STUDYING SCIENCE at NUI Galway

www.nuigalway.ie/science
Science is one of our most popular degrees at NUI Galway with record numbers applying each year. This is due to the number of innovative and market-led degree courses available in the College of Science and the excellent career opportunities available for our graduates. Science has significantly contributed to the development of the global economy in recent times.

For example, our scientists are breaking new ground in stem cell and gene therapy research and this cutting edge and innovative research feeds into our teaching, giving students the best possible learning experience. Our Science academics have enthusiasm and are passionate about their chosen field and bring the latest ideas and discoveries to the classroom.

NUI Galway’s Science courses are structured yet flexible so you can explore your interests and passions by undertaking either the Bachelor of Science degree or choosing from a range of our denominated Science degrees.

**Career Opportunities**

A degree in Science provides you with many interesting opportunities and the potential to develop a wide variety of skills. A science degree equips you with the ability to learn, think independently and critically, and adapt to situations. A degree in Science is a sound basis for a variety of careers. Here is a list of positions and companies that our recent Science graduates are employed in:

- **Abbotts (Longford)** - Microbiology Laboratory Assistant
- **AIB (Dublin)** - Financial Analyst and Safety Consultant
- **Antaris (Limerick)** - Environmental and Health
- **Baxter (Mayo)** - Microbiologist
- **Boston Scientific (Galway)** - Quality Technician
- **Cisco Systems (Galway)** - Systems Analyst
- **Donegal County Council** - Alternative Energy
- **Environmental Management Services**
- **Environmental Management Services (Meath)**
- **Hilton Foods (Galway)** - Quality Technician
- **Hygeia Chemicals (Galway)** - Internship - Quality Control
- **Irish Life & Permanent (Dublin)** - Trainee Actuary
- **KPMG (Dublin)** - Trainee Accountant
- **Lab Solutions (Sligo)** - Lab Technician
- **McCarthy Keville (Galway)** - Environmental Consultant
- **Medtronic (Galway)** - Quality control
- **Mylan Pharma (Galway)** - R & D Documentation Assistant
- **Pepsi (Cork)** - Raw Materials Analyst
- **PPD Development (Athlone)** - Assistant Scientist
- **Reliance Genemedix (Offaly)** - Microbiologist
- **Valeo (Galway)** - Systems Test Manager
Course Outline

**YEAR 1**
Choose four of the following modules:
- Mathematics
- Applied Mathematics
- Chemistry
- Physics
- Computer Science
- Biology
- Introduction to Earth and Ocean Sciences

**YEAR 2**
Choose three pathways (or two pathways plus electives):
- Anatomy
- Applied Mathematics
- Biochemistry
- Botany and Plant Science
- Chemistry
- Computer Science
- Earth and Ocean Sciences
- Mathematics
- Mathematical Studies
- Microbiology
- Pharmacology
- Physics and Applied Physics
- Physiology
- Zoology

**YEAR 3**
Choose two pathways:
- Applied Mathematics (Honours)
- Biochemistry
- Botany and Plant Science
- Chemistry
- Computer Science
- Earth and Ocean Sciences
- Computer Science
- Earth and Ocean Sciences
- Mathematics (Honours)
- Mathematical Studies
- Computer Science
- Pharmacology
- Physics and Applied Physics
- Physiology
- Zoology

**YEAR 4**
Choose your honours degree
- Anatomy
- Applied Mathematics
- Biochemistry
- Botany and Plant Science
- Chemistry
- Computer Science
- Earth and Ocean Sciences
- Mathematics
- Mathematics and Applied Mathematics
- Mathematics and Computer Science
- Microbiology
- Pharmacology
- Physics and Applied Physics
- Physiology
- Zoology

**Bachelor of Science degree**
CAO Code - GY301  CAO Points (2013) - 395

- This is the most popular degree in the College of Science.
- This degree allows you to specialise step by step as you progress from year to year. It is the ideal choice for students who want to explore their scientific interests further before committing to a particular specialism.
- With clear pathways to fifteen different degree-level specialisations across the full range of scientific activities, this degree is also a great choice for students who already have one of these destinations in mind.
If you know what profession or research area you would like to be in, then our denominated degrees are ideal for you. A denominated degree lets you get started straight away with a focused course of study in your chosen area, giving you a fast track to a seat in your target industry or field.

Denominated degrees on offer in the College of Science include:

**Bachelor of Science (Biomedical Science)**
CAO Code - GY303  CAO Points (2013) - 540
- NUI Galway is Ireland’s leading university for Biomedical Science, so you will have access to top researchers and the very latest facilities.
- Learn about the structure and function of the human body, and gain an insight into the treatment of diseases.
- Galway is one of four global hubs for the Biomedical Science industry, so job opportunities for graduates are excellent.

**Bachelor of Science (Biotechnology)**
CAO Code - GY304  CAO Points (2013) - 465
- Biotechnology students benefit from a focused and closely mentored course.
- Undertake a three month laboratory placement in Europe or North America.
- New technologies have enabled modern biotechnology to become an important part of the “smart economy” in areas such as healthcare, agriculture, and the environment.
- Biotechnologists find ready employment in rewarding jobs across this growing “smart economy”.

**Bachelor of Science (Environmental Science)**
CAO Code - GY308  CAO Points (2013) - 400
- Environmental Science examines the interaction between humans and the environment, including the effects of modern technological advances.
- You will gain a thorough grounding in the basic sciences in the early years, and will then apply this knowledge to current environmental problems.
- Today the need for environmental scientists is growing, and career opportunities are open to graduates in many fields, including a host of environmental agencies.

**Bachelor of Science (Financial Mathematics and Economics)**
CAO Code - GY309  CAO Points (2013) - 450
- For students who like Mathematics, Economics and other subjects in the financial area.
- The demand for students with knowledge of financial markets and how they operate is huge, with excellent employment opportunities for graduates.

**Bachelor of Science (Marine Science)**
CAO Code - GY310  CAO Points (2013) - 410
- The only denominated Marine Science degree in Ireland - students come from all over the country to study this programme.
- The stunning Martin Ryan Marine Science Institute offers you the best facilities and resources for Marine Science.
Bachelor of Science (Health and Safety Systems)
CAO Code - GY313  CAO Points (2013) - 305
- Students are provided with the knowledge and tools to have a rewarding career in ensuring the welfare and well-being of people at work, and their work environment.
- A work placement as part of the course gives students the chance to experience life as a health and safety professional.

Bachelor of Science (Earth and Ocean Sciences)
CAO Code - GY314  CAO Points (2013) - 380
- Study a diverse range of science subjects including Geology and Oceanography.
- The course is designed to allow students to follow one of a number of streams.
- Discover the needs of our contemporary industries and technological society, as well as the need to monitor and protect the natural environment.

Bachelor of Science (Biopharmaceutical Chemistry)
CAO Code - GY318  CAO Points (2013) - 505
- This course combines specific areas of Chemistry and Biology.
- The biopharmaceutical industry is an increasingly important player in the Irish economy.
- Graduates of the degree have skills that are tailored to meet the needs of this industry.
- Students can benefit from a three-month placement in an industrial or academic laboratory.

Bachelor of Science (Mathematical Science)
CAO Code - GY319  CAO Points (2013) - 485
- Provides students with a solid foundation in the Mathematical Sciences.
- Students get the opportunity to specialise in areas of their interest within Mathematics, Applied Mathematics, Statistics and Bioinformatics.
- Many graduates are employed in the financial services, the IT industry and software development.

Bachelor of Science (Physics – degree options in Applied Physics, Astrophysics, Biomedical, Theoretical)
CAO Code - GY320  CAO Points (2013) - 400
- If you have an enquiring mind, and are interested in discovering how things work, then this could be the course for you.
- Have the opportunity to study an exciting range of specialist options and gain valuable numerical, computational and problem solving skills.
- A degree in physics is an excellent training for employment in high technology industries.
I chose to study Biopharmaceutical Chemistry at NUI Galway because of the range of modules it offered me, and in particular the various aspects of science that I favoured the most. Studying modules such as Chemistry, Biochemistry, Pharmacology, Toxicology and Computers in Chemistry along with Molecular modeling provides me with the skill and training to become an excellent professional analyst chemist.

Graduate Profile
Kasha Gniado, Biopharmaceutical Chemistry student

Study abroad opportunities

John Carroll University (JCU)
Study Abroad Scholarship, Ohio, USA
Students from the College of Science have an opportunity to spend their first semester of third year at John Carroll University in USA. This provides Science students with an opportunity to gain an entirely new perspective on the study of Science in another institution, enhance our CV, learn to appreciate different cultures and build on your confidence and independence.
http://www.nuigalway.ie/science/outward_exchanges.html

Hong Kong University of Science and Technology (HKUST)
The College of Science are offering third year Science students an opportunity to spend their second semester of their third year in Hong Kong in the Hong Kong University of Science and Technology (HKUST). The HKUST is rated among the top 3 Chinese universities in the greater China area and the highest among all Hong Kong Institutions and is a technological university dedicated to the advancement of learning and scholarship. The official language of the university is English.
http://www.nuigalway.ie/science/outward_exchanges.html