

SCHOOL OF
LIFE SCIENCES

TAUGHT MASTER'S PROGRAMMES 2023

WARWICK
THE UNIVERSITY OF WARWICK

WELCOME TO WARWICK AND THE SCHOOL OF LIFE SCIENCES **OUR FOCUS IS EXCELLENT TEACHING AND RESEARCH WITH IMPACT**

Our research falls into six clusters: Cells & Development, Environment & Ecology, Microbiology & Infectious Disease, Neuroscience, Plant & Agricultural Biosciences, and Quantitative, Systems & Engineering Biology.

Our facilities support multidisciplinary research programmes across Warwick and with other universities, research institutes and industry both nationally and internationally.

The University of Warwick is ranked in the top 10 in the UK* and had been named the University of the Year for Teaching Quality and as runner-up for University of the Year in 2022. **

*The Guardian & The Times
2023 league tables

**Sunday Times' Good
University Guide 2022



UNIVERSITY
OF THE YEAR
FOR
**TEACHING
QUALITY**

Sunday Times' Good
University Guide 2022





“We have a great range of courses that train you in key skills for competitive sectors. Our expertise in these subjects, the involvement of external stakeholders with relevant industrial and business backgrounds and the networking opportunities at Warwick are the special mix that gets our alumni off to a great start in their professional careers.”

Professor Alex Jones, Director of Taught Postgraduate Studies

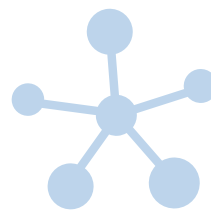
WHY CHOOSE WARWICK LIFE SCIENCES?

Warwick is a Russell Group University ranked within the UK top ten (*The Guardian 2023*).

You will be joining a thriving community of postgraduate students from all over the world. To enhance your studies, you will have excellent learning spaces, additional learning support, via our tutor and mentor system, and directed careers advice.

You will have the chance to gain an introduction to the commercial world. Business modules delivered by experts from the School and other Warwick departments will allow you to develop skills in marketing, accounting, intellectual property and business strategy.

You will be taking the first step towards establishing your career. As well as scientific and applied knowledge you will be gaining transferable skills desired by employers, including team working, communicating with peers and sector specialists, logical reasoning, innovation, organising and planning, report writing and oral presentation.



OVER

90%

OF LIFE SCIENCES RESEARCH WAS RATED AS "WORLD LEADING" OR "INTERNATIONALLY EXCELLENT"

Research Excellence Framework 2021



WHAT ARE MY CAREER PROSPECTS WITH A WARWICK LIFE SCIENCES MASTER'S DEGREE?

A Master's from Life Sciences will prepare you for a wide range of potential careers.

You will gain a range of skills that lead you to employment within industry, public and government organisations, small to medium-sized businesses and consultancy. You can go on to further study, a top-level graduate programme or why not use the entrepreneurial skills you will learn to start your own business?

You will establish an excellent basis to launch your career through taught modules and an individual project dissertation.

As a Warwick student, you will have access to far more than just academic qualifications. We work with Student Opportunity: Careers to support you with career planning and opportunities to advance your personal development.

What do employers think of our graduates?

"Having been involved with the University of Warwick for two decades, Middlemarch Environmental has recruited a number of very skilled and highly qualified individuals. They joined our small team and quickly integrated, with their positive engaging attitudes. It is clear that their time at Warwick has made them ambitious and curious with an 'own it' mentality that has improved our bottom line whilst continuing the positive knowledge transfer that has been the life blood of our on-going growth from a small to a medium-sized business."

Dr Philip Fermor,
Managing Director, Middlemarch Environmental Ltd



WARWICK IS THE

6TH

MOST TARGETED UNIVERSITY BY
TOP EMPLOYERS

The Graduate Market in 2021, High Fliers Research Ltd

WHAT COURSES ARE AVAILABLE AND WHAT IS THEIR STRUCTURE?

Students can choose from a range of Master's programmes, including interdisciplinary courses with modules delivered by experts from other Warwick departments.

- ▶ MSc Biotechnology, Bioprocessing & Business Management
- ▶ MSc Medical Biotechnology & Business Management
- ▶ MSc Environmental Bioscience in a Changing Climate
- ▶ MSc Food Security
- ▶ MSc Sustainable Crop Production: Agronomy for the 21st Century.

You will take core and elective modules and complete an individual dissertation, research project or work placement (dependent on the programme). The modules are designed to develop core knowledge and skills but also allow flexibility so that you can pursue particular interests. They mostly run over a two-week period so that you can concentrate on one topic at a time.

How will I learn?

Teaching is delivered in many formats; by formal lectures, small group interactive workshops, practicals and tutorials, as well as through field and site visits. You will work as an individual and also in teams with your fellow students.

You will complete a major individual dissertation or project which will allow you to focus on an area of particular interest to you or of importance to your career aspirations. Module assessment currently includes written essays, seminar presentations, both as individuals and in groups, multiple choice question tests and poster presentations.

Who will teach me?

The courses are delivered by internationally acknowledged academics from the School of Life Sciences, as well as other Warwick departments, and industrial experts.

DEVELOP
KNOWLEDGE
AND SKILLS
BUT ALLOW
FLEXIBILITY



HOW WILL I BE SUPPORTED?

Life Sciences offers you tailored language support and a mentor to help with transferable skills and academic writing.


You will have a personal tutor to support you on both academic and pastoral issues. In addition, the University has a comprehensive support and welfare structure.

You will have an induction programme in order to introduce you to your course, your fellow students and the taught postgraduate team. You will also be able to take part in induction workshops such as literature searching and working in a team.

You will have modern lecture rooms and work areas within Life Sciences. In addition, the wider University has extensive facilities designed specifically with postgraduate students in mind, for example the Postgraduate Hub which offers a dedicated space, enabling you to access support, work in a collaborative environment and socialise with peers.

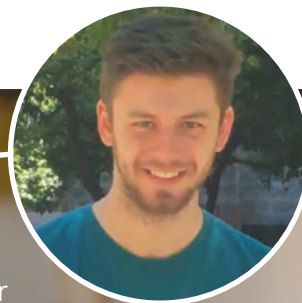
The School and University offer a range of bursaries and scholarships to support funding of your studies.

Warwick Accommodation offers a range of managed campus residences with an excellent network of support staff. They also give assistance to any full-time student looking for off-campus accommodation.



"My highlight of studying here has to be the amount of resources available for students, Warwick just seems to have something that makes you feel supported throughout your studies. I feel that succeeding in this degree has opened many doors and opportunities, as well as opened my eyes to the world in general."

Sam, Biotechnology, Bioprocessing & Business Management graduate



MSc BIOTECHNOLOGY, BIOPROCESSING & BUSINESS MANAGEMENT

The bioprocessing and biotechnology industries are major components of global industrialised economies with wide-reaching impact in medicine, pharmaceuticals, manufacture and the food sector.

These industries require a high calibre of technical specialist with both business acumen and scientific knowledge. This MSc offers you the key business information, industry relevant expertise and science base, to prepare you for work in the sector.

Typical Core Modules

Core modules examine the science and technology involved in biotechnology and bioprocessing, commercial development of a project and business strategy, finance and marketing.

- ▶ Fundamentals of Biotechnology & Genetic Engineering
- ▶ Drug Discovery & Biopharmaceutical Development
- ▶ Entrepreneurship & Commercialisation
- ▶ Biochemical Engineering
- ▶ Bioproduct Plant Design & Economic Analysis
- ▶ Business Strategy
- ▶ Marketing Management
- ▶ Accounting & Financial Management
- ▶ Dissertation/Project

Typical Optional Modules

A range of elective modules examine environmental and medical themes. You will choose two of these, dependent on your interests and career aspirations.

- ▶ Environmental Protection, Risk Management & Safety
- ▶ Essentials of Medical Genomics
- ▶ Microbiomics & Metagenomics
- ▶ Innovations to Prevent & Treat Infectious Disease

Careers

This MSc is suitable for you if you want a career in Biotechnology and related industrial sectors where employees need multidisciplinary knowledge. Graduates work in a wide range of jobs including project management, business development and general managerial positions.

Career destinations of our alumni include the Binding Site Group Ltd, Tata Technologies,

AkzoNobel, Frost & Sullivan, Pfizer, Novartis, the European Medicines Agency as well as numerous small to medium-sized businesses, PhD programmes and graduate schemes.

Alumni job titles include Business Analyst, Project Manager, Product Specialist, Regulatory Affairs, Medical Writer, Business Development Manager, Research Associate and Clinical Project Manager.



“The job market is looking for individuals with interdisciplinary skill sets, and our degree programme effectively meets this demand as evidenced by the employment success of our graduates.”

Dr Andre Pires da Silva



MSc MEDICAL BIOTECHNOLOGY & BUSINESS MANAGEMENT

The modern medical biotechnology industry is a major component of global industrialised economies with impact around the world.

The industry is demanding technical specialists with both business and scientific knowledge, requirements met by this MSc programme which covers a broad range of biomedical science, business and management skills as an integrated package.

Developed out of our very successful Biotechnology, Bioprocessing and Business Management MSc, this course will provide you with knowledge and understanding of key technical, business and societal issues relevant to the operation and progression of medical biotechnology industries. It will equip you to make original and informed contributions to advance and change these industries. It will also develop your capability to research and analyse market needs for medical product development and propose technical strategy based on up-to-date information and leading edge diagnostic technology.

Typical Core Modules

Core modules examine the science and technology involved in biotechnology, commercial development of a project and business strategy, finance and marketing.

- ▶ Fundamentals of Biotechnology & Genetic Engineering
- ▶ Drug Discovery & Biopharmaceutical Development
- ▶ Entrepreneurship & Commercialisation
- ▶ Regenerative Medicine
- ▶ Medical Diagnostics
- ▶ Business Strategy
- ▶ Marketing Management
- ▶ Accounting & Financial Management
- ▶ Dissertation/Project

Typical Optional Modules

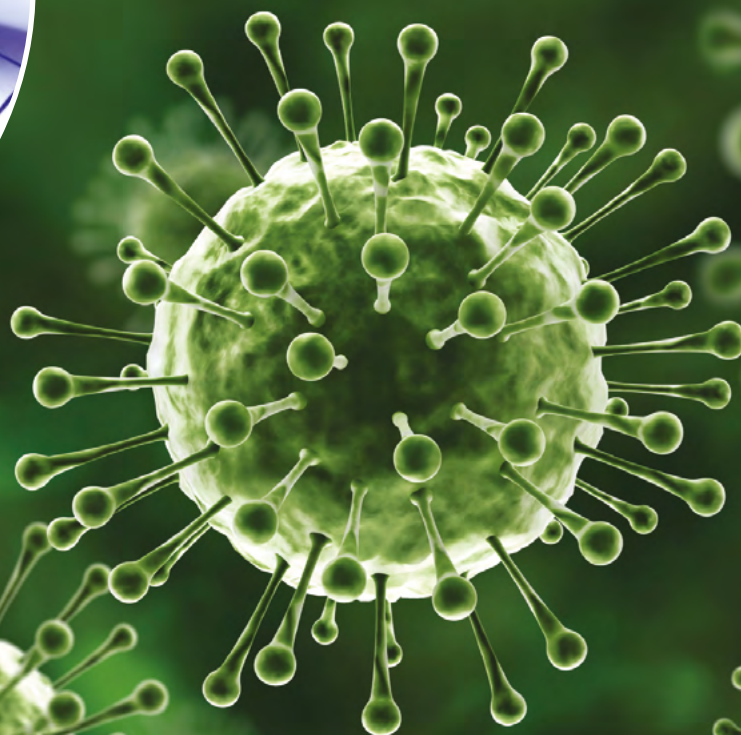
Optional modules examine aspects of drug discovery and development; impact of host-associate microbiota for health and disease and biotechnological advances in combating infectious diseases and their implementation. You will choose two optional modules, dependent on your interests and career aspirations.

- ▶ Environmental Protection, Risk Management & Safety
- ▶ Essentials of Medical Genomics
- ▶ Microbiomics & Metagenomics
- ▶ Innovations to Prevent & Treat Infectious Disease

"The medical field is seeing significant potential in the use of biotechnology for treatment and diagnosis. To continue and expand upon these advancements, it is crucial to have individuals with a multidisciplinary skill set. Our degree programme is the perfect way to meet this need."

Dr Andre Pires da Silva





Careers

This MSc is suitable for those looking for a career in medical biotechnology and related industrial sectors where employees need multidisciplinary knowledge. Graduates are expected to work in a wide range of jobs including project management, business development and general managerial positions.

Career destinations of our alumni include PAREXEL, Oxford University Hospital, Informa, Abcam and Ashfield Healthcare.

Alumni job titles include Technology Graduate Associate, Clinical Trials Clerk, Associate Data Analyst and Regulatory Affairs Officer.

MSc ENVIRONMENTAL BIOSCIENCE IN A CHANGING CLIMATE

Escalating rates of environmental and climate change are forcing us to re-evaluate our management of agricultural and natural habitats.

The competing demands on agricultural land for food production and for bioenergy provision must be reconciled with environmental stewardship and mitigation of climate change.

This MSc provides you with a timely and integrated perspective on environmental bioscience, management, societal matters and regulation as these relate to issues such as sustainable production of food, energy and provision of ecosystem services.

Typical Core Modules

Modules examine the science and impacts of climate change, the emerging concepts around environmental accounting and the value of ecosystem services, and the importance and conservation of biodiversity. Further modules examine the analysis and functions of environmental and host-associated microbial communities, the impacts of environmental change as these relate to competing land uses and explore strategies for adaptation to, and mitigation of, environmental change.

- ▶ Soil, Sustainability & the Environment
- ▶ Biosciences, Politics & Social Acceptability
- ▶ Climate Change
- ▶ Biological Invasions in Changing Environments
- ▶ Environmental Accounting
- ▶ Organic & Low Input Systems
- ▶ Biodiversity, Conservation & Ecosystem Services
- ▶ Challenges of Global Food Security
- ▶ Environmental Protection, Risk Assessment & Safety
- ▶ Microbiomics & Metagenomics
- ▶ Laboratory Project, Work Placement or Dissertation

Typical Optional Modules

Optional modules, including those delivered by staff from other departments at Warwick, add a multidisciplinary aspect to extend your career options. You will take one or two optional modules.

- ▶ Business Strategy
- ▶ Climate Change & Development Law
- ▶ Habitability in the Universe
- ▶ Marketing Management
- ▶ Thinking Water





“In this time of global environmental change, it is difficult to overstate the importance of understanding environmental issues, being able to communicate them to a wide range of stakeholders and the necessity to increase the sustainability of our life style. If you see your career in this area, this course will provide you with an excellent base.”

Professor Hendrik Schaefer, Course Director



Careers

This MSc is for those looking for a research career in environmental bioscience or to improve their employment prospects in governmental or non-governmental organisations. Graduates work in diverse areas related to environmental policy development, sustainability in farming systems, rural development, environmental management, science communication, policy and consultancy.

Career destinations of our alumni include The Climate Change Consortium of Wales, Molson Coors Brewing and LEAF (Linking Environment and Farming). Other graduates have progressed on to PhD programmes.

Alumni job titles include Policy Outreach Officer, Science Editor and Marketing Manager, Environmental Marketing Officer, Climate Change Consultant, Global Sustainability Manager and Integrated Farm Management Promoter.

MSc FOOD SECURITY

Delivering global food security is one of the critical challenges of the 21st century.

Each nation needs to balance local food production with imports and consider environmental and economic impact. This Master's considers the critical factors influencing global food security including the contribution of climate change, biodiversity, water, soil, land use, labour, diet and urbanisation.

Typical Core Modules

- ▶ Advances in Crop Protection
- ▶ Soil, Sustainability & the Environment
- ▶ Climate Change
- ▶ Biosciences, Politics & Social Acceptability
- ▶ Environmental Accounting
- ▶ Organic & Low Input Systems
- ▶ Challenges of Global Food Security
- ▶ Laboratory Project, Work Placement or Dissertation

Typical Optional Modules

Optional modules, including those delivered by staff from other departments at Warwick, add a multidisciplinary aspect to extend your career options. You will take up to three optional modules.

- ▶ Biodiversity, Conservation & Ecosystem Services
- ▶ Biological Invasions in Changing Environments
- ▶ Business Strategy
- ▶ Climate Change & Development Law
- ▶ Habitability in the Universe
- ▶ Marketing Management
- ▶ Microbiomics & Metagenomics
- ▶ Thinking Water

"An important aspect of Food Security is its interdisciplinary nature. Our courses all involve teaching and interactions with a number of other disciplines including the social sciences, law, business and marketing."

Professor Rosemary Collier,
Course Director





“My Master’s degree was the first step in a growing path of stepping stones in my career. Warwick gave me excellent teaching and support, opportunities to branch out beyond my comfort zone and ultimately a solid educational foundation that allowed me take each step forward.”

Charlotte, Food Security graduate. Currently a project manager at CABI.



Careers

Demand for well-qualified people to contribute to food production and the supply chain will increase. Governments require experts who are able to contribute to policy creation and legislation and non-governmental organisations need people who work at the interface of natural and social science. This MSc prepares you for career paths in academic research and a wide range of public and commercial enterprises, government agencies, policy development and consultancy.

Career destinations of our alumni include Ricardo-AEA, Gouria Agricultural Ventures Ltd, Abu Dhabi Farmer’s Services Centre and NGO work on sustainable agro-nutrition. Other graduates have progressed on to PhD programmes.

Alumni job titles include Analyst Consultant and Assistant Manager.

MSc SUSTAINABLE CROP PRODUCTION: AGRONOMY FOR THE 21ST CENTURY

Crop agriculture provides mankind's increasing population with foods, fibres and fuel. This course provides you with knowledge and practical skills focused on crop management and improvement.

You will gain a combination of practical expertise and academic understanding to develop key skills. You will learn the principles of crop production, and about the latest advances in plant pathology, integrated pest management and soil health.

Typical Core Modules

Modules explore the importance of the soil for crop nutrition and water uptake, modern techniques of plant breeding and provide you with skills to undertake commercial field trials.

- ▶ Crop Physiology & Production
- ▶ Advances in Crop Protection
- ▶ Soil, Sustainability & the Environment
- ▶ Climate Change
- ▶ Organic & Low Input Systems
- ▶ Cereal, Oilseed & Root Crop Agronomy
- ▶ Introduction to BASIS - Crop Protection
- ▶ Plant Breeding & Trial Design for Registration
- ▶ Laboratory Project, Work Placement or Dissertation

Typical Optional Modules

Optional modules, including those delivered by staff from other departments at Warwick, add a multidisciplinary aspect to extend your career options. You will take up to two optional modules.

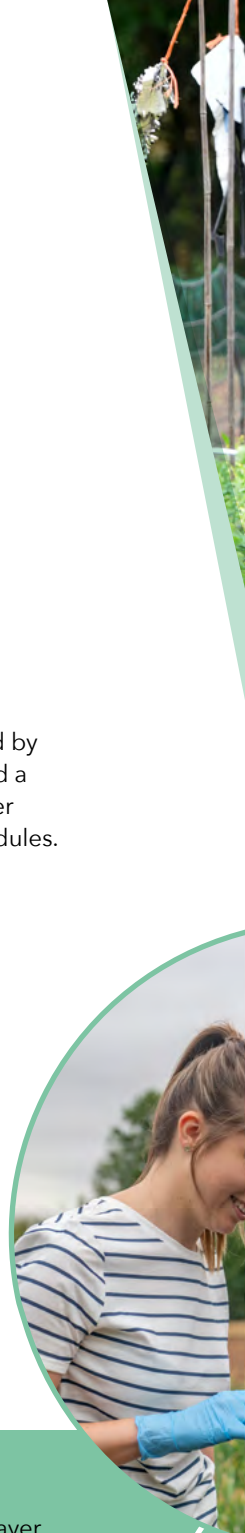
- ▶ Biodiversity, Conservation & Ecosystem Services
- ▶ Biological Invasions in Changing Environments
- ▶ Business Strategy
- ▶ Challenges of Global Food Security
- ▶ Climate Change & Development Law
- ▶ Marketing Management
- ▶ Microbiomics & Metagenomics

Careers

You will acquire the skills necessary for career paths in the agriculture of crops, agronomy, crop trial management and as policy development officers, technical commodity specialists and professional advisors. You will be able to join sales teams for fertiliser, agrochemical and other specialist supply companies. We expect graduates to become the industry's future managers and leaders. PhD study is another option.

Career destinations of our alumni include Bayer Crop Sciences, Berry World, Agrovista, Eurofins, Agriniv and the University of Warwick.

Alumni job titles include Regional Technical Agronomist, Trainee Product Specialist, Trainee Agronomist, Crop Trialist, Agronomist and Agricultural Consultant and Senior Field Technician.





“You will interact with academics who are working closely with the crop production industry, including pest and disease control and crop breeding, and you will have opportunities to learn how crops are grown in the field.”

Professor Rosemary Collier, Course Director



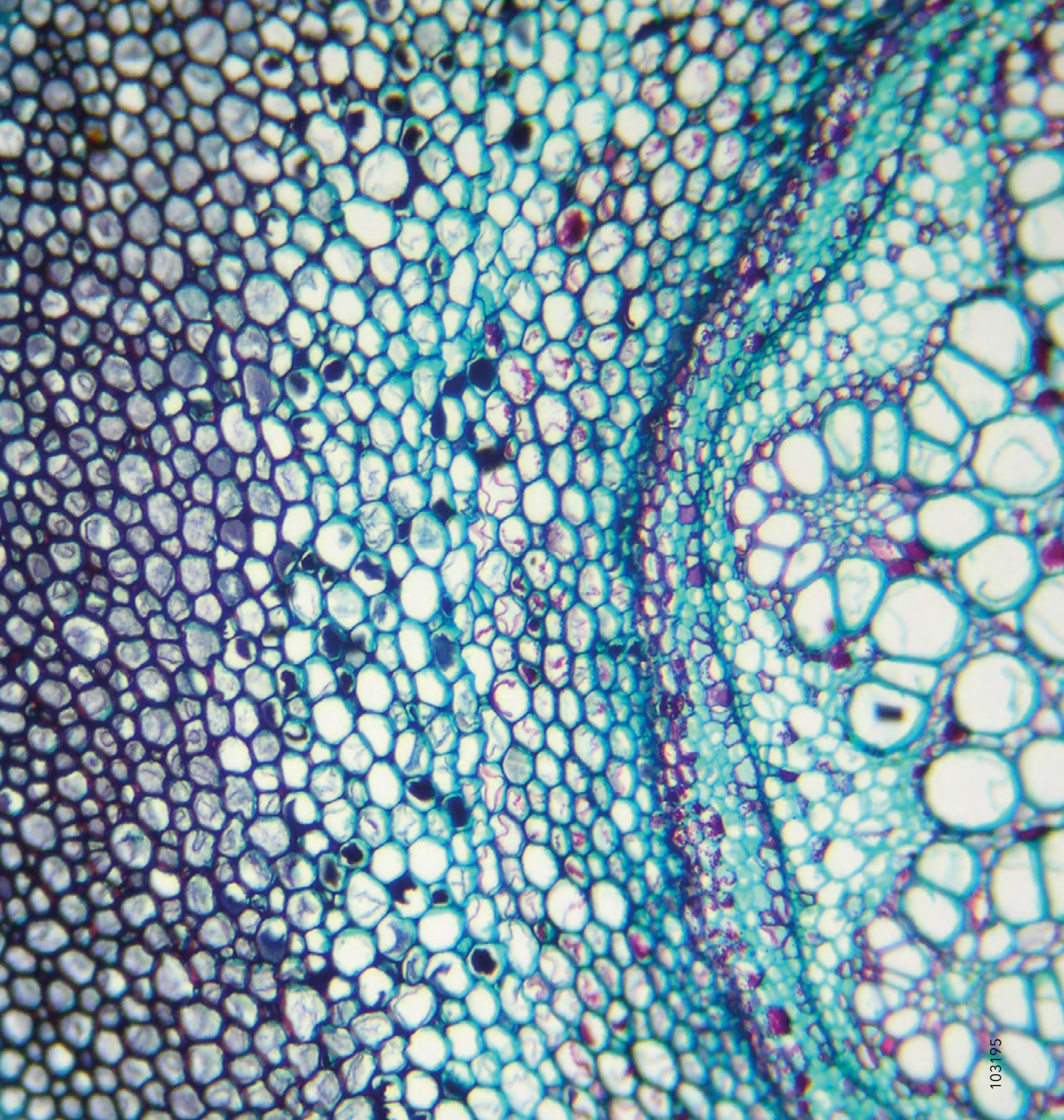


"My MSc gave me both skills and knowledge that have helped me pursue a career in medical technology. Firstly, the business modules gave me a breadth of foundational knowledge and entirely changed the way I perceived the medical biotech industry and how I could apply my previous scientific background. Secondly, the course places a large emphasis on group work and presentations, providing me with frequent experience of managing and leading groups, working to tight deadlines and communicating information to a range of audiences. These skills were invaluable to me when I started having interviews and assessment centres for graduate positions. Just a week after handing in my dissertation, I started my career with Philips Healthcare."

Katie, Medical Biotechnology & Business Management graduate. Philips Healthcare Graduate Programme.








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Taught MSc Courses
School of Life Sciences,
Gibbet Hill Campus,
University of Warwick
Coventry CV4 7AL

Apply for a course at
warwick.ac.uk/study/postgraduate/apply

This information was correct at the time of printing. Our courses, modules and schedules are continually reviewed and updated to reflect the latest research expertise at Warwick, so it is therefore very important that you check the website for the latest information before you apply and when accepting an offer.