and aerodynamics; hydraulic machines and systems; wind power; and electronics and electrical power systems.

The lab is also equipped with state-of the-art software for the analysis of engineering materials (LUSAS - 3D finite element); flows of liquids, gases (Fluent – 3D computational fluid dynamics) and electricity (IPSA+ - electrical power systems); computer aided design (AutoCAD) and machining (SolidWorks); wind energy resource assessment (Windfarmer, WASP); and wind turbine design (Bladed). Undergraduate students benefit from regular use of all of these programs and facilities in the lab which can be viewed on our website at www.exeter.ac.uk/virtualtours

A variety of devices producing renewable energy around the campus provide in-situ access to working energy technologies, these include the solar powered Performance Centre, plus a 3 x 1MW fully condensing gas boiler and a ground source heat pump system. As part of the continuing expansion of the campus, the University is developing the Environment and Sustainability Institute (ESI). The ESI is being developed to achieve BREEAM Outstanding status, making it one of the most environmentally benign buildings in the UK. It will employ both solar and wind energy technology as well as state-of-the-art energy efficiency. The campus is 500m from the Roskrow Barton commercial wind development that comprises 2 x 850kW, V52-850 Vestas wind turbines. Our relationship with REG Windpower means Renewable Energy students have full access to the data acquisition system for these turbines.

At our field station there is another wind turbine, a photovoltaic installation and an underground diesel engine performance and emissions testing rig.

Research-inspired teaching

We believe that every student benefits from being part of a culture that is inspired by research and being taught by experts. You will discuss the very latest ideas in seminars and tutorials and become actively involved in research yourself.

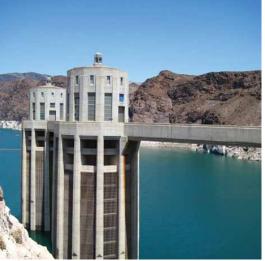
We are a lead institution in PRIMaRE (Peninsula Research in Marine Renewable Energy), a multi-centre research organisation specialising in all elements of research concerning marine renewable energy sources including their operation, development of the technology, their environmental and ecological impacts and their socio-economic impacts. Policy research aims to develop methods through which the growth of renewable energy can be enhanced further, as well as methods to

ensure that it is properly regulated. We are collaborating with other universities within the UK and overseas, notably to examine the potential and cost of increased use of renewable heat sources. We are committed to a focus on examining the development of industrial capacity related to new renewable energy technologies.

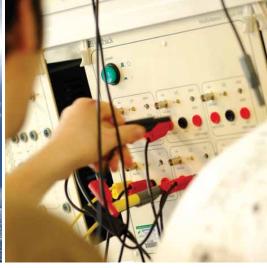
Field work, tours and placements

Throughout the programmes you'll benefit from hands on interaction with renewable energy technology. This will include trips to renewable energy facilities such as Goonhilly wind farm as part of the *Renewable Energy Systems* module in the first year, and may include events like public planning meetings or energy use assessments of public or private buildings as opportunities become available. Our aim is to get out to see real world technology or events whenever we can.

In the summer vacation between your second and third year, you'll carry out a minimum six week industrial placement, for which you will usually be paid. The onus is on you to select the area in which you wish to work and to find a placement, although the department can help by providing contact details and suggesting companies which suit your interests. Companies with close ties to the department also provide placements for a number of students.







In the third year, you'll conduct a field-based renewable energy technical resource assessment exercise. Working as a project team you will focus on the use of solar energy resources, geothermal energy, wind energy and energy from waste.

If you study the MEng programme, you'll carry out a further industrial placement between your third and fourth year. This placement is linked to a project that runs until the following February and which forms a major component of the final year of study. This project will enable you to work closely with a company which is active in renewable energy to develop solutions to real world problems in a commercial environment. The department will help in setting up these placements and projects.

The environment and sustainability

At the University of Exeter, we are committed to producing graduates who have an understanding of both the scientific and the human/social issues which are involved in the vital field of environment and sustainability.

At our Cornwall Campus, the new Environment and Sustainability Institute (ESI) will be at the forefront of scientific and technological research in this field. As a student of Renewable Energy you will have the opportunity to develop your knowledge, understanding and interest in sustainability. The ESI building will be developed to the highest standards of energy efficiency and sustainable energy use; it will incorporate various different energy technologies which we will adopt as a teaching tool in our programmes.

Assessment

Assessment methods vary between modules, but usually combine exams and coursework (which might include practical laboratory work, professional posters, group exercises, essays or verbal presentations). You must pass all your first year modules in order to progress to the second year, but the results do not count towards your degree classification. For three-year programmes, the assessments in the second and third years contribute to your final degree classification. For four-year programmes the assessments in the second, third and fourth years all contribute to your final degree classification.

Academic support

The Cornwall Campus offers a friendly, supportive community, where staff and students get to know each other well. All students have a Personal Tutor who is a member of academic staff with whom you can discuss personal and academic issues. There are also a number of services on campus where you can get additional advice and information. You can find further information about all these services in the University's undergraduate prospectus or online at www.exeter.ac.uk/undergraduate

The CSM Students' Association organises activities to help new undergraduates integrate into the department and offers a supportive environment for students throughout their studies.

Scholarships

The Lawrence Scholarship is available to top performing students undertaking a four-year undergraduate degree programme in the College of Engineering, Mathematics and Physical Sciences. For the latest information about our scholarships, please visit www.exeter.ac.uk/emps/undergraduate/funding







Careers

These degrees have been designed to include the knowledge and skills that potential employers in the energy sector have told us they require. A very high proportion of our graduates find employment in the Renewable Energy sector or are studying for a higher degree.

The UK's commitment to rapid expansion of renewable energy, emphasised in the summer of 2009 with the publication of the UK RE Strategy document, is likely to mean investment of tens of billions of pounds in the sector in the next decade. The adoption of the UK's microgeneration tariff in 2009, and the planned adoption of the Renewable Heat Incentive and Green Investment Bank, suggests support for rapid expansion will continue to be supported strongly.

Other EU countries will be making similar investments and the US, India, China and many other nations are also seeing rapid expansion in renewable generation. This will create broad opportunities for those seeking to work in the sector.

Both our programmes are accredited by the Energy Institute for progression towards Chartered Engineer status. All students receive free membership of the Energy Institute for their period of study and graduates are encouraged to upgrade their membership of the Energy Institute from Student to Graduate which is the first step in working towards formal recognition of their professional status as Chartered Engineers.

Many students from the department take part in the Exeter Award and the Exeter Leaders Award. These schemes encourage you to participate in employability related workshops, skills events, volunteering and employment which will contribute to your career decision-making skills and success in the employment market.

Information about the careers entered by graduates can be found at www.exeter.ac.uk/undergraduate/employability

Entry requirements and applying

You can find a summary of our typical entry requirements on the inside front cover of this brochure.

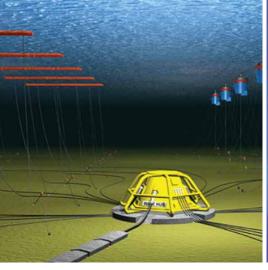
The full and most up-to-date information about Renewable Energy is on the undergraduate website at www.exeter. ac.uk/undergraduate/degrees/renewable and we strongly advise that you check this before attending an open day or making your application. Some programmes at the University require prior study of specific subjects and may also have minimum grade requirements at GCSE or equivalent, particularly in English Language and/or Mathematics.

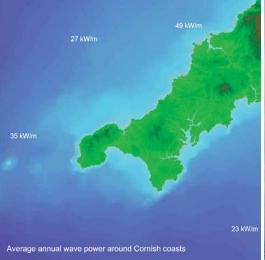
We make every effort to ensure that the entry requirements are as up-to-date as possible in our printed literature. However, since this is printed well in advance of the start of the admissions cycle, in some cases our entry requirements and offers will change.

If you are an international student you should consult our general and subject-specific entry requirements information for A levels and the International Baccalaureate, but the University also recognises a wide range of international qualifications.

You can find further information about academic and English language entry requirements at www.exeter.ac.uk/undergraduate/international

For information on the application, decision, offer and confirmation process, please visit www.exeter.ac.uk/undergraduate/applications







Module details

For up-to-date details of all our modules, please see www.exeter.ac.uk/renewable-energy Please note that modules are subject to change and timetabling constraints and that not all modules are available every year.

Year I

Module Name	MEng Renewable Energy	BSc Renewable Energy
Earth and Environmental Chemistry	•	•
Electrical and Electronic Principles	•	•
Engineering Mechanics	•	•
Mathematics IA	•	•
Mathematics IB	•	•
Renewable Energy Systems	•	•
Surveying and CAD	•	•
Thermodynamics and Fluid Mechanics	•	•

Year 2

Module Name	MEng Renewable Energy	BSc Renewable Energy
Applied Thermodynamics for Renewable Energy	•	•
Electrical Energy Conversion and Transport	•	•
Energy and Environmental Management	•	•
Fluid Mechanics	•	•
Mathematics 2	•	•
Mechanics of Materials	•	•
Project Management and Accounting	•	•
Renewable Energy Systems 2	•	•

Year 3

Module Name	MEng Renewable Energy	BSc Renewable Energy
Dissertation	•	•
Energy Policy, Markets and Law	•	•
GIS and CAD for Renewable Energy	•	•
Network Engineering, Modelling and Management	•	•
Third Year Field Trip	•	•
Wind Power	•	•
Work Placement Report	•	•
Optional modules:		
Energy Generation from Biomass and Waste		
Energy Legislation and Regulation		
Energy Storage Technology		
Hydropower		
Modelling, Simulation and Control		
Socio-Economic and Environmental Impact Studies		
Solar Power		
Sustainable Architecture		

We are currently in the process of consulting with students in the development of new third year options.

Year 4 (MEng only)

Module Name	
Professional Ethics, Competence and Commercial Awareness	
Industry Placement Project	
Group Design Project	
At least one, and up to three from:	
Further Electronics and Electrical Engineering	
Advanced Marine Renewable Energy	
Advanced Wind Turbine Design	
Or up to two from:	
Themes in Climate Change	
Energy Options and Sustainability	

Renewable Energy modules

Please note that availability of all modules is subject to timetabling constraints and that not all modules are available every year. For up-to-date details of all our programmes and modules, please check www.exeter.ac.uk/renewable-energy

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Earth and Environmental Chemistry	This module provides a background knowledge in chemistry and its application and significance to earth and energy sciences and enables higher level	Mechanics of Materials	A more advanced mechanical module, building on year one work to provide a deeper understanding of further key concepts.	
Electrical and Electronic Principles	Mn introduction to the key elements of understanding electrical and electronic systems.	Project Management and Accounting	A detailed introduction to quantitative project management techniques. This module also provides you with experience of computer simulations used in project management.	
Engineering Mechanics	An introduction to the fundamentals of engineering mechanics.	Renewable Energy Systems 2	A closer look at core renewable energy technologies, with a particular focus on solar	
Mathematics 1A	Gets you up to speed on some basic principles, methods and techniques in algebra, trigonometry, calculus and statistics.	Year 3	energy technologies.	
Mathematics IB	Further extends the topics introduced in Mathematics 1A and adds vector and matrix algebra and basic statistics to support your development and allow progress across your other modules.	Dissertation	An opportunity to pick your own area of interest in the energy field and carry out a supervised individual research project. Project titles may involve any aspect of the programme and possibly include the support of an industrial partner. This project is started in the first term and continues	
Renewable Energy Systems	Your first introduction to core renewable energy technologies including solar power, biomass, hydroelectricity, tidal, wind, wave and geothermal.		throughout second term with eight full weeks of timetable allocated to it.	
Surveying and CAD	An introduction to surveying and CAD including linear surveying; electronic distance measurement; levelling equipment and techniques; angle measurement; 2D survey traverses; connecting to grid; LSF/MSL corrections; setting out methods; and basic CAD.	Energy Policy, Markets and Law	What shapes which energy sources we choose to use? This module discusses market demand, what factors affect it and the scope and limits for government to influence this through policy and legislation. It addresses major events impacting renewable energy and other energy use globally and the potential for increasing renewable energy	
Thermodynamics and Fluid Mechanics	An introduction to the fundamentals of thermodynamics and fluid mechanics.	GIS and CAD for Renewable Energy	through applied policy. The application of GIS tools is a key discipline within the RE sector, particularly in the	
Year 2 Applied	A more advanced look into thermodynamics which		development of new capacity. This module employs expert industrial practitioners to familiarise you with key concepts and their application.	
Thermodynamics for Renewable Energy	considers the applications of thermodynamics in a wider range of applications.	Network Engineering, Modelling and	This specialist third year option extends the knowledge gained in previous electrical modules to address more deeply integration of the electrical	
Electrical Energy Conversion and	Further development of the key concepts relating to electrical and electronic power systems.	Management	output from renewable energy generation into the network.	
Energy and Environmental Management	This module will enable you to understand the need to manage energy as a resource and to learn the basis of energy management techniques as well as introducing the legal, social and administrative framework within which the industry operates.	Third Year Field Trip	A field trip which encourages you to work in groups to produce a renewable energy resource assessment at an overseas location. It brings together key elements of previous study in a practical exercise to assess a real world location to a professional standard	
	You'll learn of the opportunities that exist for improving energy conversion efficiency and waste avoidance and be able to conduct energy use audits in commercial and domestic premises.	Wind Power	An in-depth module in the most technologically advanced of the renewable energy technologies. Delivery is supported by industrial practitioners to cover all key aspects of wind turbine development.	
Fluid Mechanics	An introduction to the fundamental properties of fluids.	Work Placement Report	An industrial placement allows you to gain practical experience, a relevant reference and build	
Mathematics 2	More advanced mathematics to support your further development as an engineer, including advanced calculus, matrix methods, vector algebra and differential equations.	-	your confidence. Students work on an approved industrial or commercial placement, for not less than six weeks during the long vacation between the second and third years.	

Optional modules:

Energy Generation from Biomass and Waste

An in-depth, practitioner-driven module which considers the technical issues underlying the use of biomass and waste for electrical generation and heat.

Energy Legislation and Regulation

Understanding the rules which govern all elements of renewable energy development, including planning, construction and generation, is essential to operating within the industry. This module provides an overview of UK, European and global energy legislation and regulation and its implications for renewable energy.

Energy Storage Technology

Storage technologies are a key enabling technology for renewables. This module considers the problems of intermittent supply and peak loading on grid systems as well as solutions.

Hydropower

An in-depth module covering aspects of hydropower resource estimation, turbine design, deployment, economics and environmental impact with a focus on wave and tidal energy technologies.

Modelling, Simulation and Control

A practical introductory module in computer software used in the design of conversion plant and machines including 2D-Phases, Fluent/SFX, SWAN and MATLAB.

Socio-economic and Environmental Impact Studies

This module provides detailed qualitative and quantitative treatment of case studies highlighting the comparative socio-economic and environmental impacts of conventional, nuclear and renewable power plants.

Sustainable Architecture

An introduction to key elements of architectural practice with sustainability in mind. With input from leading UK practitioners the module covers a broad area.

Year 4 (MEng only)

Group Design Project

The group design project provides experience of working as part of a project team of four to six in a situation close to that which might be found in an industrial or commercial setting. You will apply knowledge and skills, at the forefront of the renewable energy discipline, obtained from taught modules and independent learning to a real engineering situation at a professional level and as part of a team effort.

Industry Placement Project

For this module, you'll obtain work experience during the summer vacation within a business or other concern operating within the energy sector, UK or worldwide. You'll work on a real industrial project, aiming to meet all requirements associated with working to a defined project brief. This will be established during the summer placement stage, but it's execution will be extended through into the academic year.

Professional Ethics, Competence and Commercial Awareness

Today's energy professionals demonstrate a personal and professional commitment to society, to their profession, and to the environment. These principles are embedded in professional codes of conduct and mechanisms for self-regulation. This module encourages understanding of these ideas and develops understanding of business practice and business governance.

Plus between one and three from:

Advanced Marine Renewable Energy

You'll develop an advanced understanding of design and installation requirements within the sector of marine renewable Energy within the fields of hydrodynamics, offshore structure design, risk and project management, and resource characterisation and consenting.

Advanced Wind Turbine Design

You'll develop your understanding of the principles of design of horizontal axis wind turbines to a state of detailed knowledge, to the extent that you could develop and establish new designs for wind turbines or individual components that meet recognised design codes.

Further Electronics and Electrical Engineering

You will further your understanding of electrical and electronics engineering through developing competence with computational design tools that are routinely adopted in industry, for analysis and design tasks.

Or up to two from:

Energy Options and Sustainability

This module will examine some of the more common potential options for future energy supply in the context of both their carbon performance and their sustainability. It will highlight the controversial aspects of a range of energy technologies and consider what system factors may play a role in their subsequent neglect or deployment. The module aims to develop your critical abilities in assessing potential future energy supply options and their implications for the sustainability of energy systems as a whole.

Themes in Climate Change

This module introduces key themes in climate change science by describing the nature of and approaches to climate change science. The history of climatic reconstructions is briefly described, as are the international political and scientific attempts at understanding climate reconstructions and climate change science. The evidence for contemporary climate change is discussed and this is placed into the context of climate change throughout the Holocene and Pleistocene. Finally, the arguments from the sceptics are discussed in detail







Academic excellence

- We are in the top one per cent of universities in the world, and a regular fixture in top 10 league tables of UK universities
- You will receive an outstanding education here; our teaching was voted fourth in the country in the latest National Student Survey
- Our teaching is inspired by our research, nearly 90 per cent of which was ranked as internationally recognised by the 2008 Research Assessment Exercise
- We are a top 10 UK university for sport and provide a wide range of sporting facilities and support whether you want to compete at the highest level or just for fun

A vibrant community

- Our students are the most engaged in the country, smashing participation records in student elections for the last two years running
- FXU, the Cornwall Campus Students' Union, offers a fantastic selection of societies, from sport to culture to community volunteering groups – in total there are over 80 clubs and societies to choose from
- The Cornwall Campus Sports Centre includes an excellent gym and sports facilities. Through the centre you can

- access a range of support whether you want to compete at the highest level, keep fit or just have fun
- We work with our students to continually improve the education on offer, via initiatives which put students at the heart of our decision making process
- The Cornwall Campus has a small but vibrant international community. Across the University there are students from over 130 countries and staff of 50 different nationalities
- Our students are consistently among the most satisfied in the country, ranking us in the top 10 of the National Student Survey each year since it began

Ambition for the future

- We equip you with the skills employers need via business placements, study abroad schemes, volunteering opportunities, careers advice from successful alumni and much more
- Despite tough economic times, we've improved our employment record year-onyear: more than 90 per cent of students get a job or further study place within six months of graduating
- The Cornwall Campus is now a £200 million Higher Education hub featuring state of the art lecture theatres and library spaces, new accommodation and worldclass research facilities

Explore the possibilities

Open Days

Come and visit our beautiful campuses. We hold Open Days at our Cornwall Campus in June and September.

Campus Tours

Tours of the Cornwall Campus run on Wednesday and Friday afternoons. You'll be shown round by a current student, who'll give you a first-hand account of what it's like to live and study here.

For full details and to book your place, contact us on:

Website: www.exeter.ac.uk/opendays Phone: +44 (0)1326 371801 Email: cornwall@exeter.ac.uk

Offer-Holder Visit Days

Once you receive confirmation of an offer we'll contact you with an invitation to visit us on an Offer-Holder Visit Day, which will give you the chance to find out more about your programme and department and decide whether to accept our offer. While this opportunity to visit includes a campus tour and formal introduction to the department, much emphasis is placed on a more informal period for questions and answers. A number of our current students also take part on these days, leading tours and giving you the opportunity to ask them what studying at Exeter is really like! Offer-Holder Visit Days take place during February and March.





www.exeter.ac.uk/renewable-energy

This document forms part of the University's Undergraduate Prospectus. Every effort has been made to ensure that the information contained in the Prospectus is correct at the time of going to print. The University will endeavour to deliver programmes and other services in accordance with the descriptions provided on the website and in this prospectus. The University reserves the right to make variations to programme content, entry requirements and methods of delivery and to discontinue, merge or combine programmes, both before and after a student's admission to the University. Full terms and conditions can be found at www.exeter.ac.uk/undergraduate/applications/disclaimer



