DN200

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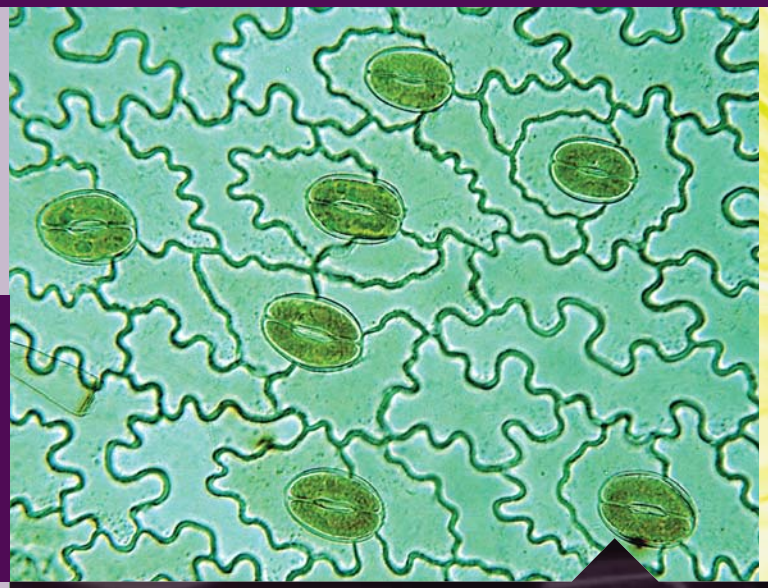
Chloe Kinsella
Stage 4, Botany and Zoology Student

Who doesn't enjoy watching a documentary on a weird and wonderful creature such as a rat-eating plant? A walking fish? Or even a surfing snail? I know I do. That's what led me to study Botany and Zoology at UCD. In first and second year, we had to study a whole range of subjects, which allowed me to get a taste of different areas of science such as biology, chemistry and physics. Although I knew I loved learning about animals, I never thought plants could be as interesting.

My classes in Botany and Zoology are so diverse, ranging from dissecting animals and studying dinosaurs to learning about the production of medicinal drugs and the interactions of plants and animals in their natural habitats. Every day I learn something interesting! After I complete my degree, I plan on doing a PhD, working in Ireland or travelling abroad.

COVER: Dimorphotheca. Image by Wieland Fricke



Detail of a fern epidermis.
Image by Dr Alfonso Blanco © UCD

BSc in Botany/Plant Biology

How do I find out more about this degree programme?

You can get information about this degree programme by calling, emailing or writing to:

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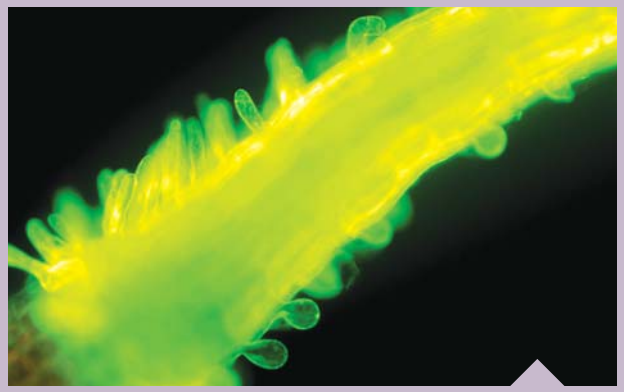
University College Dublin



A plant seedling root, viewed with the light microscope.
Image by Siamsa Doyle ©UCD

What is Botany?

Botany is the scientific study of plants - commonly also known as plant biology. The research and teaching activity of the plant biologists at UCD embraces everything from molecular biology/biotechnology, through whole organism biology to ecology, evolution and the environment.

Plants are a vital component of the biosphere and are responsible for the environmental conditions essential for all life on earth. Current international concerns about rising atmospheric carbon dioxide and global warming highlight the importance of understanding how plants respond to climate change. Understanding the way in which plants cope with environmental stress is also an important consideration for crop production in many regions of the world. Plants are also the main-stay of human diets and they provide medicines, timber, paper and clothing, as well as a diverse range of raw materials. Increasingly, plants are being exploited as a basis for bioenergy and biofuel production. The Plant Biologists, at UCD collaborate with other university scientists, state agencies and companies to undertake research and innovation in several areas of Plant Biology including;

- Predict, and help solve, the problems associated with the impact of climate change on agriculture, forestry and the natural environment
- Develop sustainable food production systems that promote human health and increase production of food and plant-derived materials
- Provide the knowledge base to underpin the development of biofuel and other industrial applications.

Undergraduate students are often involved in laboratory or field based projects that investigate these research areas.

Identifying Pink Water-Speedwell (Veronica catenata) from a turlough.
Image by Jon Yearsley ©UCD

What will I study as part of my degree?

In first year, an introduction to Plant Biology comes via several modules that cover fundamental aspects of the plant and environmental sciences. In second year, you start to specialise in Plant Biology and are introduced to aspects of the biology of land plants and algae and their importance in the biosphere. You will be introduced to plant biotechnology and study possible solutions to feeding and nourishing a world population that grows by 75 million people every year. You will also study topics from across the science programme or choose to focus more specifically within the plant area. In third and fourth year, you will be exposed to a more specialised suite of plant science-based modules and will study topics such as how plants and plant cells grow and develop, aspects of marine botany, science entrepreneurship and the diversity of plant form and how these forms are adapted to different functions. In your final year one of the core modules is a research project, where you will get the opportunity to undertake your own project in the laboratories of the plant science research group.

Fern spore by electron microscopy (colour treated).
Image by Dr Alfonso Blanco © UCD

What are the opportunities for graduates in Botany?

Botany graduates pursue careers such as environmental consultants, pollution biologists, molecular geneticists, cell biologists, wildlife officers, national park supervisors, conservation officers, university lecturers, teachers and research scientists in third level or industrial institutions. Many of our graduates also find employment in areas not directly related to their degree, but in which the training in scientific thinking and analysis they have acquired, is of benefit to their chosen career. The increasing demands of environmental and conservation legislation, the expansion of the research infrastructure and increasing opportunities for research and development within the pharmaceutical and medical sectors, form the backdrop for teaching developments within the School.