

Name of HEI

An Chomhairle
Mhúinteoireachta



The Teaching Council

Subject Specification Form (SSF)

Applied Mathematics

**For the submission of programmes
for review and professional
accreditation by the Teaching
Council (concurrent post-primary
programmes only)**

**A Subject Specification Form must be submitted for
each post-primary curricular subject included in the
accreditation application.**

Applied Mathematics

In order to meet the registration requirements set down in the Teaching Council [Registration] Regulations in respect of the curricular subject of Applied Mathematics, **all** of the following criteria must be met:

- 1**
 - (a) Applied Mathematics must be studied in the degree up to and including third-year level or higher (or modular equivalent).
 - (b) The qualifying degree must be equivalent to at least Level 8 on the National Framework of Qualifications (NFQ) and with a minimum pass result in all examinations pertinent to the subject of Applied Mathematics.
 - (c) The qualifying degree must carry at least 180 ECTS (European Credit Transfer System) credits (or equivalent) with the specific study of Applied Mathematics comprising at least 60 ECTS credits (or equivalent).

- 2** The study of Applied Mathematics during the qualification must show that the holder has acquired sufficient knowledge, skills and understanding to teach the Applied Mathematics syllabus/ specification to the highest level in post-primary education (see www.curriculumonline.ie).

The study must include all of the following Essential Areas of study:

- a) Mechanics
- b) Discrete Mathematics
- c) Differential and Graph Theory
- d) Geometry
- e) Analysis
- f) Algebra

The remaining ECTS may be from the following Optional Areas of study:

- g) Dynamical Systems and Chaos
- h) Numerical Analysis or Computational Mathematics or Computational Modelling
- i) History or Philosophy of Applied Mathematics, Mechanics, Mathematics or Science
- j) Mathematical Modelling
- k) Mathematical Biology
- l) Financial Mathematics
- m) Population Dynamics
- n) Environmental Modelling
- o) Probability and Statistics
- p) Operations research

Applied Mathematics

Please answer the questions below and insert module code(s), module title(s) and ECTS credit values as required.

1	Is the degree equivalent to a least a Level 8 on the Irish National Framework of Qualifications (NFQ), with Applied Mathematics studied up to and including third-year level or higher (or modular equivalent)?	Yes	No
2	Does the degree carry a minimum of 180 ECTS credits (or equivalent)?	Yes	No
3	Does the study of Applied Mathematics carry a minimum of 60 ECTS credits (or equivalent)?	Yes	No
4	Does the study of Applied Mathematics show that the graduate has acquired sufficient knowledge, skills and understanding to teach the Applied Mathematics syllabus/specification to the highest level in post-primary education (see www.curriculumonline.ie)?	Yes	No
5	Does the study of Applied Mathematics include all of the following Essential Areas of study?	Yes	No
	a) Mechanics		
	b) Discrete Mathematics	Yes	No
	c) Differential and Graph Theory	Yes	No
	d) Geometry	Yes	No
	e) Analysis	Yes	No
	f) Algebra	Yes	No
6	Are the remaining ECTS drawn from the following areas, or their equivalences?		
	g) Dynamical Systems and Chaos	Yes	No
	h) Numerical Analysis or Computational Mathematics or Computational Modelling	Yes	No
	i) History or Philosophy of Applied Mathematics, Mechanics, Mathematics or Science	Yes	No
	j) Mathematical Modelling	Yes	No
	k) Mathematical Biology	Yes	No
	l) Financial Mathematics	Yes	No
	m) Population Dynamics	Yes	No

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n) Environmental Modelling	Yes	No
o) Probability and Statistics	Yes	No
p) Operations Research	Yes	No

Applied Mathematics

In relation to questions above, please list below the code(s), title(s) and ECTS credit values for each module studied.

Essential Areas of Study

Area of Study: Mechanics

Module Code	Module Title	ECTS Credit Value

Area of Study: Discrete Mathematics

Module Code	Module Title	ECTS Credit Value

Applied Mathematics

Area of Study:
Differential and Graph Theory

Module Code	Module Title	ECTS Credit Value

Area of Study:
Geometry

Module Code	Module Title	ECTS Credit Value

Area of Study:
Analysis

Module Code	Module Title	ECTS Credit Value

Applied Mathematics

Area of Study: Algebra		
Module Code	Module Title	ECTS Credit Value

Applied Mathematics

The remaining ECTS may be from the following Optional Areas of Study:

Optional Areas of Study

Area of Study: Dynamical Systems and Chaos		
Module Code	Module Title	ECTS Credit Value

Area of Study: Numerical Analysis or Computational Mathematics or Computational Modelling		
Module Code	Module Title	ECTS Credit Value

Area of Study: History or Philosophy of Applied Mathematics, Mechanics, Mathematics or Science		
Module Code	Module Title	ECTS Credit Value

Applied Mathematics

Area of Study:
Mathematical Biology

Module Code	Module Title	ECTS Credit Value

Area of Study:
Financial Mathematics

Module Code	Module Title	ECTS Credit Value

Area of Study:
Population Dynamics

Module Code	Module Title	ECTS Credit Value

Applied Mathematics

Area of Study:
Environmental Modelling

Module Code	Module Title	ECTS Credit Value

Area of Study:
Probability and Statistics

Module Code	Module Title	ECTS Credit Value

Area of Study:
Operations research

Module Code	Module Title	ECTS Credit Value

Applied Mathematics

Area of Study:
Other

Module Code	Module Title	ECTS Credit Value

Total ECTS Credits in Applied Mathematics	
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