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The Department of Chemistry at Warwick is a thriving community of students, academics, researchers, and support staff. By joining our department, you will quickly share in our enthusiasm for chemistry and its applications, from medicine to renewable energy.

INSPIRED LEARNING

When you arrive as an undergraduate. you'll find yourself surrounded by like-minded people who share your inquisitiveness about the world and treasure the application of knowledge. You'll be inspired by our dedicated team of academics who, as world-leading researchers, use their expertise and enthusiasm for innovation and discovery to teach you about the chemical world.

A SENSE OF COMMUNITY

A strong departmental student network, providing tailored peer-to-peer support, and a University with over 250 societies ensures that our students quickly integrate into our friendly and diverse community.

SHAPING YOUR FUTURE

We provide an excellent all-round experience that allows you to explore and follow your curiosity. Our range of courses with flexible transfers and a wide variety of opportunities enables you to discover your interests and shape your

Outside of the classroom there are opportunities to carry out cutting edge research, take part in industrial placements, spend time abroad, volunteer in outreach and teach at a secondary school, giving you an edge that sets you apart in the international workplace. When you graduate, you will leave us with a broad skillset from a university whose graduates are the sixth most targeted by the UK's top graduate employers.***

That's just a glimpse into the world of discovery awaiting you here at Warwick. We look forward to meeting you soon!

- * The National Student Survey 2021
- ** The Times and Sunday Times Good University Guide 2022
- *** The Graduate Market 2022, High Fliers Research Ltd.

WF SCORED 88% **OVERALL SATISFACTION** IN THE NATIONAL STUDENT SURVEY 2021 FOR **CHEMISTRY***







CHEMISTRY (BSc AND MChem)

Flexible course transfers and a wide range of optional modules in Years 3 and 4.

Our BSc and MChem Chemistry degrees provide the most widespread overview of the discipline of all our courses, with the maximum range of optional modules. In the third year you will use your experience of the themes and topics from years one and two to choose optional modules, tailoring your degree to your interests.

For students carrying on into the fourth year of an MChem degree, this is where you will have the opportunity to work on a single research project for the majority of the year.

OUR INTERNATIONALLY RECOGNISED ACADEMIC STAFF WORK AT THE CUTTING EDGE OF THEIR FIELDS.

Under their supervision, you might discover a significant improvement in solar cell technology, develop an electrochemical sensor for pharmaceutical analysis, a novel compound for cryopreservation of cells, a renewable polymer made from vegetables, an improved catalyst or an antibacterial agent extracted from plants. You will also choose optional modules to support your project and create a wide base of knowledge in other advanced areas of Chemistry.

ENTRY REQUIREMENTS

Typical A-Level offer

BSc: AAB to include Chemistry and a second Science*

MChem: AAA to include Chemistry and a second Science*

Typical IB offer

BSc: 34 points overall including 6 in HL Chemistry and 5 in either HL Maths, Physics, Biology or Computer Science.

MChem: 36 including 6 in Higher Level Chemistry and 5 in either Higher Level Mathematics. Physics, Biology or Computer Science.

Access Courses: HE Diploma (QAA-recognised) including appropriate subjects with distinction grades in level 3 units. Please contact the Department of Chemistry before application.

We welcome applicants with non-standard qualifications, relevant experience, or other internationally recognised qualifications.

IMPORTANT INFORMATION

We are planning to make some changes to our undergraduate Chemistry degrees for 2023 entry. Changes to core and optional modules go through the University's rigorous academic processes. As changes are confirmed, we will update the course information on our study pages warwick.ac.uk/study/ undergraduate/. It is therefore very important that you check our study pages for the latest information before you apply and prior to accepting an offer.

FLEXIBILITY

As an MChem applicant, you may receive a dual-offer for our BSc course, offering flexibility in your degree. Once here, you may be able to transfer onto an MChem if you meet the progression requirements (and UK visa

In support of our aim to widen can also make 'differential offers' that are one or two grades below our standard offer. See warwick.ac.uk/ugcdoffers for details.



CHEMISTRY WITH MEDICINAL CHEMISTRY BSc AND MChem)

Optional modules available in Years 3 and 4 highlight interdisciplinarity.

Our BSc and MChem Chemistry with Medicinal Chemistry degrees provide a solid foundation in chemistry coupled with specialist knowledge in advanced medicinal chemistry/biochemistry. During specialist modules taken in Years 3 and 4, you will explore the process of medicinal drug discovery, starting from the initial concept of a new product, to the discovery stage, clinical trials, scale-up and production. You can explore the biochemistry of these processes, and how this leads to medical breakthroughs. In addition to research-led teaching from top academics in their field, you will benefit from external lectures given by pharmaceutical industry leaders.

You will carry out a range of interdisciplinary experiments in your first two years that will prepare you for an experimental project in the area of Medicinal Chemistry during your third year. Your fourth year research project will also be based on your specialism, and you can expect to be working on drug discovery of novel antibiotic, anticancer or anti-inflammatory compounds through organic synthesis or natural product isolation.



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TYPICAL A-LEVEL OFFER: BSc: AAB MChem: AAA (see page 6 for full entry requirements)

STATE-OF-THE-ART **INSIGHT AND** ANALYSIS DELIVERED BY PHARMACEUTICAL **INDUSTRY LEADERS**

CHEMISTRY WITH INDUSTRIAL PLACEMENT (MChem)

Full year in industry in third year and academic re in fourth year.

Your industrial placement will take place in your third year and you will return to Warwick in your final year to complete your MChem research project. If you are not sure whether you want to go into research or industry, this will give you the opportunity to explore both options and find out what is right for you.

You will be fully involved and responsible for finding a placement, ensuring that you are selecting a field that suits you, develops your transferable skills, and gets you employment ready. You will be supported to find your placement by the Student Opportunity Department. You will have access to online training materials, workshops and training sessions as well as individual advice and feedback to guide you through the process and refine your applications.

DURING YOUR PLACEMENT

You will study by distance-learning the core elements of the year 3 syllabus, worth 25% of the year, to enable you to access fourth year optional modules. The distance learning is wellsupported, and you will have access to our virtual learning environment and lecture capture as well as regular contact with the Chemistry department. However the majority of your grades for your third year will come from assessed work components that demonstrate the competencies that you develop during your placement, such as report writing and presentation skills.

OPPORTUNITIES IN INDUSTRY OR ABROAD



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"My degree in Chemistry at Warwick gave me the most hands-on lab experience and the opportunity to learn from my own findings. For me, this was the best preparation for my career working as a Process Development Chemist in industry. Additionally, my degree gave me a great deal of flexibility where I was able to spend a year working in industry and chose my modules in my final years.

As well as lab experience, I developed skills in scientific writing, presenting, research and analysis which would be beneficial in any career."

Dikivitila | Process Development Chemist, Johnson

TYPICAL A-LEVEL OFFER: MChem: AAA

(see page 6 for full entry requirements)

CHEMISTRY WITH INTERNATIONAL PLACEMENT (MChem)

· Learn core physics th

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absorption o

Your international placement will take place in term three of your third year, and will replace the core and extended laboratory modules. You will have the opportunity to choose from our partner institutions and could explore neighbouring cultures by studying in Europe or travel to the other side of the globe to Australia or Singapore. Funding is available to contribute to travel costs, visas and accommodation, and many students opt to travel around their destination for a few weeks before or after their placement.

DURING YOUR PLACEMENT

You will spend a minimum of 13 weeks working with an academic, in their group, on an authentic research project and may even make a discovery that gets published in a scientific journal. During the project you will develop a wide range of transferable skills including team work, communication, problem solving, analysis and independent investigation.

Your fourth year will be spent at Warwick carrying out another research project that spans the academic year alongside optional modules. This degree programme is ideal if you are considering a career in research, either academic or industrial, and want to explore different fields and have an overseas experience.





YEAR 1 - Common to all courses

- Inorganic Chemistry
- Organic Chemistry
- Physical Chemistry
- Practical and Professional Chemistry Skills I

YEAR 2 - Common to all courses

- Selective Organic Synthesis
- Mechanistic and Biological Chemistry
- Electrons in Molecules and Solids
- Transition Metal Chemistry
- Materials and Polymers
- Statistical Mechanics and Electrochemistry
- Practical and Professional Chemistry Skills II

YEAR 3*

- Advanced Organic Chemistry and Laboratory
- Advanced Inorganic Chemistry and Laboratory
- Advanced Physical Chemistry and Laboratory
- Advanced Analytical Chemistry
- Molecular Pharmacology (Chemistry with Medicinal Chemistry only)

YEAR 3 - tailor your degree to your interests Optional Modules:

- Molecular Structure and Dynamics
- Bioorganic Chemistry
- Polymer and Colloid Science
- Energy
- Innovation 101
- Communicating Science
- Extended Lab (core for MChem)
- Coordination and Bio-Inorganic Chemistry
- Secondary School Teaching

*MChem with Industrial Placement students spend a full year in industry during Year 3 with some distance learning.

*MChem with International Placement students take the summer term abroad which replaces the laboratory sessions.

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YEAR 4

- Research Project and Methodologys Conduct a research project in collaboration with one of our research academics.
- Advanced Medicinal and Biological Chemistry (Chemistry with Medicinal Chemistry only)

YEAR 4 - Optional modules

- Synthetic Chemistry I (Organic)
- Synthetic Chemistry II (Metallo-organic)
- Synthetic Chemistry III (Macromolecular)
- Electrochemistry and Nanotechnology
- Medicinal and Biological Chemistry
- Advanced Computational Chemistry
- Chemical Biology

Visit our website for detailed module descriptions, please note that modules are subject to change.

"Since coming to Warwick I have learned how to code in Python and currently take a third year module about the use of computational chemistry to model reactions. I have found this very interesting as this is a fast-developing field of chemistry."

Luke | 3rd Year, MChem Chemistry (with Intercalated Year) student

OMETHING FOR EVERYONE

Whether you want to study a broad Chemistry curriculum, specialise in Medicinal Chemistry, carry out research at an overseas institution or undertake an industrial placement, Warwick Chemistry has a course that will fit.

As well as enriching your subject knowledge, our Chemistry degrees will develop your analytical and problem-solving, time management, communication, presentation and numerical skills, all of which are highly valued by employers.

Each of the subject areas you study in year one includes essential skills

component. These include an exciting new series of coding workshops, where you will learn how to programme with Python, among other digital skills that you will use as part of your degree and beyond Warwick; intercultural communication workshops that will enhance your global employability; and research and analytical skills that will spark your intellectual curiosity for the subject.

PROBLEM-SOLVING, TIME MANAGEMENT, COMMUNICATION, PRESENTATION AND **NUMERICAL SKILLS**

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The laboratory component of all of our courses is delivered in our excellent undergraduate laboratories, and underpins all of the Chemistry that we teach.

- Our industry-standard facilities are bright, modern and well-equipped.
- You will carry out experiments in a small group, so you will be able to get lots of hands-on experience with specialist equipment, and will get to know your lab group very well.
- Knowledgeable and helpful demonstrators and staff are always on hand to help you learn the practical techniques and guide your understanding.
- The experiments are carefully designed so you will learn standard techniques and then apply your knowledge to investigation and problem solving.
- Many of our practicals are unique and innovative because they have been designed by our academic researchers. Students may get to work on an NMR spectrometer that uses the Earth's magnetic field to create images (similar to the MRI scanners used in hospitals), use a 3D printer to print objects, and use lasers to study chemical reactions.
- All the equipment that you need is provided, including your laboratory coat, book and glasses, and we have never charged for breakages so you can learn in a stress-free environment.

WHAT WAS YOUR FAVOURITE MODULE?

"The best part of my Chemistry degree thus far, would without a doubt be the experience I have gained in the Practical Lab modules...because not only do I enjoy getting to interact with my lab group and demonstrators, but I feel like I really get to see the theory and content come to life.

Jessica | 2nd Year, BSc Chemistry student







ACHING STYLES

Lectures are the main way that the content and theory is delivered. You will encounter a range of lecturing styles that help you to learn in different ways including making your own notes, annotating printed handouts, problem solving activities and interactive guizzes. Lecture theatres are equipped with the latest technology including visualisers, cameras and sockets for student use. We endeavour to record all undergraduate lectures so you can watch them later to enhance your understanding.

Modules in the first and second year are supported by tutorials with small groups of approximately 6-7 students. These sessions are integrated with lectures to reinforce key concepts; questions are set in advance, handed in and marked before the sessions so that the tutor can ensure that you progress your learning and get the maximum benefit.

Workshops are problem solving classes where questions are set for you to attempt. Typically run in groups of 20-40 students, these provide opportunities for you to work with your peers as well as ask questions and get assistance from academic staff and teaching assistants on hand.

Laboratory classes are amongst the most interesting and exciting part of any Chemistry student's life. Classes in our state-of-the-art undergraduate labs will form an integral part of your learning.

All of the teaching and learning activities are accessible through the virtual learning environment (VLE) - a one stop location for everything you need. Each module has its own area containing module information, contacts for teaching staff, lecture notes, tutorial and workshop questions, recordings, forums and often interactive quizzes. These stay with you throughout your time at Warwick so you can always access information and feedback from previous years.





You will be assessed by a mixture of examinations and coursework with a minimum of 25% of each year being assessed work.

There is one period each year when all Chemistry examinations take place, allowing you to concentrate on other work during the rest of the year and consolidate your knowledge and understanding across all modules. In years one and two the examinations take place at the very end of the academic year, whilst in years three and four exams are sat earlier in the year, allowing a focus on labs or research in the latter stages.

Coursework activities are integrated throughout the curriculum, and you will meet similar themes in different settings to strengthen and unite your understanding. You will encounter a range of assessment types that prepare you for employment including written reports, group projects and oral and poster presentations.

- We believe that feedback should be accessible. timely and help you to continuously improve.
- We use a virtual learning environment so that you can see your feedback whenever you want and wherever you are.
- We subscribe to a policy of returning all grades and feedback within 20 working days.

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S UPPORT FOR LEARNING

We want our students to succeed and thrive. We know your degree is a large investment of your effort, time and money, and that is why we have established many methods both in the Department of Chemistry and at the University to support our students.

When you arrive at Warwick Chemistry, you will be assigned a personal tutor, an academic member of staff with whom you will have regular scheduled meetings to discuss your progress and development as well as being your first point of contact for assistance. The department's senior tutors are always available as an expert source of guidance to assist students who have additional needs.

The department works closely with the central Wellbeing Support Services to make sure that students with disabilities, specific learning difficulties or health issues are supported in their course activities.

A programme of skills modules in the first and second years introduce and train you to use Chemistry-specific software, access literature and online resources, communicate scientific information effectively and write in a recognised academic style.

Your academic support librarian provides targeted support in your area, helping you to access subject-specific resources and information. Based in the library, situated right next door to Chemistry, the librarian will run workshops, provide training resources and be on hand to answer queries.

The University's dedicated careers team are on hand to offer one to one guidance on career options, job searches, applications and building your profile. They also offer regular skills sessions on employability, CV writing and interview techniques; plus bespoke careers and networking events with opportunities to meet potential employers.

Students for whom English is a second language can access tailor-made programmes in English language at the Centre for Applied Linguistics. The programmes on offer teach language in the context of the academic disciplines and are designed and taught by an experienced team of trainers and tutors.



CHEMSOC

The mentoring scheme is just one of the many projects coordinated by ChemSoc, our departmental student society. ChemSoc also run a wide range of exciting events and an annual Ball. Their flagship event is the weekly Chemistry Café, which offers an informal environment in which to meet new people, seek help in skills workshops, and listen to invited speakers - all accompanied by free pizza! ChemSoc also coordinates an excellent programme of Outreach activities, to help

WE WANT OUR STUDENTS TO SUCCEED AND THRIVE. WE KNOW YOUR DEGREE IS A LARGE INVESTMENT OF YOUR EFFORT, TIME AND MONEY

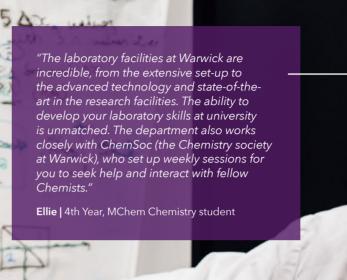
HAT TO EXPECT WHEN YOU ARRIVE

The transition to university life is a major change. We know that the first few weeks of your course is a crucial time and have designed a programme of induction activities* and support to help you settle in and make new friends.

- Induction sessions are spaced throughout the first term to provide information on everything from what to do if you get fresher's flu to who to ask if you having problems. All of the content and resources are also made available on the Virtual Learning Environment for ready reference whenever you need it.
- A comprehensive and detailed student handbook is available and will become your first point of call whenever you aren't sure. The unc office has a team of helpful and friendly staff who can assist with any administrative queries you might have in relation to your course, such as timetabling, assessment, or exams.
- Outdoor team building sessions in the first week help you to form strong links. There are many small group teaching activities, which are great for learning and forming close-knit bonds with fellow students.
- You will have your own personalised timetable that synchronises to your phone so you always know where you need to be.

*Please note, this is a representative example of what has been offered to new students in previous years of study when joining the Chemistry Department at Warwick. We regularly review and update induction activities to continually improve and support our students experience.

- As part of your induction, we'll send you on an ering session with your group to find key locations across campus. You can use the interactive map to search for buildings, facilities and rooms, and to get directions from any point on campus to any other point.
- The laboratory module starts gently with a set of introductory experiments so you can get used to carrying out practicals independently before being assessed. You will spend a lot of time with your laboratory group during the first year, so we make sure that you have opportunities to get to know each other quickly.
- You will be allocated a student mentor who will send you a welcome letter and use social media to put you in contact with the rest of your lab group before you get here so that you will have a head start before you arrive. We are very proud of the community spirit built by our friendly undergraduates, and your student mentor will have been specially chosen for their accessibility and willingness to go the extra mile to help out. Regular meetings with your mentor will give you first hand advice and tips throughout the first year.







We are a research-driven community with an enviable reputation for creating new knowledge, and our research informs and contributes to our teaching, making it relevant and up to date.

EXAMPLES OF BREAKTHROUGHS MADE AT WARWICK

- New graphene-based materials
- Synthetic cells for gene regulation
- Organic solar cells for portable electronics
- Trailblazing developments in the fight against HIV

You will have opportunities to contribute to this type of cutting-edge research, working alongside academics at the forefront of their subjects and continually making groundbreaking advances. You will carry out your practical work in state-of-the-art laboratory space and your findings could be selected for publication in a scientific journal.

The **fourth year of our MChem degrees** contain the largest research component with a project spanning the academic year. However there are opportunities to get involved in research much earlier and you may want to carry out a summer project to find out if research is for you.

VACATION EXPERIENCE

in paid research internships through Warwick's Undergraduate Research Support Scheme (URSS). These research projects are entirely optional, taken in the summer holiday (typically between years 2 and 3), provide a wonderful experience that is not formally assessed and are great fun. Recent research projects

have included studying the structure of graphene, working on platinum anti-cancer drugs, developing novel anti-inflammatory drugs, and investigating proteins of key importance in Alzheimer's Disease.

You may also decide to undertake research experience further from Warwick in your vacation time. We can help you to participate in 3 month European placements.

*Visit warwick.ac.uk/studyabroad for current information about Warwick students going abroad.



AREERS

Guiding our students to successful careers is among our top priorities.

Our visibility in the employment market, alongside the sound practical, theoretical, and communication skills obtained in all of our degrees, means that our graduates are highly valued.

You will benefit from an excellent Student Opportunity Department, which provides free careers support even after you graduate. We will also support you in accessing opportunities to gain work experience through URSS, industrial and professional experience options during your degree and bursaries for summer work experience in a range of sectors. Opportunities to meet employers from small and large companies are provided both in department and across the university.

As a Warwick Chemistry graduate, you have many career options. Chemistry is an extremely versatile degree that will allow you to develop a range of practical and theoretical skills highly valued in the world of both work and academia.

EXAMPLES OF JOB ROLES:

- Analytical chemist
- Patent attorney
- Management consultant
- Risk analyst
- Chemistry teacher
- Software developer
- Pharmaceutical chemist
- Data scientist

"I'm Co-Founder and CEO of a start-up called Sphera based in Durham, UK. We are developing a carbon negative lightweight aggregate which utilises waste plastic which would otherwise be incinerated - releasing cast amounts of GHG's into the atmosphere.

My time at Warwick fostered a sense of curiosity, which is essential to being a scientist - understanding how and why things work in the way they do. From that curiosity, I realised that I wanted to use the skills I'd learned to have a positive impact on the world.

Research undertaken at universities has contributed to significant innovation on climate change already and will play an integral role in doing so in the future, whether that's developing sustainable materials or new ways to produce energy."

Natasha Boulding | Co-Founder and CEO of Sphera (former MChem Chemistry with Professional Experience student at Warwick)

UNIVERSITY BY UK'S TOP GRADUATE **EMPLOYERS***



88%

OF OUR GRADUATES FIND **GRADUATE-LEVEL** JOBS/STUDY

WITHIN 15 MONTHS AFTER GRADUATION**



* The Graduate Market in 2022, High Fliers Research Ltd.

** The Guardian, "The best UK universities 2022 - league table"

*** QS Graduate Employability Rankings 2022

FIND OUT MORE

HOW TO APPLY

Applications are made through UCAS ucas.com

If you are made and accept an offer, and meet any outstanding conditions, we will confirm your place and look forward to warmly welcoming you at the start of your life here at Warwick.

For more detailed information about how we process applications please visit:

warwick.ac.uk/study/undergraduate/apply

OVERSEAS APPLICANTS

At Warwick, we welcome applications from across the globe, and have dedicated teams available to advise and support, as well as a global network of Agents and Representatives. For more information on applying from your country see:

warwick.ac.uk/study/international

STUDENT FEES AND FUNDING

We want to ensure that, wherever possible, financial circumstances do not become a barrier to studying at Warwick. We provide extra financial support for qualifying students from lower income families.

warwick.ac.uk/studentfunding

DISCOVER MORE

To find out more about the University, including opportunities to visit and engage with your department of choice, visit:

warwick.ac.uk/undergraduate/visits

ACCOMMODATION

Warwick Accommodation manages over 7400 self-catering residences on campus. Living on campus in your first year gives you the opportunity to meet people and form new friendships whilst never being more than a short distance from your lectures or the amazing facilities campus has to offer. At Warwick, you will enjoy the freedom of independent living alongside your fellow students but with the security of knowing you're surrounded by people who can support you. For more information visit:

warwick.ac.uk/accommodation

This course information was accurate at the time of publication (June, 2022). While the University tries to ensure that the information is accurate, it does not warrant that this is the case. The University may need to make changes including to the course content, syllabus, delivery, methods of assessment, or to comply with external accrediting or reviewing bodies. It is therefore important that you revisit the relevant course website before you apply and when you accept an offer to ensure you are viewing the most up to date information. This information should not be construed as an offer and nor does it create a contract or other legally binding relationship between the University and you or a third party. For full terms and conditions, please visit warwick.ac.uk/ ugtermsandconditions

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