

Facilities

The University has embarked on a major programme of refurbishing and upgrading the facilities within the College of Physical Sciences. This has seen the addition of a new dedicated Chemical Engineering teaching laboratory and the development of state-of-the-art computing & learning spaces within the School of Engineering.

Careers

Chemical Engineering graduates are sought after in a wide variety of industries and business sectors. A degree in Chemical Engineering allows graduates to function effectively in Chemical and Process Industries such as Oil & Gas, Energy, Chemicals, Pharmaceuticals, FMCGs and Food processing. In addition, the underlying attributes of a Chemical Engineering graduate such as logical analysis, problem solving, management and communication allow them to find employment outside the Chemical and Process Industries.

How Do I Apply?

Applications to this degree programme are made through the Universities and Colleges Admissions Service (UCAS). You apply online at www.ucas.com.

Prospective students (and their parents/guardians/teachers) are welcome to visit the University at any time, or attend our University-wide Open Day in August/September. Please contact the Student Recruitment and Admissions Service, who will be happy to make arrangements for a visit.

Where Can I Get Further Information?

Student Recruitment and Admissions Service
University of Aberdeen
University Office
King's College
Aberdeen
AB24 3FX

Tel: +44 (0)1224 272090/91
E-mail: sras@abdn.ac.uk
Web: www.abdn.ac.uk/sras

Or be our friend at
<http://aberdeenuniversity.bebo.com>
www.myspace.com/universityofaberdeen
www.facebook.com/universityofaberdeen

For further details relating to Chemical Engineering at Aberdeen, please visit <http://www.eng.abdn.ac.uk>.



CHEMICAL ENGINEERING AT THE UNIVERSITY OF ABERDEEN



Why Study Chemical Engineering?

Chemical Engineering is concerned with the creative and imaginative use of engineering principles and science to develop processes in which materials undergo chemical or physical transformation into useful products for society to use. Today, Chemical engineers are involved in a much wider range of processing activities than traditional "chemical" production. The types of processes chemical engineers help design include Energy production; Oil and Gas processing; Waste water and effluent treatment; Food processing and manufacturing; Pharmaceuticals and medical products; Carbon dioxide capture and storage and many more.

Virtually every product in modern life has probably been created using the input of a chemical engineer at some point and you will find chemical engineers working across the globe in a wide range of industries.

If you have an aptitude and fascination for how the physical world works, are interested in how chemical reactions and the physical properties of matter can be harnessed to create world changing technologies, and want to contribute positively to making the life of the human race better and to the development of a sustainable environment, then you should consider Chemical engineering as a career choice.

Why Study Chemical Engineering at the University of Aberdeen?

Chemical Engineering at the University of Aberdeen was founded in 2006, and has since gone from strength to strength. Aberdeen's unique location in the heart of Europe's energy industry means the programme has a wealth of knowledge to draw on from local industry and research programmes covering a range of fields. There has never been a more exciting time to get involved in chemical engineering which will tackle some of the world's biggest problems in the coming decades. The programme at Aberdeen seeks to develop the kind of graduates who will make a difference and develop solutions through their understanding and knowledge of chemical engineering gained through study and practice in our new state-of-the-art facilities.

Degree Structure

The University of Aberdeen is one of only three U.K. institutions to offer students a general engineering curriculum in the first two years of study followed by three years in which the specialized skills required by a Chartered Chemical Engineer are developed. The provision of two years of general engineering gives Aberdeen graduates a broad understanding of engineering principles which is invaluable to their future professional development. In addition, close links with the local Oil and Gas industry allow Aberdeen undergraduates to develop their chemical engineering skills through a series of seminars and workshops which support more traditional learning across the years.

The BEng is a four year honours degree programme, while the MEng is an extended honours programme lasting five years, giving an enhanced treatment of more advanced Chemical Engineering topics. The programmes will seek accreditation from the Institution of Chemical Engineers in the autumn of 2011, our earliest opportunity to do so.

Degree Programmes

Students studying the BEng/MEng programme in Chemical Engineering can expect to take the following subjects.

First Year

Mathematics & Chemistry are studied, together with engineering courses which provide students with training in all four engineering disciplines; chemical, civil, electrical and mechanical. Opportunities exist for students to shape their own learning following the introduction of curriculum reform in 2010.

Second Year

Courses spanning all engineering disciplines are delivered to students. The mathematics and chemistry required by a chemical engineering are further developed along with Thermodynamics and Fluid mechanics. An introduction to chemical engineering is given and students cover the fundamental principles of mass and energy balances, transfer phenomenon, and process simulation.

Third Year

Courses in Heat, Mass and Momentum Transfer, Thermodynamics and Fluid Mechanics further develop students understanding of process behaviours. A study of both unit operations and separation processes is undertaken and process dynamics and control introduced. The individual elements are tied together through laboratory work, a week-long design exercise, process simulation, and site visits to local plants with practicing engineers to see the concepts working in real life.

Fourth Year

Chemical Reactor Engineering, Process Control, Safety, and Systems Engineering are studied building on the work of year 3. Students carry out their individual project where they use their skills to solve a real research question in the field of one of our academic staff. BEng students complete their major design project.

Fifth Year (MEng Only)

A range of advanced chemical engineering topics are studied including Oil and Gas processing, Chemical Engineering Frontiers, Engineering Management, and Mathematical optimization. Students then take on their major multidisciplinary design project where their skills developed over the five years of study are put to the test. Working together with colleagues from electrical, mechanical, and civil engineering, they must create a competitive engineering solution to a full-scale design problem.