Food Security Education at the University of Birmingham

Taught courses with Food Security components at Birmingham

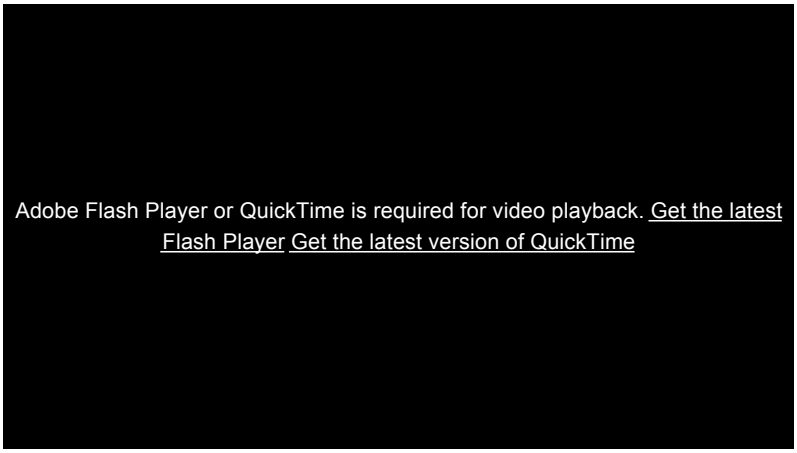
School of Biosciences

We take pride in our research-led teaching with emphasis on cutting-edge technologies and current global issues including Food Security. We integrate modern plant science teaching and learning into our curriculum across undergraduate and postgraduate courses. Our plant science teaching consistently receives excellent student feedback. Within the **School of Biosciences (/schools/biosciences/index.aspx)** we also have a very strong Genetic and Microbiology research base, which underpins our teaching in this area.

In 3rd year (or MSci year) our research-led taught modules with relevance to food security include:

- **Conservation Biology** (for Biosciences and Natural Sciences students)
- **Plant Cell Biology and Development** (for Biosciences, Natural Sciences and Biochemistry students)
- **Applied and Environmental Microbiology** (for Biosciences, Natural Sciences and Biochemistry students)
- **Adaptation to Changing Environments** (For Biosciences and Natural Sciences students)

In 2nd year “Alpine and Glacial Ecology in Norway (Field Course)” covers both plant and insect responses to stress and climate change.



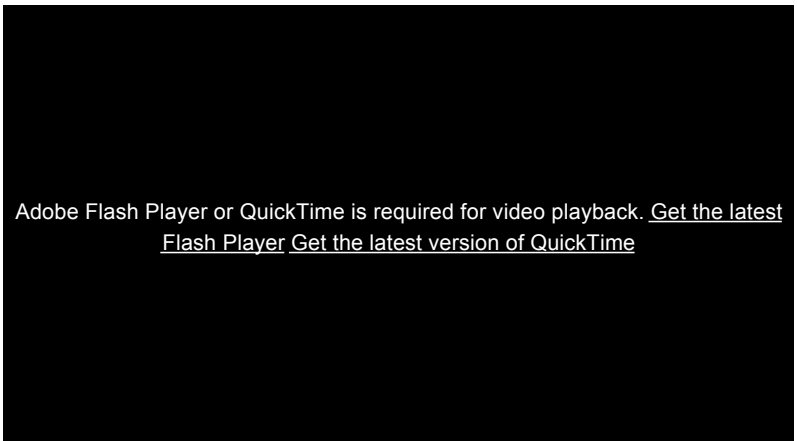
Video transcript here (/undergraduate/courses/biosciences/module-alpine-glacial-ecology.aspx)

In 2nd year “Plant Sciences: from cells to the environment” and “Ecology” are optional modules for Biosciences and Natural Sciences students.

In 1st year “Introduction to Evolution and Animal biology” has an insect biology component relevant to food security.

Video transcript here (/undergraduate/courses/biosciences/module-evolution.aspx)

In 1st year “Plant Science and Environmental Biology” is a core 20-credit module for Biosciences and Natural Sciences students.



Video transcript here (/undergraduate/courses/biosciences/module-plant.aspx)

The Conservation Biology module, in particular, is taught from an environmental and applied perspective, and focuses both on how we might better conserve the world's fauna and flora, and also links conserved diversity to sustainable exploitation as a means of underpinning food security and human well-being. Undergraduate students regularly undertake third year research projects in various aspects of agrobiodiversity (i.e. crop landrace and crop wild relative) conservation and use. These topics are also a focus of postgraduate research masters and doctoral studies, with 5 PhD and 3 MRes research projects in food security conservation research recently completed within the School.

At taught Masters level, we offer MSc courses in **Molecular Biotechnology (/postgraduate/courses/taught/biosciences/molecular-biotechnology.aspx)** and **Toxicology (/postgraduate/courses/taught/biosciences/toxicology.aspx)** that impinge on aspects of food security.

Further details of our courses can be found here:

- **Undergraduate courses - School of Biosciences (/schools/biosciences/courses/undergraduate/index.aspx)**
- **Postgraduate opportunities - School of Biosciences (/schools/biosciences/courses/postgraduate/index.aspx)**

School of Chemical Engineering

- **Food Quality and Health MSc/PGDip/PGCert (/postgraduate/courses/taught/chemical-engineering/food-quality-health-msc.aspx)**
- **Food Safety, Hygiene and Management Masters/MSc/PG Diploma/PG Certificate (/postgraduate/courses/taught/chemical-engineering/food-safety-hygiene.aspx)**

Laboratory-based research projects at the University of Birmingham

In addition, both undergraduate (BSc, MSci) and postgraduate (MSc, MRes) students have the opportunity to carry out **laboratory-based research projects**, many of which will be in labs whose overarching research priorities include food security. To learn more about the range of Food Security-related research occurring at the University of Birmingham, **please follow this link to research (/research/activity/food-security/research/index.aspx)** .

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