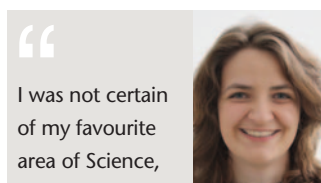


Applied Mathematics, Mathematics & Education

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



Practical class and teaching mathematics.



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

Sample pathway to become an Applied Mathematics and Mathematics teacher *

YEAR 1 ENGAGE WITH THE PRINCIPLES

EDUCATION	APPLIED MATHEMATICS	MATHEMATICS	
<i>Modules include:</i>	<i>Modules include:</i>	<i>Modules include:</i>	
<ul style="list-style-type: none"> ▶ Mathematics & Science Education & Communication 	<ul style="list-style-type: none"> ▶ Applied Mathematics: Mechanics and Methods ▶ Applications of Differential Equations 	<ul style="list-style-type: none"> ▶ Linear Algebra ▶ Numbers and Functions ▶ Calculus ▶ Mathematical Analysis ▶ Statistical Modelling 	<ul style="list-style-type: none"> ▶ 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 Applied Mathematics, 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	APPLIED MATHEMATICS	MATHEMATICS	
<i>Modules include:</i>	<i>Modules include:</i>	<i>Modules include:</i>	
<ul style="list-style-type: none"> ▶ Education for Democracy ▶ Science and Mathematics Pedagogy 	<ul style="list-style-type: none"> ▶ Computational Science ▶ Vector, Integral and Differential Calculus ▶ Oscillations in Mechanical Systems ▶ Classical Mechanics and Special Relativity 	<ul style="list-style-type: none"> ▶ Calculus of Several Variables ▶ Groups, Rings and Fields ▶ Linear Algebra 	<ul style="list-style-type: none"> ▶ Two Elective Modules

YEAR 3 REFINE YOUR KNOWLEDGE

EDUCATION	SCHOOL PLACEMENT	APPLIED MATHEMATICS	MATHEMATICS
<i>Modules include:</i>		<i>Modules include:</i>	<i>Modules include:</i>
<ul style="list-style-type: none"> ▶ Schools and Society 	<ul style="list-style-type: none"> ▶ Post-Primary Placement ▶ Peer-Assisted Tutoring 	<ul style="list-style-type: none"> ▶ Analytical Mechanics ▶ Fluid Mechanics ▶ Partial Differential Equations 	<ul style="list-style-type: none"> ▶ Probability Theory ▶ Financial Maths

YEAR 4 PREPARE FOR PROFESSIONAL PRACTICE

EDUCATION	SCHOOL PLACEMENT	APPLIED MATHEMATICS AND MATHEMATICS
<i>Modules include:</i>		<i>Modules include:</i>
<ul style="list-style-type: none"> ▶ Pedagogical Approaches to Mathematics and Science ▶ Psychology for Teaching and Learning 	<ul style="list-style-type: none"> ▶ Year-Long Placement in Post-Primary School ▶ Classroom Teaching ▶ Broad Experience of Wider School Context 	<ul style="list-style-type: none"> ▶ Group Theory ▶ Geometry ▶ Complex Analysis ▶ History of Mathematics

BSc Applied Mathematics, Mathematics & Education

YEAR 5 PREPARE FOR PROFESSIONAL PRACTICE

EDUCATION	SCHOOL PLACEMENT
<i>Modules include:</i>	
<ul style="list-style-type: none"> ▶ Research Methods ▶ Professional Dissertation 	<ul style="list-style-type: none"> ▶ Year-Long Placement in Post-Primary School ▶ Continuous Professional Development Activities ▶ Further Development of Professional Practice Portfolio

MSc Mathematics and Science Education

QUALIFIED TO TEACH	
Post-Primary School Teacher 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. Modules are subject to change each year.

