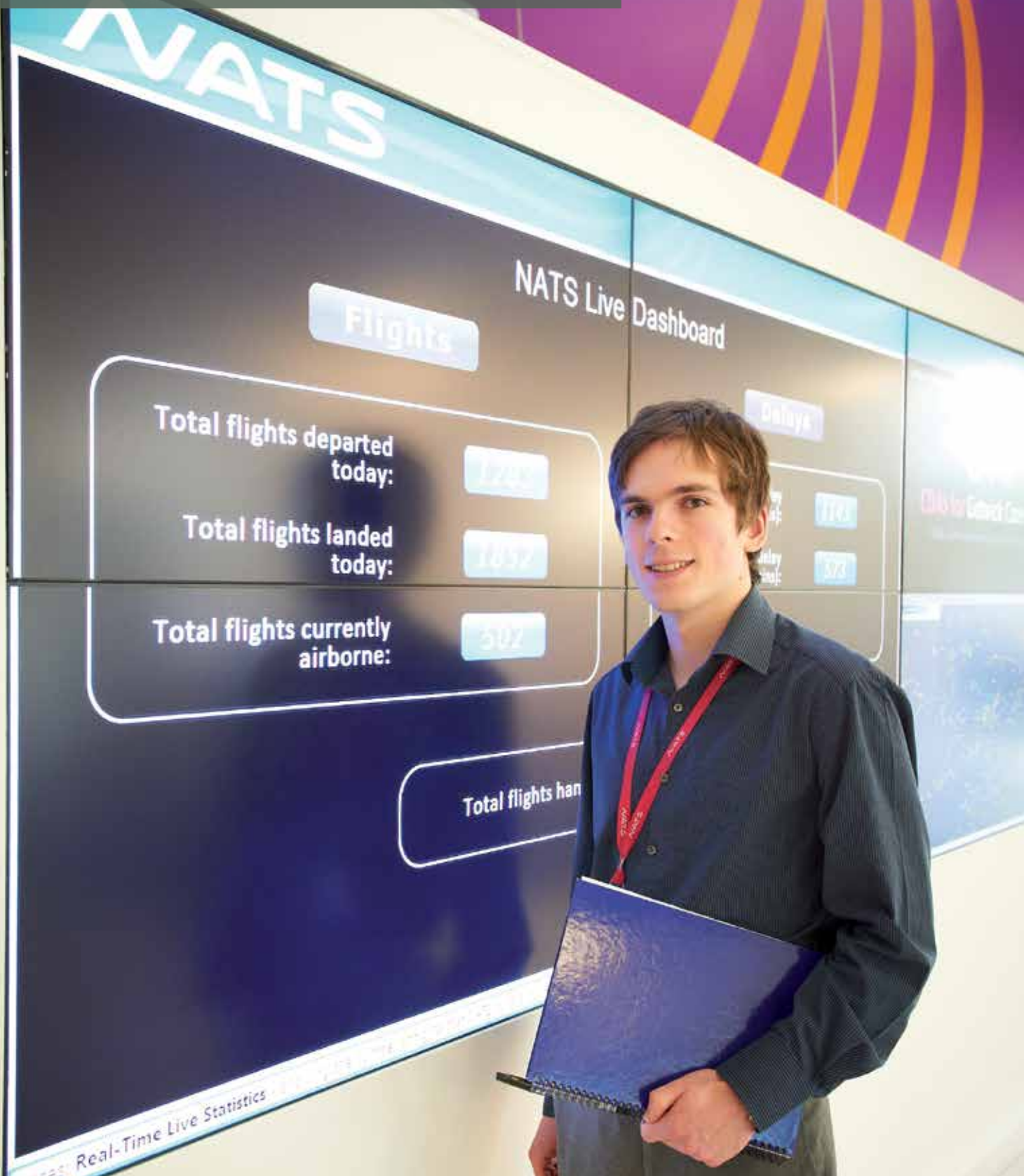




## Professional placements

The benefits of employing a placement student



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# Faculty of Science at a glance

## Overview

 over 3,800 undergraduate students

 over 650 postgraduate students

 over 400 academic staff

**7** departments  
Biology & Biochemistry  
Chemistry  
Computer Science  
Mathematical Sciences  
Natural Sciences  
Pharmacy & Pharmacology  
Physics

**2<sup>nd</sup>** for student experience  
Times & Sunday Times  
Good University Guide 2016  
Biology & Biochemistry

**88%** student satisfaction  
National Student Survey 2015  
Computer Science

**1<sup>st</sup>** for graduate prospects  
Complete University Guide 2016  
Chemistry

**Top five** for graduate prospects  
Guardian University Guide 2016 and The Times & Sunday Times Good University Guide 2016  
Mathematical Sciences

**100%** student satisfaction for National Student 2015  
**Top five** department Complete University Guide 2016  
Pharmacy & Pharmacology

**2<sup>nd</sup>** for graduate prospects  
Complete University Guide 2016  
Physics  
**Top ten** All contributing departments in the Complete University Guide 2016  
Natural Sciences

## Research excellence

**87%** of research activity was graded as either **world leading** or **internationally excellent**

**4<sup>th</sup>** for **Chemistry and Physics** in the UK for impact of research

**12** **Research Centres** offering interdisciplinary opportunities

**10** **Centres for Doctoral Training and Partnerships** Funded by research councils



Mathematical Sciences research environment rated as **100%** world-leading or internationally excellent

Pharmacy & Pharmacology ranked **6<sup>th</sup>** in Allied health professions, Dentistry, Nursing and Pharmacy in the UK



**£60m**

A total research portfolio is currently in excess of £60 million, with an additional £15 million supporting Centres for Doctoral Training.

# Why employ a placement student from Bath?

The Faculty of Science runs the UK's longest established placements programme.

- Bath students are motivated high achievers who can bring fresh ideas, knowledge and talent to your organisation
- Our science degrees rank among the best in the UK, and only the top students are accepted; the organisations we work with value the consistent high calibre of our students
- Employing a placement student (and getting involved with our development programmes – see page 24) is a great way to raise your profile among the future graduate workforce
- A placement can act as an extended interview and is a cost-effective way of recruiting; many of our students go on to work for their placement employer after graduation
- We work hard to ensure that our academic curriculum equips our students with commercially relevant skills, and prepares them for the working world

## How can a placement student add value to your organisation?

- Apply unique skills from a Science background
- Provide a fresh perspective on current business issues
- Give targeted help on a specific project
- Fill a temporary vacancy

## Leading students from the sciences

Recruiting from the Faculty of Science gives you access to top students from the Departments of Biology & Biochemistry, Chemistry, Computer Science, Natural Sciences, Mathematical Sciences, Pharmacy & Pharmacology and Physics.

Currently 60% of our students undertake a placement as part of their degree, so you have a large pool of high quality candidates to choose from.

See pages 8-21 for further details on the skills our students develop in each subject area.



## Preparing students for the workplace

At Bath, we ensure that our students are well-prepared to undertake a professional placement in the workplace.

All students attend a development programme before starting their placement. This includes:

- attending talks where we make them aware of our Code of Conduct and what is expected of them whilst on a professional placement
- practical workshops and mock interviews to develop their application and interview skills
- presentations and opportunities to speak to former placement students
- key information on employment rights and health and safety issues
- personal development and career management advice and information
- a pre-placement briefing to make them aware of their responsibilities whilst on placement – see page 6 for more information



# Key features of a placement

## What makes a good placement?

A good placement benefits both the student and the employer. Our priority is to put our students in placements that will help them to develop the skills and knowledge they have gained on their course, and also provide opportunities for learning.

Equally we are keen to make sure that our students are making a valuable contribution to their workplace, and are able to take on appropriate levels of responsibility.

## How much does it cost?

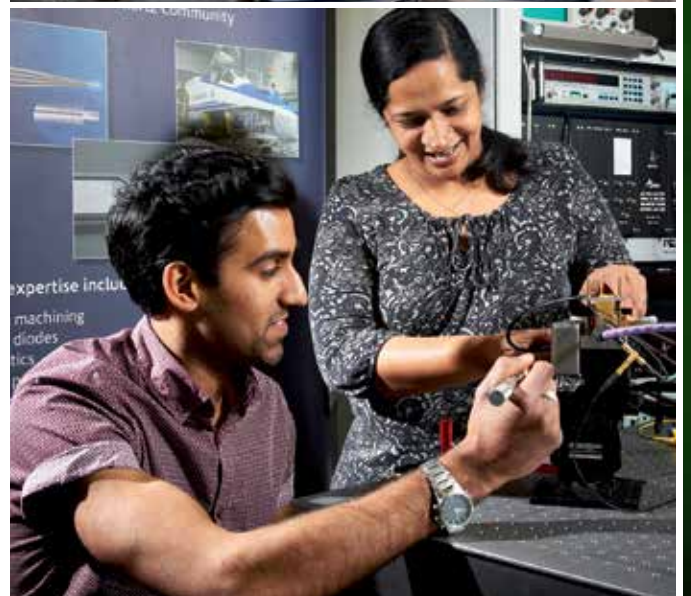
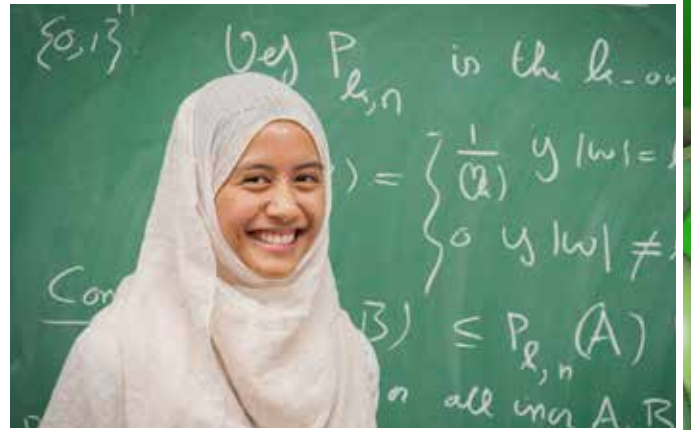
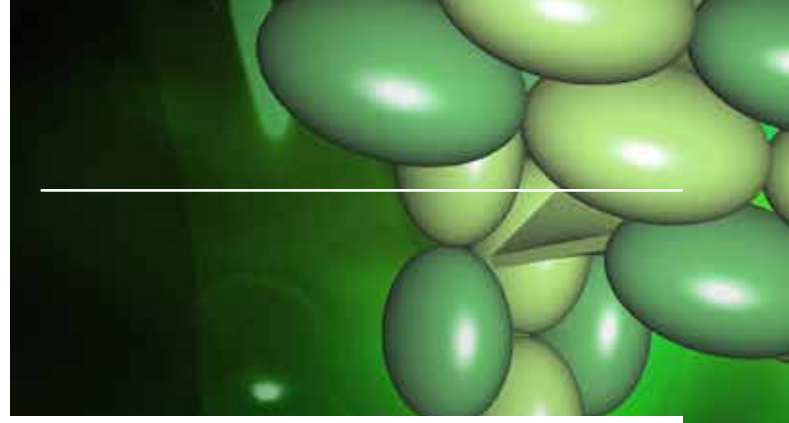
Advertising placements to our students is free of charge, but if you employ a placement student, you should pay them a salary. Please feel free to contact us to discuss salary levels – see back cover for contact details.

## When can I organise a placement?

| Year-long placement                            | Summer Internship                              |
|------------------------------------------------|------------------------------------------------|
| <b>Recruitment period</b><br>October – July    | <b>Recruitment period</b><br>October – July    |
| <b>Start of placement</b><br>June – September  | <b>Start of internship</b><br>June – August    |
| <b>End of placement</b><br>June – September    | <b>End of internship</b><br>September          |
| <b>Student exam periods</b><br>January and May | <b>Student exam periods</b><br>January and May |

All placements take place after students have completed a minimum of two years of their degree.

We suggest that interviews and assessment centres are not scheduled during exam periods.





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## The application process

The application process can be tailored to suit you. All you need to do is send us a job description including:

- details of the work the student is likely to be undertaking
- the role and status of the opportunity available within your organisation
- what level of supervision and/or support will be provided
- how you would like the students to apply
- any further details that you would like to include

All suitable vacancies will be advertised to the appropriate students internally.

Interviews can be held at the University at no cost to you, although it is preferred that students attend interviews in the workplace so that they have a chance to see the work environment and meet current staff.

### Employing an international student

At Bath we have a vibrant and culturally diverse student population; students come from over 100 countries around the world to study here.

The process for employing an international student is no different to the standard process. International students do not need a work visa to work full time in the UK for a placement that forms part of their degree.

Further details can be found online:

[www.ukcisa.org.uk/Information--Advice/Working/Can-you-work](http://www.ukcisa.org.uk/Information--Advice/Working/Can-you-work)  
(UK Council for International Student Affairs)

[www.gov.uk/government/publications/right-to-work-checks-employers-guide](http://www.gov.uk/government/publications/right-to-work-checks-employers-guide)  
(Home Office guidance)

### Do you accept overseas placements?

Overseas placements can offer enriching cultural experiences to both our students and their employers. We have a growing network of international employers and welcome new collaborations. Students applying for these placements will usually have undertaken language tuition in their first two years at Bath.

### Are shorter placements available?

If a year-long placement does not work for you, we can assist you in advertising shorter summer internships. These will be filled by students who want to gain additional professional experience during their summer holidays. You may also be interested in:

Professional Internships for PhD Students (PIPS):  
[www.bristol.ac.uk/swbio/programme/pips.html](http://www.bristol.ac.uk/swbio/programme/pips.html)

The Santander Internship:  
[www.bathstudent.com/joblink/internships](http://www.bathstudent.com/joblink/internships)

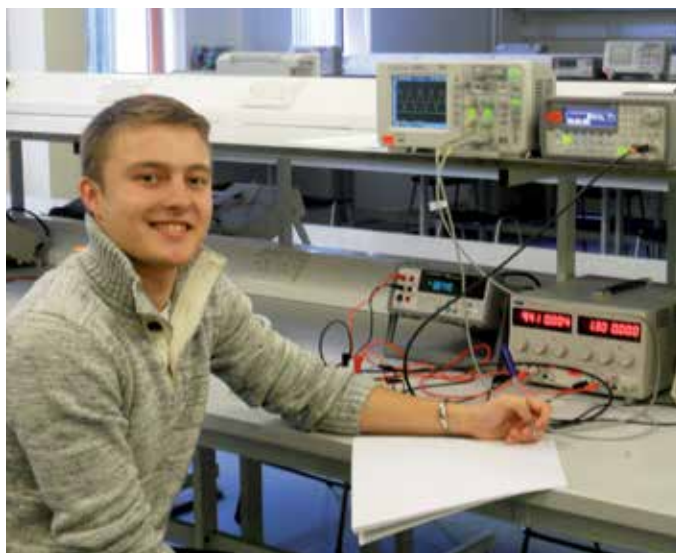
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# What support do we offer?

Our Placements Team are on hand to provide support throughout the process, to ensure you are matched with the best candidates.

- They keep in contact with students, including a dedicated member of staff that visits the student and employer
- A Placements Tutor is responsible for providing academic support, in particular, assessing a student's progress against the learning outcomes of the placement unit
- A Personal Tutor supports a student's academic and personal development
- A Director of Studies has general responsibility for quality management and support for students
- Student services, including counselling and wellbeing, Disability Service, funding advice, international student advice and Careers Service are still available to students whilst they are on placement

This support ensures that personal learning objectives are met and sufficient progress is made for students to meet the learning outcomes of the placement. Progress and performance reports are required from the employer to ensure that students are meeting employer expectations. These reports are provided by the University, and it is the student's responsibility to ensure that these are completed.



## The pre-placement briefing

To ensure students are prepared for the workplace, they attend a pre-placement briefing to make them aware of:

- the support we provide
- learning outcomes of the placement and course requirements, including the setting of learning objectives, progress reports / milestones and assessment
- students rights and responsibilities whilst on placement including their responsibility to seek out appropriate learning opportunities, to maintain contact with a member of the Placements Team, and to agree learning objectives with their supervisor
- cultural orientation, work expectations and professionalism in the workplace
- health and safety information and risks relevant to particular countries
- any occupational health, legal or ethical considerations (e.g. client confidentiality)
- the need for personal insurance cover particularly when on placement overseas
- dealing with problems and complaints
- confidentiality of employer material, such as business reports, and disclosure agreements

## The placement visit

During the course of the placement, students are expected to liaise with their supervisor to arrange a convenient date for a visit from a member of staff. This is often their Placements Officer or a member of academic staff such as their Personal Tutor.

Visits are ideally carried out during the first six months of a one year placement (or earlier for shorter placements) at a mutually convenient time. The student is responsible for ensuring the visit arrangements are appropriate.

Aside from checking on how the placement is progressing, it is hoped that the visit will provide an opportunity to discuss objectives, resolve any issues and to build upon links between the organisation and the University. If at any point during the placement there should be issues you would like us to address, the Placements Team is available to help ensure that any difficulties are resolved at an early stage.



## Who we work with



We have strong links with industry both in the UK and overseas. The University works with over 200 organisations, including blue-chip companies, medium and small organisations, public sector bodies and charities.

Placement employers have included:

- Accenture
- AkzoNobel
- AWE
- BAE Systems
- Department for Environment, Food and Rural Affairs
- DSM
- Defence Science and Technology Laboratory
- EY
- European Synchrotron Radiation Facility
- Garvan Institute, Sydney
- GlaxoSmithKline
- Johnson Matthey
- JP Morgan
- IBM
- Infineum
- Microsoft
- Morgan Stanley
- NATS
- National Institute for Medical Research
- Nomura
- PayPal
- Pfizer
- Pricewaterhouse Coopers
- Quintessa
- Rutherford Appleton Labs
- SAFC
- Shell
- Snow and Avalanche Research
- Syngenta

## Which student for your organisation?

We have included some details of our courses to assist you in finding the skills and knowledge that best fit your organisation.

|                         |             |
|-------------------------|-------------|
| Biology & Biochemistry  | pages 8-9   |
| Chemistry               | pages 10-11 |
| Computer Science        | pages 12-13 |
| Mathematical Sciences   | pages 14-15 |
| Natural Sciences        | pages 16-17 |
| Pharmacy & Pharmacology | pages 18-19 |
| Physics                 | pages 20-21 |



*Biology & Biochemistry*



*Chemistry*



*Computer Science*



*Mathematical Sciences*



*Natural Sciences*



*Physics*



*Pharmacy & Pharmacology*

# Biology & Biochemistry



## About the Department

- Consistently ranked top ten in university league tables for biological sciences.
- Some of the best academic staff in the world; recognised through their significant research grants, contracts and prizes from learned societies.

Our Biology & Biochemistry degrees are preparing graduates to play vital roles as practical scientists, interpreters of modern bioscience and as agents who can make a real difference to our future. We instruct our students in ways of approaching and analysing problems and communicating their ideas, equipping them with transferable skills that are valuable both to subject-specific employers and to other industries.

## BSc (Hons) Biology

A broad degree with modules ranging from the molecular to the population level. Specialities include organismal interrelationships, particularly pathogenicity and behaviour of micro-organisms and their hosts, developmental biology and genomic evolution.

## BSc (Hons) Biochemistry

Provides a fundamental understanding at the molecular level of all life processes. There is an increasing emphasis on front-line research as the course progresses.

## BSc (Hons) Molecular and Cellular Biology

Focuses on understanding and application of how molecules and cells work in living organisms.

## BSc (Hons) Biomedical Sciences

Aims to produce graduates who understand the cutting edge of human health and the causes, prevention and treatment of disease.

During the course, students acquire the scientific and experimental skills which employers seek, preparing them for a career as a practical scientist in biomedical research.

For more detailed information on our courses, please visit [www.bath.ac.uk/bio-sci](http://www.bath.ac.uk/bio-sci)



**Charlotte Bailey, BSc (Hons) Biology**

Employed at University of Western Australia as a Research Scientist in the Department of Experimental and Regenerative Neuroscience (EaRN)

“During my placement year I was lucky enough to be working in a neurobiology laboratory in Perth, Western Australia. I was working on a project that was characterising the inflammatory response following an injury to the central nervous system, and looking at the effects on the Blood Brain Barrier. I was given a huge amount of responsibility and over the year learnt a vast array of techniques and protocols. The work was all practically based and allowed me to apply knowledge I had already learnt in the first two years of my degree. I cannot emphasise enough how rewarding the experience was; not only from an academic perspective, but also in terms of the vital skills and confidence I gained from living abroad.”

Bioanalyst  
 Cell and Molecular Biologist  
 DRUG SAFETY INTERN  
 Product Development  
 Marketing Intern  
 Antibody Discovery and Protein Engineering  
 ANALYTICAL SCIENTIST (DNA)  
 Marketing  
 Skincare  
 Intern  
 ECOLOGY AND CONSERVATION INTERN  
 Marketing and  
 Events Assistant  
 R&D Researcher  
 MICROBIOLOGY INTERN  
 Cell and  
 Molecular  
 Biologist  
 STUDENT  
 RESEARCH  
 ASSOCIATE

---

# Chemistry



## About the Department

- All courses accredited by the Royal Society of Chemistry.
- One of the leading research intensive chemistry departments in the UK with an excellent international reputation (Research Excellence Framework 2014).

Our chemistry students develop a range of practical and theoretical skills (with a particular emphasis on laboratory skills) that prepare them for both chemical and non-chemical careers. We nurture our students' abilities to analyse, integrate, critically evaluate and apply new information and techniques.

## Chemistry BSc (Hons) and MChem (Hons)

Provides a broad introduction to all areas of chemistry with the opportunity to specialise later in the degree. There is an emphasis on acquiring practical and theoretical skills. The MChem degree is a year longer than the BSc and includes master's level units and a major research project.

## Chemistry for Drug Discovery BSc (Hons) and MChem (Hons)

Provides a solid grounding in chemistry whilst also enabling students to gain in-depth knowledge of the pharmaceutical industry. The MChem degree is a year longer than the BSc and includes master's level units and a major research project.

## Chemistry with Education BSc (Hons)

Students are given a sound knowledge of the theory and practice of chemistry, along with knowledge of the issues and skills required to work as a secondary level teacher in science.

## Chemistry with Management BSc (Hons) and MChem (Hons)

Provides a broad education in chemistry with additional understanding of the business environment. Students will be well suited to roles in scientific industries carrying out research, as well as areas such as marketing, administration or finance. The MSci degree is a year longer than the BSc and includes master's level units and a major research project.

For more detailed information on our courses, please visit [www.bath.ac.uk/chemistry](http://www.bath.ac.uk/chemistry)

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**Phillip Jervis, MChem (Hons)**  
**Chemistry for Drug Discovery**

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“My placement in Mars Care and Treats R&D was an excellent experience in both the real world applications of science and how scientific innovation can be successfully utilized in an FMCG business. Although the role in itself isn't chemistry specific, I had the opportunity to work on a wide range of technical projects within the areas of process and food science. I was given a lot of responsibility in managing my own projects which had a real impact within the company. Initially this responsibility was quite daunting, but I was given plenty of support. I never felt out of my depth and I thoroughly enjoyed my time on placement. I also improved on a wide range of industry relevant skill such as problem solving, working as part of a team and networking; these skills have served me well throughout my final year studies and will continue to do so in my future career.”

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COMPUTATIONAL SCIENTIST  
Chemical Synthesis Intern  
Analytical Isotopic Scientist

SYNTHETIC  
ORGANIC  
CHEMIST  
Process/Environmental Chemist  
Pharmaceutical Marketing Support  
Brand Activation Intern

PHOTOCATHODE  
RESEARCH INTERN

RADIOCHEMICAL  
ANALYSIS SCIENTIST  
Medicinal Chemistry Intern

Forensic Development Intern

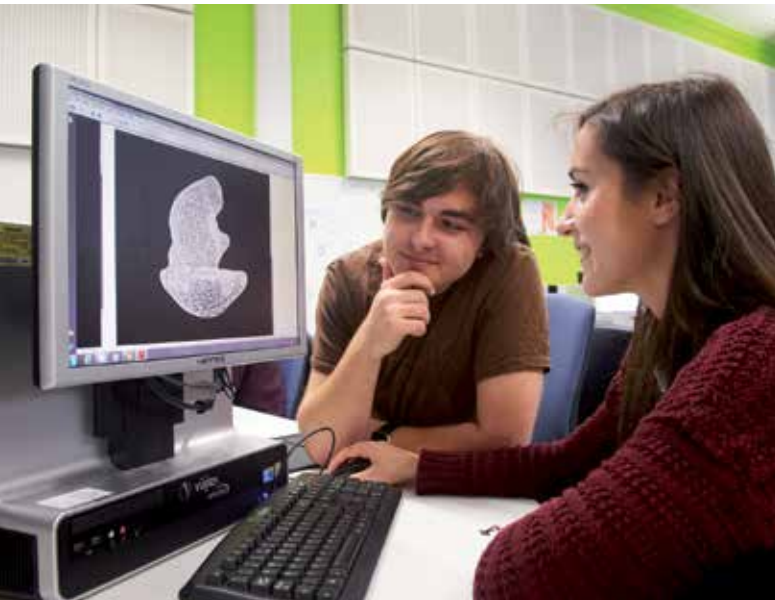
R&D Liquid Crystal  
Materials Intern

Student Associate  
Food Analyst  
Marketing and Events Assistant

Cheminformatics/  
Data Science Intern  
PRODUCT  
DEVELOPMENT  
INTERN

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# Computer Science



## About the Department

- Excellent research outputs – over 70% rated as world-leading or internationally excellent (Research Excellence Framework 2014).

Our undergraduate courses reflect a systems view of computer science, providing a strong conceptual and theoretical understanding that will enable students to adapt in the face of changing technology. We encourage our students to be creatively and critically receptive and responsive to new ideas, and also to develop critical, analytical and interpersonal skills, preparing them to become active professionals.

## Computer Science BSc (Hons) and MComp (Hons)

Grounded in an understanding of its architectures, models and methodologies, this course provides a strong theoretical foundation, and builds this into the practice of computer science so that theory and practice are fully integrated in the understanding and creation of computer systems. The MComp degree is a year longer than the BSc and includes master's level units and a major research project.

## Computer Science with Business BSc (Hons)

Combines the strengths of the School of Management and the Department of Computer Science to provide a unique combination of computer science in the context of business practice.

## Computer Science with Mathematics BSc (Hons) and MComp (Hons)

Provides students with appropriate pure and applied mathematics knowledge generating skills high in demand from both industry and research areas. The main programming language taught in the Department is Java. The MComp degree is a year longer than the BSc and includes master's level units and a major research project.

## MSc Software Systems

This course covers all aspects of software engineering necessary to enable students to learn about designing and developing complex software systems.

## MSc Human Computer Interaction

Students are taught how to design, build and evaluate interactive systems that are fit for people, giving an appreciation for the multi-disciplinary nature of HCI.

## MSc Digital Entertainment

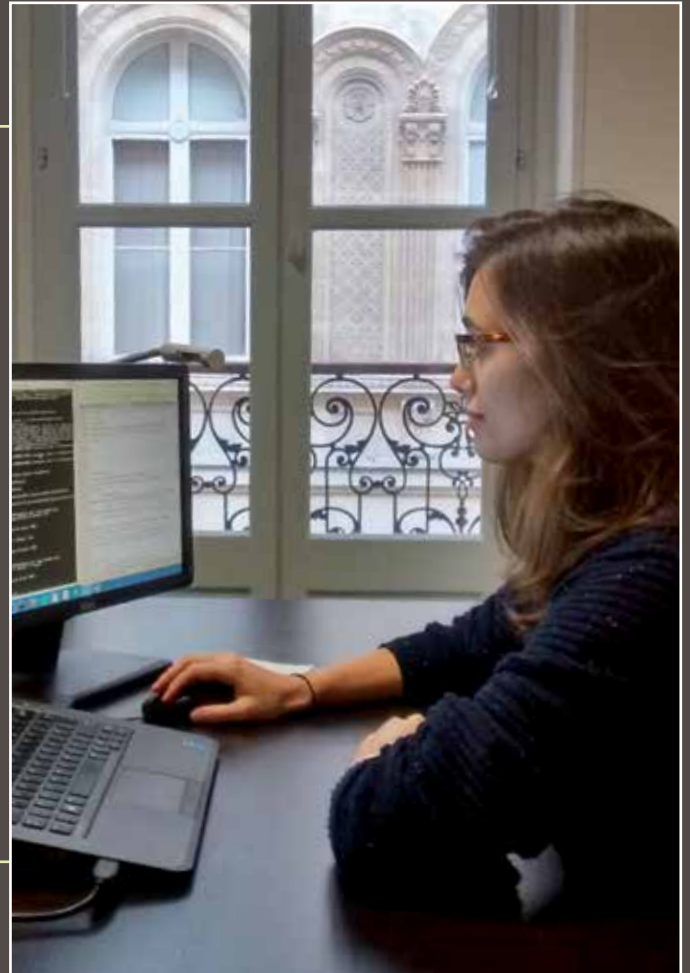
A practical, project-led course with an emphasis on self-driven research. Students study and specialise in a range of modules including computer graphics and special effects, and the visual understanding behind computer games and artificial intelligence.

For more detailed information on our courses, please visit [www.bath.ac.uk/comp-sci](http://www.bath.ac.uk/comp-sci)

**Diane Fercocq, MSc Software Systems**  
 Employed at Emenda as an International Software Testing Consultant

“Emenda provides software testing tools and consultancy services for the development and verification of software systems to customers worldwide. Being part of such a small (25 employees worldwide), yet extremely international company has provided me with a variety of opportunities, including the responsibility to interact directly with customers via email, phone or in person, working in different languages through living in Bordeaux and Munich, travelling, and many more.

So far in my placement, I can already identify a vast improvement in my technical ability, interpersonal and presentational skills, and commercial awareness. It has provided me with a sense of what I am looking for in future employment, which is invaluable to me.”



Mobile App Developer  
 SUPPORT ANALYST

Digital Systems Engineer

NETWORK HACKER  
 Project Management Intern  
 Technical Deployment and Support Intern

CLOUD DEVELOPER

Computational Software Engineer

Insights & Data Consultant

Global Banking and Markets  
 Technology Intern

CYBER SECURITY ANALYST

Forensic Technology & Discovery Services

INTERACTIVE RESEARCH INTERN  
 Statistical programming Intern

---

# Mathematical Sciences



## About the Department

- Consistently ranked as a top ten department in university league tables.
- Students learn in a world-leading research environment – 88% of research outputs rated as world-leading or internationally excellent (Research Excellence Framework 2014).

Our Mathematics courses help students to develop a broad foundation of knowledge, theoretical understanding and practical skills in mathematics, statistics and computing. Students are encouraged to apply their mathematical skills to problem-solving and gain many transferable skills. Our courses are highly flexible; students can choose to pursue the mathematical fields most suited to their interests in their second and third years, as well as modules from other disciplines such as finance and management.

## Mathematics

### BSc (Hons) and MMath (Hons)

Provides a rigorous education in pure and/or applied mathematics with the option of including some statistics, computing or physics modules. The MMath degree is a year longer than the BSc and allows greater specialisation in pure and/or applied mathematics, mathematics and statistics or mathematics and computing.

## Mathematical Sciences

### BSc (Hons)

This course allows students to study a broader range of subjects in Mathematical Sciences.

## Statistics

### BSc (Hons)

Students specialise in statistics and the application of probability theory.

## Mathematics and Statistics

### BSc (Hons)

Students are given the opportunity to study statistics while retaining a significant interest in some areas of mathematics.

For more detailed information on our courses, please visit [www.bath.ac.uk/math-sci](http://www.bath.ac.uk/math-sci)





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## Richard Grove, BSc (Hons) Statistics

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“I completed a 12 month industrial placement working as a statistician within the Health Statistics and Education Statistics departments of the Welsh Government. My work required me to publish reports on topics such as eye care, children in need, further education and work based learning. The process to build these reports required statistical techniques that I picked up at University and thanks to the day to day use of these techniques, my understanding of the techniques is much clearer. I was given a lot of responsibility and encouraged to take part in training courses as well as external events that have improved my networking, team working and communication skills.”

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### Richard’s Line Manager, Welsh Government

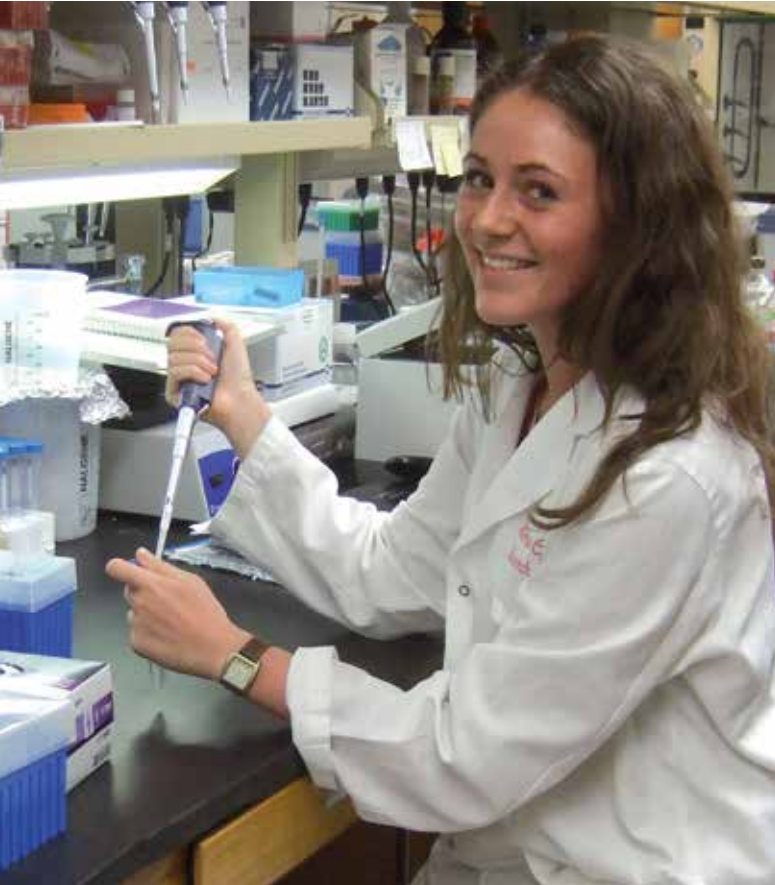
“Richard has applied himself with enthusiasm to new projects and has managed the statistical releases which he is responsible for effectively and, for the most part, independently. He has planned his time well and has met all deadlines despite the role being sometimes pressurised. The team regard him as reliable and efficient and has been a great asset in collecting and analysing data, as well as producing accompanying spreadsheets. He has a keen eye for detail and has been proactive in suggesting improvements to future statistical releases.”

---

Data  
Analyst  
SOFTWARE  
ENGINEER  
Credit Risk Analyst

Finance Quality Intern  
RISK MODELLING INTERN  
Credit Risk Analyst  
TREASURY  
AND COMMERCIAL  
EXPENSE ANALYST  
Operations Services  
Business Analyst  
Research Advisor  
Clinical Statistics Intern  
LOGISTICS CONSULTANT  
Clinical  
Statistics  
Intern  
ENVIRONMENTAL  
TEST ENGINEER  
Business Analyst  
Assistant  
Programme  
Manager  
Insights & Intelligence  
Finance Assistant

# Natural Sciences



## About the Department

- A cross-faculty degree, studies are supported by a wide range of expertise from different departments.
- Option to study non-science subjects such as management or education which offer extra breadth.

Our Natural Sciences students experience a multi-disciplinary education in core aspects of chosen sciences. We guide students in ways of approaching and analysing scientific issues, so that they can reach appropriate conclusions.

The core subjects of the degree are delivered by the departments of Biology & Biochemistry, Chemistry, Mathematical Sciences, Pharmacy & Pharmacology and Physics.

## Natural Sciences BSc (Hons) and MSci (Hons)

Students combine subjects throughout the course in order to achieve the wide range of skills and intellectual experience that many employers desire in graduates. The MSci degree allows students to study a preferred subject in more depth than is possible with the BSc course.

For more detailed information on our courses, please visit [www.bath.ac.uk/nat-sci](http://www.bath.ac.uk/nat-sci)



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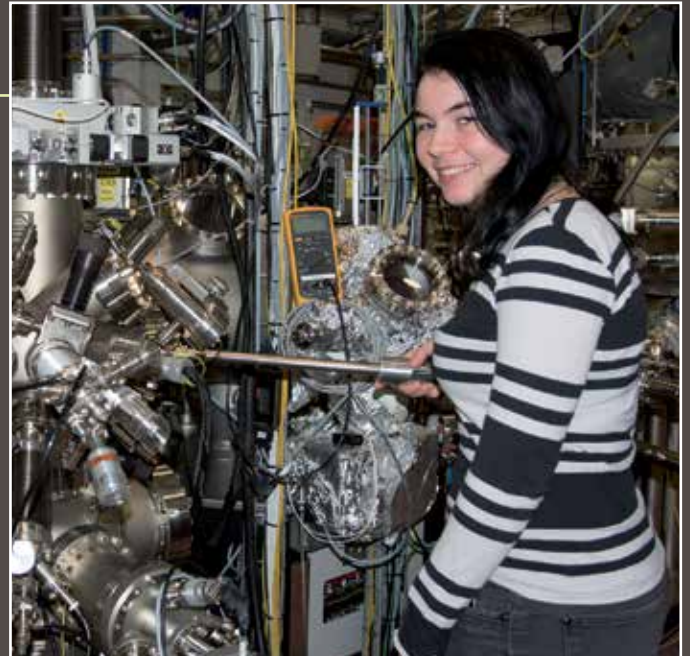
**Marianne Aspbury, MSci (Hons)  
Natural Sciences**

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“My placement at the European Synchrotron Radiation Facility (ESRF) has been a fantastic experience and insight into the world of research. As a world-leading X-ray research facility, being surrounded by cutting edge studies and talented scientists every day is an amazing opportunity for learning and development. I have been able to use a vast range of scientific equipment on a daily basis, as well as learn a programming language, and have supported the ongoing research of my colleagues.

The experience has fuelled my desire to pursue research after graduation and contribute even more fully to the field.”

---



**ESRF Supervisor, Dr Nick Brookes**

“It has always been a pleasure to have young, enthusiastic and talented students working with our research team and Marianne has been no exception. In a very short time she learnt how to use a wide range of scientific instruments which are an essential part of our research studies. Our work involves many preparative steps before we can exploit the intense X-rays from our synchrotron source and having Marianne as a point of reference for many of these measurements contributes significantly to our success. I hope in the future that we can attract other motivated, eager to learn students, such as Marianne because in the end we all gain from the experience.”

---

**Pharmaceutical Scientist**  
Product Development Intern  
**MARKETING ASSISTANT**

**FORENSIC DEVELOPMENT INTERN**  
**Finance Quality Intern**  
**In Vivo Imaging Scientist**  
**ANALYTICAL SCIENTIST**  
**Clinical Statistics Intern**  
**CARDIOVASCULAR RESEARCH INTERN**  
Energy Efficiency Officer  
**RESEARCH ADVISOR**  
Risk Analytics Intern

# Pharmacy & Pharmacology



## About the Department

- Students learn in a world-leading research environment – research ranked sixth in the UK (Research Excellence Framework 2014).
- Consistently ranked as a top ten department in university league tables.

Our Pharmacy & Pharmacology courses provide students with hands-on practical skills as well as a thorough grounding in the theoretical side of their subjects. We foster and encourage a sense of curiosity and an enthusiasm for further knowledge in our students, and help them to develop the ability to work well both independently and in a group environment.

## MPharm (Hons) Pharmacy

Pharmacy students concentrate on four main subject areas: Pharmaceutical and medicinal chemistry, pharmacology, pharmaceuticals and clinical pharmacy, and pharmacy practice. We equip our graduates for career opportunities in all aspects of the profession.

## BSc (Hons) Pharmacology

Pharmacology students gain a grounding in pharmacology medicinal chemistry, cell and molecular biology, physiology, biochemistry and immunology. Students also gain practical laboratory skills, and we encourage the development of strong interpersonal skills.

For more detailed information on our courses, please visit [www.bath.ac.uk/pharmacy](http://www.bath.ac.uk/pharmacy)



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Oncolytic Viruses Intern  
**Marketing Assistant**  
CARDIOVASCULAR  
RESEARCH INTERN

Antibody Discovery and  
Protein Engineering Intern

RESPIRATORY  
THERAPEUTIC  
RESEARCHER

Target Validation  
and Disease  
Positioning Team

R&D Genetic  
Toxicology Intern  
Biology, Immunoinflammation Therapy

**IN VIVO IMAGING SCIENTIST**

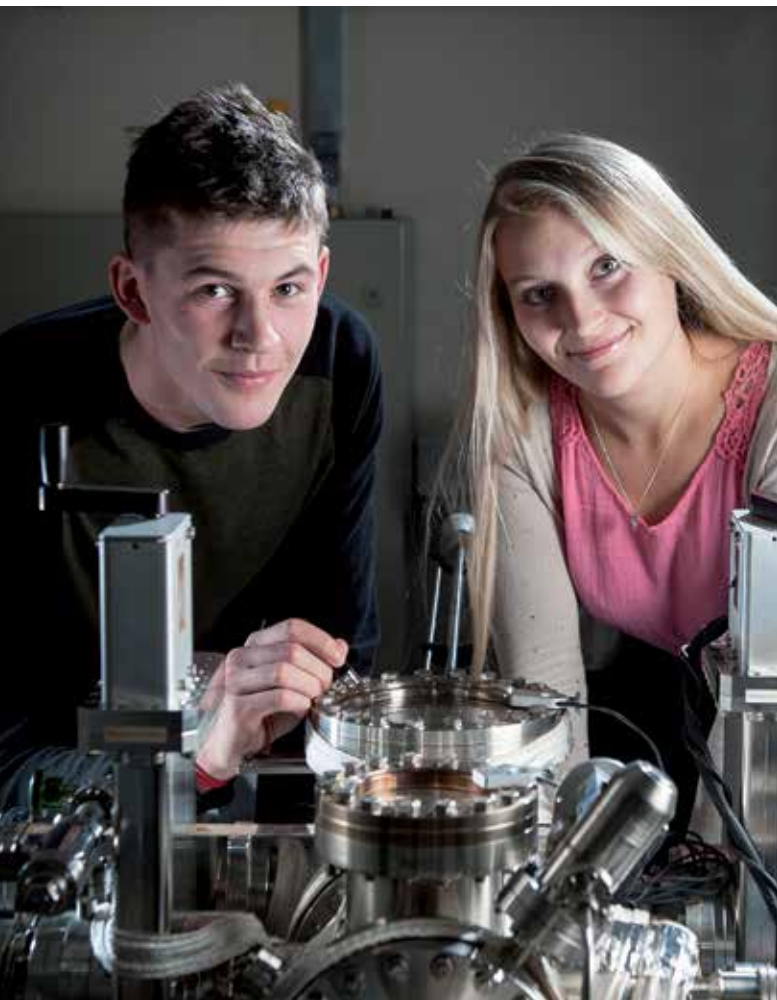
Biomarker Discovery Group

Pharmaceutical Scientist  
Purification  
Process Intern  
Biopharmaceutical Product Development

Cell Culture and  
Fermentation Intern



# Physics



## About the Department

- One of the few physics departments selected by BP for their scholarship programme to recognise the Department's highly talented undergraduates.
- Internationally renowned for its research – 91% of outputs rated as world-leading or internationally excellent (Research Excellence Framework 2014).

Our highly-motivated physics students learn from top physicists through carefully-designed and run courses. Our students develop a wide range of skills by putting their physics knowledge into practice in research labs, and undertaking advanced problem-solving challenges.

## Physics BSc (Hons) and MPhys (Hons)

Our students develop both theoretical and practical abilities through this flexible course which allows them to pursue their own interests. The MPhys degree is a four or five year course with added master's level units and a major research project.

## Physics with Astrophysics BSc (Hons) and MPhys (Hons)

Provides students with a solid grounding in physics and a detailed understanding of modern astrophysics. Students learn how to apply their physics knowledge to understanding the origins and evolution of the universe, including the fundamental intertwining of space, time, matter and energy.

## Mathematics and Physics BSc (Hons) and MSci (Hons)

Gives students the opportunity to develop the mathematical skills required for solving real-world problems. Our graduates are able to apply their knowledge to a wide range of familiar and unfamiliar challenges. The MSci degree is a four year course leading to the qualification of Master of Science.

For more detailed information on our courses, please visit [www.bath.ac.uk/physics](http://www.bath.ac.uk/physics)

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## Valentin Haemmerli, MPhys (Hons) Physics

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“I’m delighted that I chose to do a placement year in the Nuclear Industry with Arcadis. I have gained invaluable work experience, as well as the chance to apply knowledge from my course to the real world. But, best of all, I have spent an enjoyable year at a welcoming and supportive firm doing interesting and fulfilling work.

My placement has allowed me to develop key skills such as problem solving, self-management, and communication. I have had the chance to work on several exciting projects and activities in teams small and large, including running numerical simulations of dose from a radioactive waste store, undertaking radiological assessments for a novel radioactive waste management process, writing a paper for a peer reviewed journal, and attending a conference on radiological protection.”

**Valentin’s supervisor, Nuclear Account Lead, Arcadis Consulting (UK) Ltd**

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“Valentin’s technical ability, drive and commitment to his work have continued to surprise me over the period of his placement. He has delivered some excellent technical deliverables with minimal supervision, including undertaking assessments looking into the feasibility of a new technology to dispose of problematic (radioactive) waste streams and supporting the assessment of environmental impacts associated with decommissioning a legacy research reactor.

Valentin has become a key member of our Nuclear Team supporting both staff and management in helping to shape the business, whether it is working as part of a team to deliver client deliverables, helping Technical Directors in developing their Mentoring / Training Material or representing the company at industry events.”

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Chemical Optimisation Assistant  
Energy Efficiency Officer  
Mathematical Modeller  
SPACE  
ENGINEERING  
ASSISTANT  
RENEWABLE  
ENERGIES  
COMMERCIAL  
ANALYST  
Project Plan Water Engineer  
Analytical  
Scientist  
Environment and Security  
Project Assistant  
RISK  
Analytics  
INTERN  
Project Management Intern  
OPERATIONAL  
RISK INTERN  
Electronics/Systems Engineer

# Health and safety



## What do I need to do as an employer?

Although you will have primary responsibility for the student as an employee during the placement, we maintain a 'duty of care' to ensure that our students are placed in environments that are suitable for a placement, that are not hazardous, and that conform to health and safety standards.

We are responsible for ensuring, as far as is reasonably practical, that students are aware of potential risks to their health and safety whilst on placement and take steps to avoid them. This includes ensuring that the risk assessment undertaken by the company is up-to-date and that appropriate training and induction for placement students has taken place.

During the period of employment with you we expect your placement student to be treated as an employee and be covered by your Employer's Liability Insurance.

## Training

The placement employer is responsible for ensuring a student receives relevant training and supervision relevant to the type of job and environment.

Where possible we suggest a handover period between any previous and new placement students.

## Health and safety induction

It is important that you give a student an induction to your organisation. This should include:

- an overview of the organisational structure
- introduction to the equipment they will be expected to use during their placement
- making the student aware of any potential risks and relevant health and safety policies

We issue students with a simple health and safety checklist form which must be completed and returned to us within one month of the their start date.

## Working hours

Students are in general expected to work a normal working week of around 37 hours, however we understand that there may be operational reasons for varying this on an individual basis, and overtime requirements should be agreed with the student.

We expect you not to ask students to opt out of the weekly working limit stipulated in the Working Time Regulations unless this has been agreed with us before the start of the placement.



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## Further ways to promote your organisation

Many of our students return to their placement employers after graduation or apply to organisations who are regular placement providers because they are well known on campus.

If you are keen to raise your profile at the University and engage with our students, you have several options beyond taking on a placement student.

### Prizes and scholarships

Sponsoring a prize or scholarship is a great way to raise awareness of your organisation amongst our students. Every year we award professional sponsored prizes to recognise successful students from across the Faculty. The prizes are for various categories, from 'best student' to excellence in a specialist area.

Prizes are awarded to final year students when they graduate and are mentioned during the annual graduation ceremony.

Companies who currently sponsor prizes include:

- Pfizer
- Lonza
- AstraZeneca
- Boots
- GlaxoSmithKline
- JP Morgan
- Novartis
- UCB
- MedImmune
- CoAcS
- Bristol-Myers Squibb.

There are many exceptionally talented students who would like to study but are limited by lack of funds, who can benefit from scholarships.

If you are interested in sponsoring a prize or finding out more about scholarships, please get in contact – see back cover for contact details.





## Development programmes

Within the Faculty of Science we run development programmes that give you the opportunity to engage further with our students.

The development programme sessions are timetabled and form part of our formal taught courses. Each session lasts for two hours.

## First year programme

We have a first year Employability Skills Programme where we invite organisations to the University to run skills training sessions based around key employability skills. The sessions are a mandatory part of a student's timetable with between 50-75 students attending each session (depending on the intake of the courses).

Some of the companies involved in our programmes are:

- PWC
- Accenture
- Microsoft
- EDF
- EY
- Nomura
- Deloitte.

### Typical programmes have included:

- cv, applications and interviews
- commercial awareness
- leadership skills and demonstrating competencies
- team working skills
- presentation skills
- emerging technologies
- entrepreneurship
- project management

### Programme breakdown

We have developed a specific template for these sessions, to ensure that both you and our students get the most out of the experience.

### Employer skills sessions – University guidelines

#### The introduction

This should inform students of the skills employers are looking for and the expected skill levels graduates should have. You should also provide examples of how the skills are used within industry including real-life context.

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Clear guidance on professional expectations should be included. For example, what forms an effective CV and covering letter, whether there are specific things within applications and interviews that employers are looking for, and the expectations around previous work experience for new graduates.

Sessions should include 2 - 4 activities:

- Activities must clearly relate to the skills students should be developing
- Having a clear goal will help motivate students (competition makes activities interesting)
- Activities should have a clear output e.g. if students are working in teams to present an idea, they should be given the opportunity to actually present
- Smaller group activities work better than large group activities as they enable each individual student to input

A 10-15 minute presentation at the end of the session should include:

- clear examples of the opportunities available for the specific disciplines (e.g. Physics, Computer Science at BSc and MSc entry levels)
- personal examples from the representatives about how they secured their role, what degree and background they have and career progression
- what opportunities are available to the students e.g. work experience, summer internships, placements, graduate roles, and why work experience prior to graduation may be seen as important to a recruiter
- what expectations your organisation has of an applicant, including whether prior experience is required

A summary of what the students should have gained from the session should be provided at the end. It is important to ensure that students understand how they have used key skills during the activities, and how their skills development is important for their future graduate career.

## Second year programme

Our second year Autumn Placements Development Programme runs from the first week of October for eight weeks. This programme is specifically designed for students going through the applications phase of their placement. The sessions are mandatory for all students registered on a placements programme within the Faculty of Science. We have specialised programmes for each department, ensuring that students have access to relevant companies



that are specifically looking to recruit from their discipline.

### Typical programmes have included:

- online applications and assessment processes
- covering letters and application forms
- mock assessment centres
- psychometric assessment and assessment days
- how to get a placement in a technical company
- criteria-based interviews and examples
- demonstrating competencies and social media



### How to get Involved

Confirmation for employer involvement for each programme begins in the summer and programmes fill up quickly. If you are interested in getting involved or you have any questions about the programmes, please get in touch – see back cover for details.

Faculty of Science



UNIVERSITY OF  
**BATH**

## Professional placements

The benefits of employing a placement student

### Contact us

Interested in employing a placement student from the University of Bath?

Contact the Faculty of Science Placements Team

Email: [fac-sci-placements@bath.ac.uk](mailto:fac-sci-placements@bath.ac.uk)

Telephone: 01225 383381

[www.bath.ac.uk/science/placements](http://www.bath.ac.uk/science/placements)

The information in this brochure was correct at the time of printing – August 2016

S-XX0027-0616

[www.bath.ac.uk/science](http://www.bath.ac.uk/science)