CAREERS SERVICE

Careers Occupational Information Unit

Department for the Economy
An Roinn Geilleagair
www.economy-ni.gov.uk

Spotlight on PHYSICS

Inside this issue

- Physics in demand
- Student and career snapshots
- Physics career options
- Advice and resources to help you plan your career

Inside this issue:

Welcome

This Spotlight on Physics feature, published by the DfE Careers Occupational Information Unit (COIU), focuses on Physics-related career options and entry routes in Northern Ireland, and the critical role Physics plays in developing our future.

Through a blend of infographics and short articles, you'll gain helpful insights from representatives across the field of Physics, including students, professional bodies and local universities.

You'll also learn about **Physics skills in demand** and the many types of **roles available**, as well as picking up **useful advice** for building a successful career using Physics.

Spotlight on Physics also provides information on **entry routes** into careers with Physics and **useful resources** for further research.

The Institute of Physics (IOP)

Wherever you are in your journey with Physics, the IOP has resources to help you. Whether you're making subject choices at school or college, a physicist considering professional registration as your career progresses, or an IOP member looking for continuous professional development (CPD) support, you can find information and advice on the **Institute of Physics website**.

DID YOU KNOW?

Physics shapes the future: Physics leads the way in developing new technologies such as advancements in medical science, renewable energy sources, and robotics and AI.

IOP Institute of Physics

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Spotlight on PHYSICS

Why Study Physics?

1 Physics is a subject in high demand by employers

If you enjoy studying Physics but aren't sure how it could help your job prospects, we have good news: **employers across a huge range of industries are crying out for people with Physics skills right now.**

Studying Physics can lead to **rewarding careers across a wide range of industries**. For more information on the career opportunities that studying Physics can open up, you can visit the following webpage: Institute of Physics – Where Physics could take you: Career paths

2 It's a facilitating subject

Physics is a "facilitating subject", meaning that it's highly regarded for a **wide range of degree courses and career paths.**

For example, it's considered essential for science and engineering degree courses, **so it keeps a lot of career doors open.**

3 You'll acquire valuable transferable skills and aptitudes

Studying Physics will enable you to gain **valuable transferable skills and ways of thinking.**

For example, you'll pick up **mathematical and analytical techniques** that are valued across a wide range of careers. You'll also become a **critical and creative thinker**, and a **problem-solver**.

This infographic was produced in conjunction with the contributors to this publication.

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Spotlight on
PHYSICS

Why Study Physics?

4 Explore the universe

Physics allows you to delve into the mysteries of the universe, **from the smallest subatomic particles to the vast expanse of galaxies**.

You'll learn about the fundamental forces that shape our world and beyond, gaining insights into everything from the Big Bang to black holes.

5 Tackle global challenges

Want to make an impact on the future of our planet?

You could use your Physics skills and knowledge to contribute to solving some of the world's most pressing issues, such as **developing innovative technologies and solutions to tackle climate change and develop sustainable energy sources.**

6 Diverse career opportunities

Considering degree course options and want to keep a wide range of career options open? A Physics degree can open doors to careers in **science, engineering, finance, IT and beyond.**

The **analytical and problem-solving skills you develop are highly valued in many industries**, making you a versatile and sought-after candidate. This diversity ensures that you have numerous options to explore after graduation.

7 Engage in cutting-edge research

Northern Ireland is home to **groundbreaking research projects**, such as the work led by Dr. Stephen Taylor, a Northern Ireland native, who chairs the North American Nanohertz Observatory for Gravitational Waves (NANOgrav) Collaboration.

Being part of innovative research can offer you the chance to **contribute to significant advancements in science.**

Please see overleaf for more information on the wide range of skills and aptitudes you can develop by choosing to study Physics.

This infographic was produced in conjunction with the contributors to this publication.

Physics: a subject in high demand

The infographic on this page highlights just some of the many Physics skills, aptitudes, and ways of thinking that are highly-valued and respected across a wide range of sectors and career paths.

Key Terms:
Computational thinking: this involves the ability to take a large, complex problem and break it down into smaller, more manageable parts.

Quantitative skills: these refer to the ability to work with and manipulate numerical data, normally using a range of specialist tools and software.

Gathering and evaluating information from a range of sources

Numerical skills

Attention to detail

Computer programming

Coding

Analytical thinking

Writing reports

Logic and reasoning

Innovative thinking

Ability to understand complex problems

Machine learning

Quantitative skills

Ability to see problems as systems

High-level problem-solving

Computational thinking

Critical thinking

Ability to work methodically and sequentially

Preparing and delivering presentations

Data science

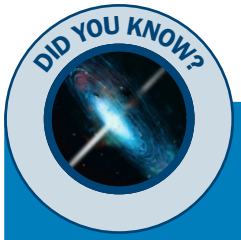
Working with big data

Investigation

The Physics Landscape in Northern Ireland

Physics skills, knowledge and qualifications are highly transferable to many different parts of the Northern Ireland economy, including everything from Gaming, Healthcare, Robotics, Climate Science, and Medical Physics, to Engineering, Education, Finance, Renewable Energy, Technology, and more.

There is an undersupply of people studying physical science* at Level 6 and above, at both undergraduate and postgraduate level (NI Skills Barometer).



Professor Dame Jocelyn Bell Burnell is an astrophysicist from Northern Ireland who discovered the first radio pulsars while studying for a PhD in the 1960s.

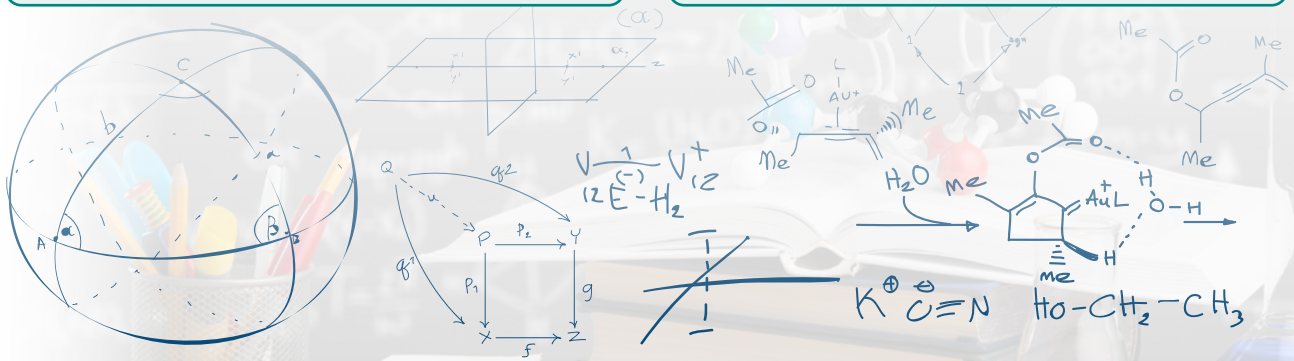
15 months after graduating...

79% OF THOSE WHO STUDIED PHYSICAL SCIENCE* AT NI COURSE PROVIDERS

are employed in "high skilled" occupations (Graduate Outcomes Survey); Professional occupations (58%) and Associate professional occupations (21%) (Graduate Outcomes Survey).

THE MOST COMMON SECTORS THAT PHYSICAL SCIENCE* GRADUATES FROM NI COURSE PROVIDERS MOVE INTO ARE:

Manufacturing (34%), Education (20%), and Professional, scientific and technical activities (12%) (Graduate Outcomes Survey).



*Please note that whilst the data used here for physics falls under "physical science", physics is a broad area and may not be totally covered in this group. Likewise, "physical science" sectors and occupations may include other topics unrelated to physics.

Jobs for Physicists

Where do you think choosing Physics could take you?

There are **thousands of Physics-related careers to choose from** – picking just one can be hard.

The infographic on this page captures just some of the many job roles and career options on offer.

For more information on Careers with Physics, wherever you are in your study or career journey, visit Institute of Physics – careers with Physics.

To access downloadable careers booklets containing profiles of people who studied Physics and then went on to pursue a wide variety of careers, visit Institute of Physics – Limit Less careers resources.

Myth-Busting

Myth: Physicists only work in academic roles, behind the scenes.

Fact: Physics and physicists are **usually on the front line**, helping to shape the future and playing a central role in such vitally important areas as **cancer treatment; tackling climate change; robotics; artificial intelligence; and astronomy and space**.

Myth: Physics is only about mathematics.

Fact: When you delve into Physics, you realise it is about so much more besides Maths.

Physics is all about the world and universe around us. It also sits at the heart of much of modern tech, such as smart devices, GPS, and a host of other technologies.

Myth: Physics is only for a narrow group of people with a certain background or look.

Fact: Physics is a diverse and evolving field, with **increasing representation from women, minorities, and individuals of all backgrounds** who are making significant contributions across many industries.

This infographic was produced in conjunction with the contributors to this publication.

Myth-Busting

Myth: You need a first-class degree to get a top job in physics.

Fact: While good academic performance is valuable, many employers in Physics-related fields place a strong emphasis on **practical skills, problem-solving ability, and relevant work experience**.

Success in the field is not solely determined by having a first-class degree; building a diverse skill-set through **internships, projects, and networking** can be just as critical for landing top jobs in Physics-related industries.

Myth: You need a PhD to have a successful career in Physics.

Fact: While a PhD can be beneficial for research roles, many Physics graduates enter the workforce directly after their undergraduate or master's degrees and build **successful careers in industry, engineering, and technology**.

In addition to the university route, you can also build a Physics-related career via **other pathways, such as an apprenticeship.** You can find out more about the various entry routes to Physics careers, later in this guide.

Myth: Physics is a solitary field.

Fact: Many physicists collaborate closely with other **scientists, engineers, and other professionals across a variety of sectors**.

Teamwork and communication skills can therefore play a crucial role in solving complex problems in Physics.

This infographic was produced in conjunction with the contributors to this publication.

Physics and Me: Student and Career Snapshots

This section of the Spotlight on Physics contains a range of insights into where Physics can take you in your future studies and career. It features real-world stories and case studies from Physics students and graduates, highlighting the important role that Physics skills and ways of thinking play across many sectors and disciplines.

Lee Johnston is a student at Southern Regional College. In this article, he talks about his fascination with space exploration and his experience at the United Space School.

I'm driven by the "why" questions and inspired by how Physics turns the impossible into reality, especially in space exploration.

Current studies and future plans

I am currently studying Level 3 Applied Science at Southern Regional College. My route here wasn't conventional. Initially, I tried A levels, but they didn't suit me. I planned to join the Royal Navy, aiming to earn a degree through their programmes, but being medically unfit changed my path, **leading me to rediscover my love for space and Physics, fuelling my passion for science.**

After this course, I plan to pursue a degree in Physics, focusing on Astrophysics or Planetary Science. I aim to work with space agencies like NASA or ESA, **contributing to humanity's exploration of the universe.**

Fascination with Space

Space has fascinated me since childhood. Looking at the stars with my granda and **photographing** the moon with my dad ignited cosmic curiosity. In secondary school, Physics deepened this passion. **I'm driven by the "why" questions and inspired by how Physics turns the impossible into reality, especially in space exploration.**

United Space School

The United Space School 2024 gave me invaluable experience. After a competitive application where I wrote an essay and was interviewed, I joined 49 students worldwide to design a Mars mission. In the blue team, our task was Mars exploration. **This multidisciplinary experience involved planetary Physics, astrobiology, and engineering.**

We tackled challenges like determining landing sites based on Mars' geology, and designing equipment considering radiation resistance and movement mechanics; one of my roles during the robotics research involved solving power equations, testing my mathematical skills and reinforcing my determination to find solutions. **Collaborating with physicists, NASA engineers, and directors solidified my passion for Physics and space exploration.**

Exploring the galaxy and beyond

Physics, as the **foundation of space science,** equips me with the necessary tools to delve into celestial mechanics and design space technologies. My passion for the subject, and my unwavering determination to push the boundaries of what is possible, will drive my contributions to humanity's exploration of the galaxy and beyond.

Physics and Me: Student and Career Snapshots

Tanya Radionova is a Process Engineer and Open University graduate (BSc Honours Open degree - Physics pathway). Tanya is also currently studying towards the Master's in Technology Management at The Open University.

In this short feature, Tanya tells us about her undergraduate and postgraduate studies at the OU, and how they have helped her to progress in her chosen career.

Physics is all about understanding the fundamental principles that govern the universe, so cultivate a passion for problem-solving and continuous learning.

Don't be afraid of challenging concepts; break them down and seek help when needed.

How did studying with The Open University help you progress in your career?

My BSc (Honours) Open degree (Physics pathway) from the OU has been pivotal in my career progression, providing me with a **strong analytical and problem-solving foundation**. The rigorous scientific training developed my ability to approach complex challenges with a **structured, evidence-based mindset**, which has been incredibly valuable in my work. As I progress in my Open University Master's in Technology Management, I find that the **combination of Physics and management skills** enables me to understand both the technical and strategic aspects of innovation. This has helped me take more responsibilities in my career, where I can **bridge the gap between technology and business.**

Can you describe your current role and day-to-day activities?

As a Process Engineer, my role involves optimising and managing production processes to ensure **efficiency, safety, and quality in operations**. I am responsible for identifying areas for improvement and implementing innovative solutions to enhance productivity. This requires a combination of **technical knowledge, problem-solving skills, and continuous collaboration with cross-functional teams**.

In relation to your work, is there a particular achievement that you are most proud of?

One of my proudest achievements has been transitioning from overcoming significant personal challenges to working as a Process Engineer at Oxford Instruments Andor. This role allows me to **contribute to life-saving technologies**, which make a direct impact on healthcare and medical advancements. One of the projects I'm most proud of is helping to develop a confocal microscopy instrument for cancer research with the team at Oxford Instruments Andor. The journey has been incredibly rewarding, as I have not only grown professionally but also made a **meaningful difference in an area that touches many lives.**

What advice would you give to anyone considering changing careers?

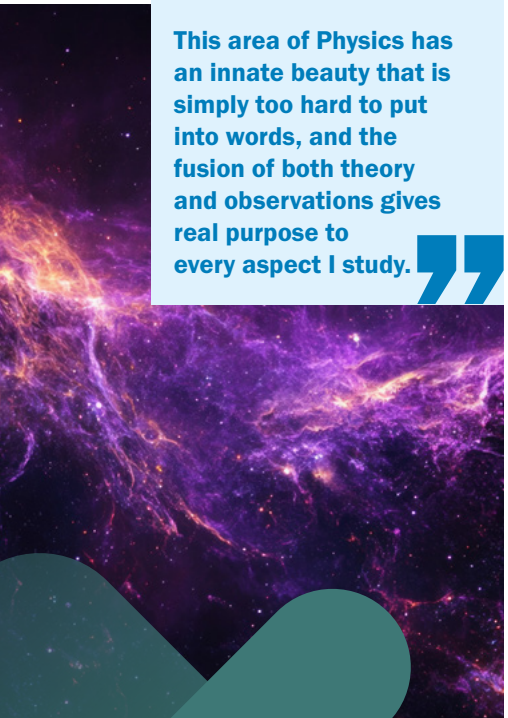
My advice would be to **embrace curiosity and persistence**. Physics is all about understanding the fundamental principles that govern the universe, so cultivate a passion for problem-solving and continuous learning. **Don't be afraid of challenging concepts**; break them down and seek help when needed.

Physics and Me: Student and Career Snapshots

Emily Moran is currently studying for a Master's degree in Physics at Queen's University Belfast. Find out more about Emily's appreciation of the universe, and how it led to her current course of study.

I have developed a particular passion for Astrophysics.

This area of Physics has an innate beauty that is simply too hard to put into words, and the fusion of both theory and observations gives real purpose to every aspect I study.



Please tell us a bit about your current studies, and the route you have taken to get here.

Physics has always been my constant, a field I could lean on and find solace in, so choosing to dedicate myself to the subject at university level was a decision I made with absolute certainty.

My dedication to Physics has since paid off as I am currently a second year MSci Physics student at Queen's University Belfast. **Since starting university, I have developed a particular passion for Astrophysics.** This area of Physics has an innate beauty that is simply too hard to put into words, and the fusion of both theory and observations gives real purpose to every aspect I study.

What do you particularly enjoy about Physics? Why do you think it's considered such an important subject?

From a young age, I have viewed Physics as a showcase of the universe's beauty, a perspective which has only strengthened over time. My studies of Physics at university level have revealed to me the profound beauty in everything – from vast cosmic structures to the intricate workings of a computer component.

Physics is the foundational principle that truly underpins everything we know, and exploring it continually deepens my appreciation for the intricacy and order of the universe.

Can you tell us a bit about your proudest achievement to date, and your goals for the future?

I'm incredibly proud to have been awarded the Catherine Buchanan Scholarship as the top-performing Female in Level 1 Physics. This recognition has reinforced that my hard work is paying off and affirmed that Physics is truly my calling.

Looking ahead, **I'm eager to continue pursuing my passion for Physics through an industry placement**, where I aim to apply my skills and knowledge to a working environment whilst continuing to invest in my love of the subject.

Advice for those Considering Physics

General advice:

1. **Read books and magazines, follow leading thinkers, and listen to podcasts** covering a broad range of themes relating to Physics, to develop not only your scientific and technological understanding of the subject but also to help you **generate some career ideas and areas of interest.**
2. Explore **hands-on learning opportunities**, such as internships, workshops, or community science projects. Engaging in **practical experiences** can deepen your understanding of the subject and provide insights into its real-world applications.
3. Explore career options in Physics. Understanding how Physics is applied in various fields - such as **engineering, medicine, and environmental science** - can help you see the broader relevance of the subject. (Please also see list of useful websites at the back of this publication).
4. Look into **guest lectures, internships, or career fairs** to gain insight into potential pathways and meet professionals who can share their experiences in these careers.

Advice for school/college students:

1. Research **the Physics curriculum** and talk to subject teachers to gain an insight into what the course entails.
2. Attend **guest lectures**, **career fairs** and **other events**, to gain insights into potential pathways and to meet professionals who can share their experiences in these careers.
3. Try to **gain some work experience** in a relevant role or company, e.g. a summer placement, which will be valuable in helping you to decide which career path to take.
4. Joining **Physics clubs** can provide opportunities to engage in hands-on experiments and connect with like-minded people.
5. Participating in **youth platforms** and **joining public speaking clubs** can be a great way to improve public speaking and leadership skills, which can be useful for communicating effectively to a variety of audiences.

This infographic was produced in conjunction with the contributors to this publication.

Advice for those Considering Physics

Advice for higher education students/graduates:

1. Membership of bodies like the **Institute of Physics (IOP)** offers access to networking, mentoring programmes, professional development, career advice, and more.
2. **Developing coding and software skills, such as understanding of programming languages** like Python, C++, or MATLAB, can significantly enhance your employability, particularly in fields like data science, computational physics and engineering.
3. Physics is a dynamic subject with many emerging fields such as **quantum computing, medical physics, and renewable energy**. Stay informed through academic journals, industry reports and publications like *Physics World*.
4. Seek out **internships**, **research projects or volunteer roles**. Using professional networks like LinkedIn can help you discover relevant projects and establish valuable industry contacts.

Advice for career changers:

1. Consider why you want to change careers. Reflecting on your motivations can help **clarify your goals and the potential benefits of the new path you are considering.**
2. Recognise the relevant skills you have developed from **volunteer work**, **hobbies**, **caring responsibilities** or **employment**. These may include problem-solving, analytical thinking and creativity, all of which are highly valued.
3. Investigate the fields you are interested in.

   This can include **looking at job descriptions to explore employment trends, job availability, skills in demand, salary ranges, and educational requirements.**
4. Developing a network of **professional contacts** can help you identify opportunities you may not otherwise have considered, and lead to job openings that might not be advertised.

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Entry Routes

Physics Pathways

There are a **wide range of entry routes available in Northern Ireland** for those who would like to build a successful career using their knowledge and interest in Physics.

These include, but are not limited to: GCSE's, AS and A levels, Degree programmes, Higher Level Apprenticeships, and other Higher Education courses (e.g. Foundation degrees; Higher National Certificates (HNCs) and Higher National Diplomas (HNDs), as well as a variety of training, apprenticeship and vocational courses.

You can find out more about these entry routes in the Guide to Career Entry Routes (please see overleaf).

In the pages that follow, you will find an overview of **Physics-related study options** available across our local universities - from Physics degrees and postgraduate study options, to disciplines where Physics skills and knowledge are highly useful, such as Engineering.

It is advisable to carefully research the full range of study and career opportunities that Physics can open up, and to contact local schools, FE colleges, training providers, and universities for further information.

Entry Routes

In addition, **The Careers Service** has produced **A Guide to Career Entry Routes**, a concise resource offering an overview of entry routes available locally, and the progression between different levels of qualification, from **Entry Level through to Level 8**.

The guide covers traditional classroom-based education provision, such as AS and A levels; vocationally-related qualifications/vocational education and training, such as apprenticeships; as well as training programmes, such as those funded by DfE.

Contact the Careers Service
The Department for the Economy's Careers Service provides free, professional and impartial careers advice and guidance to help you make informed choices about your future career.

If you would like to discuss your options, please contact the **Careers Service**.

You may also wish to use the careers tools available on the **NI Direct Careers page** to help you research your career options.

QUEEN'S UNIVERSITY BELFAST

University Courses

Queen's University Belfast (QUB) - Physics Study Options

QUB offers a variety of **Undergraduate, Integrated Masters** and **Postgraduate** Physics course options. All of these programmes are based on a core Physics curriculum, and students also have numerous options available to specialise in certain areas.

Please note: students on a Mathematics and/or Physics pathway have the option to take a **sandwich year placement** before their final year (normally for the BSc students this will be between years 2 & 3 and for the MPhys students between years 2 & 3 or 3 & 4). Completion of the placement scheme will be acknowledged in students' final degree certificate with the addition of the words "with placement year".

Undergraduate

The following undergraduate and integrated master's programmes in Physics are offered:

- BSc (Hons) Physics
- BSc (Hons) Physics with Astrophysics
- BSc (Hons) Physics with Medical Applications
- BSc (Hons) Physics with French
- BSc (Hons) Physics with Spanish
- BSc (Hons) Theoretical Physics
- BSc (Hons) Applied Mathematics and Physics
- MPhys Physics
- MPhys Physics with Astrophysics
- MPhys Physics with Medical Applications
- MPhys Physics with French
- MPhys Physics with Spanish
- MPhys Theoretical Physics
- MSci Applied Mathematics and Physics

Postgraduate

The following postgraduate programmes in Physics are offered:

- PhD Physics
- MPhil Physics

All Physics programmes have been awarded accreditation by the Institute of Physics (IOP).

For detailed information on the full range of Physics courses available at QUB, please visit the QUB School of Mathematics and Physics website.

In addition to the Physics courses mentioned here, QUB also offers a wide range of other study options in which Physics skills and aptitudes can play an important part, such as Engineering, Finance, Computer Science, and more.

You can find out more on the QUB website.

University Courses

The Open University (OU) – Physics Study Options

The Open University offers a range of **Undergraduate** and **Integrated Masters** physical sciences qualifications.

The OU's open-entry policy means that you are welcome to study, no previous qualifications necessary, whatever your ambitions, abilities or disabilities, culture, location or background. Studying physics will develop your numeracy and data analysis skills as well as the time management, self-motivation and remote collaboration skills that all OU students gain from distance learning.

Undergraduate

The following undergraduate and integrated master's programmes in Physics are offered:

- BSc (Hons) Physics
- BSc (Hons) Mathematics and Physics
- BSc (Hons) Natural Sciences (Astronomy and Planetary Sciences)
- BSc (Hons) Natural Sciences
- BSc (Hons) Combined STEM
- Master of Physics
- Master of Physics (Astrophysics with Space Science)

Postgraduate

The following postgraduate programme in Physics is offered:

- MSc in Space Science and Technology

For detailed information on the full range of Physics courses available at The Open University, including Degree, Diploma, Certificate, and Module options, please visit the Physics course section of The Open University website.

In addition to the Physics courses mentioned here, The Open University also offers a wide range of other study options in which Physics skills and aptitudes can play an important part, such as Engineering, Computing and IT, Economics, and more.

You can find out more on The Open University website.

University Courses

Ulster University

Physics qualifications such as GCSEs and A levels are accepted, and in some cases, required, for entry to a broad range of higher education courses offered at Ulster University.

Some examples include, but are not limited to:

- **BSc (Hons) in Energy** - requires Physics or Maths A level
- **BEng (Hons) and MEng (Hons) in Architectural Engineering** - Physics A level is one of the qualifications that is accepted for entry onto this course
- **BEng (Hons) in Mechatronic Engineering** - Physics A level is one of the qualifications that is accepted for entry onto this course
- **MPharm (Hons) in Pharmacy** - Physics is accepted as one of the essential subjects for entry onto this course
- **BSc (Hons) Personalised Medicine** - Physics A level is one of the qualifications that is accepted for entry onto this course
- **BSc (Hons) Physiotherapy** - Physics A level is one of the qualifications that is accepted for entry onto this course

Physics-related qualifications and skills are highly valued and can open doors to many, varied types of study.

Please contact Ulster University to find out more about how you can use your Physics qualifications to embark on higher education or postgraduate study at Ulster University.

Physics Graduate Destinations

Local Employers

- Seagate
- General Electric
- Camlin Group
- Spirit Aerosystems
- Thales
- Almac
- Randox
- Deloitte
- PwC
- FinTrU
- AquaQ
- Allstate
- CitiGroup
- First Derivatives
- HSCNI
- Kainos
- BT
- EY
- Olenick
- SpotX
- Datactics
- Oxford Instruments Andor

Physics Careers

- Industrial physics
- Medical physics
- Scientific research and investigation
- Nuclear physics
- Biophysics
- Astronomy
- Geophysics
- Laser physics
- Forensic physics
- Geothermal energy
- Wind energy
- Solar physics
- Econophysics

Other Careers and Sectors in which Physics skills are highly valued

- Telecommunications
- Computer technology
- Forensic accountancy
- Education
- Finance
- Analysis and diagnostics
- Information management
- Product design and development
- Science communication
- Business consultancy
- Insurance
- Law
- Software development
- Taxation
- Engineering
- Aerospace
- Biotechnology
- FinTech
- Data analytics
- Data science
- Actuarial science
- Medical science
- Air traffic control
- Nanotechnology
- Game design
- Game development
- Entrepreneurship
- Oceanography
- Volcanology
- Medical device design
- Optometry
- Civil service

Please note: this infographic is intended to offer an indicative snapshot, rather than an exhaustive list, of some destinations that local Physics undergraduates and postgraduates have moved into – in addition to highlighting some other careers and sectors in which Physics skills and aptitudes are highly valued. It was produced in conjunction with the contributors to the Spotlight on Physics. Please also note that some of the career pathways featured may require additional or postgraduate study.

Useful Websites

Relevant local websites

- Institute of Physics Ireland
- Matrix – The Northern Ireland Science and Industry Panel
- NI Science Festival
- Training Programmes – nidirect
- FE colleges in Northern Ireland
- The Open University
- Queen's University Belfast
- Ulster University

Other useful websites

- Institute of Physics – Careers with Physics
- Institute of Physics – Choosing Physics: University
- Physics World
- Prospects
- Cogent Skills
- The Institution of Engineering and Technology (IET)
- Institute of Physics and Engineering in Medicine (IPEM)
- UCAS
- CAO

The COIU team welcomes your feedback on the contents of the Spotlight on Physics to help inform future publications.

If you have any comments, please e-mail the mailbox – COIU@economy-ni.gov.uk

Please note: the list of websites on this page is intended to be indicative, rather than exhaustive, and is intended to facilitate further careers research. The Department for the Economy (DfE) is not responsible for the content of external websites. The information contained within the Spotlight on Physics is correct at the time of publication; however, it may be subject to change at any time.