

# Biology, Mathematics & Education

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



Students attending an Education module class.

“ I knew that I wanted to explore Science and Mathematics at a deeper level but did not want to choose between them. The level of variety offered by the DN200 Science course stood out to me. I was able to sample Biology, Chemistry and Physics before deciding what I wanted to do next. I chose Biology, Mathematics and Education because I wanted to capitalise on my passion for these subjects while simultaneously satisfying my desire to teach the next generation of students. What makes this course unique is the sense of community that exists among people who share the same ambition as you. It is a hands-on, placement-focused experience that supports you to become the best teacher and person you can be.



Michael Allen, Student ”

## Sample pathway to become a Biology and Mathematics teacher \*

### YEAR 1 ENGAGE WITH THE PRINCIPLES

EDUCATION Modules include:	BIOLOGY Modules include:	MATHEMATICS Modules include:	SCIENCE ▶ Chemistry ▶ Physics
▶ Mathematics & Science Education & Communication	▶ Biology in Action ▶ Life on Earth ▶ Cell Biology and Genetics	▶ Linear Algebra ▶ Calculus ▶ Statistical Modelling	▶ One Small-Group Project ▶ Elective Module

### YEAR 2 CHOOSE YOUR SUBJECTS

The subject combinations listed below are illustrative of what a student who graduates in Biology, Mathematics & Education could choose in Year 2. Further subject combinations are possible depending on the choices in Year 1. Further information is available on page 19.

EDUCATION Modules include:	BIOLOGY Modules include:	MATHEMATICS Modules include:	▶ Two Elective Modules
▶ Education for Democracy ▶ Science and Mathematics Pedagogy	▶ Principles of Plant Biology and Biotechnology ▶ Principles of Environmental Biology and Ecology ▶ Laboratory Skills ▶ Molecular Genetics and Biotechnology	▶ Calculus of Several Variables ▶ Differential & Difference Equations ▶ Analysis	

### YEAR 3 REFINE YOUR KNOWLEDGE

EDUCATION Modules include:	SCHOOL PLACEMENT	BIOLOGY Modules include:	MATHEMATICS Modules include:
▶ Teaching Second-Level Science ▶ Schools and Society	▶ Post-Primary Placement ▶ Peer-Assisted Tutoring	▶ Systems Ecology ▶ Functional Morphology ▶ Regulation of Gene Expression ▶ Evolutionary Biology ▶ Ecological and Environmental Microbiology	▶ Algebraic Structures ▶ Probability Theory

### YEAR 4 PREPARE FOR PROFESSIONAL PRACTICE

EDUCATION Modules include:	SCHOOL PLACEMENT	MATHEMATICS Modules include:
▶ Pedagogical Approaches to Mathematics and Science ▶ Psychology for Teaching and Learning	▶ Year-Long Placement in Post-Primary School ▶ Classroom Teaching ▶ Broad Experience of Wider School Context	▶ Geometry ▶ Complex Analysis ▶ History of Mathematics ▶ Group Theory

## BSc Biology, Mathematics & Education

### YEAR 5 PREPARE FOR PROFESSIONAL PRACTICE

EDUCATION Modules include:	SCHOOL PLACEMENT
▶ Research Methods ▶ Professional Dissertation	▶ Year-Long Placement in Post-Primary School ▶ Continuous Professional Development Activities ▶ Further Development of Professional Practice Portfolio

## MSc Mathematics and Science Education

Post-Primary School Teacher	Biology Leaving Certificate	Mathematics Leaving Certificate	Science Junior Certificate

\*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. Modules are subject to change each year.

