School of Life Sciences
Taught Postgraduate Programmes
Welcome to the School of Life Sciences

The School of Life Sciences provides excellent teaching delivered by world-class academic researchers and external professional experts.

Students can choose from a range of Masters programmes, including interdisciplinary courses with Warwick’s renowned Business School.

Students will establish an excellent basis to launch their career through taught modules, dissertations, projects and additional University opportunities.
• MSc Biotechnology, Bioprocessing & Business Management
• MSc Environmental Bioscience in a Changing Climate
• MSc Food & Environmental Safety
• MSc Food Security
• MSc Medical Biotechnology & Business Management
• MSc Sustainable Crop Production: Agronomy for the 21st Century

Student fees and funding
The School of Life Sciences and University of Warwick offer a range of bursaries and scholarships.
warwick.ac.uk/pglifesci/taught

Accommodation
Campus has over 6,200 bedrooms across a range of residences. Warwick Accommodation will give assistance to any full time student looking for off-campus accommodation.
warwick.ac.uk/accommodation

Helping you find the right career
As a Warwick student, you have access to far more than academic qualifications. The Centre for Careers and Skills offers a number of well-established programmes to assist your personal development and career planning. Our alumni have gone on to a wide range of careers in many different organisations and countries.
warwick.ac.uk/careers

Welfare and support
Tailored language support is available for all our taught Masters students. The University has a comprehensive support and welfare structure.
warwick.ac.uk/supportservices

Facilities
Within Life Sciences taught MSc students have designated lecture rooms and a fully equipped work room. The wider University has extensive facilities designed specifically with Postgraduate students in mind.
**MSc Biotechnology, Bioprocessing & Business Management**

The bioprocessing and biotechnology industries are major components of global industrialised economies with impacts in medicine, pharmaceuticals, manufacture and the food sector. Management of change requires a new calibre of technical specialist who will have business acumen and a scientific knowledge base. This MSc equips its students with the necessary tools and expertise to become an entrepreneur, offering key business information and industrially relevant knowledge.

Leading centres of expertise, including Life Sciences and Warwick Business School, form a multidisciplinary teaching faculty. The course is delivered by lecturers with internationally acknowledged academic, industrial and government expertise.

**Careers**

The MSc is suitable for those looking for 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 and PhD programmes. Their job titles include Business Analyst, Project Manager, Product Specialist, Regulatory Affairs, Medical Writer, Business Development Manager, Research Associate and Clinical Project Assistant.

According to the Postgraduate Taught Experience Survey (2013-14), 88% of Warwick's taught Masters Life Sciences students were ‘satisfied with their course overall,’ 77% said that 'as a result of the course they felt better prepared for their future career’ and 80% of students who were not fluent in English felt they ‘received appropriate support for their language needs.'

warwick.ac.uk/pglifesci/taught/biobusiness

"The professors and staff were very helpful, and welcomed any questions or concerns we had, which I feel greatly contributed to my success. I believe that the course has prepared me very well for a real-world working environment.” Stefan Marcus

"The MSc has really broadened my horizons, as it has provided me with the breadth of knowledge and specialities that are uncommon to any other degree. Studying at Warwick, and especially after completing this MSc, you truly realise what it means to be a graduate of the elite.” Melvin Jose
Course Structure

Students take core and elective modules and complete a dissertation project. Core modules examine the science and technology involved in biotechnology and bioprocessing, commercial development of a product and business strategy, finance and marketing. A range of elective modules examine environmental or medical aspects, advanced biotechnology and E business.

Core Course Modules:
• Fundamentals of Biotechnology
• Molecular Biology & Genetic Engineering
• Biochemical Engineering
• Biopharmaceutical Product & Clinical Development
• Entrepreneurship & Commercialisation
• Bioproduct Plant Design & Economic Analysis
• Business Strategy
• Marketing Management
• Accounting & Finance
• Dissertation/Project

Optional Course Modules:
• Chemotherapy of Infectious Diseases
• E business: Technology & Management
• Environmental Protection, Risk Management & Safety
• Essentials of Medical Genomics
• Fundamental Principles in Drug Discovery
• Impact of Biotechnology on the Use of Natural Resources
• Laboratory Skills
• Microbiomics & Metagenomics
• Vaccines & Gene Therapy

The best thing for me about the course was the fact that it was a very well balanced MSc programme. It helped me recognise and develop skills such as presentation and communication, writing skills, time management, and interview skills as well as giving me an enormous amount of business knowhow in a way that was very practical and relevant to the market needs.” Daniel Mbogo
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 a timely and integrated perspective on environmental bioscience, management, politics and regulation as these relate to issues such as sustainable production of food, energy and provision of ecosystem services. Optional modules delivered by Warwick’s renowned Business School add a multidisciplinary aspect to extend your career options.

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 include: Policy Outreach Officer at Climate Change Consortium of Wales; Science Editor and Marketing Manager; Environmental Marketing Officer; Global Sustainability Manager at Molson Coors Brewing; and Integrated Farm Management promotion for LEAF (Linking Environment and Farming).

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warwick.ac.uk/pglifesci/taught/envbioscience

“Each module was taught by engaging staff with expertise in the subject area. I particularly enjoyed the variety of learning.” Harry Smith

“This course gave me an interest and direction that I was previously lacking. It gave me motivation to explore areas I found interesting and the confidence to explore working in an industry I had little experience in. I developed a large amount of transferable skills.” Alice Midmer
Course Structure

Students take ten core modules, one or two optional modules and carry out work for an individual research project, placement or dissertation. 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 role of microorganisms in biogeochemical cycles, the impacts of environmental change as these relate to competing land uses and explore strategies for adaptation to, and mitigation of, environmental change. A module in environmental law provides a legislative perspective.

Taught by people with a real passion for their subjects... for the project there was the opportunity to research exactly what I was interested in. ” Kate Evangeli

I enjoyed guest lectures from people who are currently working within the industry. I particularly enjoyed taking ownership of my project and working closely with a company and its employees. I have found that the skills gained from this project have been vital in my new career. ” Eleanor King

Core Course Modules:
- Soil, Water & Plant Mineral Nutrition
- Biosciences, Politics & Social Acceptability
- Climate Change
- Biological Invasions in Changing Climates
- Environmental Accounting
- Organic & Low Input Systems
- Biodiversity, Conservation & Ecosystem Services
- Microbiomics & Metagenomics
- Challenges of Global Food Security
- Environmental Protection, Risk Assessment & Safety
- Project/Work Placement/Dissertation

Optional Course Modules:
- International Environmental Law
- Marketing Management
- Accounting & Finance
- Business Strategy
Students will develop skills in microbial detection technologies and their application in a variety of situations relevant to both the food industry and regulatory authorities. Students will gain experience in public health investigations through case studies and learn how we ensure food and environmental safety based on an understanding of the biology of the interaction between microbes and their environment. The teaching faculty is drawn from leading centres of academic, industrial and government expertise with a major element being delivered by Public Health England and local government authorities.

Who the course is for

The course is particularly relevant for individuals aspiring towards a career in food, water and environmental safety with a focus on microbiological risks with public, academic or private employers. It is relevant for environmental and technical officers from enforcement agencies, laboratory staff working in official control laboratories and those involved with hygiene and quality assurance in the food industry.

The modular part time structure of the course is designed to accommodate those already in full time employment, enabling students to fit study around their job.

warwick.ac.uk/pglifesci/taught/foodenvsafety
Course Structure
The course comprises six taught modules plus a project dissertation.

Each module is delivered in two discrete blocks with a period of self-directed home study sandwiched between the on-site teaching. All modules are available within a 24 month period (but not within a 12 month period).

Core Course Modules:

- Advanced Food Microbiology
- Principles of Sampling, Analysis & Reporting to Ensure the Microbiological Safety & Quality of Food
- Legislation & Legal Processes in Food & Environmental Safety
- Food, Water & Environmental Borne Disease Diagnosis, Surveillance & Outbreak Investigation
- Food & Water Borne Human Infections: Ecology, Reservoirs & Control in Primary Production
- Physiology of Food, Water & Environmental Borne Pathogens
- Dissertation/Project

Enquiries:
msc.lifesciences@warwick.ac.uk
Tel: +44 (0) 24 7652 3540 or +44 (0) 24 7657 4251
Course start: Throughout the year
Course duration: Minimum of 2 years or a maximum of 6 years. Part-time study only.
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 & Business Management MSc, the Medical Biotechnology & Business Management course provides knowledge and understanding of the key technical, business and societal issues relevant to the operation and development of medical biotechnology industries. It equips you to make original and informed contributions to advance and develop these industries. It also develops the 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.

Leading centres of expertise, including Life Sciences, Warwick Medical School and Warwick Business School, form a multidisciplinary teaching faculty. The course is delivered by lecturers with internationally acknowledged academic, industrial and government expertise.

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.

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warwick.ac.uk/pglifesci/taught/medicalbiotech

“This is a very well designed MSc course that builds on the incredible success of the current Biotechnology, Bioprocessing and Business Management MSc ... I am not aware of any similar course structured in this way”
External academic evaluator
Course Structure

Students take ten core and two elective modules and complete a dissertation project. Core modules examine the science and technology involved in biotechnology, commercial development of a product and business strategy, finance and marketing.

Elective modules examine aspects of drug discovery and development; impact of microorganisms on pharmaceutical manufacture and product shelf-life, and biotechnological advances in combating infectious diseases and their implementation.

Core Course Modules:
- Fundamentals of Biotechnology
- Molecular Biology & Genetic Engineering
- Biopharmaceutical Product & Clinical Development
- Entrepreneurship & Commercialisation
- Regenerative Medicine
- Medical Diagnostics
- Essentials of Medical Genomics
- Marketing Management
- Accounting & Finance
- Business Strategy
- Dissertation/Project

Optional Course Modules:
- Chemotherapy of Infectious Diseases
- Fundamental Principles of Drug Discovery
- Microbiomics & Metagenomics
- Vaccines & Gene Therapy

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Course start: October
Course duration: 12 months full-time, 24 months part-time.
PG Diploma and Certificate options
MSc Food Security

Delivering global food security is one of the critical challenges of the 21st century. Each nation needs to balance local production with imports and consider environmental and economic impact. This MSc will draw together critical components such as the contribution of climate change, biodiversity, water, soil, land use, labour, nutrition transition and urbanisation.

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. Optional modules delivered by Warwick’s renowned Business School add a multidisciplinary aspect to extend your career options.

warwick.ac.uk/pglifesci/taught/foodsecurity

Initial career destinations include Analyst Consultant for Air Quality at Ricardo-AEA, Assistant Manager at Gouria Agricultural Ventures Ltd, Abu Dhabi Farmers Service Centre and NGO work on sustainable agro-nutrition.

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“
The best thing about the MSc was the modules - a wide range of topics covered and lots of interaction. The support from the lecturers was superb - especially when it came to dissertation supervision - could not be faulted at all. I was also able to answer a lot of the ‘technical’ questions in interview due to my knowledge gained at Warwick during modules as well as the research project.” Harriet Bell
Course Structure

Students take seven core modules and up to three optional modules. There is an individual research project, placement or dissertation.

Core Course Modules:
- Crop Physiology & Production
- Advances in Crop Protection
- Soil, Water & Plant Mineral Nutrition
- Environmental Accounting
- Climate Change
- Organic & Low Input Systems
- Challenges of Global Food Security
- Project/Work Placement/Dissertation

Optional Course Modules:
- International Environmental Law
- The Global Food System
- Biological Invasions in Changing Climates
- Biodiversity, Conservation & Ecosystem Services
- Microbiomics & Metagenomics
- Marketing Management
- Accounting & Finance
- Business Strategy

Enquiries:
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Tel: +44 (0) 24 7657 4995 or +44 (0) 24 7657 4251
Course start: October
Course duration: 12 months full-time; 24 months part-time.
MSc Sustainable Crop Production: Agronomy for the 21st Century

Crop agriculture provides mankind's increasing population with food, fibres and fuel - this course provides the knowledge and practical skills for 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, the latest advances in plant pathology, integrated pest management and weed control.

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 also 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.

Graduates have gone on to study for a PhD or, for example, into agronomy and agricultural consulting. Optional modules delivered by Warwick’s renowned Business School add a multidisciplinary aspect to extend your career options.

Initial career destinations include Regional Technical Agronomist at Bayer CropScience, Trainee Agronomist at Valley Produce Ltd, Trainee Product Technologist at Berry World, Trainee Agronomist at Agrovista, Crop Trialist at Eurofins, Agronomist and Agricultural Consultant at Agrinig, Nigeria and Senior Field Technician at University of Warwick.

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"Students really benefit from exposure to the different fields of expertise made available through the School… and I think it’s probably fair to say that the School is unrivalled in terms of the number and breadth of summer mini-project opportunities offered to students, based either in the lab or at industrial placements." Andy Tock

"A significant part of the course was the project, which allows students to develop a more in-depth understanding of a particular field. I thoroughly enjoyed conducting research and have subsequently begun a PhD." Sebastian Fairhead

warwick.ac.uk/pglifesci/taught/agronomy
Course Structure

Students take eight core modules, up to two optional modules and carry out work for an individual research project, placement or dissertation. Teaching is delivered in many formats: by formal lectures, small group interactive workshops, practicals and tutorials, as well as through field and site visits. 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.

The links with experts in the industry that we made are also useful when job hunting. I have also become more aware of the problems facing global agriculture and food security, which has made me want to become part of a team that can help resolve these issues.

Catherine Garman

I think my MSc has given me something very impressive to place on my CV.

Peter Illman

Core Course Modules:

- Crop Physiology & Production
- Advances in Crop Protection
- Soil, Water & Plant Mineral Nutrition
- Climate Change
- Organic & Low Input Systems
- Cereal, Oilseed & Root Crop Agronomy
- Introduction to BASIS - Crop Protection
- Plant Breeding & Trial Design for Registration
- Project/Work Placement/Dissertation

Optional Course Modules:

- Biological Invasions in Changing Climates
- Biodiversity, Conservation & Ecosystem Services
- Challenges of Global Food Security
- International Environmental law
- Microbiomics & Metagenomics
- Marketing Management
- Accounting & Finance
- Business Strategy

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Contact details
For further information about our Taught Postgraduate courses please contact:

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