



University of
Nottingham

UK | CHINA | MALAYSIA

Chemistry



Discover it



Understand it



nottingham.ac.uk/chemistry

Undergraduate guide 2019

Contents

How will I study?	4
Our courses	6
Careers and employability	20
How do I apply?	22
Experience it	23

Learn in a **dynamic and highly stimulating environment**

Tailor your degree

to your scientific interests



Flexibility between **BSc and MSci Chemistry degrees**

Small group tutorials



“ My decision to come to the University of Nottingham was made after coming to an open day. The lecturers were really enthusiastic, the chemistry building looked good and the atmosphere around the campus was great. ”
Christopher Brooks-Green, MSci Chemistry



95%



of our research activity is judged as **internationally excellent or world leading***

* Research Excellence Framework, 2014.

Learn from **researchers working at the forefront of chemical science**



Opportunities to get involved in **cutting-edge research**



90.8%

of undergraduates from the school secured work or further study within six months of graduation. The average starting salary was **£24,150**, with the highest being **£32,000****

** Known destinations of full-time home undergraduates who were available for work, 2015/16. Salaries are calculated based on the median of those in full-time paid employment within the UK.

How will I study?

The School of Chemistry offers a range of stimulating BSc and MSci degree courses with programmes that prepare you for a wide range of career pathways.

Teaching

Your degree course is designed to feed your curiosity for chemistry, to encourage you to express your ideas clearly and logically and to develop your approach towards independent learning. We achieve this through a series of modules that consolidate your previous knowledge, and then explore new topics and concepts. The academic year is divided into two semesters and you will complete 120 credits of study per year. There are typically 10 lectures per week in addition to laboratory classes.

Tutorials

You will also take part in a series of small-group tutorials that provide an opportunity for you to analyse and use the material that has been presented in lectures and laboratory classes. These meetings also ensure that you have grasped the key points of the lectures and that you fully understand the course material.

Laboratory experience

You will gain laboratory experience in hands-on practical modules that typically run for up to eight hours per week during the first year of your course, and which extend to 10 hours per week in the second and third years.

These modules introduce you to current synthetic and analytical approaches in chemistry, and the operation of advanced instrumentation. Practical sessions are held in well-equipped laboratories housed within the School of Chemistry. In your third year you will develop your independence and time management skills, to prepare you for working in a research environment.

Research projects

During the fourth year, MSci students are invited to join an active research group within the school to contribute to projects at the cutting edge of chemistry. You will be given greater independence and will be responsible for driving your own project under the day-to-day guidance of an academic member of staff.

Personal tutors

You will be assigned a personal tutor who will support you through your studies and help you make the most of the opportunities available at Nottingham. Your personal tutor is your first port of call in the school and they will take an interest in your personal and academic development, offering you help, encouragement and guidance.

Accreditation

All of our BSc and MSci degrees are accredited by the Royal Society of Chemistry, except for BSc | MSci Chemistry and Molecular Physics that are accredited by the Institute of Physics.



Our courses

Degree title	UCAS code	Duration	A levels	IB
Single honours				
BSc Chemistry*	F100	3 years	AAB-ABB	34-32
MSci Chemistry**	F101	4 years	AAA-AAB	36-34
MSci Chemistry with an International Study Year**	F103	4 years	AAA-AAB	36-34
MSci Chemistry with a Year in Industry**	F105	4 years	AAA-AAB	36-34
BSc Medicinal and Biological Chemistry***	FC17	3 years	AAB-ABB	34-32
MSci Medicinal and Biological Chemistry**	FC1R	4 years	AAA-AAB	36-34
MSci Medicinal and Biological Chemistry with an Assessed Year in Industry**	CF71	4 years	AAA-AAB	36-34
BSc Chemistry and Molecular Physics	FF31	3 years	AAB	34
MSci Chemistry and Molecular Physics	FFH1	4 years	AAB	34
BSc Biochemistry and Biological Chemistry	C720	3 years	AAB	34
MSci Biochemistry and Biological Chemistry	C721	4 years	AAB	34

* Transfer to the MSci Chemistry courses (F101, F103 or F105) may be considered at the end of year one depending on your performance.

** If you place chemistry at the University of Nottingham as your firm choice and you do not meet the MSci grades in your offer but meet the BSc grades then you will automatically be offered a place for the BSc degree.

*** Transfer to the MSci Medicinal and Biological Chemistry courses (FC1R or CF71) may be considered at the end of year one depending on your performance.

Applicants offering A level biology, chemistry and/or physics must pass the practical element of assessment (where it is assessed separately).

Foundation courses

Applicants who are not eligible for direct entry to undergraduate study may be able to apply for a foundation course. Find out more at nottingham.ac.uk/foundationcourses

English language requirements

GCSE 4 in English (or equivalent) or IELTS 6.0 (no less than 5.5 in any element) except for BSc | MSci Chemistry and Molecular Physics, and BSc | MSci Biochemistry and Biological Chemistry that require IELTS 6.5 (no less than 6.0 in any element). For details of other English language tests and qualifications we accept, please see nottingham.ac.uk/go/alternativerequirements

Academic English preparation

If you require additional support to take your language skills to the required level, you may be able to attend a pre-sessional course at the Centre for English Language Education, which is accredited by the British Council for the teaching of English in the UK.

Students who successfully complete the pre-sessional course to the required level can progress onto their chosen degree course without retaking IELTS or equivalent. Find out more at nottingham.ac.uk/cele



BSc | MSci Chemistry

These courses provide a strong background in chemical theory and practice and will prepare you for entry into a wide variety of careers.

The final year of the four-year MSci course involves a major research project at the cutting edge of chemistry carried out within a research group in the school. Transfer between the BSc and MSci courses can be considered throughout the first 12 months of study.

Year one

Building on your pre-university studies, you will spend three quarters of your first year gaining core chemical knowledge and understanding. If you do not have A level mathematics (or equivalent) then you will take an additional in-house module to prepare you for this aspect of the chemistry course. Optional modules are available and account for the remainder of your study time.

Year two

In the second year, theoretical and practical modules further develop the knowledge and understanding gained in year one. The core material accounts for 100 credits of your study with a further 20 credits taken as optional modules.

Year three

You'll study 90 credits that covers core chemistry in increasing depth and advanced practical work. You will also have a choice of specialist optional modules to provide a further 30 credits.

Year four (MSci students)

You will undertake a major 60 credit research project. The project will develop not only your practical ability, team working and problem-solving skills, but also your appreciation of published literature, your use of library and computer database resources and your presentation skills. You will complete a further 60 credits of optional modules in year four.

“Throughout my degree, not only did I learn about molecular orbital theory and how to draw an organic mechanism, but I also learnt skills in project management, public speaking and written communication. Since joining Croda, I use these transferable skills on a day-to-day basis, and they are fundamental in allowing me to do my job well.”
Katie Lamport, MSci Chemistry

Typical modules

Year one	Year two	Year three	Year four (MSci students)
<p>Core</p> <ul style="list-style-type: none"> Chemistry Study Skills Foundation Laboratory Work Introduction to Organic Molecules and their Reactivity Introduction to Spectroscopy, Energy and Bonding in Chemistry Introduction to Structure, Periodicity and Coordination Chemistry Calculations in Chemistry <p>Optional</p> <ul style="list-style-type: none"> Frontiers in Chemistry Introduction to Green Chemistry and Processing Molecules of Life Mathematical Toolkit[^] 	<p>Core</p> <ul style="list-style-type: none"> Core Laboratory Work Energy, Spectroscopy and Solid State Chemistry General Inorganic Chemistry Principles of Analytical Chemistry Synthesis and Spectroscopy <p>Optional</p> <ul style="list-style-type: none"> Atmospheric Chemistry Medicinal Chemistry and Molecular Biology Advanced Calculus and Differential Equation Techniques 	<p>Core</p> <ul style="list-style-type: none"> Advanced Laboratory Techniques in Chemistry Bioinorganic and Metal Coordination Chemistry Catalysis Chemical Bonding and Reactivity Organometallic and Asymmetric Synthesis Pericyclic and Reactive Intermediates Solids, Interfaces and Surfaces <p>Optional</p> <ul style="list-style-type: none"> Chemical Biology and Enzymes Communicating Chemistry Contemporary Drug Discovery Drug Discovery: The Development of New Medicines Lasers in Chemistry Protein Folding and Biospectroscopy Topics in Inorganic Chemistry 	<p>Core</p> <ul style="list-style-type: none"> Chemistry Research Project <p>Optional</p> <ul style="list-style-type: none"> Advanced Biocatalysis, Biosynthesis and Chemical Biology Advanced Physical Chemistry Contemporary Organic Synthesis Contemporary Physical Chemistry Enterprise for Chemists Inorganic and Materials Chemistry Medicines from Nature and Pharmaceutical Process Chemistry Nucleic Acids and Bioorganic Mechanism Self-assembly and Bottom-up Approaches to Nanostructure Fabrication

[^] Compulsory for students not offering A level mathematics (or equivalent); optional for students offering A level mathematics (or equivalent).

Modules may change, for example due to curriculum developments. The above list is a sample of typical modules that we offer, not a definitive list. The most up to date information can be found on our website at nottingham.ac.uk/ugstudy/chemistry

MSci Chemistry with an International Study Year

This four-year course provides in-depth training in chemistry with the added opportunity of an international study year in year three.

Years one and two

You will follow the same course of study as the MSci Chemistry degree during years one and two. During year two you will apply to potential host universities for entry into year three and you will be supported in this process by the University. Progression onto year three of the MSci Chemistry with an International Study Year degree will depend on securing a placement and a good level of performance in years one and two.

Year three

In year three you will have the opportunity to study in the chemistry department at one of our partner universities, which currently include:

- **Australia:** Australian National University, Monash University, University of Melbourne, University of New South Wales
- **Canada:** Concordia University, McGill University, University of British Columbia
- **Hong Kong:** The University of Hong Kong
- **Ireland:** University College Dublin
- **New Zealand:** University of Auckland, University of Canterbury
- **Singapore:** The National University of Singapore
- **USA:** University of Arizona

You will study a framework of core modules at the host university which builds on the foundation of years one and two and which will prepare you for the final year in Nottingham. Optional modules will allow you to benefit from the unique opportunities for study at the host school.

Year four

In the final year students return to Nottingham to follow year four of the MSci Chemistry course. You will also undertake a major research project, which provides an opportunity to experience research methods employed in modern chemistry.



“As a global university, Nottingham excels at giving you the opportunity to participate in your studies abroad. With a wide range of partner universities, Nottingham gives you the chance to broaden your knowledge in a variety of new countries and this was why I chose to study here – and I enjoyed every second!”

Pippa Oxford, MSci Chemistry with an International Study Year

MSci Chemistry with a Year in Industry

This four-year course provides in-depth training in chemistry with the added opportunity of an assessed year spent in a research laboratory of a major chemical company in year three.

Years one and two

You will follow the same course of study as the MSci Chemistry degree during years one and two. You will apply to potential companies for your year three placement and you will be supported in this process by the University. Progression onto year three of the MSci Chemistry with a Year in Industry degree will depend on securing a placement and a good level of performance in year two.

Year three

Progression onto the assessed third year gives you an opportunity to work on a 90-credit research project in a research laboratory of a major chemical company where you will be a paid employee. Three 10-credit distance learning theory modules will develop your core chemistry knowledge, which are fully supported by extensive online resources and access to tutors at Nottingham. Comprehensive academic and pastoral support will be provided. Recent destinations for placement students have included Actelion (Switzerland), AstraZeneca (UK and Sweden), BP, GlaxoSmithKline, Infineum, Janssen (Belgium), Lubrizol and Syngnare.

Year four

In the final year students return to Nottingham to follow year four of the MSci Chemistry course. You will also undertake a major research project, which provides an opportunity to experience research methods employed in modern chemistry.



BSc | MSci Medicinal and Biological Chemistry

These courses combine comprehensive training in chemistry with aspects of biochemistry and pharmacology relevant to understanding human disease and drug design.

The course content has been tailored to produce graduates with an excellent practical and theoretical knowledge of synthetic and analytical chemistry. The modules making up the course are given by members of the Schools of Chemistry and Life Sciences.

Year one

In the first year you will follow introductory courses in chemistry, physiology and pharmacology, including practical training. You will spend three quarters of your first year gaining core chemical knowledge and understanding that builds upon your pre-university studies. If you do not have A level mathematics (or equivalent) you will take an additional in-house module to prepare you for this aspect of the chemistry course.

Year two

You will cover topics in physical, inorganic and organic chemistry in more depth, as well as complementary courses in spectroscopy, biological chemistry and pharmacology, which includes a case study on the development of a recent drug.

Year three

You'll study 90 credits that covers core chemistry in increasing depth, advanced practical work and drug discovery. You will also have a choice of specialist optional modules to provide a further 30 credits.

Year four (MSci students)

You will undertake a major 60-credit research project. The project will develop not only your practical ability, team working and problem-solving skills, but also your appreciation of the published literature, your use of the library and computer database resources and your presentation skills. You will complete a further 60 credits of optional modules in year four.

Typical modules

Year one	Year two	Year three	Year four
<p>Core</p> <ul style="list-style-type: none"> ■ Chemistry Study Skills ■ Foundation Laboratory Work ■ Introduction to Organic Molecules and their Reactivity ■ Introduction to Spectroscopy, Energy and Bonding in Chemistry ■ Introduction to Structure, Periodicity and Coordination Chemistry ■ Human Physiology ■ Calculations in Chemistry <p>Optional</p> <ul style="list-style-type: none"> ■ Frontiers in Chemistry ■ Introduction to Green Chemistry and Processing ■ Molecules of Life ■ Mathematical Toolkit[^] 	<p>Core</p> <ul style="list-style-type: none"> ■ Basic Molecular Pharmacology ■ Core Laboratory Work ■ Energy, Spectroscopy and Solid State Chemistry ■ General Inorganic Chemistry ■ Medicinal Chemistry and Molecular Biology ■ Pharmacology Dissertation: Drugs and Diseases ■ Synthesis and Spectroscopy 	<p>Core</p> <ul style="list-style-type: none"> ■ Advanced Laboratory in Chemistry ■ Bioinorganic and Metal Coordination Chemistry ■ Catalysis ■ Chemical Bonding and Reactivity ■ Drug Discovery ■ Organometallic and Asymmetric Synthesis ■ Pericyclics and Reactive Intermediates ■ Solids, Interfaces and Surfaces <p>Optional</p> <ul style="list-style-type: none"> ■ Chemical Biology and Enzymes ■ Communicating Chemistry ■ Molecular Microbiology and Infections ■ Molecular Modelling ■ Protein Folding and Biospectroscopy ■ Topics in Inorganic Chemistry 	<p>Core</p> <ul style="list-style-type: none"> ■ Chemistry Research Project <p>Optional</p> <ul style="list-style-type: none"> ■ Advanced Biocatalysis, Biosynthesis and Chemical Biology ■ Advanced Physical Chemistry ■ Contemporary Organic Synthesis ■ Contemporary Physical Chemistry ■ Enterprise for Chemists ■ Inorganic and Materials Chemistry ■ Medicines from Nature and Pharmaceutical Process Chemistry ■ Nucleic Acids and Bioorganic Mechanism ■ Self-assembly and Bottom-up Approaches to Nanostructure Fabrication

[^] Compulsory for students not offering A level mathematics (or equivalent); optional for students offering A level mathematics (or equivalent).

Modules may change, for example due to curriculum developments. The above list is a sample of typical modules that we offer, not a definitive list. The most up to date information can be found on our website at nottingham.ac.uk/ugstudy/chemistry

MSci Medicinal and Biological Chemistry with an Assessed Year in Industry

The first two years of this course are common to the BSc | MSci Medicinal and Biological Chemistry courses. On completion of this degree, you can progress into careers in the pharmaceutical, agrochemical and biotechnology industries, as well as higher research and vocational degrees.

Years one and two

You will follow the same course of study as the MSci Medicinal and Biological Chemistry degree during years one and two. You will apply to potential companies for your year three placement and you will be supported in this process by the University.



“My degree gives me the opportunity to study a wide variety of topics in biochemistry and pharmacology all relating to medicinal chemistry but without restricting the amount of other areas in chemistry I am exposed to. One of the highlights has to be the module in third year which is co-run with GlaxoSmithKline. This gave me a real insight into how medicinal chemistry works in an industrial environment.”

Jamie Cadge,
MSci Medicinal and Biological Chemistry

Progression onto year three of the MSci Medicinal and Biological Chemistry with an Assessed Year in Industry degree, will depend on securing a placement and a good level of performance in year two.

Year three

Progression onto the assessed third year in industry gives you an opportunity to work on a 90-credit research project in a research laboratory of a major chemical company where you will be a paid employee. Three 10-credit distance learning theory modules will develop your core chemistry knowledge. Comprehensive academic and pastoral support will be provided. Recent destinations for placement students have included Actelion (Switzerland), AstraZeneca (UK and Sweden), BP, GlaxoSmithKline, Infineum, Janssen (Belgium), Lubrizol and Sygnature.

Year four

In the final year students return to Nottingham to follow year four of the MSci Medicinal and Biological Chemistry course. You will also undertake a major research project, which provides an opportunity to experience research methods employed in modern chemistry.

Typical modules

Year one	Year two	Year three (Year in industry)	Year four
<p>Core</p> <ul style="list-style-type: none"> Chemistry Study Skills Foundation Laboratory Work Introduction to Organic Molecules and their Reactivity Introduction to Spectroscopy, Energy and Bonding in Chemistry Introduction to Structure, Periodicity and Coordination Chemistry Human Physiology Calculations in Chemistry <p>Optional</p> <ul style="list-style-type: none"> Frontiers in Chemistry Introduction to Green Chemistry and Processing Molecules of Life Mathematical Toolkit[^] 	<p>Core</p> <ul style="list-style-type: none"> Basic Molecular Pharmacology Core Laboratory Work Energy, Spectroscopy and Solid State Chemistry General Inorganic Chemistry Medicinal Chemistry and Molecular Biology Pharmacology Dissertation: Drugs and Diseases Synthesis and Spectroscopy 	<p>Core</p> <ul style="list-style-type: none"> Distance Learning Inorganic Chemistry Distance Learning Organic Chemistry Distance Learning Physical Chemistry Year in Industry Research Project 	<p>Core</p> <ul style="list-style-type: none"> Chemistry Research Project <p>Optional</p> <ul style="list-style-type: none"> Advanced Biocatalysis, Biosynthesis and Chemical Biology Advanced Physical Chemistry Contemporary Physical Chemistry Contemporary Organic Synthesis Enterprise for Chemists Inorganic and Materials Chemistry Medicines from Nature and Pharmaceutical Process Chemistry Nucleic Acids and Bioorganic Mechanism Self-assembly and Bottom-up Approaches to Nanostructure Fabrication

[^] Compulsory for students not offering A level mathematics (or equivalent); optional for students offering A level mathematics (or equivalent).

Modules may change, for example due to curriculum developments. The above list is a sample of typical modules that we offer, not a definitive list. The most up to date information can be found on our website at nottingham.ac.uk/ugstudy/chemistry

BSc | MSci Chemistry and Molecular Physics

These courses focus on the area of overlap between the established disciplines of chemistry and physics.

Teaching is delivered jointly by the School of Physics and Astronomy and the School of Chemistry providing you with expertise in both disciplines. The courses are designed to be flexible so it may be possible to transfer to a chemistry or physics degree at the end of the first year, depending on your performance in year one. Our graduates enter a wide range of science based careers or progress to research level degrees.

Year one

In the first year you will study introductory chemistry, physics and mathematics modules. You will take practical chemistry classes in our teaching laboratories and a special module on data analysis and scientific computing.



“The course combines the aspects of chemistry and physics I enjoy most and allows me to learn a diverse range of modules. This, as well as the attractive campus and lively city, was my main reason for choosing to study here.”
Florence Jones, Chemistry and Molecular Physics

Year two

In the second year, lectures will concentrate on physical chemistry, spectroscopy, quantum mechanics and electromagnetic fields, and there are laboratory classes in both chemistry and physics. There is a choice of optional modules, covering specialised topics such as nanotechnology and analytical chemistry.

Year three

In year three, core modules cover energetics and kinetics, magnetic resonance, surface science, solid-state physics, and atomic and particle physics. You will develop communication skills and undertake project-based practical work to develop your understanding of these key areas. Optional modules include lasers in chemistry and catalysis.

Year four (MSci students)

You will carry out a major research project. As well as formal lectures, emphasis is placed on the development of problem-solving and communication skills.

Typical modules

Year one	Year two	Year three	Year four (MSci students)
<p>Core</p> <ul style="list-style-type: none"> ■ Computing for Physical Science ■ From Newton to Einstein ■ Fundamental Chemistry Theory and Practical ■ Mathematics for Physics and Astronomy <p>Optional</p> <ul style="list-style-type: none"> ■ Frontiers in Chemistry ■ Introduction to Green Chemistry and Processing 	<p>Core</p> <ul style="list-style-type: none"> ■ Classical Fields ■ Core Laboratory Work ■ Experimental Techniques and Instrumentation ■ Intermediate Inorganic Chemistry ■ Energy, Spectroscopy and Solid State Chemistry ■ The Quantum World <p>Optional</p> <ul style="list-style-type: none"> ■ Force and Function at the Nanoscale ■ Principles of Analytical Chemistry 	<p>Core</p> <ul style="list-style-type: none"> ■ Advanced Laboratory Techniques ■ Atoms, Photons and Fundamental Particles ■ Chemical Bonding and Reactivity ■ Chemistry and Molecular Physics Literature and Communication Skills ■ Fourier Methods ■ Introduction to Solid State Physics ■ Physics Project ■ Solids, Interfaces and Surfaces <p>Optional</p> <ul style="list-style-type: none"> ■ Bioinorganic and Metal Coordination Chemistry ■ Catalysis ■ Lasers in Chemistry ■ Topics in Inorganic Chemistry 	<p>Core</p> <p>You can choose one of the following:</p> <ul style="list-style-type: none"> ■ Chemistry Research Project ■ Natural Science and CMP Physics Project <p>Optional</p> <ul style="list-style-type: none"> ■ Advanced Physical Chemistry ■ Contemporary Physical Chemistry ■ From Accelerators to Medical Imaging ■ Functional Medical Imaging ■ Imaging and Manipulation at the Nanoscale ■ Inorganic and Materials Chemistry ■ Quantum Dynamics ■ Self-assembly and Bottom-up Approaches to Nanostructure Fabrication ■ Semiconductor Physics ■ The Politics, Perception and Philosophy of Physics

Modules may change, for example due to curriculum developments. The above list is a sample of typical modules that we offer, not a definitive list. The most up to date information can be found on our website at nottingham.ac.uk/ugstudy/chemistry

BSci | MSci Biochemistry and Biological Chemistry

Accredited by the Royal Society of Chemistry, these courses equip you with the fundamental aspects of biochemistry and chemistry.

Teaching is delivered jointly by the School of Life Sciences and the School of Chemistry, providing you with expertise from both subjects.

Year one

During this introductory year, you will study cell biology, biochemistry, genetics and cellular control together with essential chemistry. These modules are supported by practical studies in cell biology, biochemistry, genetics and chemistry. Students without A level maths will be required to take modules providing the necessary maths skills for chemists.

Year two

In year two, you will expand your chemical knowledge, both theoretically and practically. Proteins and enzymes are explored, from their structure to their mechanisms. Other core topics include cell signalling and an understanding of how biochemical processes are integrated and regulated.

Year three

Advanced laboratory work in biochemistry and chemistry is a major feature of year three. In biochemistry, you will perform a number of fundamental and advanced molecular biology techniques. Individual results and data from the class will be analysed as part of an overall project to investigate relevant scientific questions. In chemistry, you will further your experience in the principles upon which modern experimental methodology is based, chemical synthesis, obtaining and interpreting physical data, and report writing.

Other advanced modules are available, from looking at disease to a detailed understanding of proteins.

Year four (MSci only)

A substantial feature of year four is an extended individual project in biochemistry or chemistry, which may be either lab or bioinformatics based. All subjects will require a review of published work and the planning of a research project under the guidance of two supervisors. You will be assessed by a dissertation and oral presentation.

Additional modules are available which may cover disease, business, immunology or nucleic acids.



Typical modules

Year one	Year two	Year three	Year four (MSci only)
<p>Core</p> <ul style="list-style-type: none"> Core Skills in Biochemistry and Biological Chemistry Genes, Molecules and Cells Fundamental Chemistry Theory and Practical <p>If you do not have A level maths, you will take:</p> <ul style="list-style-type: none"> Mathematical Toolkits and Calculations in Chemistry <p>If you have A level maths, you can choose from:</p> <ul style="list-style-type: none"> Calculations in Chemistry Molecules for Life <p>or:</p> <ul style="list-style-type: none"> Human Physiology 	<p>Core</p> <ul style="list-style-type: none"> Concise Inorganic and Organic Chemistry Core Chemistry Laboratory Work Signals and Metabolic Regulation Structure, Function and Analysis of Genes Structure, Function and Analysis of Proteins 	<p>Core</p> <ul style="list-style-type: none"> Advanced (Chemistry) Lab Techniques Advanced Biochemistry Advanced Biochemistry Laboratory Work Biochemistry of Disease Bioinorganic and Metal Coordination Chemistry Organometallic and Asymmetric Synthesis Pericyclics and Reactive Intermediates Protein Folding and Biospectroscopy 	<p>Core</p> <ul style="list-style-type: none"> Biochemistry of Cancer Biochemistry or Chemistry Research Project Cellular and Molecular Immunology Contemporary Organic Synthesis Enterprise for Chemists Nanostructure Fabrication Nucleic Acids and Bioorganic Mechanisms Signal Transduction

Modules may change, for example due to curriculum developments. The above list is a sample of typical modules that we offer, not a definitive list. The most up to date information can be found on our website at nottingham.ac.uk/ugstudy/chemistry



“At Nottingham, I had the unique opportunity to read a challenging interdisciplinary course that gave me skills and knowledge in several sciences. This was an incredible and memorable part of my university life and no doubt will influence my future for the better.”

Kayleigh Fung,
Biochemistry and Biological Chemistry

Outstanding careers support

As a Nottingham chemistry graduate you will be well prepared for a wide range of employment and postgraduate study opportunities.

The chemical industry continues to be an important industrial sector in the UK and the emerging materials and biotechnology sectors require trained chemists who can generate the new materials, products and knowledge that are needed in these areas.

90.8%  of undergraduates

from the School of Chemistry had secured work or further study within six months of graduation.*

£24,150

was the average starting salary, with the highest being £32,000.*

Recent graduate destinations:

- Boots
- Cancer Research
- GlaxoSmithKline
- HSBC
- Intellectual Property Office
- NHS
- Unilever

In addition to equipping you with theoretical and practical skills in chemistry, a degree in chemistry from Nottingham also demonstrates that you can think logically and critically, solve complex problems and manage your time effectively. Consequently, our graduates may also be employed in professions including those in finance, education, marketing, and the media.

Many graduates continue their studies in chemistry or a related discipline, working towards a doctorate degree at Nottingham and elsewhere as a result of the enthusiasm they developed during their fourth year project.

Amplify your potential

Whether you already have a plan or need some inspiration, your Careers and Employability Service is here to help.

Academic excellence and employability go hand in hand at Nottingham. Your course, and the diverse student experiences we offer, will enable you to develop the skills and professional competencies required to thrive in the job market of the future.

We will help you explore your options, so you feel confident making choices about what you want to achieve. Our team will support you as you build your CV, search for jobs, prepare applications, practise your interview technique, and much more.

Get the Advantage

The career-enhancing Nottingham Advantage Award recognises and rewards your extracurricular activities. With a choice of over 200 modules, you can hone the key skills employers are looking for. From developing your leadership skills and learning a language to public speaking and volunteering, you will leave university with demonstrable experience that sets you apart from other graduates. For further information, visit nottingham.ac.uk/careers/advantage



“ Throughout my degree I was given some wonderful opportunities to apply the chemistry I had learned. By the time I graduated I had done three summer research projects at Nottingham, a year in industry abroad and a masters research project. I enjoyed these experiences so much that I returned to start my PhD with the newly opened Centre for Doctoral Training in Sustainable Chemistry the September after my graduation. ”

Grace Lowe, PhD Chemistry

* Known destinations of full-time home undergraduates who were available for work 2015/16. Salaries are calculated based on the median of those in full-time paid employment within the UK.

How do I apply?

How to apply

All applications for undergraduate study at Nottingham, including applications by international students, must be made through UCAS.

You can apply online at ucas.com and will be notified of decisions through UCAS Track.

Your personal statement

This is the section of your UCAS form that tells us most about you, and you should make the best use of it. Be as specific and detailed as you can – we would like to see that you are a student who can work hard, be self-motivated and make the best possible use of the opportunities that our courses offer you. We would also like to hear about any skills you have gained through extracurricular activities.

Minimum entry requirements

Unless otherwise stated in individual course profiles, all UK applicants should have GCSE English grade 4 (C) as a minimum.

Alternative qualifications

In this brochure you will find our A level and International Baccalaureate entry requirements but we accept a much broader range of qualifications. For more details, visit nottingham.ac.uk/ugstudy/applying

GCSE reform

Following the reform of GCSE grading in England from A*-G to 9-1, we have adopted Ofqual's recommended equivalence. This means that GCSE grade A*=9, A=7, B=5/6 and C=4. GCSE qualifications taken outside of the UK will still be graded A* to G.

Around one-third of our UK students receive our means-tested core bursary, worth up to £2,000 a year (2018 entry figure; subject to change). For details, see nottingham.ac.uk/financialsupport

Flexible admissions policy

In recognition of our applicants' varied experience and educational pathways, we employ a flexible admissions policy. If we judge that your situation has adversely affected your achievement, then we will consider this when assessing your academic potential. Some courses may make a slightly lower offer. For more information about this policy, see nottingham.ac.uk/ugstudy/applying

Mature applicants

We encourage applications from mature applicants who have a significant gap in education. You should apply through UCAS. Find out more at nottingham.ac.uk/mature

International applicants

The University provides a range of information and advice for international applicants. If you are unable to attend an open day, we can meet you in your country at one of our overseas events or arrange an individual visit to the University. For further information please visit nottingham.ac.uk/go/international-applicants

Deferred entry

Applicants who wish to defer their entry by a year will not be at a disadvantage. Please tell us something about your plans for your gap year in your UCAS personal statement.

Equal opportunities policy

The University aims to create the conditions whereby students and staff are treated solely on the basis of their merits, abilities and potential, regardless of gender, race, colour, nationality, ethnic or national origin, age, socio-economic background, disability, religious or political beliefs, trade union membership, family circumstances, sexual orientation or other irrelevant distinction.

Experience it



Live and study abroad as part of many courses

nottingham.ac.uk/studywithus/studyabroad

Accommodation to suit every budget and personal choice

nottingham.ac.uk/accommodation



10 minutes from the city for music, food and shopping

nottingham.ac.uk/nottinghamlife

200+

student-led groups, clubs and societies at your Students' Union

su.nottingham.ac.uk



Student Service Centres on all UK campuses for support and advice

nottingham.ac.uk/student-services



One of the UK's leading universities for sport* with over 70 student sports clubs

nottingham.ac.uk/sport

* British Universities and Colleges Sports Standings, 2016-17.

Join in with the vibrant musical life on campus and in the city

nottingham.ac.uk/music/performance

Choose from 9 modern languages

to study alongside your course

nottingham.ac.uk/language-centre





University of
Nottingham

UK | CHINA | MALAYSIA

For undergraduate enquiries contact:
Student Recruitment Enquiries Centre



+44 (0)115 951 5559



nottingham.ac.uk/contact



@UoNChemistry @UoNScience

nottingham.ac.uk/chemistry

This publication
is available in
alternative formats:
+44 (0)115 951 5559



© University of Nottingham 2018.
All rights reserved. Printed June 2018.

This brochure has been drafted in advance of the academic year to which it applies. Every effort has been made to ensure that the information contained in this brochure is accurate at the time of publishing, but changes (for example to course content) are likely to occur given the interval between publication and commencement of the course. It is therefore very important to check our website for any updates before you apply for the course by following nottingham.ac.uk/ugstudy. Where there is a difference between the contents of this brochure and our website, the contents of the website take precedence.