

UCD School of Biology & Environmental Science - SBES



Introduction to our Undergraduate Degree Programmes

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Undergraduate Degree Programmes

Plant Biology

**Cell &
Molecular
Biology**

**Environmental
Biology**

Zoology

Why study Plant Biology?

- Plants support and maintain the atmosphere and environmental conditions required for life on earth.
- They are the mainstay of human and animal diets.
- They provide pharmaceuticals, timber, paper, clothing, renewable sources of energy and biofuels.





Crop Improvement
for Food Security



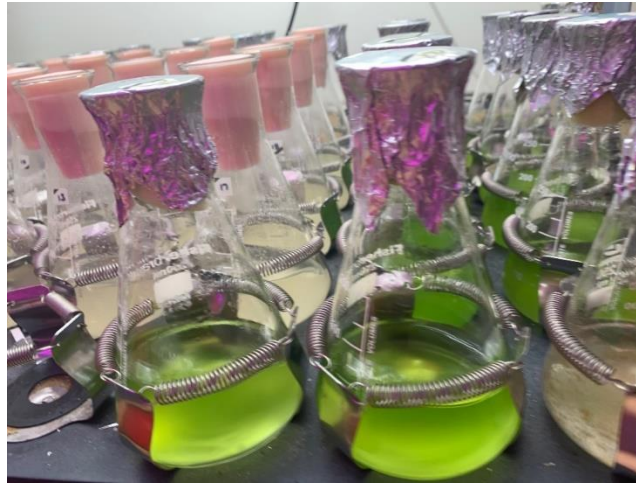
Plant Signalling and
Development



Plant Bioprocessing



Adaptation to Future
Climates



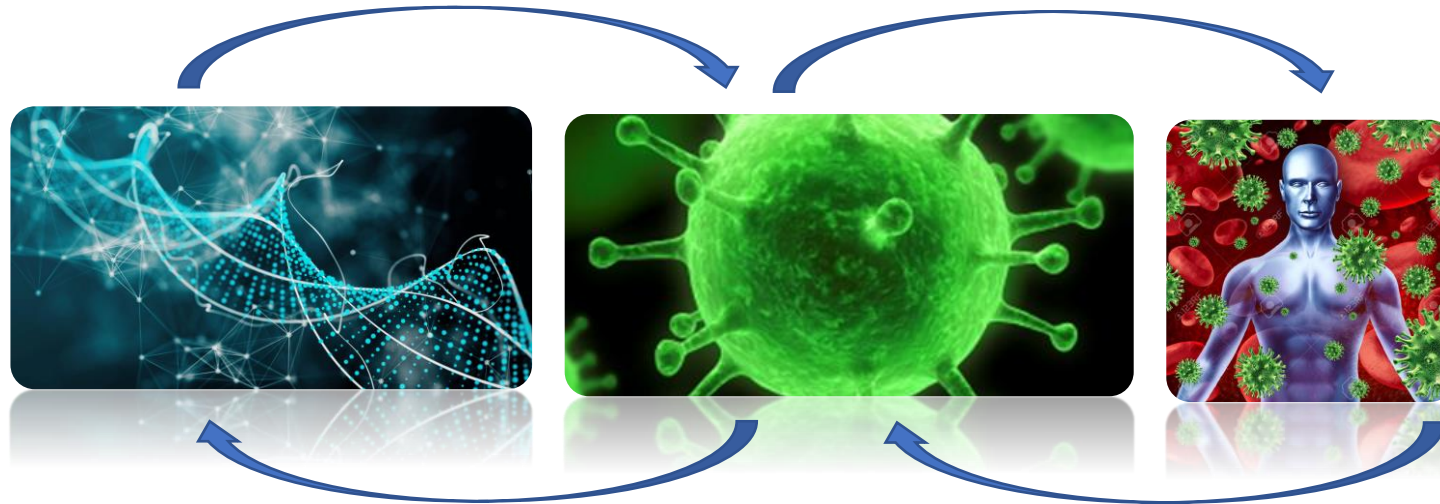
Plant Biology graduates have obtained positions as:

- Plant and environmental scientists
- Molecular geneticists and cell biologists
- Agronomists, horticulturalists, foresters and park rangers
- Pollution biologists
- Environmental consultants
- Wildlife, conservation, biodiversity and heritage officers

**Graduates are also
eligible to pursue MSc
and PhD programmes
both in Ireland and
abroad**

Why study Cell & Molecular Biology?

Cells are the basic unit of life, and are used to build all organisms and are composed of complex assemblies of genes and molecules that work together



Studies in Cell & Molecular Biology seek to:

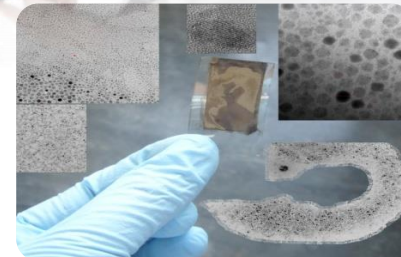
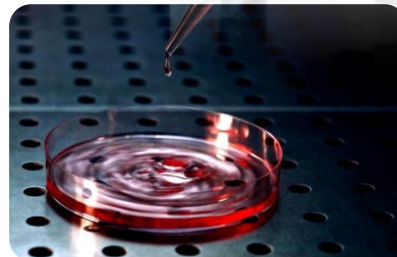
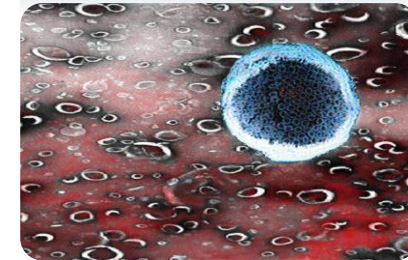
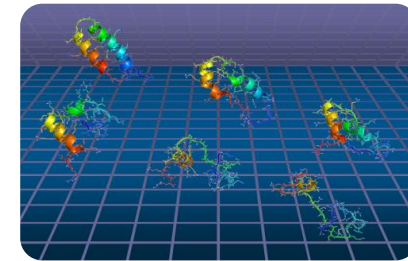
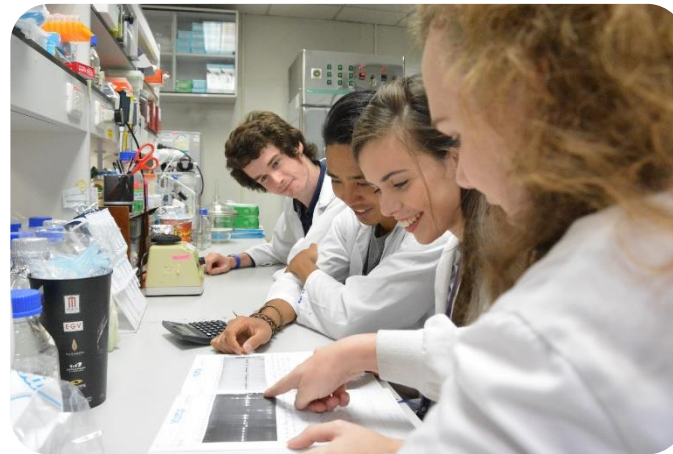
- understand how cells, of all types, work
- explain how healthy cells work
- understands what happens to cells in infection or disease (e.g. cancer)

Training in a key laboratory skills

- Cell & Molecular Biology is a **practical discipline**, teaching students key laboratory skills such as molecular cloning, microscopy, diagnostics & bioinformatics
- Emphasis is also placed on the importance of teamwork & communication

Graduates of this degree work in:

- Pharmaceutical development
- Pharmaceutical testing
- Biomedical device design
- Disease diagnostics
- Clinical research in hospitals
- Forensics
- Other non-science careers ...



Why study Environmental Biology?

- We depend on environmental resources that need to be managed sustainably
- Environmental quality affects our lives and economies
- The environment is under serious pressures from pollution, increasing demand for resources and climate change
- We need well informed and trained environmental scientists to find solutions to the many problems we face.



Environmental biology is a very broad subject covering all aspects of the environment, physical, chemical and ecological. It provides training in practical skills both in the laboratory and especially the field.

In 3rd year we run **field courses** in Spain and Costa Rica



Graduates of this degree work in:

Government departments & agencies (e.g. Environmental Protection Agency, Marine Agency)

BIM, ESB, Coillte, NGOs,

Consultancy companies

Fisheries (Inland Fisheries Ireland, marine Institute) etc....

Why study Zoology?

- Learn about the exciting diversity of animal species that inhabit our planet
- Modern Zoology deals with all aspects of animals from genetics and cell biology to ecology, behaviour and management/conservation.

It helps us understand how we interact with the animal species, why we need to protect biodiversity and manage it sustainably

We learn about ourselves too (e.g. the ageing process from the study of bats)



Graduates of this degree work in:

- Government departments & agencies (e.g. Environmental Protection Agency)
- BIM, ESB, Coillte
- Consultancy companies, forensics
- Fisheries (Inland Fisheries Ireland, marine Institute), Aquaculture, biotechnology, etc.....

.....and SBES has a strong record in providing **high quality** education + research projects: just ask our stage 4 students 😊

For further information contact: **gavin.stewart@ucd.ie**