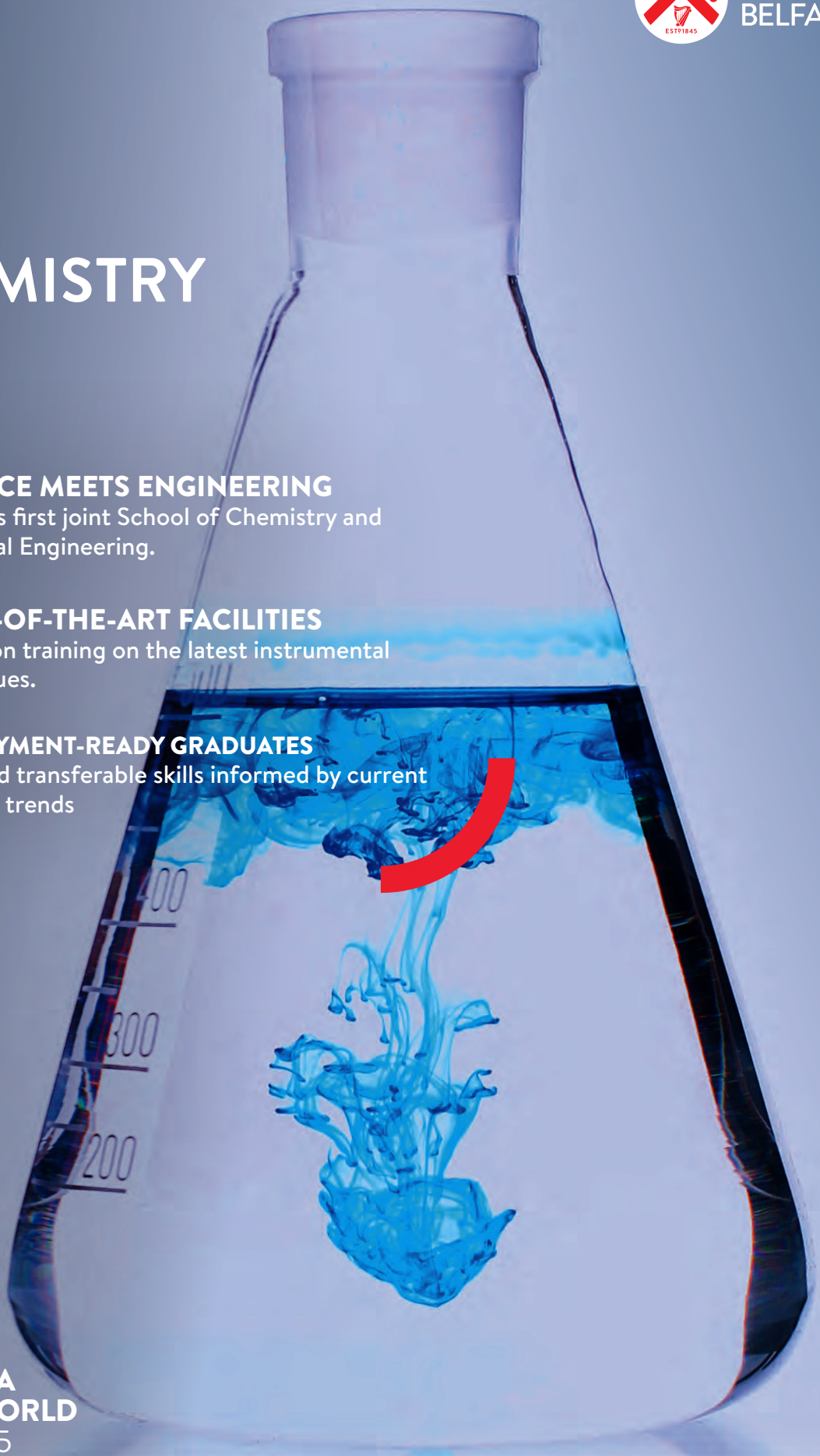
QUEEN'S UNIVERSITY BELFAST

CHEMISTRY



SCIENCE MEETS ENGINEERING
The UK's first joint School of Chemistry and Chemical Engineering.

STATE-OF-THE-ART FACILITIES
Hands-on training on the latest instrumental techniques.

EMPLOYMENT-READY GRADUATES
Core and transferable skills informed by current industry trends

SHAPING A BETTER WORLD
SINCE 1845

CHEMISTRY

Why study Chemistry?

Chemistry is often referred to as the central science because it links other disciplines; indeed an understanding of chemistry is needed to fully understand biology, geology, astronomy, physics, medicine and engineering, among others. Chemistry touches almost every aspect of our daily lives, from the shampoo you use in the shower to the petrol you put in your car, and it enhances our quality of life beyond measure.

Chemistry will become increasingly important in our future knowledge-based society: chemists develop life-saving drugs, they work to produce clean water and energy supplies, pest-control agents, biodegradable materials and sustainable fuel.

A Chemistry degree can open up the door to opportunities in multi-billion pound manufacturing industries like energy, pharmaceuticals and fragrances, while the analytical and intellectual skills gained by studying chemistry are in demand across a range of sectors from education to public service, accounting and management.

Besides offering enticing career prospects, Chemistry at Queen's is fun and will help you understand how the world works in vibrant and exciting ways.

Course Director
Dr Panagiotis Manesiotis

Who will be teaching you?

Queen's boasts the UK's first combined School of Chemistry and Chemistry Engineering, where a team of inspirational academics and world-leading researchers will guide you through your studies. In the most recent Research Assessment Exercise, 80% of the research carried out at the School was deemed internationally excellent or world-leading. This excellence in research informs excellence in teaching, meaning that the latest thinking in the laboratory will be delivered to your lectures.

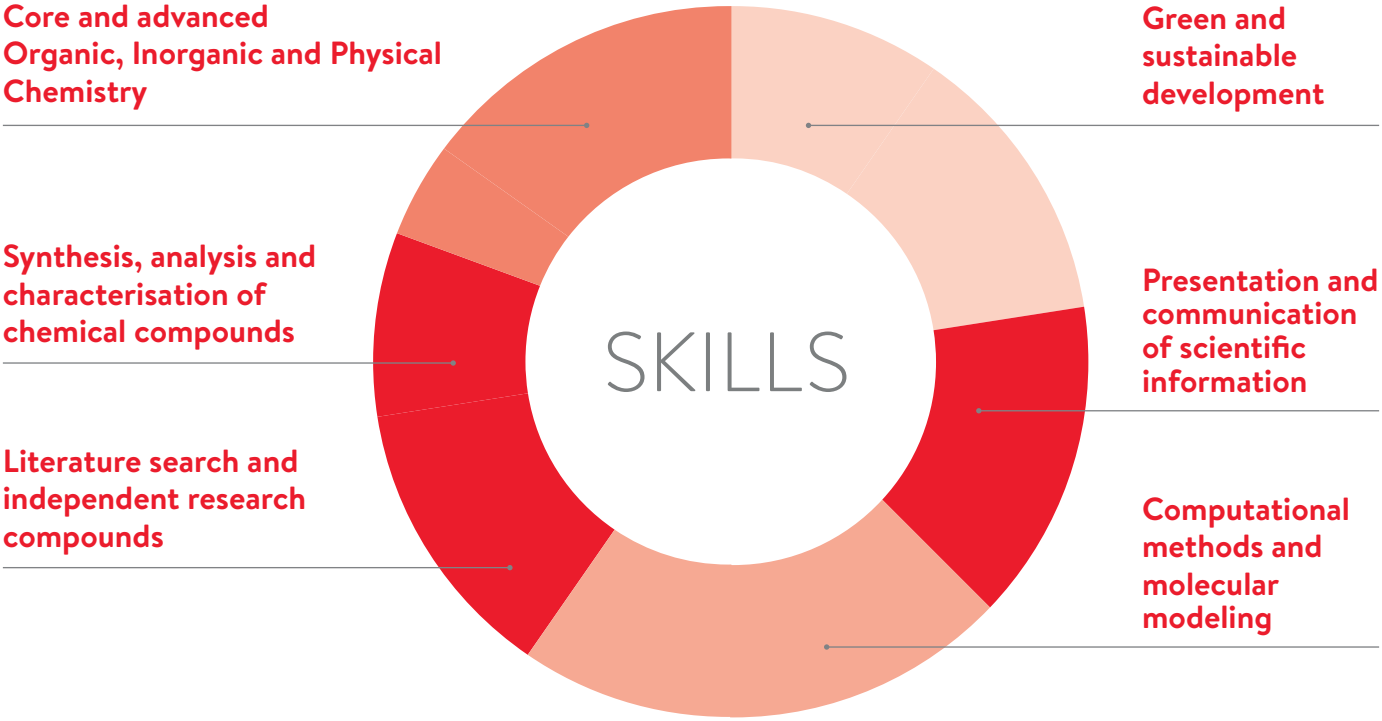
Your study options

Our degree programmes are modular and provide a thorough training in the three main subject areas, Inorganic, Organic and Physical Chemistry. Core principles of Analytical Chemistry, the underpinning chemistry discipline, are embedded throughout our programmes. You'll also have the opportunity to tailor your studies as your strengths and interests develop. For example, first year students have the unique opportunity to switch between Chemistry and Chemical Engineering (providing they have the appropriate A-levels). In tandem with subject-related learning, you'll develop generic problem-solving and reflective-working practices which can be transferred to a range of career paths.

Our pathway options offer you the flexibility to choose the right direction for your future career and include Chemistry with Study Abroad, which incorporates a year studying Chemistry in France or Spain. Alternatively, you can spend a year in industry gaining insight into applied chemistry as part of a sandwich degree. In addition, we offer Medicinal Chemistry degree programmes, which allow you to take modules including Drug design, Biochemistry, Bioinformatics and Genetics, and work on a medicinal or biological research project.

There are two honours degree structures available: BSc and MSci. Many of the elements of the BSc are in common with the MSci programme, and you'll have the

WHAT YOU'LL LEARN



opportunity to transfer between the two pathways, subject to meeting the appropriate programme requirements.

Our subject areas

BSc Honours (Chemistry)

Stage 1: comprises a common programme with the Chemical Engineers, giving an understanding of how the two subjects relate to each other and an opportunity to transfer to the other discipline. You'll study both introductory chemistry and chemical engineering, along with skills modules which will equip you to proceed on either degree programme.

In the second semester, you'll then take three modules covering the main fundamental subject areas – inorganic, organic and physical chemistry.

Stage 2: You'll take six modules of chemistry, designed to extend your knowledge of the traditional subject areas of inorganic, organic and physical chemistry, in addition to introducing aspects of applied chemistry, spectroscopy and theoretical chemistry. Each of the modules contain both practical and coursework components allowing you to develop, practise and demonstrate a wide range of professional skills.

Stage 3: in addition to advancing the three main subject areas of organic, inorganic and physical chemistry, you'll have the choice of taking either a research project directly supervised by a member of staff, or a series of three extended mini-projects in each of the main subject areas.

MSci Honours (Chemistry)

Stage 4: High-calibre students who progress to the MSci carry out an independent research project, while choosing from a selection of advanced modules on organic, inorganic, medicinal and applied chemistry.

Industrial placement: Students have the opportunity to take a placement year in industry in one of the globally leading UK or European based companies the School collaborates with. This is normally the penultimate year of your study.

Practical skills: Practical work is essential to your training in this laboratory based subject area, and Queen's offers well-equipped laboratories and state-of-the-art instruments, along with excellent computer facilities. You will spend a substantial part of your degree developing technical skills and applying the theory from your lectures to real-life or practical contexts in a bright teaching laboratory setting.

OUR PEOPLE

"I really enjoyed that Queen's has a joined first year for Chemistry and Chemical Engineering students, so regardless of what you think you want to do when you come in, you can switch about between courses as your interests develop. The lecturers here are really great, they really take the time to make sure everyone understands everything. They are only one email away or a knock on the door. Queen's a Russell Group university which means it's a top university for research. With a subject based in research and lab work, you know you are getting a really good degree."

Daryl Jane Hinchcliff

"I entered BSc Chemistry in the second year of the course by taking a two year HND in Applied Chemistry at college. I found the transition easy as the lecturers and staff were very supportive. The variety of topics covered within the course allowed me to experience a range of subjects that I had no knowledge of and enjoyed thoroughly, such as Quantum Chemistry. I progressed further with a Master's degree and then went on to complete a PhD with QUB. I joined a number of committees including Green Impact and the RSC Analytical Division NI, which have bolstered my CV and allow me to stand out to potential employers. Through QUB I found a passion for Analytical Chemistry and am excited to continue my career in this field with the sturdy foundation Queen's has given me to build on."

Dr Amanda Bole

Your career prospects

As well as opening the doors to roles in the energy, chemical and pharmaceutical industries, studying for a degree in Chemistry at Queen's will assist you in developing the core skills and employment-related experiences that are valued by all types of employers, professional organisations and academic institutions. You could go on to work in manufacturing, healthcare, design and construction, pulp and paper, food processing, electronics and advanced materials, polymers, business services, biotechnology, and environmental health and safety industries, among others.

We support the development of transferable skills such as numeracy, problem-solving, communication and information retrieval, giving students an edge in the employment market.

We have close working relationships with a large number of employers including Eli Lilly, Invista, Seagate, and Johnson Matthey. Through our Industrial Advisory board, such industry leaders advise us on course content and provide input to research projects.

Our graduates are well regarded by many local, national and international employers and past graduates have entered careers in a wide variety of fields, including the pharmaceutical and fine chemical industry, the forensic services, publishing, marketing, teaching and the financial services. Further study is also an option – graduates can choose one of our Master's programmes, as well as a comprehensive list of research topics; see the School website for further information.

Professional recognition

All our BSc and MSci Chemistry and Medicinal Chemistry degrees are accredited by the Royal Society of Chemistry and the Institute of Chemistry in Ireland.

As such, we equip our students with work-ready skills that employers require including problem-solving and investigative skills, as well as communication and numeracy skills.

Our employer links help our students secure industry placements ranging from a few weeks work experience to full year internships. Our students recently spent time working in industry for pharmaceutical companies such as Eli Lilly, Pfizer, Almac and Randox, as well as a variety of other high-profile employers such as Seagate.

To discuss your options in more detail or if you have any questions contact:

UK, Ireland and EU
Louise McElvanna
l.mcelvanna@qub.ac.uk
+44 (0) 28 9097550 2

Rest of the World
Anna Lyttle
a.lyttle@qub.ac.uk
+44 (0) 28 90975469

FIND OUT MORE ABOUT OUR CHEMISTRY COURSES:

http://go.qub.ac.uk/chemistry

CONTACT US

askeps@qub.ac.uk
www.qub.ac.uk

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FACULTY OF ENGINEERING AND PHYSICAL SCIENCES