

Neuroscience

CAO code: DN200 Option: Biological, Biomedical and Biomolecular Science (BBB)

Sample pathway for a degree in Neuroscience *

YEAR
1

ENGAGE WITH THE PRINCIPLES

BIOLOGY

Topics include:

- ▶ Biology in Action
- ▶ Life on Earth
- ▶ Cell Biology & Genetics
- ▶ Biomedical Sciences

CHEMISTRY

Topics include:

- ▶ The Basis of Organic and Biological Chemistry

MATHEMATICS

Topics include:

- ▶ Mathematics for the Biological & Chemical Sciences

- ▶ Two Elective modules
- ▶ One Small-Group Project



Examining embryos at different stages of development. Image by Ciara O'Hanlon © UCD

YEAR
2

CHOOSE YOUR SUBJECTS

NEUROSCIENCE

Topics include:

- ▶ Chemistry for Biologists
- ▶ Molecular Genetics and Biotechnology
- ▶ Biomolecular Laboratory Skills
- ▶ Metabolic and Immune Systems
- ▶ Principles of Neuroscience

PHYSIOLOGY

Topics include:

- ▶ Introduction to Physiology
- ▶ Organs and Systems Physiology

PHARMACOLOGY

Topics include:

- ▶ Biomedical Science of Drugs

GENETICS

Topics include:

- ▶ Principles of Plant Biology and Biotechnology

- ▶ Two Elective modules

- Learn how to employ state-of-the-art techniques to study the nervous system at the molecular, cellular and behavioural levels

YEAR
3

FOCUS ON YOUR CHOSEN SUBJECT

NEUROSCIENCE – Topics include:

- ▶ Cell Signalling
- ▶ Drugs used in CNS diseases
- ▶ Nervous System Development
- ▶ Membrane Biology

- ▶ Biostatistics
- ▶ Sensory Neuroscience
- ▶ Genetic Basis of Disease
- ▶ Higher Cortical Function

- ▶ Two Elective modules

YEAR
4

REFINE YOUR KNOWLEDGE

NEUROSCIENCE – Topics include:

- ▶ Synaptic Plasticity
- ▶ Advanced Topics in Neural Development
- ▶ Neuroscience Research Project

- ▶ Advanced Neuropharmacology
- ▶ Advanced Neurochemistry
- ▶ Molecular Neuroimmunology

- ▶ Genetics of Disease & Behaviour
- ▶ Synaptic Signalling
- ▶ Emerging Therapies

BSc (Honours) Neuroscience

MSc (Taught)

- ▶ MSc Biotechnology
- ▶ MSc Biotechnology & Business
- ▶ MSc Biotherapeutics
- ▶ MSc Biotherapeutics & Business

PhD

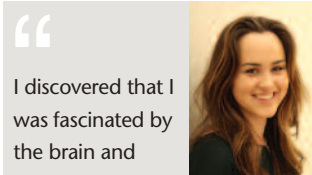
- ▶ Students can pursue a PhD in universities in Ireland or abroad in Neuroscience or in areas as diverse as biotechnology, cell biology, biomedical and health science.

Industry

- ▶ Biotechnology companies
- ▶ Hospital laboratories
- ▶ Forensic Science laboratories
- ▶ Pharmaceutical companies

Conversion Courses

- ▶ Professional Master of Education (PME)
- ▶ Graduate Veterinary Medicine
- ▶ Graduate Medicine
- ▶ Master of Business Administration
- ▶ Master in Management



I discovered that I was fascinated by the brain and nervous system, so I chose Neuroscience as my final degree subject. My course offers a combination of practical and theoretical studies, ranging from lectures on the ground-breaking research taking place in neurodegenerative disease, to monitoring my own brain waves via an electroencephalogram in the lab.

Katie O'Byrne, Student

*See pages 4 and 5 for information on the terminology used above. Potential combinations shown here are examples only and are not guaranteed by UCD. Topics are subject to change each year.

i

Professor Michael Scott
UCD School of Biomolecular and Biomedical Science

michael.scott@ucd.ie
+353 1 716 6925
facebook.com/UCDSchool
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