**Applied Mathematics, Mathematics & Education**

CAO code: DN200 Option: Mathematical, Physical & Geological Sciences (MPG)

Sample pathway to become an Applied Mathematics and Mathematics teacher *

**YEAR 1**

**EDUCATION**
Topics include:
- Mathematics & Science Education & Communication

**APPLIED MATHEMATICS**
Topics include:
- Applied Mathematics: Mechanics and Methods
- Applications of Differential Equations

**MATHEMATICS**
Topics include:
- Linear Algebra
- Numbers and Functions
- Calculus
- Mathematical Analysis
- Statistical Modelling

**ENGAGE WITH THE PRINCIPLES**

**YEAR 2**

**EDUCATION**
Topics include:
- Education for Democracy
- Science and Mathematics Pedagogy

**APPLIED MATHEMATICS**
Topics include:
- Computational Science
- Vector, Integral and Differential Calculus
- Oscillations in Mechanical Systems
- Classical Mechanics and Special Relativity

**MATHEMATICS**
Topics include:
- Calculus of Several Variables
- Groups, Rings and Fields
- Linear Algebra

**CHOOSE YOUR SUBJECTS**

**YEAR 3**

**EDUCATION**
Topics include:
- Collaborative Pedagogy in Mathematics Education
- Schools and Society

**SCHOOL PLACEMENT**
Topics include:
- Post-Primary Placement
- Peer-Assisted Tutoring

**APPLIED MATHEMATICS**
Topics include:
- Analytical Mechanics
- Fluid Mechanics
- Partial Differential Equations

**MATHEMATICS**
Topics include:
- Probability Theory
- Financial Maths

**REFINE YOUR KNOWLEDGE**

**YEAR 4**

**EDUCATION**
Topics include:
- Pedagogical Approaches to Mathematics and Science
- Psychology for Teaching and Learning

**SCHOOL PLACEMENT**
Topics include:
- Year-Long Placement in Post-Primary School
- Classroom Teaching
- Broad Experience of Wider School Context

**APPLIED MATHEMATICS AND MATHEMATICS**
Topics include:
- Group Theory
- Geometry
- Complex Analysis
- History of Mathematics

**PREPARE FOR PROFESSIONAL PRACTICE**

**YEAR 5**

**EDUCATION**
Topics include:
- Research Methods
- Professional Dissertation

**SCHOOL PLACEMENT**
Topics include:
- Year-Long Placement in Post-Primary School
- Continuous Professional Development Activities
- Further Development of Professional Practice Portfolio

**BSc Applied Mathematics, Mathematics & Education**

**PREPARE FOR PROFESSIONAL PRACTICE**

**MSc Mathematics and Science Education**

**QUALIFIED TO TEACH**

- Applied Mathematics Leaving Certificate
- Mathematics Leaving 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. Topics are subject to change each year.

I was not certain of my favourite area of Science, so DN200 allowed me to sample a variety of subjects before I decided which area I wanted to focus on. By choosing the Applied Mathematics, Mathematics & Education pathway I was able to continue studying Mathematics while also learning how to best share my enthusiasm for Maths with others through teaching. School placements in both primary and secondary schools are incorporated into the course from first year, and it took a while to get used to sitting on the other side of the teacher’s desk!

I also work as a tutor in the UCD Maths Support Centre, and I enjoy meeting students studying Mathematics from all faculties and answering their questions.

Lucy Nyland, Student

[www.ucd.ie/myucd/amathed]