University of St Andrews

Chemistry

Undergraduate Study

University of St Andrews

Degree Options in Chemistry

SINGLE HONOURS (MChem)	UCAS
Chemistry	F101
Chemistry with External Placement	F102
Chemistry with Medicinal Chemistry	F152
Chemistry with Medicinal Chemistry and External Placement	F151
Chemistry with Mathematics	F1G1
JOINT HONOURS (MSci)	
Chemistry and Physics	FF13
MATERIALS SCIENCE (MSci)	F200

SINGLE HONOURS (BSc)	
Chemistry	F100
Chemistry with Catalysis	F111
Chemistry with Materials Chemistry	F112
Chemistry with Medicinal Chemistry	F150
Chemistry with Pharmacology	F1B2
Chemical Sciences	F105
Biomolecular Science	C760
JOINT HONOURS (BSc)	
Chemistry and Geoscience	FF16
Chemistry and Mathematics	FG11

Entry Requirements

The likely minimum grades (at June '09) are:

SQA Highers: AABB (including A pass in Chemistry)
GCE A-Levels: ABB (including Chemistry) – or equivalent
International Baccalaureate: 32 points

Others available on request.
For Direct entry to Second Year, see below.

This information is for guidance only. All applications are considered on individual merit. For Joint Honours degrees the subject with the higher entry requirements determines the likely minimum grades. Admissions Officers consider all aspects of every application, particularly the Personal Statement. Remember that you must also meet the Faculty Entrance Requirements (see Undergraduate Prospectus: www.st-andrews.ac.uk/admissions/ug/Prospectus).

Features

- We are regularly placed amongst the top Schools of Chemistry in the UK in published league tables of University Science Schools and Departments by the main national newspapers.
- Good staff : student ratios.
- All our degrees are accredited or recognised by the Royal Society of Chemistry.
- You will be taught in a leading School for chemistry research (according to the latest RAE grading).

Single Honours Degrees

The MChem and BSc degree courses in Chemistry cover all aspects of chemistry ranging from topics at the interface between physics and chemistry (e.g. MSci Chemistry and Physics and MSci Materials Science) to those at the biological interface (e.g. Biomolecular Science and Chemistry with Pharmacology). The MChem degree is an advanced course lasting five years (or four with direct entry into the second year) which will train you as a professional chemist and equip you with the skills necessary to be highly competitive in the job market as well as for embarking on a higher level research based degree like a PhD. The MChem degree can be tailored to suit your interests within chemistry and offers the chance (optional) of a one year industrial placement in the penultimate year (see page 5). The Honours BSc degree offers a greater flexibility in the subject choice and lasts four years (or in some cases three years with direct entry to second year).

Joint Honours Degrees

You spend your Honours years studying the Chemistry Honours syllabus as well as another subject – Geoscience (BSc), Mathematics (BSc or MChem) or Physics (MSci).

Direct Entry to Second Year

With our BSc and MChem structure, which can include a whole year in industry, we have introduced measures to make direct entry into the second year much easier. Students who enter into the second year can get their MChem after only four years or their BSc after three years. This option is offered to students with good A-Level grades, Advanced Highers or IB score. We would be delighted to discuss the possibility of direct entry into the second year with any prospective students.

MINIMUM GRADES REQUIRED FOR FAST TRACK (DIRECT) ENTRY INTO SECOND YEAR

Advanced Higher:	AB in science subjects including A in Chemistry, plus AB in two other Highers
A-Level:	AAB (or equivalent) (including A in Chemistry)

Details of the required grades for entry with HNC/HND, Access or other international qualifications are available on request.

ADDITIONAL SUPPORT FOR DIRECT ENTRY

To ensure a smooth transition into University life for fast track entrants we offer assistance in the form of:

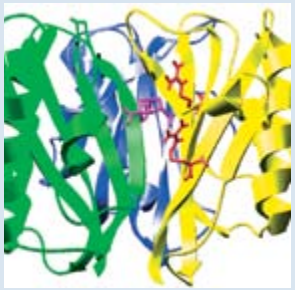
- A short module to allow you to 'top-up' your knowledge of the subject beyond high school level.
- Extra tutorial support.

Indeed students who enter into second year do as well, and frequently better, than those who enter at first year.

Front cover image: MChem student Emma Scales during her External Placement at Avecia, Manchester.

"A degree in Chemistry is one of the most exciting degrees to study, with topical lectures focusing on issues ranging from drug discovery and development, to the problems of bird flu. My degree in medicinal chemistry involved a variety of lectures, tutorials and labs, and included a one-year industrial placement within a chemical company – an invaluable experience and one of the high points of my degree."

LAURA
Campbeltown, Argyll
Currently studying for a PhD in St Andrews on Synthetic Organic Chemistry



Course Details

You will be taught in a mixture of ways encouraging the development of written and oral presentation skills, both individually and as part of a team.

FIRST LEVEL (1st year)

This consists of six modules and you will study three modules of chemistry and three other modules, one of which may be a further chemistry option. For the remainder you can choose modules from a wide variety of subjects and venture into something completely new. Modules include:

- Introductory Inorganic and Physical Chemistry (compulsory)
- Inorganic and Physical Chemistry 1 (compulsory)
- Organic and Biological Chemistry 1 (compulsory)
- The Impact of Chemistry (optional)

SECOND LEVEL (usually 2nd year)

Second year consists of four modules. You will normally take two or three chemistry modules and one or two modules from another department. If you enter directly into Year 2 you may also complete a short 'booster' module in basic chemistry. Modules include:

- Inorganic Chemistry 2
- Organic Chemistry 2
- Organic Chemistry 2 (Materials) (required for the MSci degree in Materials Science)
- Physical Chemistry 2

After completing the modules in first and second year you decide on your final degree choice (e.g. MChem or BSc) and enter the Honours class.

HONOURS (3rd, 4th and 5th years)

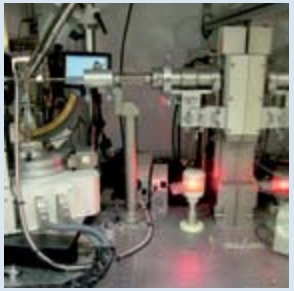
- Our modular system allows you to choose your own degree path, studying aspects of Chemistry that are of interest to you.
- Our modules cover a range of topics that are important in our modern world, with emphasis on aspects of Chemistry that impact our everyday lives such as the Environment, Health and Technology.
- The flexibility of our modular system means that we offer a large number of degree options.

Industrial Placement (MChem)

The MChem industrial placement scheme involves work at a company or other institution for a year. The placement can be outside the UK, offering you the chance to experience life in a foreign country. Companies where we have placed students in recent years include:

GlaxoSmithKline, Stevenage (UK)
Sanofi-Aventis, Lyon (France), Alnwick (UK)
Procter & Gamble, Newcastle (UK)
Avecia, Grangemouth (UK)
AstraZeneca, Loughborough (UK)
Infineum, Abingdon (UK)
Organon, Lanarkshire (UK)
Pfizer, Sandwich (UK)
Procter & Gamble, Europe
Novartis, Basel, Switzerland
EMPA, Basel, Switzerland
Roche, Basel, Switzerland
Syngenta, Basel, Switzerland
Scripps Inst. California, USA
Core Laboratories, Alberta, Canada
AGFA (Belgium)

. . . . . plus many more



Second year students planning their Medicinal Chemistry poster for a teamworking exercise . . .

. . . and the final version being admired by a visitor from the Research and Development sector of bp Chemicals

"I chose the University of St Andrews due to the quality of the School of Chemistry, the friendly University dynamics and its marvellous location. The versatile course spans many areas of Chemistry which kept me intrigued throughout my undergraduate years, and the external placement gave me valuable research experience. I loved that experience so much that I am back studying for a PhD in Surface Science."

DANIEL
Keswick, Cumbria
Current PhD student

Careers

Recent Chemistry graduates from St Andrews have gone on to find success in a wide variety of careers in industry and business including (amongst many others):

- professional chemists in the chemical and pharmaceutical industries
- forensic scientists
- various careers in the food industry (including Brewing)
- patent lawyers
- teachers
- marketing and advertising
- management consultants
- accountants
- investment bankers
- journalism and the media

One of our most recent graduates is an Assistant Chemist for the Scottish Environmental Protection Agency, another is an Ice Cream Technologist for Unilever, while a third is a Process Engineer for Shell. Of those who graduated the previous year, one is Scottish Sales Manager for Brit Poly Industries, another is working as a commercial underwriter for ACSure Insurance and another is a trainee chartered accountant with Cook & Co.

How do I apply?

STEP 1: COME AND VISIT US

We encourage all applicants to come and visit us in St Andrews. You will get an opportunity to look around the University and the School of Chemistry, and a chance to talk to some of the students that study here already. You will also be able to have a look around our excellent halls of residence and check out the sports, art and music facilities. If you prefer, you can always come and visit us after you apply through UCAS (see step 2). To arrange a visit just contact us at the addresses listed on the back cover.

STEP 2: FILL IN THE UCAS FORM

The normal method of application to a Scottish university is through the UCAS system. Your school should be able to help you with this, and there is also excellent advice on the UCAS web site (www.ucas.ac.uk), especially with help on how to fill in the Personal Statement section of the UCAS form. Help for international and mature students can also be found on this website.

The School of Chemistry

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T: +44 (0)1334 462150
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E: student.recruitment@st-andrews.ac.uk

Online Prospectus, Subject Leaflets and Admissions information

www.st-andrews.ac.uk/admissions/ug

Visiting Days

There are a number of Visiting Days throughout the year when you can look round the University and talk informally to staff about courses. For more information look in the prospectus or see: **www.st-andrews.ac.uk/admissions/visit**

This leaflet is available in Large Print, Braille or Audio on request to Admissions 01334 463324

The University's Terms and Conditions for matriculated students can be found in the UG Sponsio Academica at: **www.st-andrews.ac.uk/students/rules**

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