



**School of Education
Trinity College Dublin**

**Master in Education
(Science Education)**

Applications can now be made for the Master in Education Science Education programme organised by the School of Education Trinity College Dublin.

Aims of the programme

This programme aims to give students the academic and practical skills they need to develop a critical understanding of the role of science education, research and communication in society. The programme explores the scientific method through theories of learning and engagement while providing opportunities for students to experience frontier research and current debates in science education. Modules are delivered by scientists and researchers with input from media, industry and policy professionals.

Who is the programme for?

The programme is suited to science educators at all levels but in particular to science graduates who wish to gain an insight into the educational underpinnings of their discipline in order to apply their knowledge outside of their specialised field. This programme also caters for students with backgrounds in social science and humanities who have a professional interest in science and might be seeking the academic theory and research skills needed for career opportunities in science policy, teaching, writing and engagement.

Structure

The programme has both taught and research components. It may be taken on a one year full-time basis or on a two year part-time basis. The taught component includes four modules each including 25 hours of direct contact time. The research component involves carrying out a research project and writing a dissertation under the guidance of a supervisor. A course in research methods forms part of the dissertation work. The full-time, one year option requires students to complete the taught modules as well as the research-based dissertation while the part-time two year option requires the taught component to be completed in the first year and the dissertation in the second year. Independent learning, at personal as well as group/collaborative level is actively encouraged.

Course Modules

- **Module 1: Science Education in Society.** This module explores the relationship between science and society and equips students with a knowledge of policymaking, funding and ethics that will serve as a platform to promote cultures of sustainability and progress.



- **Module 2: Learning Theories.** This module introduces a range of learning theories from education, psychology, machine learning and neuroscience that together generate a new ‘science of learning’ and will concentrate closely on the work of Lev Semenovich Vygotsky, which is among the most influential in current educational research and practice.
- **Module 3: Communicating Science in Education.** This module examines the history and best practices of communicating science to different audiences as well as considering critically the distillation, dissemination and engagement of science and the role of mass media, social media and the creative arts.
- **Module 4: Frontier Research and Current Debates in STEM Education.** This module provides an opportunity to interact with frontier research being carried out in the university as well as the most pressing topics and concerns that STEM education faces nationally and internationally (where “STEM” is science, technology, engineering and maths).

Teaching and learning strategies

A variety of teaching and learning strategies are used throughout the programme, including group discussion, problem-based learning, e-learning, case-studies, lectures and individual reading and research. Assessment of the taught component is via four assignments, and may include essays, case-study reports, and presentations.

Further information

For enquiries about course content please contact Dr Joseph Roche (Joseph.Roche@tcd.ie). For all other enquiries, including information on how to apply, please contact Keara Eades/Catherine Minet (00-353-1-896-3568/1290).