



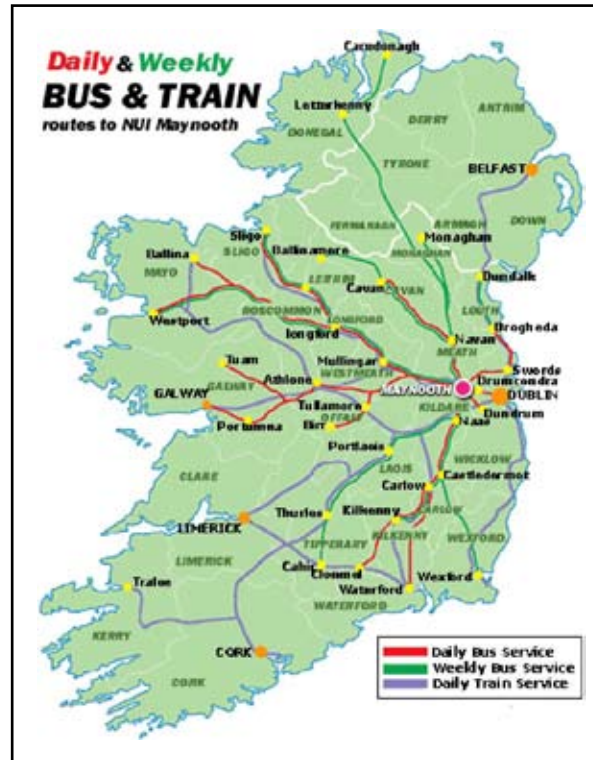
About NUI Maynooth

Situated 25 km west of Dublin city centre, NUI Maynooth is a dynamic and innovative university with some 8,500 students and state-of-the-art research and teaching facilities in science. It also has excellent student facilities: on-campus accommodation, shops, restaurants and a wide range of sports facilities, including a swimming pool and a gym.

NUI Maynooth has strong links with nearby multi-national high-technology companies, in particular Intel and Hewlett-Packard. NUI Maynooth has co-founded, with Intel, the Innovation Value Institute, a world-wide consortium of members drawn from industry, academia and the public sector.

The Experimental Physics Department has a distinguished research record in astronomy and space science, atmospheric physics, atomic and molecular physics, medical imaging with THz radiation, and fluid dynamics.

It is easy to travel to NUI Maynooth from many locations in the country. The university is well served by Iarnród Éireann, Dublin Bus, Bus Éireann and private coach operators.



You are welcome to visit our state-of-the-art laboratories and astronomical facilities. If you would like to arrange an informal visit or receive further information on the Experimental Physics Department, our schools programme or the courses on offer, please contact:

The Secretary
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National University of Ireland Maynooth
Maynooth, Co. Kildare

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Department of Experimental Physics



NUI MAYNOOTH

Ollscoil na hÉireann Má Nuad

B.Sc. Science Education (with Experimental Physics)

About the Course

Do you like working with young adults, communicating your ideas, formulating, testing and analysing theories, conducting research? If you answered yes to the above, then the BSc Science Education Degree may be just what you are looking for.

Are you enthusiastic about physics and also have a strong interest in education? Do you think you have what it takes to be a physics teacher? This programme will help you find out, while also equipping you with the skills to become a fully fledged scientist with a strong grounding in physics.

As a student of Science Education taking physics, you will gain the qualifications and practical experience needed to teach physics in any second level school. You will study the fundamentals of physics, and a second science subject (chemistry, biology, mathematics) to degree level.

At the same time you will study the formal theory of education, its philosophy, history, sociology, and psychology along with educational policy and curriculum issues. You will also learn practical techniques in preparation for classroom teaching, lesson planning and student assessment. The use of new technologies as a support for teaching and learning is a key element of the course.

With two science subjects to degree level, you will have the option to pursue a career in science outside of education, should you wish to do so.

Front page image: fluorite crystals on display at the National History Museum in Milan, Italy. Photo by Giovanni Dall'Orto.

Science Education with Physics

CAO code: MN212. Experimental Physics is taken with one other science subject, and with Education as the third subject.

Course requirements: Pass in a science subject, Mathematics, Irish and English.

Students taking this degree option will receive a thorough grounding in all the main areas of physics, and the course includes topics such as optics and lasers, electricity and magnetism, classical and relativistic mechanics, thermodynamics, quantum and particle physics, astrophysics, computational physics, instrumentation and interfacing, data analysis.

Facilities at NUI Maynooth are first class and include state-of-the-art undergraduate and research laboratories. The department has several optical, radio and cosmic-ray telescopes.

An offer of placement on this course is subject to a satisfactory background check by the Central Garda Vetting Unit in accordance with the national priority of protecting the welfare of all children.



One of the undergraduate physics laboratories at NUI Maynooth.

Career Options

Students will gain practical classroom experience through periods of placement in second level schools in years 2, 3 and 4 of the degree. Graduates will typically be qualified to teach two of the following subjects to Leaving Certificate level: physics, chemistry, biology, mathematics. They will also be able to teach Science to Junior Certificate level. Graduates are also suited for employment in industry, research management, marketing, government, and administration.



A physics tutorial at NUI Maynooth.

Postgraduate Study in Physics

Students who obtain a good honours degree are eligible to undertake research for an M.Sc. or Ph.D. degree under the supervision of one of the members of academic staff, who run active research programmes in different areas of experimental physics.

Research groups in the department are active in experimental fluid dynamics, molecular and cluster physics, upper atmospheric physics, submillimetre astronomy, cosmic microwave background astronomy, terahertz optics and medical imaging, and collaborate with many research groups abroad.