



# Irish Aid

Rialtas na hÉireann

Government of Ireland

## Ireland Fellows Programme – Latin America

2023-2024 Directory of Eligible Postgraduate  
Programmes in Irish Higher Education  
Institutions

*Cecilia Grierson  
Award*

# Important Information for Applicants

## ABOUT THIS DIRECTORY

This directory should be read alongside the guidance notes and the programme application form for the *Ireland Fellows Programme – Latin America*. This directory lists programmes that are eligible for those applying for a **Cecilia Grierson Award** only. These notes explain the application process and you are advised to study them carefully.

On your application form, you are required to identify the *specific* postgraduate programme(s) in order of preference, which you are interested in undertaking, based on the information in this directory and the latest details provided by the relevant institution. You should not rely solely on the information in this document, as the information about programmes provided by institutions at the time of publishing this directory may be subject to change. **Before preparing or submitting an application, you are advised to check all details with the online information provided by the college. You should particularly ensure that you meet all eligibility requirements for the selected programme(s).** It is also important that you research the institution(s) you propose to study at to ensure that it is a good fit for you and will meet your expectations.

Applicants shortlisted as a **Candidate** following interview, whose applications, documentation and English language certificate have been verified and are in order, will be provided with information on making programme applications to Higher Education Institutions (HEIs) in March 2023. Applications **should not** be made to HEIs in Ireland until invited to do so. Application fees will be paid by the Department of Foreign Affairs for shortlisted Candidates. Reimbursements will not be made where a shortlisted candidate applies for a programme before being formally invited to do so.

## PROGRAMME SELECTION

It should be noted that some sections of the directory may not be available to applicants for all strands and countries, reflecting programme priorities of the Embassy of Ireland in those countries. These sections are clearly marked in the table of contents.

In addition to ensuring you select programmes which are available to applicants from your country, you must also select programmes from this directory that align with your academic and professional experience. Furthermore, to maximise your chances of receiving a course place offer if shortlisted by the Ireland Fellows Programme, applicants are strongly advised to select three programmes at three different institutions.

When Candidates are formally invited to apply to HEIs in Ireland, priority will be given to their choices in the order they have listed them in their application. Candidates will be invited to apply to **two** programmes, and where possible, priority will be given to the top 2 programmes listed. In the case of more than one offer being received from their programme choices, all candidates will be required, for logistical reasons, to accept the programme which they have ranked highest within their application. It is therefore very important to carefully consider the order in which you list the programmes on your application form.

Programme place offers are entirely at the discretion of the HEIs in Ireland. If a Candidate does not receive an offer from either of their two HEI applications, their Fellowship application will have concluded.

## WEB ADDRESSES

Throughout the listings, many long web addresses for programme information have been shortened, for example: [www.bit.ly/qEdRCn](http://www.bit.ly/qEdRCn). This format allows for easier transcription, if required. Any capitalisation should be noted accurately as these shortened addresses are case-sensitive. While every effort has been taken to ensure all

website links work, these links may change after the publication of the directory, but all programmes can be found by going directly to the institution's website.

### **ENGLISH LANGUAGE PROFICIENCY**

Irish higher education institutions require a high standard of English language proficiency and this must be formally certified, normally through the International English Language Testing System (IELTS - [www.ielts.org](http://www.ielts.org)). IELTS examines competency in English language across reading, writing, speaking and listening and is necessary for admission to all Irish HEIs.

While we have made every effort to identify the IELTS score requirement for each score in this directory, applicants are asked to please check the programme webpage or contact the college directly to confirm the IELTS requirements for any programme(s) they are considering applying to.

### **PROGRAMMES THAT INCLUDE INTERNATIONAL FIELD TRIPS**

Some of the programmes included in this directory include the option of a fieldtrip abroad. It is important to note when selecting programmes that the Ireland Fellows Programme does not provide funding for participation in optional international fieldtrips.

**KEY TO IRISH UNIVERSITIES, TECHNOLOGICAL UNIVERSITIES AND COLLEGES WITH LISTED PROGRAMMES**

<b>ATU</b>	<b>Atlantic Technological University</b>	Galway/Sligo/Letterkenny	<a href="http://www.atu.ie">www.atu.ie</a>
<b>DBS</b>	<b>Dublin Business School</b>	Dublin	<a href="http://www.dbs.ie">www.dbs.ie</a>
<b>DCU</b>	<b>Dublin City University</b>	Dublin	<a href="http://www.dcu.ie">www.dcu.ie</a>
<b>GC</b>	<b>Griffith College</b>	Dublin/Cork/Limerick	<a href="http://www.griffith.ie">www.griffith.ie</a>
<b>MIC</b>	<b>Mary Immaculate College</b>	Limerick	<a href="http://www.mic.ie">www.mic.ie</a>
<b>MTU</b>	<b>Munster Technological University</b>	Cork/Kerry	<a href="http://www.mtu.ie">www.mtu.ie</a>
<b>MU</b>	<b>Maynooth University</b>	near Dublin	<a href="http://www.maynoothuniversity.ie">www.maynoothuniversity.ie</a>
<b>NCAD</b>	<b>National College of Art and Design</b>	Dublin	<a href="http://www.ncad.ie">www.ncad.ie</a>
<b>NCI</b>	<b>National College of Ireland</b>	Dublin	<a href="http://www.ncirl.ie">www.ncirl.ie</a>
<b>NUIG</b>	<b>National University of Ireland, Galway</b>	Galway/Clare	<a href="http://www.nuigalway.ie">www.nuigalway.ie</a>
<b>RCSI</b>	<b>Royal College of Surgeons University of Medicine and Health Sciences</b>	Dublin	<a href="http://www.rcsi.ie/dublin">www.rcsi.ie/dublin</a>
<b>SAC</b>	<b>St. Angela's College</b>	<u>Sligo</u>	<a href="http://www.stangelas.nuigalway.ie">www.stangelas.nuigalway.ie</a>
<b>SETU</b>	<b>South East Technological University</b>	Waterford/Carlow/ Wexford	<a href="http://www.setu.ie">www.setu.ie</a>
<b>TCD</b>	<b>Trinity College Dublin</b>	Dublin	<a href="http://www.tcd.ie">www.tcd.ie</a>
<b>TUD</b>	<b>Technological University Dublin</b>	<u>Dublin</u>	<a href="http://www.tudublin.ie">www.tudublin.ie</a>
<b>TUS</b>	<b>Technological University of the Shannon</b>	Athlone/Limerick	<a href="http://www.tus.ie">www.tus.ie</a>
<b>UCC</b>	<b>University College Cork</b>	Cork	<a href="http://www.ucc.ie">www.ucc.ie</a>
<b>UCD</b>	<b>University College Dublin UCD Michael Smurfit Business School</b>	Dublin	<a href="http://www.ucd.ie">www.ucd.ie</a> <a href="http://www.smurfitschool.ie">www.smurfitschool.ie</a>
<b>UL</b>	<b>University of Limerick</b>	Limerick	<a href="http://www.ul.ie">www.ul.ie</a>

## Map of Ireland

The cities and towns with universities, institutes of technology and colleges that are included in this directory are highlighted below (for a listing of the institutions, please see p iii)



**Ireland Fellows Programme – Latin America**  
**Cecilia Grierson Award**

**TABLE OF CONTENTS**

Please check through all broad subject categories below to ensure that you have considered all available programmes in your field(s) of interest.

**A Engineering and Sustainable Technology**

A1	MSc in Mechanical Engineering	TCD
A2	MEng in Mechanical and Manufacturing Engineering (Sustainable Systems & Energy)	DCU
A3	MSc in Sustainable Energy Engineering	SETU
A4	MSc in Sustainable Energy	TCD
A5	MSc in Energy Science	TCD
A6	MSc in Sustainable Energy and Green Technologies	UCD
A7	MEngSc in Sustainable Energy	UCC
A8	MSc in Energy Management	TUD
A9	MSc in Environmental Engineering	TCD
A10	MEngSc in Water, Waste and Environmental Engineering	UCD
A11	MSc in Environmental Technology	UCD
A12	ME in Sustainable Electrical Energy Systems	TUD
A13	MEngSc in Electrical Power Networks	UCD
A14	ME in Sustainable Infrastructure	TUD
A15	MEngSc in Structural Engineering	UCD
A16	MSc in Engineering (Transport)	TCD
A17	MEngSc in Materials Science and Engineering	UCD
A18	MEng in Applied Materials	SETU
A19	MSc in Innovative Technology Management	SETU
A20	MApplSc in Enterprise Systems	NUIG
A21	MEngSc in Chemical Engineering	UCD

**See also:**

B41	MEngSc in Optical Engineering	UCD
C14	MSc in Electronic Information Engineering	TCD
C47	MSc in Electronic & Computer Technology	DCU
C48	MEng in Electronic & Computer Engineering	DCU
C49	MEngSc in Electronic & Computer Engineering	UCD

**B Health, Medicine, Pharmacy, Biotechnology and related**

B1	Master of Public Health	UCC
B2	Master of Public Health	UCD
B3	MSc in Public Health	UL
B4	MSc in Global Health	TCD
B5	Master of Health Sciences in International Healthcare Management	SAC
B6	MSc in Community Health	TCD
B7	MSc in Advanced Healthcare Practice	UL
B8	MSc in Advanced Healthcare Practice and Research	NUIG

B9	MA in Health Promotion	NUIG
B10	MSc in Science and Health Communication	DCU
B11	MSc in Clinical Research	NUIG
B12	MSc in Clinical and Translational Research	UCD
B13	MSc in Regenerative Medicine	NUIG
B14	MCh in Surgical Science & Practice	RCSI
B15	Master of Surgery (by module)	RCSI
B16	Masters in Surgery (MCh)	NUIG
B17	MSc in Nursing Studies	UL
B18	MSc in Nursing (International)	MTU
B19	MSc in Adolescent Health	NUIG
B20	MA in Addiction Studies	DBS
B21	MSc in Obesity	NUIG
B22	MSc in Immunology	TCD
B23	MSc in Behavioural Neuroscience	UCD
B24	MSc in Applied Psychology	DBS
B25	MSc in Advanced Physiotherapy Studies	UCD
B26	MSc in Experimental Physiology	UCD
B27	MSc in Precision Medicine	UCD
B28	MSc in Data Analytics for Precision Medicine	UCD
B29	MSc in Diagnostics and Precision Medicine	DCU
B30	MSc in Health Informatics	UL
B31	MSc in Artificial Intelligence for Medicine and Medical Research	UCD
B32	MSc in Medical Device Design	NCAD
B33	MSc in International Medical Technologies, Innovation and Development	ATU
B34	MSc in Pharmaceutical Sciences	TCD
B35	MSc in Chemistry – Analysis of Pharmaceutical Compounds	UCC
B36	MSc in Biopharmaceutical Manufacturing	ATU
B37	MSc in Pharmaceutical Business and Technology	GC
B38	MSc in International Pharmaceutical Business Management	GC
B39	MSc in Bioprocessing Science	ATU
B40	MSc in Biomedical Science	NUIG
B41	MEngSc in Optical Engineering	UCD

**See also:**

A21	MEngSc in Chemical Engineering	UCD
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## **C Information Systems, Communications Technology, Digital Media**

C1	MSc in Big Data Analytics	ATU
C2	MSc in Data Analytics	DBS
C3	MSc in Data Analytics	NCI
C4	MSc in Data Science and Analytics	MTU
C5	MSc in Data Science	SETU
C6	MSc in Big Data Management and Analytics	GC
C7	MSc in Business Analytics	DBS
C8	MSc in Business Analytics	NUIG
C9	MSc in Information Systems Management	NUIG
C10	MBA in Information Systems	DBS
C11	MSc in Information Systems with Computing	DBS

C12	MSc in Computing (Information Systems Processes)	SETU
C13	MSc in Information Technology Management	SETU
C14	MSc in Electronic Information Engineering	TCD
C15	MSc in Computing	GC
C16	MSc in Computer Science (Intelligent Systems)	TCD
C17	MSc in Computing Science	UCC
C18	MSc in Computer Science (Negotiated Learning)	UCD
C19	MSc in Computer Science (Conversion)	UCD
C20	MBA in Cloud Computing	DBS
C21	MSc in Cloud Computing	NCI
C22	MA in Creative Practice	ATU
C23	MSc in Artificial Intelligence	DBS
C24	MSc in Artificial Intelligence	MTU
C25	MSc in Applied Artificial Intelligence	SETU
C26	MSc in Network and Information Security	GC
C27	MSc in Cybersecurity	DBS
C28	MSc in Cybersecurity	MTU
C29	MSc in Cybersecurity	NCI
C30	MSc in Cybersecurity, Privacy and Trust	SETU
C31	MSc in Industrial Networks and Cybersecurity	SETU
C32	MSc in IT-Enabled Innovation	MU
C33	MSc in FinTech	DBS
C34	MSc in FinTech	NCI
C35	MSc in Interactive Digital Media	TCD
C36	MSc in Interactive Digital Media	GC
C37	MSc in Interactive Media	UCC
C38	MA in Interaction Design	NCAD
C39	MSc in Digital Media with Business Analytics	SETU
C40	MSc in Digital Marketing and Analytics	DBS
C41	MSc in Digital Marketing and Analytics	SETU
C42	MSc in Digital Media & Marketing	ATU
C43	MA in Public Relations with New Media	MTU
C44	MA in Media Studies	MIC
C45	MA in Communication Design	NCAD
C46	MA in Global Media and Communication	NUIG
C47	MSc in Electronic & Computer Technology	DCU
C48	MEng in Electronic & Computer Engineering	DCU
C49	MEngSc in Electronic & Computer Engineering	UCD

## **D Food Science, Food Engineering and Food Industry**

D1	MSc in Culinary Innovation & Food Product Development	TUD
D2	MSc in Food Safety Management	TUD
D3	MSc in Food Science	UCC
D4	MSc in Food Business Strategy	UCD
D5	MEngSc in Food Engineering	UCD
D6	MSc in Horticulture	UCD



**A**

**Engineering and  
Sustainable Technology**

**Study Location:** Trinity College Dublin

**Programme Duration:** 1 year

**Programme Outline:** The MSc in Mechanical Engineering is designed to provide a flexible route to a master's qualification for students who have completed a Bachelor's degree. It addresses advanced topics over a wide range of Mechanical and Manufacturing Engineering subjects. Within the MSc, there is a wide range of module options and an excellent opportunity to engage in topical research with leading research groups within the School of Engineering, as an important part of this programme is a research dissertation, which directly builds on some of the content of the modules. Themed areas include advanced manufacturing, materials, fluid mechanics and automation design. Students may also follow the "Zero Carbon Technology" option with a focus on technology to achieve the transformation to low-carbon energy and transport. The Zero Carbon Technology strand will cover power, transport and resources with related business and planning options.

**Indicative Content:** Core – Research Methods; Research Project. Sample Options – Advanced Thermal Fluid Sciences; Control Engineering; Micro and Precision Manufacturing; Wind Energy; Transportation Policy; Finite Element Analysis; Tissue Engineering; Biomechanics; Turbomachinery; Deep Learning and its Applications; Geo-resources and Carbon Impact; Low Carbon Power Technology.

**Admission Requirements:** Admission is normally restricted to graduates who have achieved an upper second class honours degree (2.1), or better, in engineering, science, computing, statistics, mathematics or a related discipline. Well-qualified candidates or industry professionals from other numerate disciplines who have sufficient knowledge of engineering and science, may also be considered.

**IELTS:** Minimum 6.5 overall score required.

**Programme Webpage:** [shortened as] <https://bit.ly/2vqU61p>

**Application:** Apply online via the programme webpage.

**Study Location:** Dublin City University

**Programme Duration:** 1 year

**Programme Outline:** This programme introduces the use of advanced Computer Aided Engineering tools and, by experiencing these advanced techniques and software, the graduate will gain a vital edge. It allows the candidate to keep up with the rapidly changing manufacturing and design sectors. Applicants to this master's programme through the Ireland Fellows Programme are only eligible for *Major 3 – Sustainable Systems and Energy*.

**Indicative Content:** Research Practice & Methodology; Energy System Decarbonisation; Energy Auditing and Energy Management; Advanced Sustainable Energy Systems; Whole Life Cycle Analysis; Sustainable Systems and Energy Project.

**Admission Requirements:** An award comparable to a second class honours grade 2, H2.2 from an Irish University with a minimum Pass Grade in Fluid Mechanics, Thermofluid Mechanics or similar module

**IELTS:** Minimum overall score of 6.5 required with no section less than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/3w9Rvsl>

**Application:** Apply online at [shortened as] <https://bit.ly/3nSrVIX> - using the **PAC code: DC814**

**A3 MSc in Sustainable Energy Engineering**

**SETU**

**Study Location:** South East Technological University (Waterford)

**Programme Duration:** 1 year

**Programme Outline:** This post-graduate programme has been designed to facilitate professionals practicing in the areas of building design, management and technology. Its' purpose is to provide expertise in terms of; energy use, environmental performance and sustainability in the design and operation of buildings and their associated facilities and services systems. The programme will focus on Sustainable and Low energy building design; Building energy performance and analysis; Dynamic thermal simulation; Low and zero carbon heat and power generation technologies; Energy policy and legislation; Energy auditing; Facilities management and Building pathology and investigation.

**Indicative Content:** Research Methodology; Professional Development & Effectiveness; Statistics for Engineers; Energy Modelling for NZEB Design; Mechanical Services Systems; Low Energy Building Systems design; Sustainability & the Environment; Energy Modelling for HVAC Systems & Controls; Energy Auditing; Building Performance & Analysis; Electrical Systems & Energy Monitoring; Electrical Generation Technology.

**Admission Requirements:** The normal minimum expected entry requirement for the MSc in Sustainable Energy Engineering will be a cognate accredited NFQ Level 8 Honours 2.2. Engineering or Science Degree. Entry to the programmes may also be allowed via the Institute's Recognition of Prior Learning (RPL) process on an individual case-by-case basis.

**IELTS:** Minimum 6.0 overall score required.

**Programme Webpage:** [shortened as] <https://bit.ly/2Wx4lyT>

**Application:** Apply online at <https://v2.pac.ie/institute/6> - using the **PAC Code: WD554**

**A4 MSc in Sustainable Energy**

**TCD**

**Study Location:** Trinity College Dublin

**Programme Duration:** 1 year

**Programme Outline:** The MSc in Sustainable Energy is designed to provide engineers, and other suitably qualified graduates, with a specialist understanding of energy management as well as sustainable energy generation. The programme will advance your knowledge in efficiency techniques, sustainable energy technologies and energy management systems and strategies. It also includes theory and practice along with economics, management, current legal requirements, and standards.

**Indicative Content:** Civil Engineering Management; Research Methodology; Engineering Dissertation; Engineering Project; Wind Energy; Solar Energy Conversion Applications; Energy Policy and Building Energy Demand; Wave & Hydro Energy.

**Admission Requirements:** An upper second Honours degree (or equivalent) in a Civil Engineering or related degree. Relevant industrial experience may be considered in allocating places where the programme is oversubscribed.

**IELTS:** Minimum 6.5 overall score required.

**Programme Webpage:** <https://www.tcd.ie/civileng/msc-in-sustainable-energy-engineering/>

**Application:** Apply online via the programme webpage.

## **A5 MSc in Energy Science**

**TCD**

**Study Location:** Trinity College Dublin

**Programme Duration:** 1 year

**Programme Outline:** The MSc in Science of Energy consists of six taught modules worth 10 ECTS each. These are structured around a cross-cutting introductory module. The introductory module is designed to furnish students with all of the basic physics, chemistry and engineering concepts that are required to become an "Energy Scientist". These basics are complemented by essential "Economics of Energy" and "Principles of Energy Policy". Now with the ability to understand and analyse the competing aspects of all of the essential science, engineering and economics pertinent to the energy discipline, the students proceed six specialised technically orientated core modules

**Indicative Content:** Introduction to Energy Science; Conventional Energy Sources and Technologies; Power Systems, Power Electronics and Electrical Systems; Sustainable Energy Sources and Technologies; Managing the Impact of Energy Utilisation; Research Project.

**Admission Requirements:** The MSc is suitable for graduates who have achieved an upper second class honours degree or the international equivalent in either Chemistry, Physics or Engineering. However, applications from similarly qualified candidates from other disciplines are welcome if they can demonstrate a sufficient level of knowledge and interest in Energy Science.

**IELTS:** Minimum 6.5 overall score required.

**Programme Webpage:** [shortened as] <https://bit.ly/3PS6Nkt>

**Application:** Apply online via the programme webpage.

## **A6 MSc in Sustainable Energy and Green Technologies**

**UCD**

**Study Location:** University College Dublin (Belfield Campus)

**Programme Duration:** 1 year

**Programme Outline:** The MSc in Sustainable Energy and Green Technologies focuses on the development and optimisation of renewable energy resource exploitation; the efficiency in energy generation and utilisation pathways; the mitigation of environmental impacts, and preparation for business innovation and job creation

opportunities in renewable energy systems technologies development, plant biotechnology and entrepreneurship.

**Indicative Content:** The Bioeconomy: A Strategy for Sustainable Fuel, Material and Chemical Production; Life Cycle Assessment; Thesis; Advanced Air Pollution; Waste to Energy Processes & Technologies; Energy Systems Integration; LCA Applications; Research and Teaching Methods; Biorefinery Process & Tech; Energy System & Sustainable Environments.

**Admission Requirements:** An Honours undergraduate degree (NFQ Level 8) with a minimum upper Second-class Honours or international equivalence in an engineering, physical science or environmental related degree.

**IELTS:** Minimum 6.5 overall score required with no section less than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/3fK5uL8>

**Application:** Apply online via the programme webpage.

## A7 MEngSc in Sustainable Energy

UCC

**Study Location:** University College Cork

**Programme Duration:** 1 year

**Programme Outline:** In this MEngSc programme, we consider firstly how to reduce human impact on the climate through innovative low-carbon energy supply systems and secondly, how to provide a better standard of living for the world's growing population through access to sustainable and secure energy supplies. UCC's Sustainable Energy graduates will be required to source, design, convert, transmit and supply useful energy to meet our present and long-term needs for electricity, mobility and heating and cooling.

**Indicative Content:** Preliminary Research Report in Sustainable Energy; Dissertation in Sustainable Energy; Photovoltaic Systems; Wind Energy; Biomass Energy; Ocean Energy; Solar and Geothermal Energy; Energy Systems Modelling; Energy in Buildings; Sustainable Energy; Energy Systems in Buildings; Smart Grids.

**Admission Requirements:** Candidates must have a BE (Hons) or BEng (Hons) Degree or equivalent engineering qualification, with a minimum Second Class Honours Grade II (NFQ, Level 8). However, candidates with equivalent academic qualifications and suitable experience may be accepted subject to the approval of College of Science, Engineering and Food Science under Recognition of Prior Learning (RPL).

**IELTS:** Minimum 6.5 overall score required with no section less than 6.0.

**Programme Webpage:** <https://www.ucc.ie/en/ckr26/>

**Application:** Apply online at <https://www.ucc.ie/en/apply/>

**Study Location:** Technological University Dublin (Grangegorman Campus)

**Programme Duration:** 1 year

**Programme Outline:** The programme will enhance the present and future effectiveness of managers, engineers and scientists by providing an opportunity to study the theory and practice of current developments, laws, standards, technologies, management, economics and finance, associated with European energy and environmental issues. Graduates from the programme will be effective managers of environmental technology with an in-depth awareness of resource management under financial and environmental constraints. The programme is designed primarily for engineers, but will also be of interest to scientists, managers and multi-discipline professionals such as environment health officers, architects and planning officers.

**Indicative Content:** Core – Business (Organisational Behaviour); Law (Business Law); Financial Decision Making; Energy Supply; Energy Conversion and Use; Energy Management Principles and Practice; Research Methodologies; Dissertation. Options – Business (Strategic Management); Law (Energy & Environment Law and Policy); Financial Management; Wind Energy for Electricity Supply; Advanced Energy Systems; Sustainable Building Design; Power System Analysis; Embedded Generation; Renewable Energy Technologies; Biomass Technology / Biofuels for Transport; Energy Control Systems; Low Energy Lighting Design.

**Admission Requirements:** At least a 2.2 award in an Honours Bachelor of Engineering Degree. Applicants holding a qualification or combination of qualifications deemed by the Institute as being of equivalent standard to the above when taken in conjunction with relevant work experience may also be considered.

**IELTS:** Minimum 6.5 overall score required with no section less than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/30e10FL>

**Application:** Apply online via the programme webpage.

**Study Location:** Trinity College Dublin

**Programme Duration:** 1 year

**Programme Outline:** The MSc in Environmental Engineering provides education and training to those eager to pursue a career in the protection of the Environment. It aims to develop students with a specialist understanding in the area of Environmental challenges facing the Environment today, and with specialist skills to address these. The programme explores the themes of water, air, noise and soil pollution and how we may develop solutions for these challenges to protect the environment and society. The programme also incorporates the grand challenges facing Environmental Engineers of this era including climate change, sustainability, and renewable energy.

**Indicative Content:** Civil Engineering Management; Research Methods; Engineering Dissertation; Engineering Project; Air Pollution: Monitoring, Assessment & Control; Waste Management & Energy Recovery; Water Quality and Hydrological Modelling; Water Resource Planning & Climate Change; Sustainable Water Supply & Sanitation.

**Admission Requirements:** An upper second Honours degree (or equivalent) in a Civil Engineering or related degree. Relevant industrial experience may be considered in allocating places where the programme is oversubscribed.

**IELTS:** Minimum 6.5 overall score required.

**Programme Webpage:** [shortened as] <https://bit.ly/2voSJ3k>

**Application:** Apply online via the programme webpage.

**A10 MEngSc in Water, Waste and Environmental Engineering**

**UCD**

**Study Location:** University College Dublin (Belfield Campus)

**Programme Duration:** 1 year

**Programme Outline:** This programme prepares graduates to work in the broad field of environmental protection and management. Students in this programme will gain advanced theoretical and conceptual knowledge and understanding in the area of environmental engineering on topics such as engineering hydrology, environmental modelling, water and wastewater treatment, solid waste management, and environmental data analysis, among others.

**Indicative Content:** Core – Introduction to Water Resources Engineering; Water Waste and Environmental Modelling; Environmental Impact Assessment; Quantitative Methods for Engineers; Environmental Research Project. Options – Waste Management; Life Cycle Assessment; Advanced Air Pollution; Environmental Engineering; Water & Wastewater Treatment Processes; Hydraulic Engineering Design; Civil Engineering Systems; Freshwater Resources Assessment; Geographic Information Systems; Geographical Information Systems for Policy and Planning.

**Admission Requirements:** An honours undergraduate degree with minimum 2:1 award or international equivalent in civil engineering, other related engineering (such as chemical engineering, environmental engineering, agricultural engineering), physical science or environmental related degree programme.

**IELTS:** Minimum 6.5 overall score required with no section lower than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/3xyx7zf>

**Application:** Apply online via the programme webpage.

**A11 MSc in Environmental Technology**

**UCD**

**Study Location:** University College Dublin (Belfield Campus)

**Programme Duration:** 1 year

**Programme Outline:** This programme will enable its students to acquire skills in the areas of environmental engineering, risk assessment, air pollution, waste management, life cycle assessment, buildings and environment, energy systems and sustainable environment. This Masters will provide graduates with the skills to develop technological solutions for air, water and soil protection and emerging sectors across industry (particularly agri-food and bioresources), consulting companies and regulatory authorities.

**Indicative Content:** Water and Wastewater Engineering; Buildings and Environment; Quantitative Risk Assessment for Human and Animal HealthLife Cycle Assessment; Advanced Air Pollution; Waste to Energy

Processes & Technologies; LCA Applications; Research and Teaching Methods; Energy Systems and Sustainable Environments; Thesis.

**Admission Requirements:** Minimum of a Second-class honour's degree in Science, Engineering, Agricultural Science, Environmental Science, or related discipline.

**IELTS:** Minimum 6.5 overall score required with no section lower than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/2R8J8f7>

**Application:** Apply online via the programme webpage.

## **A12 ME in Sustainable Electrical Energy Systems**

**TUD**

**Study Location:** Technological University Dublin (Grangegorman Campus)

**Programme Duration:** 1 year

**Programme Outline:** This programme has been planned in response to a need in Industry for a masters degree programme that addresses the technology of sustainable electrical energy systems and the issues surrounding their integration into electrical power systems. The main themes covered are: electrical power systems analysis, renewable electrical energy technology, power electronics, distributed generation, energy markets and global issues surrounding the supply and demand of energy. The programme is aimed at graduate engineers who would like to continue their studies and at engineers who are currently working in the electrical/electronic and related industries who would like to move into an engineering role in the electrical energy systems area.

**Indicative Content:** Core – Innovation and Knowledge Management; Statistical Analysis; Entrepreneurship; Research Methods. Options – Power Electronic Energy Conversion Systems; DSP Platforms; Wind Energy for Electricity Supply; Renewable Energy Technologies; Embedded Generation; Power Systems Analysis; Energy Supply; Gas & Electricity Markets; Energy Conversion Systems.

**Admission Requirements:** A minimum Second Class Honours accredited bachelor degree (2.2 grade or higher) in Electrical or Electronic Engineering or a minimum Second Class Honours accredited degree (2.2 grade or higher) in a related engineering discipline e.g. mechanical, mechatronic or energy engineering. Applicants holding a qualification or combination of qualifications deemed by the Institute as being of equivalent standard to the above when taken in conjunction with relevant work experience may also be considered.

**IELTS:** Minimum 6.0 overall score required with no section less than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/3wUZtmR>

**Application:** Apply online via the programme webpage.



**Study Location:** University College Dublin (Belfield Campus)

**Programme Duration:** 1 year

**Programme Outline:** The programme will provide you with advanced training in various aspects of electrical engineering and equip you with the skills required to pursue a career in the rapidly evolving power system and smart grid sectors. If you are a mathematically strong engineering student who is interested in being part of the transition to a more sustainable future and you are seeking a professional career in the power system and smart grid sectors, then this programme is ideal for you.

**Indicative Content:** Core – Control Theory; Power System Operation; Power System Design; Applications of Power Electronics; Power System Dynamics and Control; Optimisation Techniques for Engineers; MEngSc Electrical Project. Options – Numerical Algorithms; Data Science in *Python*; Energy Economics and Policy; Modelling and Simulation; Power Electronics and Drives; Renewable Energy Systems; Power Electronics Technology; Professional Engineering (Management); Technical Communication.

**Admission Requirements:** A 4-year bachelor's degree with a minimum upper second class honours (NFQ level 8) or international equivalent in electrical engineering, electronic engineering, power systems, power electronics, and energy-related subjects.

**IELTS:** Minimum 6.5 overall score required with no section lower than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/3xhl4sR>

**Application:** Apply online via the programme webpage.

**Study Location:** Technological University Dublin (Bolton Street Campus)

**Programme Duration:** 1 year

**Programme Outline:** This programme is designed to provide Civil, Structural and Environmental Engineering graduates, and graduates from closely related disciplines, with specialised skills and knowledge in technical design for Sustainable Infrastructure. The programme consists of 12 taught modules and a Research Project module, and focuses, in particular, on sustainability, water engineering, numerical techniques, renewable and sustainable technologies and transport planning with options in advanced structural engineering.

**Indicative Content:** Core – Entrepreneurship for Engineers; Innovation and Knowledge Management; Research Methods; Statistical Analysis for Engineers; Introduction to Sustainable Infrastructure; Sustainable Infrastructure Research Project. Options – Finite Elements in Science and Engineering; Water Resources and Quality Management; Climate Resilient Infrastructure; Transport Planning & Simulation; Traffic Management & Road Safety; Energy Infrastructure; Waste and Environmental Management Systems; Structural Stability; Structural Dynamics.

**Admission Requirements:** An honour bachelor's degree, with a minimum attainment of Second-class Honours grade 2, in Civil/Structural/Environmental Engineering or a closely related discipline. The degree should be of four years duration and accredited by the relevant professional body. Applications will also be considered from those

with any qualification(s) deemed by the TU Dublin as being equivalent to the above, when taken in conjunction with relevant work experience.

**IELTS:** Minimum 6.5 overall score required with no section less than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/2WpVG1c>

**Application:** Apply online via the programme webpage.

## **A15 MEngSc in Structural Engineering**

**UCD**

**Study Location:** University College Dublin (Belfield Campus)

**Programme Duration:** 1 year

**Programme Outline:** The programme includes specialist modules in structural dynamics, bridge engineering, structural design and professional engineering. You will also learn how to work in a multidisciplinary setting through combined modules with Architecture students. The programme provides advanced learning in the field of Structural Engineering and will provide you with an ability to identify, formulate, analyse and solve complex structural engineering problems.

**Indicative Content:** Core – Realising Built Projects; Innovation Leadership; Structural Dynamics; Structural Research Project; Advanced Materials; Analysis of Structures 3; Quantitative Methods for Engineers. Options – Agency Design/Build; Design of Structures 3; Bridge Engineering; Geotechnics 4; Energy Systems in Buildings; Professional Engineering (Management).

**Admission Requirements:** An honours undergraduate degree with minimum 2:1 award or international equivalence in a Civil Engineering or Structural Engineering degree programme.

**IELTS:** Minimum 6.5 overall score required with no section lower than 6.0.

**Programme Webpage:** [shortened as] <http://bit.ly/2ctijzc>

**Application:** Apply online via the programme webpage.

## **A16 MSc in Engineering (Transport)**

**TCD**

**Study Location:** Trinity College Dublin

**Programme Duration:** 1 year

**Programme Outline:** This programme provides education and training to the next generation of Transport Professionals. The programme aims to equip students with the skills to address the numerous challenges in the transportation field. The programme examines areas of transport policy, planning, design, modelling and analysis. The programme also incorporates modules addressing issues such as climate change, sustainability, and renewable energy. Students take lectures from departmental experts and invited guest speakers with experience in a variety of transportation topics and you will have the opportunity to carry out cutting edge Transport research projects.

**Indicative Content:** Civil Engineering Management; Engineering Dissertation; Engineering Project; Research Methodology; Transport Policy; Transportation Modelling & Planning; Intelligent Transportation Systems; Transport Design.

**Admission Requirements:** An upper second Honours degree (or equivalent) in a Civil Engineering.

**IELTS:** Minimum 6.5 overall score required.

**Programme Webpage:** <https://www.tcd.ie/civileng/msc-in-transport-engineering-policy-and-planning/>

**Application:** Apply online via the programme webpage.

## **A17 MEngSc in Materials Science and Engineering**

**UCD**

**Study Location:** University College Dublin (Belfield Campus)

**Programme Duration:** 1 year

**Programme Outline:** This programme is aimed at students with a primary degree in engineering or cognate physical science who wish to develop a career or engage with further studies in materials science and engineering. We value and therefore encourage students to be engaged, autonomous learners who have a critical and problem-solving approach to materials as they are used in both common and advanced engineering applications. Of key importance within the learning experience is the ability of the student to work individually or within teams and to communicate their ideas and outcomes effectively. Students should also not lose sight of the ethical, environmental or human perspectives within which they work. We aim to provide a stimulating learning environment with a wide-ranging and relevant taught curriculum that is underpinned by a hands-on laboratory experience that will encourage students to develop a deep understanding of structure-property relationships in materials. A variety of teaching, learning and assessment strategies are used to achieve the desired outcomes including individual and team assignments, technical presentations and a significant supervised research project.

**Indicative Content:** Core – Materials Science and Engineering; Technical Ceramics; Advanced Polymer Engineering; Materials Thermodynamics and Kinetics; Research Skills and Techniques; Project (MEngSc Materials); Advanced Metals Processing. Options – Renewable Energy Systems Analysis; Chemistry of Materials; Nanomaterials Chemistry; Advanced Characterisation Tech; Solid State Devices; Professional Engineering (Finance); Computational Continuum Mechanics; Fracture Mechanics; Energy Systems and Climate Change; Professional Engineering (Management); Medical Device Design; Biomaterials; Technical Communication; Physics on Nanomaterials.

**Admission Requirements:** An honours undergraduate degree (NFQ Level 8) with a minimum upper second class honours or international equivalence in an Engineering or cognate Physical Sciences degree programme.

**IELTS:** Minimum 6.5 overall score required with no section lower than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/3MfKxHa>

**Application:** Apply online via the programme webpage.

**Study Location:** South East Technological University (Carlow)

**Programme Duration:** 1 year

**Programme Outline:** The Master of Engineering in Applied Materials will provide learners with the expertise, tools and techniques essential to material characterisation, simulated design, failure analysis, and applied materials selection. This programme focuses on the formulation of new solutions, principles, and methods to illustrate and evaluate the failure of mechanical components, identify functional deficiencies, and formulate design solutions. Learners will experience materials from an atomic level to component response simulation, using appropriate software-based formats. They will learn to synergise modern post-processing methods and advanced manufacturing techniques, as applied to a range of high-performance challenges including AM-embedded sensing for aerospace applications, surface-responsive technologies for smart water and wastewater infrastructure, environmentally responsive bulk materials to replace unsustainable single-use plastics and films.

**Indicative Content:** Materials Science in Engineering; Finite Element Analysis; Design Driven Innovation; Materials in Processing and Industry 4.0; Applied Mechanics of Materials; Research Methods for Engineering; Innovation for Sustainable Enterprise; Dissertation; Work-based Project; Professional Development.

**Admission Requirements:** Graduates with a minimum for 2.2 honours in a degree such as Mechanical/Material Engineering or equivalent programme.

**IELTS:** Minimum overall score of 6.0 required with no section less than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/397xMkh>

**Application:** Apply online at <https://www.itcarlow.ie/international.htm>.

**Study Location:** South East Technological University (Waterford)

**Programme Duration:** 1 year

**Programme Outline:** The Masters in Innovative Technology Engineering degree aims to produce graduates with strong skills in critical thinking and with a creative attitude necessary to instigate future developments in the field of Engineering Technology. The student will attain an academic mastery in their specialisation field while developing a broad knowledge of other related fields and how these converge. The programme is designed to develop the student's knowledge and skills in strategies for innovation management, product design and development and optimum routes to market. The student will also carry out post-graduate level research of industrial relevance in selected topic areas.

**Indicative Content:** Core – Strategic Technological Innovation; Nanotechnology; Biomedical Science; Mechanics of Materials; Green Technology and Alternative Energy Sources; Convergent Technologies for Biomedical and Electro-Mechanical Applications; Novel Materials, Properties and Exploitation; Industrial Research 2; Dissertation. Options – Quality Management & Regulatory Affairs; Control Engineering; Technology Management; New Product Development Strategy; Product Design & Development; Cognitive Technologies; Entrepreneurship.

**Admission Requirements:** The normal minimum expected entry requirement for the MSc in Innovative Technology Engineering will be a cognate accredited NFQ Level 8 Honours 2.2. Engineering or Science Degree.

Entry to the programmes may also be allowed via the Institute's Recognition of Prior Learning (RPL) process on an individual case-by-case basis.

**IELTS:** Minimum 6.0 overall score required.

**Programme Webpage:** [shortened as] <https://bit.ly/3o7TO9G>

**Application:** Apply online at <https://v2.pac.ie/institute/6> – using the **PAC Code: WD555**

## **A20 MAppSc in Enterprise Systems**

**NUIG**

**Study Location:** NUI Galway

**Programme Duration:** 1 year

**Programme Outline:** The programme aims to enhance graduates' technical and management contribution in various enterprises including manufacturing, financial services, health services, government, and many more. Enterprise Systems focus on people, process and technology related issues in an organisation. Our flexible course structure allows you to build your own curriculum by choosing from a number of available modules to make up 50 ECTS (credits) or equivalent over the duration of the programme. A research thesis (30 ECTS) and Research Methods (10 ECTS) are core subjects and ensure students develop their critical thinking, analytical and writing skills. Learning outcomes are achieved by problem-based learning techniques and completion of a number of real world assignments. Written examinations are held each semester.

**Indicative Content:** Core – Research Methods; Thesis (Industrial). Options – Project Management; Lean Systems; Operations Research; Systems Reliability; Ergonomics; IS Strategy and Planning; Databases; Technology Innovation & Entrepreneurship; Business Modelling & Analytics; Quality Systems; Safety Engineering; Operations Strategy; Logistics and Transportation; Human Reliability; Operations Management; Information Systems Management; Business Data Communications; Enterprise Systems Research Project; Enterprise Systems Innovation.

**Admission Requirements:** Entry to the Masters of Applied Science (Enterprise Systems) is open to those who hold a Second Class Honours degree at Level 8 in a related discipline. Candidates who hold a Level 8 degree without honours and who have three years' relevant experience will also be considered.

**IELTS:** Minimum 6.5 overall score required with no section less than 5.5.

**Programme Webpage:** [shortened as] <https://bit.ly/3m5sdWI>

**Application:** Apply online at <https://nuigalway.elluciancrmrecruit.com/Apply>

## **A21 MEngSc in Chemical Engineering**

**UCD**

**Study Location:** University College Dublin (Belfield Campus)

**Programme Duration:** 1 year

**Programme Outline:** The MEngSc in Chemical Engineering offers advanced level education for students with primary degrees in chemical engineering/technology programmes. This programme covers advanced topics in chemical engineering and includes extensive project work in both design (featuring both individual and team

elements/efforts) and in an individualised research project. On this programme students will improve their conceptual and practical skills in both the fundamental and applied principles of chemical engineering practice. Opportunities for employment exist in a broad range of areas including: the pharmaceutical industry, the petrochemical and energy industries, the ICT industries including medical devices, and the heavy chemicals industries.

**Indicative Content:** Core – Chemical & Bioprocess Reaction Engineering; Chemical & Bioprocess Engineering Design; Environmental Engineering; Advanced Separation Processes; Advanced Heat Transfer and Fluid Mechanics; Advanced Experimental Design; Chem Proc Sust. & Ren Energy; Chemical Engineering Project; Process Control; Advanced Process Design. Options – Bioreactor Modelling and Control; Advanced Characterisation Tech.

**Admission Requirements:** A Chemical Engineering honours undergraduate degree with a minimum upper second-class honour (2.1) or international equivalence.

**IELTS:** Minimum 6.5 overall score required with no section lower than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/2S993ns>

**Application:** Apply online via the programme webpage.

# **B**

**Health, Medicine,  
Pharmacy, Biotechnology  
and related**

**Study Location:** University College Cork

**Programme Duration:** 1 year

**Programme Outline:** This highly regarded programme will prepare you to investigate, evaluate and address public health challenges, whatever your professional background. On graduation you will be equipped with the core knowledge and specialised skills necessary to make a real difference in public health. The MPH is an innovative multi-disciplinary course where you can specialise in health promotion, health protection or epidemiology and biostatistics. The course offers both quantitative and qualitative research methods, and you can apply this knowledge to your dissertation. Our modules are developed and taught by a dedicated team of staff, who are experts in a variety of public health areas. Students will experience a wide range of teaching styles: classroom-based, limited fieldwork, and lab sessions.

**Indicative Content:** Core – Principles and Practice of Public Health; Applied Research for Public Health; Public Health Informatics; Leadership in Public Health; Graduate Information Literacy Skills; Health Economics for Public Health; Intentional Perspectives on Global Health; Dissertation. Options – Health Promotion: Concepts, Principles and Practice; Public Health and Behavioural Change; Systematic Review and Meta-Analysis; Global Environmental Health; Critical Public Health; The Principles and Practices of Multi-Disciplinary Health Protection; Global and Environmental Health; Microbiology for Health and Protection; Systematic Review and Meta-Analysis; Advanced Epidemiology; Advanced Biostatistics; Survival Analysis.

**Admission Requirements:** All candidates are required to meet one of the following – (i) Possess a minimum Second Class Honours Grade I in a primary honours degree (NFQ Level 8) in a relevant subject area, or (ii) Possess a minimum Second Class Honours Grade I in a postgraduate diploma (NFQ Level 9) in a relevant subject area. Relevant subject areas are Biological Sciences, Medical and Health Sciences, Public Health and Social Sciences.

**IELTS:** Minimum 6.5 overall score required with no section less than 6.5.

**Programme Webpage:** [www.ucc.ie/en/ckx11](http://www.ucc.ie/en/ckx11)

**Application:** Apply online at <https://www.ucc.ie/en/apply/>

**Study Location:** University College Dublin (Belfield Campus)

**Programme Duration:** 1 year

**Programme Outline:** The Master of Public Health provides broad-based education and training in the basic disciplines which underlie the practice of Public Health including disease epidemiology, research methods and statistics, health promotion, environmental health, health economics, international health, sociology and health policy. Students will acquire (i) knowledge of the factors influencing health status; (ii) an understanding of the organisation and financing of Health Services and their impact on population health; (iii) the epidemiological skills of study design and analysis; and (iv) the ability to work as an active team member in planning, implementing, monitoring and evaluating health policy.

**Indicative Content:** Core – Fundamentals of Epidemiology; Public Health Practice and Policy; Biostatistics I; Health Promotion; Communicable Disease Epidemiology; Non-Communicable Disease Epidemiology; SDGs and Global



Health; Applied Research Methods & Data Management; MPH Dissertation; Sociology & Social Epidemiology; Health Economics and Management. Options – Food Diet and Health; Nutritional Epidemiology; One Health; Risk Perception, Communication and Behaviour Changes; Biostatistics II; Research Methods in Genetic Epidemiology; Risk Analysis in Food Safety; International Health Action; Introduction to Knowledge Synthesis, Systematic Reviews & Meta-Analysis; Graduate Teaching Assistant.

**Admission Requirements:** This programme is intended for Graduates of Health Science degree programmes (Medicine, Dentistry, Public Health, Pharmacy, Physiotherapy, Occupational Therapy, Nutrition, Nursing, or other), Science degree programmes (Biology, Biochemistry, Food Science, Physiology, Pharmacology, or other) or Social Science degree programmes (Psychology, Sociology, Economics, or other) preferably with a 2.1 Award or higher. Awards of 2:2 or less may be considered with additional suitable credentials. Applicants will be required to provide evidence of the highest level of mathematics achieved in prior education.

**IELTS:** Minimum 6.5 overall score required with no less than 6.5 in writing and not less than 6 in each other component.

**Programme Webpage:** [shortened as] [www.bit.ly/2czlOMx](http://www.bit.ly/2czlOMx)

**Application:** Apply online via the programme webpage.

**B3 MSc in Public Health**

**UL**

**Study Location:** University of Limerick

**Programme Duration:** 1 year

**Programme Outline:** The Master of Science in Public Health Programme will facilitate students to acquire a marketable and transferable skillset and competencies, to enhance their career in public health or other health-related disciplines both locally and internationally. These skills are applicable to a variety of careers in healthcare, government, private, and non-profit organisations. The MSc in Public Health curriculum is flexible, using a competency-based and blended learning format, featuring case methods approaches and real-life scenarios. It is also practical, including both a practicum and a research project. Each of the five core modules runs for six weeks and includes a mandatory in-person five-day skills-building workshop on campus. The other weeks students will work individually and will receive a series of online lessons that will cover the content areas of the module. The programme focuses on providing an affordable and high-quality educational experience.

**Indicative Content:** Public Health & Health Systems; Public Health Interventions; Public Health Research & Data Analysis; Monitoring & Evaluation in Public Health; Global Health & Sustainable Development; Public Health Practicum; Research Project.

**Admission Requirements:** Graduates of any undergraduate degree can be accepted into the Public Health MSc. Applicants must hold a minimum 2.1 (second-class honours grade 1) result in their first honours bachelor's degree (NFQ Level 8 or other internationally recognised equivalent). Awards of 2:2 or less may be considered if applicants demonstrate at least five years of relevant public health work experience.

**IELTS:** Minimum 6.5 overall score required with no section less than 6.0.

**Programme Webpage:** <https://www.ul.ie/gps/public-health-msc>

**Application:** Apply online via the programme webpage.

**Study Location:** Trinity College Dublin

**Programme Duration:** 1 year

**Programme Outline:** This innovative and successful programme, run by the Trinity Centre for Global Health, aims to provide graduates with a greater appreciation of the global interconnectedness of health problems and to equip them with a range of analytical and methodological skills to address the challenges of global health. Designed for individuals from a wide range of disciplines and professions, the programme adopts a multidisciplinary approach that integrates health and social science perspectives to analyse, design, implement and evaluate health programmes within a global context.

**Indicative Content:** Conceptualisations of Global Health; Health Economics and Finance; Qualitative Research Methods and SPSS; Quantitative Research Methods for Global Health; Mental and Cognitive Health and Ageing: A Global Perspective; Epidemiology; Health Environment and Climate; Sexual and Reproductive Health; Culture Health and Illness; Global Health Dissertation.

**Admission Requirements:** As global health is a multidisciplinary field, applicants can be graduates of any academic discipline. Applicants will need to hold at least a 2.1 honours degree from an Irish university or equivalent result from a university in another country.

**IELTS:** Minimum 6.5 overall score required with no section less than 6.0.

**Programme Webpage:** <https://www.tcd.ie/courses/postgraduate/courses/global-health-msc/>

**Application:** Apply online via the programme webpage.

**Study Location:** St. Angela's College, Sligo

**Programme Duration:** 1 year

**Programme Outline:** The purpose of this programme is to prepare healthcare professionals to assume the role of manager/leaders in various health care settings globally. As there is a continued emphasis on corporate governance, fiscal sustainability and leadership accountability, employment opportunities and board positions within this sector will be in demand. Graduates with this knowledge base and skill set will be set to take up these responsibilities and apply this knowledge for the public good.

**Indicative Content:** Managing Finance in Healthcare Organisations; Principles of Healthcare Leadership; Quality and Healthcare Management; Strategic Management and Leadership; Healthcare Ethics; Enhancing Evidence Based Practice; Healthcare Project Management.

**Admission Requirements:** A primary degree (min 2:2) in Nursing or any Healthcare related field. Applicants must also have a minimum of three years' post registration Nursing / Healthcare related experience.

**IELTS:** Minimum 6.5 overall score required.

**Programme Webpage:** [shortened as] <https://bit.ly/3NcgUaw>

**Application:** An application form will be made available by St. Angela's College.

**B6 MSc in Community Health**

**TCD**

**Study Location:** Technological University Dublin (Grangegorman Campus)

**Programme Duration:** 1 year

**Programme Outline:** The aim of this course is to enable students from across a broad spectrum of professional backgrounds to gain a grounded understanding of the core principles of public health and their application to the practice of community healthcare, and to increase graduates' employability in community health practice. Among other learnings, students should be able to critically interpret the core principles of public health and their application to community healthcare upon completion of this programme.

**Indicative Content:** Core – Determinants of Health; Principles and Practice of Community Health; Epidemiology and Healthcare Statistics; Theory and Practice of Enquiry Methods in Health Care; Health Promotion and Management of Chronic Disease; Dissertation. Options – Deconstructing Mental Health and Distress; Child Health Provision in the Community.

**Admission Requirements:** Applicants are required to hold a minimum 2.1 grade (Second-class honours) in a relevant primary degree.

**IELTS:** Grade 6.5 overall with a minimum of grade of 6.5 in each category.

**Programme Webpage:** [shortened as] <https://bit.ly/3vZaCTA>

**Application:** Apply online via the programme webpage.

**B7 MSc in Advanced Healthcare Practice**

**UL**

**Study Location:** University of Limerick

**Programme Duration:** 1 year

**Programme Outline:** This taught Masters programmes is designed to extend and enhance allied health professionals clinical and academic capability by providing core and elective modules that are relevant to their practice. The various modules are delivered using a mix of classroom based, distance learning supported by e-learning systems and individual tutorials and mentorship. Graduates will obtain in-depth knowledge of an area of Health Sciences to apply to their professional practice. From this MSc, graduates will be able to describe and appreciate the strengths and weaknesses of the current range of theory and research. They will reflect critically on their own and others' learning styles and practice.

**Indicative Content:** Core – Evidence Based Practice; Research Methods for Health; Dissertation; Applied Positive Psychology. Options –Principles of Primary & Community Care; Leading & Managing Practice; Social Influence & Attitude Change; Project Management in Practice; Leadership, Change and Innovation Management; Lean Thinking/Lean Tools; Innovation in Management for Health & Social Care; Engaging Through Complexity; Promoting Quality and Safety in Healthcare; Intercultural Care; Qualitative Research Methods in Psychology; Sustainable Posture, Seating and Wheelchair Mobility Provision across the Life Course; Project Management in Practice; Diabetes in Primary Care.

**Admission Requirements:** Healthcare clinicians with a professionally and academically accredited BSc (Hons) or equivalent in a health profession at a minimum award of 2.2 honours level or above.

**IELTS:** Minimum 6.5 overall score required with no section less than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/2Cqx29G>

**Application:** Apply online via the programme webpage.

## **B8 MSc in Advanced Healthcare Practice and Research**

**NUIG**

**Study Location:** NUI Galway

**Programme Duration:** 15 months

**Programme Outline:** The overall aim of the MSc Advanced Healthcare Practice and Research is two-pronged: (i) to develop participants' capacity to take a leadership role in relation to teaching healthcare students, and (ii) to advance participants' capacity in relation to research in their chosen clinical field of specialism. This MSc will provide opportunities for participants to advance their skills in teaching, assessment and research in the clinical context. Participants will become skilled role models in the implementation of high quality educational environments to enhance practice for educators, students and clients.

**Indicative Content:** Clinical Teaching; Educational Research; Using Evidence to Inform Practice; Clinical Teaching Methodologies; Foundations of Assessment in Clinical Education; Dissertation.

**Admission Requirements:** Applicants must hold a degree in a professional healthcare course (minimum Second Class Honours degree required). Applicants must be able to register with their appropriate professional or regulatory body.

**IELTS:** Minimum 6.5 overall score required with no section less than 6.5.

**Programme Webpage:** [shortened as] <https://bit.ly/3m4GB1l>

**Application:** Apply online at <https://nuigalway.elluciancrmrecruit.com/Apply>

## **B9 MA in Health Promotion**

**NUIG**

**Study Location:** NUI Galway

**Programme Duration:** 1 year

**Programme Outline:** The programme aims to provide students with professional education and training in the principles and practice of health promotion. A range of teaching and assessment methods are used, including interactive lectures, work placements, small group teaching, skills development, and contributions from practitioners in the field. The programme comprises four core and six optional modules. Students must complete eight modules in total, four core and four optional, from a choice of six. As a student in Health Promotion you will have the opportunity to engage with international health promotion research projects.

**Indicative Content:** Core – Determinants of Health; Health Promotion Practice; Foundations of Health Promotion; Research Methods; Dissertation. Options – Re-Orienting Health Services; Evaluation of Health Promotion

Programmes; Promoting Healthy Behaviour; Promoting Mental Health & Well Being; Supportive Environments for Health; The European Dimension in Health Promotion; Workplace Wellness; Cardiovascular Health and Diabetes Prevention; Mental Health Promotion.

**Admission Requirements:** An honours primary degree (H2.2), or equivalent international qualification, from a cognate discipline.

**IELTS:** Minimum 6.5 overall score required with no section less than 6.5.

**Programme Webpage:** [shortened as] <https://bit.ly/3zdI1HZ>

**Application:** Apply online at <https://nuigalway.elluciancrmrecruit.com/Apply>

## **B10 MSc in Science and Health Communication**

**DCU**

**Study Location:** Dublin City University

**Programme Duration:** 1 year

**Programme Outline:** The world has changed dramatically since the arrival of SARS-CoV-2 coronavirus in late 2019. Never before has it been so crucial to have skilled science communicators presenting technical information accurately and engagingly, while also organising and managing the flows of communication within and across the complex new crises we face on this planet. While there are fears of misinformation to be addressed, it is also crucial to engage society to participate in scientific research, and to make science more accessible and inclusive. Traditional political and community forums, online platforms, vlogs, broadcast news, social media, conferences, seminars, policy briefings and even science fiction are just some of the ways we can address both the scientific and the social issues associated with climate change, pandemics, future and emerging technologies, and the science of the world around us. The MSc in Science and Health Communication will not only explore these and emerging forums for science communication, but will also examine the best methods to communicate scientific information effectively to the many different groups within society.

**Indicative Content:** Core – Strategic Communication for STEM, Environment and Healthcare; Research Methods; Science and Health in the Media; Data Communication; Project/Dissertation; INTRA work placement. Options – Understanding Social Media; Social Media, Journalism & Democracy; Gender and Sexuality in Digital Culture; Media Audiences and Consumption.

**Admission Requirements:** A degree at the level of an Irish Honours undergraduate degree (H2.2 or above) or equivalent. Applicants with appropriate combinations of professional qualifications and experience may also be considered.

**IELTS:** Overall score 6.5 or above and 6.5 in writing and speaking. Other sections scores 6.0 or above.

**Programme Webpage:** [shortened as] <https://bit.ly/2Y3QL3H>

**Application:** Apply at [shortened as] <https://bit.ly/3nSrVIX> - using the **PAC Code: DC606**.

**Study Location:** NUI Galway

**Programme Duration:** 1 year

**Programme Outline:** The objective of this Master of Science course is to provide training for the next generation of healthcare workers in the clinical research arena. The course aims to provide a platform for achieving greater efficiencies in applying medical discoveries to clinical practice. It is aimed at qualified individuals who wish to become independent clinical investigators or those who wish to seek employment in leadership positions in clinical research teams.

**Indicative Content:** Core – Fundamentals of Health Research and Evaluation Methods; Introduction to Biostatistics; Introduction to the Ethical and Regulatory Framework of Clinical Research; Thesis. Options – Introduction to Biostatistics II; Introduction to Research Methods for Randomised Controlled Trials; Systematic Review Methods; Translational Medicine; Clinical Research Administration; Health Systems and Policy Analysis; Health Technology Assessment; Observational and Analytical Research Methods; Bio-Ethics; Biobank – Advanced Clinical Application and Clinical Testing; First in Human, Early Phase Clinical Trials.

**Admission Requirements:** A minimum Second-class Honours Grade 1 (2:1) in either Medicine, a Healthcare related discipline or a Biomedical science related degree. Applicants from non-healthcare related degrees will be considered (minimum requirement of 2nd Class Honours, Grade 1\*) on a case-by-case basis at the discretion of the coordinators. Applicants with significant relevant experience will also be considered for this programme.

**IELTS:** Minimum 6.5 overall score required with no band below 6.5.

**Programme Webpages:** [shortened as] <https://bit.ly/3x8VINr>

**Application:** Apply online at <https://nuigalway.elluciancrmrecruit.com/Apply>

**Study Location:** University College Dublin (Belfield Campus)

**Programme Duration:** 1 year

**Programme Outline:** The MSc in Clinical and Translational Research aims to train the next generation of investigators who will lead cutting edge clinical research into the future. We value high quality clinical research as the means to ensure novel interventions are developed to improve patients' lives. We deliver our programme through a blend of on-line learning followed by time in an active Clinical Research Centre, thereby ensuring students are taught by and gain experience alongside expert staff and internationally renowned investigators. A comprehensive programme of hands on practical experience is a core element of the course, complementing online and classroom based learning. Student assessment is focused on evaluating practical as well as theoretical skills and knowledge. This unique learning environment exposes students to high quality clinical research.

**Indicative Content:** Laboratory Medicine; Clinical Trials; Clinical & Translational Research; Data Management & Biostatistics; Clinical Protocol development; Clinical Trial Management

**Admission Requirements:** Applicants must possess a Level 8 degree or equivalent in any relevant discipline.

**IELTS:** Minimum 6.5 overall score required with no section less than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/3Mbbs6V>

**Application:** Apply online via the programme webpage.

**B13 MSc in Regenerative Medicine**

**NUIG**

**Study Location:** NUI Galway

**Programme Duration:** 1 year

**Programme Outline:** This 12-month taught MSc course will equip you with the skills to participate in this discipline. Modules will address the science behind Regenerative Medicine as well as its application to human disease. As part of this MSc course, students will undertake a summer-long, laboratory-based research project. The MSc is administered by the Regenerative Medicine Institute (REMEDI), a world-class biomedical research institute recognised as Ireland's primary centre for stem cell and gene therapy research, and a world leader in the field of regenerative medicine.

**Indicative Content:** Core – Regenerative Medicine; Tissue Engineering; Advanced Research Techniques; Graduate Course in Basic and Advanced Immunology; Scientific Writing; Advanced Tissue Engineering; Translational Medicine; Research Project and Thesis. Options – Introduction to Business; Introduction to Biostatistics I; Applied Concepts in Pharmacology; Human Body Function; Human Body Structure; Fundamental Concepts in Pharmacology; Harnessing the Basic Biology of Cancer for Development of Novel Therapeutics; Green Lab Principles and Practice; Economic Evaluation in Health Care; Independent Study Module; Introduction to Bioinformatics.

**Admission Requirements:** A Second-class Honours degree in a biological/life science or medicine. Students who have a degree without Honours in a related area and have three or more years of practical experience in the subject area will also be eligible to apply for this course.

**IELTS:** Minimum 6.5 overall score required with no section less than 6.5.

**Programme Webpage:** [shortened as] <https://bit.ly/3Mbu4f>

**Application:** Apply online at <https://nuigalway.elluciancrmrecruit.com/Apply>

**B14 MCh in Surgical Science & Practice**

**RCSI**

**Study Location:** Royal College of Surgeons University of Medicine and Health Sciences

**Programme Duration:** 1 year

**Programme Outline:** This innovative one-year full-time Masters in Surgical Science and Practice programme presents a new approach to early surgical education and training – you will cover the entire curriculum for Core Surgical Training, as defined by the Intercollegiate Surgical Curriculum Programme in just one year. During your studies, you will acquire core knowledge and clinical skills through immersive simulation. In addition to the knowledge, skills and behaviours components, you will also undertake a module which addresses various elements of professional development. The programme commences with a two-week boot camp covering basic sciences. All five integrated modules then run concurrently from Monday to Friday each week from early

September. The majority of the programme is delivered face-to-face with time also allocated for online and directed study.

**Indicative Content:** Core Knowledge and Clinical Judgement; Clinical Studies; Technical Skills; Non-Technical Skills; Professional Development; Research Project and Report.

**Admission Requirements:** To be eligible for entry, you must hold an MB/BCh/BAO (or equivalent level-8 undergraduate medical degree) recognised by the World Health Organisation.

**IELTS:** Minimum 6.5 overall score required with no section less than 6.5.

**Programme Webpage:** [shortened as] <https://bit.ly/3PX9j1L>

**Application:** Apply online via programme webpage.

## **B15 Master of Surgery (by module)**

**RCSI**

**Study Location:** Royal College of Surgeons University of Medicine and Health Sciences

**Programme Duration:** 1 year

**Programme Outline:** The Master of Surgery (MCh) by module is the first in Ireland to incorporate a taught component in addition to the research dissertation. The modules are designed to equip you with a versatile skill set that will help you better meet the demands of higher surgical training. The programme greatly benefits medical graduates planning a surgical career in obtaining a higher degree in surgery. This programme can be undertaken before, during or on completion of a structured surgical training programme. The Master of Surgery (MCh) by module is open to all surgical specialties. The programme's multidisciplinary structure enables you to build an understanding of the complex challenges and opportunities facing surgical professionals in the greater context of healthcare.

**Indicative Content:** Research Methods: Protocol Development, Design and Analysis; Leading and Managing Your Organisation/Service; Healthcare Ethics and Law; Medical Technology and Innovation; Global Surgery; Research Dissertation.

**Admission Requirements:** To be considered eligible for the programme, you must: (i) Hold the degree of MB/BAO/BCh or equivalent, (ii) Be registered and in good standing with your professional registration body, (iii) Possess good undergraduate and postgraduate records and references, (iv) Ideally candidates should have some practical experience and knowledge of clinical research as there is a strong research component within the programme.

**IELTS:** Minimum 6.5 overall score required with no section less than 6.5.

**Programme Webpage:** [shortened as] <https://bit.ly/3m6vEwb>

**Application:** Apply online via programme webpage.



**Study Location:** NUI Galway

**Programme Duration:** 1 year

**Programme Outline:** The degree in Surgery (MCh) is designed to enhance the academic and professional development of surgical trainees and to improve patient safety. Running parallel with the basic surgical training scheme (BST), this programme will provide surgical trainees with the academic and scientific research skills needed for progression to higher surgical training schemes and academic surgery. MCh students learn in a highly interactive environment, and are involved in the creation of surgical scenarios using high fidelity simulation. The combination of professional surgical training and research output will appeal to graduates intending to apply for higher surgical training (HST) schemes in surgery or similar medical specialties. Surgeons require recognised postgraduate research and academic qualifications for progression to higher surgical training schemes.

**Indicative Content:** Core – Informatics I: Retrieval & Appraisal of Scientific Literature; Informatics II: Research Methods; Research Thesis; Translational Research; Surgical Education; Patient Safety & Human Factors; Biostatistics: Critical Appraisal of Published Statistics. Options – Professionalism in Surgery; Surgical Lab Skills.

**Admission Requirements:** Successful candidates will hold a primary degree in Medicine and be conferred with the degrees of Bachelor of Medicine, Bachelor of Surgery, and Bachelor of Obstetrics. They should also be selected for the Basic Surgical Training Programme (BST) national programme. Candidates not on the BST programme may be eligible and will be interviewed. Successful candidates should be registered with the Irish Medical Council.

**IELTS:** Minimum 6.5 overall score required with no section less than 6.5.

**Programme Webpage:** [shortened as] <https://bit.ly/3PPtvTg>

**Application:** Apply online at <https://nuigalway.elluciancrmrecruit.com/Apply>

**Study Location:** University of Limerick

**Programme Duration:** 1 year

**Programme Outline:** The MSc Nursing Studies programme prepares and advances students with the knowledge, skills and attitudes required to become confident, critical, analytical and research aware graduates. The programme provides opportunities to explore research as evidence for enhancing and changing practice and aims to advance the student's aptitudes in becoming confident, analytical and research aware.

**Indicative Content:** Core – Health Research - Methods & Methodology; Principles of Primary & Community Care; Leading & Managing Practice; Project Development & Study Skills; Promoting Quality & Safety in Healthcare; Dissertation. Options – Health Promotion in Nursing/Midwifery Practice; Intercultural Care; Therapeutic Engagement.

**Admission Requirements:** Candidates must have a First-class or Second-class Honours degree in a relevant or appropriate subject and must be a registered nurse and provide evidence of a current registration with an appropriate Nursing/Midwifery Registration Board.

**IELTS:** Minimum 6.5 overall score required with no section less than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/2BjpFk4>

**Application:** Apply online via the programme webpage.

**B18 MSc in Nursing (International)**

**MTU**

**Study Location:** Munster Technological University (Tralee Campus)

**Programme Duration:** 1 year

**Programme Outline:** The MSc in Nursing is constructed within the context of health, nursing and educational policy developments. The programme facilitates professional planning and leadership for participants within clinical practice, within management, research and/or education. The aim of this MSc in Nursing is to develop postgraduates with an advanced level of theoretical knowledge, leadership and research skills in nursing. These skills will enable learners to become leaders in their designated fields of healthcare. The programme aims to enable graduates to provide expert knowledge in shaping current and future changes in nursing and health care services.

**Indicative Content:** Leadership; Nursing Theory; Transforming Professional Practice Through Reflection; Research Methodology and Project Design; Dissertation Project; Ethical Judgement in Professional Leadership; Quality Improvement & Governance in Health and Social Care; Evidence Based Professional Practice.

**Admission Requirements:** Candidates with a Bachelor (Hons) In Nursing with a minimum of a second class honours grade & registered nurse (RN) status in Ireland or another country are welcome to apply.

**IELTS:** Minimum 6.0 overall score required with no section lower than 5.5.

**Programme Webpage:** <https://bit.ly/3xc7UdP>

**Application:** Application form can be downloaded on the programme webpage.

**B19 MSc in Adolescent Health**

**NUIG**

**Study Location:** NUI Galway

**Programme Duration:** 1 year

**Programme Outline:** This programme, the first programme of its kind in Europe, provides students with interdisciplinary training in adolescent health grounded in a public health approach. Our programme is specifically aimed at educators, social care workers, coaches and health professionals who are passionate about improving the health and well-being of adolescents. Our students will enjoy the flexibility of a Blended Learning approach, which combines online modules with a series of face-to-face workshops on campus. Through our rigorous curriculum, our students learn how to define the health and developmental needs of adolescents, design strategies to address those needs, and evaluate the effectiveness of adolescent health policies and programmes.

**Indicative Content:** Foundations of Public Health in the Context of Adolescence; Adolescent Health and Development; Research Methods; Determinants of Adolescent Health; Chronic Health Disorders in Adolescents; Designing, Implementing, and Evaluating Adolescent Health Interventions; Communication for Adolescent Health; Quality Improvement; Leadership Development; Integrative Learning Experience.

**Admission Requirements:** Successful candidates will have a strong undergraduate record with a minimum of a 2.2 in Level 8 in the social sciences, health sciences, or a cognate discipline. Applicants with a Level 7 with extensive experience working with adolescents will also be considered on a case by case basis.

**IELTS:** Minimum 6.5 overall score required with no section less than 5.5.

**Programme Webpage:** [shortened as] <https://bit.ly/3aqaZRa>

**Application:** Apply online at <https://nuigalway.elluciancrmrecruit.com/Apply>

## **B20 MA in Addiction Studies**

**DBS**

**Study Location:** Dublin Business School

**Programme Duration:** 1 year

**Programme Outline:** The MA in Addiction Studies is a rigorous and formal exploration of addictions from a variety of academic and scientific perspectives: sociological, cultural, psychological, anthropological, and psychoanalytic. The programme is concerned with how these perspectives interact and how they differ from each other. The aim is to educate students so that they can carry out research in the field of addiction and thereby critically inform policy making, as well as management of addiction services. The programme also provides clinicians with a strong theoretical foundation from where to approach the treatment of addictions.

**Indicative Content:** Dialogical Meanings in Addiction: Theory, Practice and Policy; A Psychoanalytic Perspective on Addiction; Research Methods and Analysis; Addiction Psychopharmacology; Cultural Issues in the Study of Addiction; Women and Addiction; Integrative Tutorial; Supervised Clinical Visits; Research Project.

**Admission Requirements:** Applicants must (i) have a minimum Second-class Honours (2.2) Degree in any humanities or social science discipline from a recognised third level institution, or equivalent qualification, or (ii) have an equivalent professional qualification.

**IELTS:** Minimum 6.5 overall score required.

**Programme Webpage:** [shortened as] <https://bit.ly/35rGgNT>

**Application:** Apply online via the programme webpage.

## **B21 MSc in Obesity**

**NUIG**

**Study Location:** NUI Galway

**Programme Duration:** 1 year

**Programme Outline:** This newly established masters programme provides a broad and comprehensive curriculum that is clinically relevant and that also has a strong theoretical basis. Our motivation in developing this programme at NUI Galway is two-fold: To inform better, evidence-based, compassionate and dignified care to patients affected by obesity and related disorders and secondly to inform better population level strategies to mitigate the obesity epidemic. This “two-pronged” approach is a strong theme throughout the programme, reflected in the two distinct obesity modules that form part of the core learning. Our students will develop in-depth knowledge

of the various therapeutic strategies available to patients and will understand the factors underlying variations in the obesity phenotype. Students will also appreciate the potential benefits and disadvantages of various population level strategies that can be formulated to address the obesity crisis, and the societal, political and legislative challenges faced in deploying these.

**Indicative Content:** Obesity in the Population; Obesity in the Patient; Introduction to Ethical/Regulatory Frameworks of Clinical Research; Lifestyle Risk Factor Modification; Research Dissertation.

**Admission Requirements:** Successful applicants will possess at least a Second Class Honours, Grade 1 degree in an appropriate clinical or life science degree programme. However, for those who do not hold a primary degree at the required level, a special case can be made if they have demonstrated aptitude for the course material through at least three years of high quality work experience in an obesity-related field (relevant to their background).

**IELTS:** Minimum 6.5 overall score required with no section less than 6.5.

**Programme Webpage:** [shortened as] <https://bit.ly/3MbERxR>

**Application:** Apply online at <https://nuigalway.elluciancrmrecruit.com/Apply>

**B22 MSc in Immunology**

**TCD**

**Study Location:** Trinity College Dublin

**Programme Duration:** 1 year

**Programme Outline:** This M.Sc. in Immunology includes study of immunological processes and mechanism, how they contribute to disease and how they might be manipulated therapeutically. By focusing on the molecules, cells, organs and genes of the immune system, their interaction and how they are activated and regulated, students will develop a deep understanding of the pathological processes underpinning immune mediated disease and how they might be controlled. From a practical perspective the course involves in-depth instruction in modern methodologies used in immunology/biomedical research, including the fundamentals of molecular and cellular biology. Students will also be trained in experimental design, data handling and basic research skills. The masters course aims to provide students with a well-balanced and integrated theoretical and practical knowledge of Immunology, and to highlight the progress and intellectual challenges in this discipline.

**Indicative Content:** Basic Immunology; Immunological Technologies; Communicating Science and Critical Analysis; Immunogenetics; Microbe Detection and Evasion; Clinical Immunology; Parasite Immunology; Tumour Immunology; Global Infectious Diseases; Immunotherapeutics and Product Development; Research Project; Dissertation.

**Admission Requirements:** Applicants will normally be required to hold at least Upper Second-class Honours degree (2:1) or higher in Medicine, Veterinary Science, Dentistry; Molecular Biology, Genetics, Immunology, Biochemistry or a related subject.

**IELTS:** Minimum 6.5 overall score required.

**Programme Webpage:** <https://www.tcd.ie/courses/postgraduate/courses/immunology-msc/>

**Application:** Apply online via the programme webpage.

**Study Location:** University College Dublin (Belfield Campus)

**Programme Duration:** 1 year

**Programme Outline:** The MSc. in Behavioural Neuroscience offers advanced education and training in topics concerning human behaviour and its relation to the brain. Behavioural Neuroscience is an interdisciplinary field which combines expertise from a range of disciplines, including Psychology, Neuroscience, Engineering and Economics. The programme provides an excellent preparation for students who wish to pursue doctoral research in psychology, neuroscience or neuropsychology and equips students for work in research, medical and health settings. Students will gain key skills in research methods, experimental design, programming & data analysis.

**Indicative Content:** Fundamentals of Neuropsychology; Clinical Cases in Neuropsychology; Advanced Cognitive Psychology; Knowledge Transfer; Recent Papers in Behavioural Neuroscience; Readings in Visual and Social Cognition; Advanced Research Methods and Stats; Behavioural Neuroscience Labs; Behavioural Neuroscience Research Project; Sensory Neuroscience; Principles of Neuroscience.

**Admission Requirements:** A primary degree that is at least upper Second-class honours or international equivalent in Psychology or in Neuroscience.

**IELTS:** Minimum 7.0 overall score required with no less than 6.5 in each element.

**Programme Webpage:** [shortened as] <https://bit.ly/3xmcmXx>

**Application:** Apply online via the programme webpage.

**Study Location:** Dublin Business School

**Programme Duration:** 1 year

**Programme Outline:** This Master of Science in Applied Psychology has been designed with an integrated delivery from end-to-end, covering a wide range of specialist topics that provide learners with the knowledge of theories, concepts and processes relating to Psychology and helps them understand how these can be applied in a variety of contemporary settings. Learners will explore human behaviour from individual, social and biological perspectives and through a detailed understanding of the discipline, both theoretically and methodologically, and will be enabled to assess appropriate interventions and design appropriate solutions for clients' needs.

**Indicative Content:** Advanced Quantitative Research Methods and Analysis; Advanced Qualitative Research Methods and Analysis; Addiction and Rehabilitation; Psychometrics and Psychometric Testing; Applied Neuroscience; Motivation, Leadership & Positive Psychology; Public and Community Health; The Psychological Practitioner and the Therapeutic Relationship; Life Transitions and Interventions; Professional Issues and Ethics in Applied Psychology; Research Placement; Major Dissertation.

**Admission Requirements:** A first qualification in Psychology of an upper Second Class Honours (2.1) at NFQ Level 8 or above accredited by the Psychological Society of Ireland or show eligibility for accreditation by the Psychological Society of Ireland. (In exceptional cases, the college may accept a lower Second-class Honours degree in Psychology on the basis of an interview).

IELTS: Minimum 6.5 overall score required.

**Programme Webpage:** [shortened as] <https://bit.ly/3w7O4CF>

**Application:** Apply online via the programme webpage.

**B25 MSc in Advanced Physiotherapy Studies**

**UCD**

**Study Location:** University College Dublin (Belfield Campus)

**Programme Duration:** 1 year

**Programme Outline:** The MSc in Advanced Physiotherapy Studies aims to broaden the Chartered Physiotherapists' knowledge base in the areas relevant to the practice of physiotherapy mapping to their educational and career pathway needs. Graduates will have the opportunity to achieve excellence in professional practice as advanced clinicians, critical thinkers, and life-long learners. This programme aims to allow the physiotherapist to choose an educational pathway that maps to their career specialty e.g., in primary care health, sports and exercise rehabilitation, musculoskeletal physiotherapy.

**Indicative Content:** Core – Dissertation. Options – Fundamentals of Strength & Conditioning; Advanced Strength & Conditioning; Psychology of Sport and Health; Optimisation of Human Performance; Exercise and Public Health; Neuromuscular & Biomechanical Laboratory Testing; Sports Injury Management; Exercise Physiology and Sports Nutrition; Introduction to Epidemiology, Biostatistics & Public Health; Public Health Practice and Policy; One Health; Health Promotion; Non Communicable Disease Epidemiology; International Health Action; Promoting Consumer Nutrition; Principles of Health Financing and Management; Tai Chi for Sport & Health; Mindfulness for Health; Evidenced Based Practice; Research Methods; Spinal Studies; Health in A Global Society; Cardiac Rehabilitation; Skill Acquisition; Sport Governance & Law; Sport Leadership & People Management; Strategy & Operation Management in Sport.

**Admission Requirements:** This is open to Chartered Physiotherapists eligible for registration with the Irish Society of Chartered Physiotherapists (ISCP), with a 2:1 degree classification. No previous clinical experience is necessary except on a limited number of modules.

IELTS: Minimum 6.5 overall score required with no section less than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/3NgprKg>

**Application:** Apply online via the programme webpage.

**B26 MSc in Experimental Physiology**

**UCD**

**Study Location:** University College Dublin (Belfield Campus)

**Programme Duration:** 1 year

**Programme Outline:** The taught MSc in Experimental Physiology is an ideal programme for students that are interested in a biomedical research or laboratory-based career in academia or industry. The aim of this programme is to provide in-depth laboratory-based training in a variety of techniques that are commonly used in physiological and biomedical research laboratories, and in industrial research and development facilities. In addition to mastering common laboratory techniques (such as Western blotting, cell culture, real-time PCR,

immunohistochemistry) students will learn how to appropriately apply these techniques in order to address research questions. Via optional modules, students will also be introduced to cutting edge developments in “Omics” technologies, flow cytometry, and imaging.

**Indicative Content:** Core – Public Science Communication; Introduction to Core Research; Transferrable Research Skills; Analysis of Gene Expression – PCR; Analysis of Protein Distribution in Tissues – Immunohistochemistry; Analysis of Protein Expression – Western Blot; Cell Culture for Physiological Research; Online Research Skills; Research Integrity Online. Options – Biotech Case Study; Quantitative Tools for the Life Sciences; Scientific Writing and Communication; Introduction to ‘Omic’ and Advanced Imaging Technologies; Molecular Neuroimmunology; Advanced Biological Imaging; Flow Cytometry: Principles and Practice; Applied Proteomics; Data Analysis: Biological Science; Creative Thinking & Innovation; Entrepreneurship: Application and Mindset; Communicating for Impact; Teaching in Higher Education; Cellular Physiology; In Vivo Physiology; Molecular Physiology; Tissue Physiology; Fundamentals of Physiological Research.

**Admission Requirements:** Undergraduate degree in Physiology or related biomedical discipline.

**IELTS:** Minimum 6.5 overall score required with no section less than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/3GMKr8N>

**Application:** Apply online via the programme webpage.

**B27 MSc in Precision Medicine**

**UCD**

**Study Location:** University College Dublin (Belfield Campus)

**Programme Duration:** 1 year

**Programme Outline:** Students will be taught the fundamentals of clinical and translational research, applications in clinical diagnostics and Biomarker development and how precision medicine is being applied in the areas of oncology, drug development and infectious disease. Introductory modules in translational bioinformatics and biostatistics have been added to provide students new to these areas with interdisciplinary skill sets to draw insights and value from precision medicine data and to communicate their findings across different domains. The program will be delivered by clinical and scientific experts from UCD, experienced Bioinformaticians and computer scientists, statisticians and experts in public health as well as industry leaders in precision medicine. This programme is applicable to life sciences graduates and healthcare professionals, wishing to pursue careers in industry, academia and in clinical settings.

**Admission Requirements:** Applicants should have successfully completed an undergraduate medical degree or primary degree programme (minimum of a 2.1 honours or equivalent) in a biological or chemical science. This includes a B.Sc. in Biotechnology, Biochemistry, Microbiology, Genetics, Neuroscience, Physiology, Pharmacology, Medicinal Chemistry or an equivalent qualification.

**IELTS:** Minimum 6.5 overall score required with no section less than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/3GMGIbg>

**Application:** Apply online via the programme webpage.

**Study Location:** University College Dublin (Belfield Campus)

**Programme Duration:** 1 year

**Programme Outline:** Academically, the MSc will provide conceptual understanding and advanced scholarship, enabling students to critically evaluate and critique current research and innovation methodologies and develop new research questions and hypotheses. The program will be delivered by clinical and scientific experts from UCD, experienced Bioinformaticians and computer scientists, statisticians and experts in public health as well as industry leaders in precision medicine. This interdisciplinary programme is applicable to life sciences graduates and healthcare professionals, wishing to pursue careers in industry, academia and in clinical settings.

**Indicative Content:** Core – Medical Research Design, Regulations and Ethics; Professional Skills and Career Development; Data Mining for Life Sciences; Life Sciences Machine Learning; Python for the Life Sciences; Introduction to Biostatistics; Statistics for Human Genomics; Data Programming with R. Options – Information Visualisation; Biostatistics and Data Management; Internship; Research Project; Precision Oncology; High Throughput Technologies; Drug Discovery and Development; Precision Medicine in Infection; Multivariate Analysis (online).

**Admission Requirements:** Applicants should have successfully completed an undergraduate medical degree or primary degree programme (minimum of a 2.1 honours or equivalent) in a biological or chemical science. This includes a B.Sc. in Biotechnology, Biochemistry, Microbiology, Genetics, Neuroscience, Physiology, Pharmacology, Medicinal Chemistry or an equivalent qualification.

**IELTS:** Minimum 6.5 overall score required with no section less than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/3GKG6De>

**Application:** Apply online via the programme webpage.

**Study Location:** Dublin City University

**Programme Duration:** 1 year

**Programme Outline:** The MSc in Diagnostics and Precision Medicine is a new blended-learning programme that details how diagnostics and therapeutics are revolutionising healthcare and medicine by providing the right person with the right therapy at the right time.

**Indicative Content:** Introduction to Cell Biology and Biotechnology; Recombinant DNA Technology; Fundamental and Applied Immunology; Molecular Diagnostics; Targeted Therapeutics and Diagnostics for Cancer; Translational Bioinformatics; Therapeutics and Diagnostics for Inflammatory Diseases and Inherited Diseases; Applied Biostatistics; Professional Skills for Scientists; Laboratory Practical Techniques; Literature Review, Project and Presentation.

**Admission Requirements:** A relevant undergraduate degree with a minimum 2:1 or equivalent in life science, pharmaceutical or chemistry disciplines. In addition, candidates who hold a primary degree, with a Second-Class grade (H2:2) in a relevant discipline and with industrial experience will be considered.



**IELTS:** Overall score 6.5 or above and 6.5 in writing and speaking. Other sections scores 6.0 or above.

**Programme Webpage:** [shortened as] <https://bit.ly/2PcbgIn>

**Application:** Apply online at [shortened as] <https://bit.ly/3nSrVIX> - using the **PAC Code: DC739**

**B30 MSc in Health Informatics**

**UL**

**Study Location:** University of Limerick

**Programme Duration:** 1 year

**Programme Outline:** Health informatics is a multi-disciplinary, multi-dimensional field. This field focuses on the creation, modelling, management and sharing of health data and knowledge to support data analysis and timely decision making in medicine and health care together with the information science and technology to support these tasks. It is not solely a technical discipline but focuses on the relationship between the technology and its use in real-world settings i.e., solutions are designed in context, taking into account the social, cultural and organisational settings in which computing, and information technology will be used in health care sectors.

**Indicative Content:** Health Informatics Applications; Electronic Health Record Management; Research Methods in Health Informatics; Medical Decision Support Systems; Requirements Engineering for Health Informatics; Health Informatics Project Management; Strategic Issues in Health Informatics; E-Health Systems; ICT for Evidence-Based Health Care; Research Project; Health Informatics Dissertation.

**Admission Requirements:** (i) A Health Care Administrator/Clerical Officer, Health Care Manager or Health Care Professional who holds a primary undergraduate degree (2.2 Honours or higher), or (ii) an applicant who holds a primary undergraduate degree (2.2 Honours or higher) in a health sciences discipline, or (iii) an IT specialist who holds a primary undergraduate degree (2.2 Honours or higher) with experience of working in a health care setting, or (iv) an applicant with at least 5 years relevant work experience who can satisfy the programme admission team that he/she has the ability to complete and benefit from this programme.

**IELTS:** Minimum 6.5 overall score required with no section lower than 6.0.

**Programme Webpage:** <https://www.ul.ie/gps/programme/health-informatics-msc>

**Application:** Apply online via the programme webpage.

**B31 MSc in Artificial Intelligence for Medicine and Medical Research**

**UCD**

**Study Location:** University College Dublin (Belfield Campus)

**Programme Duration:** 1 year

**Programme Outline:** This Masters programme consolidates core disciplines to address a rapidly increasing skill gap in the healthcare and biomedical research sector. AI is already revolutionising medical imaging, digital pathology, pharmaceutical research, and remote sensing and connected health. In the era of genomic medicine AI will transform the way we diagnose and treat diseases reducing the impact of the healthcare crisis in industrialised countries caused by cancer, obesity and diabetes. It combines teaching in data analytics, machine learning/AI, systems biology, precision medicine, health informatics and connected health.

**Indicative Content:** Core – Biological Principles and Cellular Organisation; Machine Learning (Blended Delivery); AI for Personalised Medicine; AI & Digital Pathology: Theory & Practice; Precision Oncology; High Throughput Technologies; AI for Medical Image Analysis. Options – Bioinformatics; Data Science in *Python*; Advanced Machine Learning; Deep Learning; Information Ethics; Medical Research Design, Regulations & Ethics; Professional Skills and Career Development; Drug Discovery and Development; Intro to Genetic Epidemiology; Clin Info and Decision Support; Introduction to Biostatistics; Statistics for Human Genomics; Data Programming with *R*; Data Programming with *Python* (online).

**Admission Requirements:** A Bachelor's degree (min 2H2), good computing skills, basic programming skills, and a solid foundation in statistics and mathematics.

**IELTS:** Minimum 6.5 overall score required with no section less than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/3MetW6v>

**Application:** Apply online via the programme webpage.

**B32 MSc in Medical Device Design**

**NCAD**

**Study Location:** National College of Art and Design

**Programme Duration:** 1 year

**Programme Outline:** This programme teaches fundamental approaches, methods and tools related to the design of medical devices, experiences, systems and services with a focus on users and context of use. The MSc is studio-based with students engaging in lectures, seminars and workshops along with projects with industry and clinical collaborators. The studio environment is an essential component, fostering collaborative peer-to-peer learning while exploring the complexity of medical care. The MSc Medical Device Design brings together candidates from a range of fields including design, health care, engineering, and business, and prepares graduates to play a leading role in the development of emerging medical devices.

**Indicative Content:** Introduction to Research Methods; Design Studio Collaborative Project; Basic Medical Science; Human Factors; Fundamentals of Medical Device Design; Bioinstrumentation; Major Thesis Project.

**Admission Requirements:** The programme is open to graduates with an Honours degree award of 2.2 or higher, or an equivalent academic or professional qualification across various disciplines including design, engineering, science, art, the humanities, social science, computer science, engineering and business. The college also takes into consideration prior learning and experience.

**IELTS:** Minimum 6.5 overall score required with a minimum 6.0 in writing.

**Programme Webpage:** [shortened as] <https://bit.ly/3uNY4Np>

**Application:** Apply online at <https://www.ncad.ie/study-at-ncad/postgraduate-application/apply-for-a-taught-masters-programme/>

**Study Location:** Atlantic Technological University (Galway)

**Programme Duration:** 1 year

**Programme Outline:** The MSc in International Medical Technologies, Innovation and Development programme develops the necessary skills required to strategically support the innovation journey of medical technologies for access into target international markets. Learners will not only develop critical research skills to support the convergence in medical technologies but will also understand regulatory requirements and advanced testing methods to meet the business strategy and plans for market for new technologies. Co-delivered by both industry and academic experts, the Masters programme will be delivered using a blended learning approach. The programme design team have placed a strong emphasis on work-based learning and the year-long research project will be carried out in a company or within an applied research centre in ATU.

**Indicative Content:** Global Regulatory Strategies for Medical Technologies; Medical Technologies; Design and Analysis of Experiments; CEO Masterclass; Pre-clinical Evaluation and Assessment; Design Control and Risk Management; Research Project in Medical Technologies.

**Admission Requirements:** A 2.2 Honours Bachelor degree in any cognate discipline or equivalent in science, technology or engineering, is the minimum entry requirement for this programme.

**IELTS:** Minimum 6.0 overall score required with no section less than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/374NIIQ>

**Application:** Via an online form available at <https://www.gmit.ie/international/international-online-applications>

**Study Location:** Trinity College Dublin

**Programme Duration:** 1 year

**Programme Outline:** The M.Sc. in Pharmaceutical Sciences is an integrated multidisciplinary course addressing fundamental and applied aspects of drug and drug product discovery, development, production and analysis. The programme will prepare candidates for research careers in academia and industry in pharmaceutical R&D. Formal classes run from September to April and are normally held two days every week with the remaining time available to students for self-directed studies, writing tutor marked assignments, preparing laboratory reports and presentations.

**Indicative Content:** Regulatory Aspects and Industrial Pharmacy; Natural Product Analysis and Regulation; Spectroscopic Methods for Drug Analysis; Molecular Pharmaceutics and Advanced Drug Delivery; Biopharmaceutical Sciences; Pharmaceutical and Medical Nanotechnology; Drug Discovery and Development; Biotechnology; Formulation development and evaluation; Professional Skills in Pharmaceutical Sciences.

**Admission Requirements:** Applicants are accepted, subject to the availability of places, from holders of Honours degrees in a relevant Science discipline (e.g., Pharmacy, Chemistry, Analytical Chemistry, Microbiology, Biochemistry, Pharmacology and other appropriate primary Honour's degrees e.g., I.T., Medicine or Veterinary). Equivalent primary and/or postgraduate qualifications are considered, particularly with relevant professional experience.

**IELTS:** Minimum 6.5 overall score required.

**Programme Webpage:** [https://pharmacy.tcd.ie/postgraduate/msc\\_analysis.php](https://pharmacy.tcd.ie/postgraduate/msc_analysis.php)

**Application:** Apply online via the programme webpage.

**B35 MSc in Chemistry – Analysis of Pharmaceutical Compounds**

**UCC**

**Study Location:** University College Cork

**Programme Duration:** 1 year

**Programme Outline:** The MSc in Analysis of Pharmaceutical Compounds is a one-year course designed to provide you with the theoretical and practical skills for employment in a diverse range of industries that require analytical expertise. The course curriculum consists of six months of lectures, laboratory practical sessions, career service workshops, industry-based seminars/workshops and site visits to industry. You will be required to complete a six-month research project based on your individual research and development in a selected field of modern science. The option to conduct a 6-month research project abroad is not open to Ireland Fellows Programme award recipients.

**Indicative Content:** Modern Analytical Techniques; Chemical Data Analysis and GLP; Separation Science, Sensors and Process Analytical Technology; Materials, Pharmaceutical and Bio-analysis; Practice of Analytical Chemistry; Industry-Led Workshops; Taught Postgraduate Transferable Skills Development; Biopharmaceuticals: Formulation Design, Secondary Processing and Regulatory Compliance; Research Project and Dissertation.

**Admission Requirements:** Candidates must have obtained at least a Second-class Honours degree or equivalent in a subject(s) related to that of the MSc programme. Graduates with equivalent qualifications in related areas of science and technology, or with proven and relevant industrial experience can be considered for places following interview and assessment.

**IELTS:** Minimum 6.5 overall score required with no section less than 6.0.

**Programme Webpage:** <https://www.ucc.ie/en/ckr02/>

**Application:** Apply online at <https://www.ucc.ie/en/apply/>

**B36 MSc in Biopharmaceutical Manufacturing**

**ATU**

**Study Location:** Atlantic Technological University (Galway)

**Programme Duration:** 1 year

**Programme Outline:** The programme was designed in partnership with Irish companies manufacturing biopharmaceuticals and relevant industry stakeholders. Learners will develop both critical research skills in biopharmaceutical science and in-depth understanding of the quality processes involved in the manufacture of biopharmaceutical products. The Masters programme will be delivered using a blended learning approach. Based on the input from industry, the programme design team have placed a strong emphasis on work-based learning and the year-long research project will be carried out in a company or within an applied research centre in GMIT.

*Lectures and tutorials will be delivered live on-line and will be recorded, available through ATU's learning platform Moodle. On-site activities are limited. The Applied Research Project will be work-based and year-long.*

**Indicative Content:** Bioprocessing Technology; Design and Analysis of Experiments; Biopharmaceutical Science; Quality Management Systems and Regulatory Affairs; Applied Immunology, Immunotherapeutics & Vaccine Technology; Six Sigma Management; Validation for Biopharmaceuticals; Biopharmaceutical Facilities; Machine Learning and Vision; Advanced Biopharmaceutical Science; Applied Research Project.

**Admission Requirements:** A 2.2 Honours Bachelor degree in a cognate science discipline such as biochemistry, microbiology, biology, chemistry, biomedical science/engineering or equivalent.

**IELTS:** Minimum 6.0 overall score required with no section less than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/3MK4CpX>

**Application:** Via an online form available at <https://www.gmit.ie/international/international-online-applications>

## **B37 MSc in Pharmaceutical Business and Technology**

**GC**

**Study Location:** Griffith College (Dublin Campus)

**Programme Duration:** 1 year

**Programme Outline:** This MSc in Pharmaceutical Business and Technology focuses on core competencies such as pharmaceutical processes and production, pharmaceutical business introduction & technology transfer, emerging trends, operational excellence (Lean & Six Sigma), regulatory affairs, data analytics, strategic thinking, and leadership development. This programme is delivered by the Griffith Innopharma Faculty of Science and blends the subjects of pharmaceutical technology and business.

**Indicative Content:** Processes, Production and Pharmaceutical Quality Systems; Regulatory Landscape of Pharmaceutical Business; Pharmaceutical Technology Transfer; 21<sup>st</sup> Century Dynamics & Emerging Trends; Strategy, Leadership & the Culture of Innovation; Operational Excellence & the Science of Innovation; Clinical Research Management; Research Methods; Dissertation.

**Admission Requirements:** Applicants must hold a minimum qualification of an Honors degree (minimum 2.2 or higher) at NFQ Level 8 or higher in Science, Engineering or Quality or related discipline.

**IELTS:** Minimum 6.5 overall score required.

**Programme Webpage:** [shortened as] <https://bit.ly/3w3KMOB>

**Application:** Apply online via the programme webpage.

**Study Location:** Griffith College (Cork Campus)

**Programme Duration:** 1 year

**Programme Outline:** This MSc in International Pharmaceutical Business Management programme develops learners' abilities to research current trends and developments in the Pharmaceutical Business Management Industry and to develop their knowledge, skill, and competencies to work in this dynamic business arena across multiple industries, whether they are service or manufacturing oriented. This programme provides learners with the specialist skills required for successful management careers in the pharmaceutical range of industries, whether they are service or manufacturing oriented.

**Indicative Content:** Management Accounting and Control; Leadership and Management Development; International Strategy; International Marketing Management; Globalisation and Corporate Responsibility; Business Research Methods; Commercial and Financial Considerations in the Pharmaceutical Industry; Quality & Regulatory Framework in the Pharmaceutical Industry; Business & Technology Innovation in the Pharmaceutical Industry; Marketing Management for Pharmaceutical Marketers; Dissertation.

**Admission Requirements:** Candidates applying for this programme should have either (i) a Level 8 Honours Degree, 2.2H or higher, in Pharmacy, Science or equivalent discipline, or (ii) a Level 8 Honours Degree, 2.2H or higher, in business or related discipline, with at least three years Pharmaceutical related industry experience. Candidates holding relevant alternative qualifications and those with related experiential learning will be considered under the College's RPL policy.

**IELTS:** Minimum 6.5 overall score required.

**Programme Webpage:** [shortened as] <https://bit.ly/3xbFqAV>

**Application:** Apply online via the programme webpage.

**Study Location:** Atlantic Technological University (Sligo)

**Programme Duration:** 1 year

**Programme Outline:** This programme is intended to increase the skills and knowledge base of those with an interest in the Biopharmaceutical Industry and to increase the pool of such people available to the industry. The courses are designed to provide candidates with a comprehensive understanding of the principal scientific and engineering challenges in the manufacturing of biopharmaceutical products, thereby making them highly employable within the Biotechnology, Biopharmaceutical and Medical Biotechnology Industries.

**Indicative Content:** Upstream Bioprocessing; Downstream Bioprocessing; Quality Control Testing for Biologics; Formulation and Delivery of Biopharmaceuticals; Biopharmaceutical Regulation and Compliance; Research Methods; Dissertation.

**Admission Requirements:** The programme is open to students who have obtained an honour's degree or equivalent in an appropriate discipline (i.e. Engineering or Life Sciences). Other candidates with alternative honours degrees and relevant experience in the Biopharmaceutical industry (typically 5 years duration in a GMP environment) may apply for consideration through the IT Sligo RPL (Recognised Prior Learning) process.

**IELTS:** Minimum 6.0 overall score required with no section less than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/3OGVHaB>

**Application:** Via an online form available at <https://www.itsligo.ie/international/international-application-form/>

**B40 MSc in Biomedical Science**

**NUIG**

**Study Location:** NUI Galway

**Programme Duration:** 1 year

**Programme Outline:** Using state of the art technologies and a range of skills from scientific, engineering and clinical disciplines to understand and investigate questions originating in biology and medicine, you will be introduced to science and engineering disciplines you will not have covered in your undergraduate studies. You will have access to some of Ireland's leading researchers in this area. A major objective of the course is to introduce students to an interdisciplinary approach to Biomedical Science, which utilises technologies and skills from a wide spectrum of scientific, engineering and clinical disciplines. Because the industry placement option for this programme requires a second year of study, this option is not open to students on the Ireland Fellows Programme.

**Indicative Content:** Core – Applied Biomedical Sciences; Research & Minor Thesis; Tissue Engineering; Materials, Science & Biomaterials; Introduction to Business; Literature Analysis and Presentation Skills in Biomedical Research; Regulatory Compliance in Healthcare Manufacturing; Molecular Medicine. Options – Human Body Function; Protein Technology; Human Body Structure; Fundamental Concepts in Pharmacology; Radiation and Medical Physics; Introduction to Molecular and Cellular Biology; Advanced Tissue Engineering; Advanced Industrial Processes.

**Admission Requirements:** Candidates must hold at least a Second Class Honours Level 8 primary degree in a related subject area or hold a primary degree in a related area (which is acceptable to the college) without honours and have three years' relevant practical experience in the subject area.

**IELTS:** Minimum 6.5 overall score required with no less than 6.5 in Writing and no less than 6.0 in any other band.

**Programme Webpage:** [shortened as] <https://bit.ly/3x5LKLE>

**Application:** Apply online at <https://nuigalway.elluciancrmrecruit.com/Apply>

**B41 MEngSc in Optical Engineering**

**UCD**

**Study Location:** University College Dublin (Belfield Campus)

**Programme Duration:** 1 year

**Programme Outline:** In this MEngSC in Optical Engineering programme, students will gain an advanced understanding of a broad range of areas within optical engineering, such as biomedical signal processing, optoelectronics, and biomedical imaging. Graduates in this programme will gain advanced knowledge and understanding of the mathematics, sciences, engineering sciences and technologies underpinning optical engineering with a special emphasis on Fourier optics. There are excellent job opportunities for optical engineers

in the display, lighting, virtual reality, robotic and drone areas. Industries include aerospace, telecommunications, semiconductor, biomedical/healthcare, and manufacturing.

**Indicative Content:** Core – Biomedical imaging; Optical Engineering; Optoelectronics; MEngSc Optical Project; Professional Engineering (Management). Options – Numerical Algorithms; Biological Imaging; Hyperspectral Imaging; Optical Sensing Technology; Modelling and Simulation; Biomedical Signal Processing; Entrepreneurship in Engineering; Optimisation Techniques for Engineers; Optics and Lasers; Applied Optics; Biophysics at the Nanoscale and Nanodevices; Introduction to Medical Image Analysis and Machine Learning; Medical Imaging; Quantitative Methods for Engineers.

**Admission Requirements:** A undergraduate degree (NFQ Level 8 ) with a minimum upper Second-class (2.1) honours or international equivalent in an Electrical, Electronic, Computer or Optical Engineering programme.

**IELTS:** Minimum 6.5 overall score required with no section less than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/3gndgMf>

**Application:** Apply online via the programme webpage.



**C**

**Information Systems,  
Communications Technology,  
Digital Media**

**Study Location:** Atlantic Technological University (Letterkenny)

**Programme Duration:** 1 year

**Programme Outline:** This programme focuses on the processes involved in examining and interpreting large amounts of data of a variety of types to uncover hidden patterns, unknown correlations and other useful information. The opportunities for successful graduates exist in companies running large database systems, as well as the payment card industry and financial services. Roles typically include becoming a data storage manager, data analyst or data scientist.

**Indicative Content:** Mathematics for Analytics; Big Data Architecture; Big Data Analytics; Machine Learning; Data Science; Dissertation.

**Admission Requirements:** Honours Degree in Computing, or equivalent, second class honours (2.2). Non computing applicants must have a minimum of 30 ECT credits in Computing or Computing related modules, or computer industry experience. If you do not have an honours degree but have relevant experience you may also be eligible to apply via Recognition of Prior Learning (RPL).

**IELTS:** Minimum 6.0 overall score required with no section less than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/39k6ebf>

**Application:** Apply online at <https://noneuapply.lyit.ie/>

**Study Location:** Dublin Business School

**Programme Duration:** 1 year

**Programme Outline:** This Master of Science in Data Analytics has been designed to meet the growing need for graduates with data science skills in the light of increasing applications of new and existing technologies and techniques such as statistical analysis, machine learning and data visualisation across many industries throughout the global economy. The programme learning outcomes focus on the learner's ability to meet requirements and deliver against business intelligence goals of organisations they will work in and allow for all of these outcomes to be demonstrated from an academic perspective but also to have a portfolio piece of work that can be shared with current or prospective employers.

**Indicative Content:** Programming for Data Analysis; Statistics for Data Analytics; Machine Learning & Pattern Recognition; Advanced Data and Network Mining; Data Storage Solutions for Data Analytics; Data Visualisation; Applied Research Methods; Applied Research Project.

**Admission Requirements:** A minimum Second Class Level 8 Honours Degree (2.2) in a cognate discipline from a recognised third level institution or equivalent.

**IELTS:** Grade 6.0 minimum overall score required.

**Programme Webpage:** [shortened as] <https://bit.ly/37HqqDI>

**Application:** Apply online via the programme webpage.

**C3 MSc in Data Analytics**

**NCI**

**Study Location:** National College of Ireland

**Programme Duration:** 1 year

**Programme Outline:** The course structure accommodates a wide audience of learners whose specific interests in data analytics may be either technically focused or business focused. All students will also gain exposure to pertinent legal issues and product commercialisation considerations associated with the data analytics field. The course will be delivered using academic research, industry-defined practical problems, and case studies. This approach will naturally foster a deeper knowledge of the subject area and create transferable skills for work such as critical thinking, problem-solving, creative thinking, communication, teamwork and research skills. The course is completely delivered by faculty and industry practitioners with proven expertise in data analytics. Students are required to bring their own laptop/notebook to successfully participate in this programme. Please check the programme webpage for required laptop specs.

**Indicative Content:** Core – Statistics for Data Analytics; Database and Analytics Programming; Data Mining and Machine Learning; Modelling, Simulation and Optimisation; Research in Computing; Data Governance and Ethics; Research Project. Options – Business Intelligence and Business Analytics; Data Intensive Architectures; Domain Applications for Predictive Analytics; Scalable Systems Programming.

**Admission Requirements:** A minimum of a level 8 (honours degree) qualification (2.2 or higher) on the National Qualifications Framework. Applicants may be from a cognate/STEM background. Standard applicants for the programme are those holders of computing or numerate degrees. All applicants for the programme must provide evidence that they have prior programming experience (e.g. via academic transcripts or recognised certification). For candidates who do not have a level 8 qualification, the college operates a Recognition of Prior Experiential Learning (RPEL) scheme meaning applicants who do not meet the normal academic entry requirements may be considered based on relevant work or other experience.

**IELTS:** Overall score of at least 6.5 or equivalent.

**Programme Webpage:** [shortened as] <https://bit.ly/2MkNOLv>

**Application:** Apply online via the programme webpage.

**C4 MSc in Data Science and Analytics**

**MTU**

**Study Location:** Munster Technological University (Bishopstown Campus)

**Programme Duration:** 1 year

**Programme Outline:** The course will equip graduates with the skills to gather, store and process data using advanced techniques such as machine, deep learning and statistical modelling to deliver new insights and knowledge from collected data. The programme has been designed with industry experts to ensure that in the first two semesters graduates develop core skills in programming, database management, statistical modelling, time series analysis, machine learning, and data visualisation. Students will also learn how to interpret these results to improve business performance.

**Indicative Content:** Data Science and Analytics; Mathematical Methods and Modelling; Data Management Systems; Unstructured Data & Visualisation; Analytical and Scientific Programming; Applied Stats & Probability; Statistical Data Analysis; Data Visualisation & Analytics; Distributed Data Management; Time Series & Factor Analysis; Research Methods; Research Project – Data Science.

**Admission Requirements:** 2.1 in a Level 8 Honours degree. Alternatively, graduates with a 2.2 Honours degree will be considered, subject to having three years relevant experience.

**IELTS:** Minimum 6.0 overall score required with no section lower than 5.5.

**Programme Webpage:** <https://www.cit.ie/course/CRSDAAN9>

**Application:** Apply online via the programme webpage.

**C5 MSc in Data Science**

**SETU**

**Study Location:** South East Technological University (Carlow)

**Programme Duration:** 1 year

**Programme Outline:** The programme is designed to meet current industry needs and provides students with a thorough theoretical and practical grounding in the analysis and utilisation of large data sets, together with experience in conducting data science development projects, thereby preparing graduates for positions of responsibility in the Big Data and IT industries. This innovative programme will build on participants' professional and personal skills in areas such as presentation, communication and soft skills as well as data science development, integration and critical thinking around the design, implementation and deployment of data science solutions and systems in industry.

**Indicative Content:** Programming for Data Scientists; Data and Data Storage Technology; Statistics for Data Science; Research Methods; Infrastructure for Big Data; Data Analytics and Algorithms; Data Visualisation and Insight; Project/Dissertation.

**Admission Requirements:** Applicants must have obtained a Second-class Honours primary degree (or equivalent) in computer science or mathematical sciences or hold a degree with a strong numerate content (e.g. engineering, finance, physics, biosciences or economics). Applicants who do not meet the above standard entry requirements will also be considered if they have an undergraduate degree and a minimum of 5 years verifiable relevant industrial experience.

**IELTS:** Minimum overall score of 6.0 required with no section less than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/2Z4ZzKs>

**Application:** Apply online at <https://www.itcarlow.ie/international.htm>.

**Study Location:** Griffith College (Dublin Campus)

**Programme Duration:** 1 year

**Programme Outline:** MSc in Big Data Management and Analytics aims to equip students with the necessary skills and analytic mind-set to pursue a career in a dynamic data analytics industry. Designed specifically to address a growing need in the industry, the MSc in Big Data Management and Analytics at Griffith College is a 1 year programme which aims to build upon students' knowledge of computing science and create big data specialists.

**Indicative Content:** Big Data Analytics; Information Retrieval and Web Search; Concurrent and Parallel Programming; Cloud Computing; Big Data Management; Data Mining Algorithms and Techniques; Applied Data Science; Research Methods.

**Admission Requirements:** Candidates applying for this course should have a 2.2 Level 8 honours degree in Computing Science, or a 2.2 Higher Diploma in Computing or related discipline or international equivalent and/or relevant work experience.

**IELTS:** Minimum 6.5 overall score required.

**Programme Webpage:** [shortened as] <https://bit.ly/3O8kC5C>

**Application:** Apply online via the programme webpage.

**Study Location:** Dublin Business School

**Programme Duration:** 1 year

**Programme Outline:** This Master of Science in Business Analytics has been developed with the aim of providing learners with the knowledge, skills, and research capability to critically analyse, implement and evaluate big data concepts and techniques to generate valuable insights, thereby assisting with strategic business decisions, increasing productivity, profitability and an organisation's value and market share. This new programme aims to provide learners with the theoretical knowledge and practical skills to critically analyse, evaluate and implement big data concepts and techniques to generate valuable business insights.

**Indicative Content:** Requirement Analysis; Programming for Analytics; Applied Statistics and Machine Learning; Business Strategy; Project Management; Financial and Business Analytics; Data Mining; Business Intelligence and Visualisation; Applied Research Methods; Applied Project.

**Admission Requirements:** A minimum second class Level 8 Honours bachelor degree in a cognate area (e.g. computer science, IT, science, mathematics, statistics, finance, economics, business (including quantitative methods), maths and management information systems, or a non-cognate Level 8 honours bachelors award with three to five years' experience in analytics.

**IELTS:** Minimum 6.0 overall score required.

**Programme Webpage:** [shortened as] <https://bit.ly/3xdte2h>

**Application:** Apply online via the programme webpage.

**C8 MSc in Business Analytics**

**NUIG**

**Study Location:** NUI Galway

**Programme Duration:** 1 year

**Programme Outline:** The MSc in Business Analytics provides students with the skills and knowledge to manage and develop business analytics within organisations. The programme is designed as a specialist course, which assists students in blending their existing talents with the technological skills and business knowledge needed to use and manage big data and business analytics in modern knowledge-based organisations. The programme is a taught Masters programme and consists of lectures, workshops, guest lectures from industry experts, and hands-on technology tutorials. Modules are assessed via continuous assessment, written assignments, applied projects and written examinations.

**Indicative Content:** Core – Advanced Programming for Business Analytics; Data Science and Big Data Analytics; Applied Customer Analytics; Information Systems Strategy and Innovation; Enterprise Systems; Information Systems Security & Ethics; Business Analytics with SAP; Decision Theory & Analysis; Statistical Techniques for Business Analytics; Business Modelling and Analytics; Database Systems; Business Applications Programming; Business Analytics Major Project. Options – Strategic Management; Systems Development & Project Management.

**Admission Requirements:** Applicants should normally hold a qualification from a university or other internationally recognised academic institution or authority, corresponding to Level 8 of the Irish National Framework of Qualifications (NFQ), to a minimum standard of Second Class Honours (or equivalent). The qualification must include an element of quantitative techniques, for example, graduates of Business Studies, Engineering, Computer Science, other Sciences, Mathematics or other courses that have some quantitative content.

**IELTS:** Minimum 6.5 overall score required with no section less than 5.5.

**Programme Webpage:** [shortened as] <https://bit.ly/395jvo1>

**Application:** Apply online at <https://nuigalway.elluciancrmrecruit.com/Apply>

**C9 MSc in Information Systems Management**

**NUIG**

**Study Location:** NUI Galway

**Programme Duration:** 1 year

**Programme Outline:** This innovative programme is designed to offer a unique blend of core skills such as programming, databases, web technologies, user experience, cloud computing, security and management of information systems. This programme provides a coherent set of contemporary technology management skills to meet the growing demand and expectations of industry which are essential to digitally transform modern organisations.

**Indicative Content:** Interactive Systems Design; Systems Development and Project Management; Database Systems; Business Applications Programming; Information Systems Management; Business Modelling and

Analytics; Web Design & Development; Business Data Communications; Cloud Computing; Enterprise Systems; Information Systems Security and Ethics; Advanced Programming for Business Analytics; Applied Systems Analysis.

**Admission Requirements:** Applicants should normally hold a qualification from a university or other internationally recognised academic institution or authority, corresponding to Level 8 of the Irish National Framework of Qualifications (NFQ), to a minimum standard of Second Class Honours (or equivalent). It is expected that successful applicants will come from a variety of academic and professional backgrounds, with prior exposure to information technology and/or business.

**IELTS:** Minimum 6.5 overall score required with no section less than 5.5.

**Programme Webpage:** [shortened as] <https://bit.ly/3NLNpg8>

**Application:** Apply online at <https://nuigalway.elluciancrmrecruit.com/Apply>

## **C10 MBA in Information Systems**

**DBS**

**Study Location:** Dublin Business School

**Programme Duration:** 1 year

**Programme Outline:** This programme focuses on strategic business information systems knowledge as well as disruptive technologies and the innovations that occur in this field. It brings learners up to speed on the knowledge and current trends in technology and how best to use them for enhanced judgement and strategic business performance. The development of IS skills in learners enables them to select operate information systems which will support the extraction and use of organisational information to aid strategic decision making.

**Indicative Content:** Global Issues for Management; Strategic Marketing Analysis; Managerial Financial Analysis; Research Methods; Applied Strategic Management; Dynamic Leadership Development; Dissertation; Strategic Information Systems; Innovation and Disruptive Technologies.

**Admission Requirements:** A primary undergraduate honours bachelor's degree with a minimum Second Class Second Division classification (2.2) from a recognised third level institution in any discipline from a recognised third level institution (or equivalent), or an equivalent professional qualification such as ACCA or CIMA.

**IELTS:** Minimum 6.0 overall score required.

**Programme Webpage:** [shortened as] <https://bit.ly/3uDXSQG>

**Application:** Apply online via the programme webpage.

## **C11 MSc in Information Systems with Computing**

**DBS**

**Study Location:** Dublin Business School

**Programme Duration:** 1 year

**Programme Outline:** The programme is designed to create a deep level of knowledge and understanding in core areas such as programming, databases, web technologies and security while also offering practical skills in

contemporary topics such as data analytics, distributed systems and mobile and social computing. In addition, the programme allows students to explore the issues around the management of information technology in business and industrial contexts.

**Indicative Content:** Software Engineering; Advanced Databases; Networks and Systems Administration; Programming for Information Systems; Web & Mobile Technologies; Applied Research Methods; Data Analytics and Visualisation; Computer Systems Security; Enterprise Information Systems; Project; Web Development for Information Systems; Applied Research Project.

**Admission Requirements:** A minimum Second-class Honours (2:2) in an IT/IS discipline or a business discipline where IT/IS, is a significant component of the degree from a recognised third level institution, or equivalent qualification in a cognate discipline.

**IELTS:** Grade 6.0 minimum overall score required.

**Programme Webpage:** [shortened as] <https://bit.ly/2npEG9q>

**Application:** Apply online via the programme webpage.

## C12 MSc in Computing (Information Systems Processes)

SETU

**Study Location:** South East Technological University (Waterford)

**Programme Duration:** 1 year

**Programme Outline:** The MSc in Computing in Information Systems Processes combines the human, the organisational, and the technological to provide a broad perspective of modern information systems and their development. The human aspects of the programme explore issues such as human-computer interaction, psychology, computer ethics, and systems development in the human-centred tradition.

**Indicative Content:** Core – Dissertation. Options – Psychology of Computer-Mediated Work; Human Computer Interaction and Usability; Emerging Systems Development Paradigms; Business Process Analysis and Design; Design Patterns; Ethics and e-Privacy; Usable Information Architectures; Human-Centred Systems Development; Innovation and Intrapreneurship; Supply Chain Integration Technologies; Agile Software Development.

**Admission Requirements:** An Honours degree in Computing, Information Technology or equivalent. Alternatively, an Honours degree in Business Studies or Engineering where there is a strong computing component will also be acceptable. *There is a prerequisite that a student successfully completes a bridging module in Systems Analysis and Design if they have not taken an equivalent module already. This module is an intensive introduction to object oriented analysis and design techniques.*

**IELTS:** Minimum 6.0 overall score required.

**Programme Webpage:** [shortened as] <https://bit.ly/2BgdOmF>

**Application:** Apply online at <https://v2.pac.ie/institute/6>



**Study Location:** South East Technological University (Carlow)

**Programme Duration:** 1 year

**Programme Outline:** This exciting Masters programme in Information Technology Management will provide students with a comprehensive skillset to fulfil and succeed in a variety of roles in the field of IT Management. Drawing on best practise from Ireland and abroad, the programme is designed to meet current industry needs and is aimed at developing academic knowledge and practical skills.

**Indicative Content:** Leadership & Strategy; Innovation Management; Technology Integration and Project Management; Information Security Management; Data & Information Systems Management; Vendor & Service Management; Dissertation; Research Methods.

**Admission Requirements:** Suitable for graduates of computer science with a minimum second class Honours degree. Applicants who do not meet the standard entry requirements will also be considered if they have an undergraduate degree and a minimum of 5 years verifiable relevant industrial experience.

**IELTS:** Minimum overall score of 6.0 required with no section less than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/3f7Yes3>

**Application:** Apply online at <https://www.itcarlow.ie/international.htm>.

**Study Location:** Trinity College Dublin

**Programme Duration:** 1 year

**Programme Outline:** This is a one-year full postgraduate course designed to provide graduate engineers with skills to design modern computational products and systems. Information processing engines pervade all aspect of modern life. Examples include digital assistants (speech recognition and synthesis), automotive systems (remote sensing and cyber physical control), the economy (quantitative automated trading), entertainment (audio-video streaming and cinema visual effects), health (medical imaging) and computational science and engineering. The principles enabling the design of this new wave of products are embodied in the discipline of Information Engineering. This course allows graduates to specialise in fundamental theory and applications relating to the generation, distribution, analysis and use of information in engineering and science.

**Indicative Content:** Core – Research Project/Dissertation; Research Methods; Computational Methods; Introduction to Deep Learning. Options – Digital Signal Processing; Statistical Signal Processing; Speech and Audio Engineering; Spatial Audio; Self-Organising Systems; Next Generation Networks; Optimisation & Control; Motion Picture Engineering; Digital Image & Video Processing; Algorithms for Quantum Computing; Cyberphysical Systems and Control; Simulation for Geophysical Modelling; Computation for Transportation Engineering; Micro-Electronic Circuits; Integrated Systems Design.

**Admission Requirements:** Admission is normally restricted to graduates who have achieved an upper second class Honours degree (2:1), or better, in engineering, science, computing, statistics, mathematics or a related discipline. Well-qualified candidates or industry professionals from other numerate disciplines who have sufficient knowledge of computational aspects of engineering and science, may also be considered.

**IELTS:** Minimum 6.5 overall score required.

**Programme Webpage:** <https://www.tcd.ie/eleceng/postgraduate/MSc/>

**Application:** Apply online via the programme webpage.

## C15 MSc in Computing

GC

**Study Location:** Griffith College (Dublin Campus)

**Programme Duration:** 1 year

**Programme Outline:** This specialist MSc in Computing aims to equip students with the necessary skills to pursue an active and leading role in a dynamic, evolving industry. Designed specifically to address a growing need in the industry, the MSc in Computing at Griffith College is a 1-year programme which aims to give students an insight into the world of academic and industrial computing research.

**Indicative Content:** Research Methods; Computer Networks & Internetworking; Mobile Development; Information Retrieval and Web Search; Information Security; Agile Software Development; Cloud Platforms & Applications; Parallel & Distributed Programming; Dissertation.

**Admission Requirements:** Candidates applying for this course should have a 2.2 Level 8 honours degree in Computing Science, or a 2.2 Higher Diploma in Computing or related discipline or international equivalent and/or relevant work experience.

**IELTS:** Minimum 6.5 overall score required.

**Programme Webpage:** [shortened as] <https://bit.ly/3isYlgZ>

**Application:** Apply online via the programme webpage.

## C16 MSc in Computer Science (Intelligent Systems)

TCD

**Study Location:** Trinity College Dublin

**Programme Duration:** 1 year

**Programme Outline:** This programme focuses on smart, interactive web applications and systems, which are becoming an integral part of our daily lives - at home, in the workplace, and in social interaction. Designing and building these systems requires expertise in artificial intelligence, human language understanding and generation, web systems and applications, data analytics and knowledge engineering. This programme is closely linked to the school's research groups involved in the ADAPT centre for Digital Content Technology.

**Indicative Content:** Machine Learning; Research Methods and Innovation; Artificial Intelligence; Knowledge & Data Engineering; Text Analytics; Information Retrieval & Web Search; Adaptive Applications; Advanced Software Engineering; Dissertation.

**Admission Requirements:** A 2:1 grade or higher from a reputable university in Computing or strongly related discipline. You need to be able to be fully competent in programming in C, C++ or Java.

**IELTS:** Minimum 6.5 overall score required.

**Programme Webpage:** [shortened as] <http://bit.ly/2x5AK1b>

**Application:** Apply online via the programme webpage.

**C17 MSc in Computing Science**

**UCC**

**Study Location:** University College Cork

**Programme Duration:** 1 year

**Programme Outline:** This MSc programme will provide you with the skills required to understand the entrepreneurship and innovation required for the software industry. Many national and multinational companies employ computer science graduates in areas such as software development and engineering, artificial intelligence, systems and networks, database and systems security as well as mobile multimedia, modelling, research and development. You will also get the chance to demonstrate the skills you have learned by completing a substantial research and development project.

**Indicative Content:** Core – Case Studies in Computing Entrepreneurship; Database Technology; Information Storage and Retrieval; Project Development Skills; Complex Systems Development; Scalable Computing for Data Analysis. Dissertation in Computing Science. Options – Design of Cyber-Physical Systems; Mobile Network Protocols; Mobile Devices and Systems; Mobile Applications Design; Formal Methods for Distributed Systems; Model-Based Software Development; Optimisation; Applied Computer Simulation and Analysis; Virtualisation Technologies; Topics in Artificial Intelligence; Services and Mobile Middleware; Multimedia Technology in Mobile Networks; Cellular Network Security; Data Mining.

**Admission Requirements:** Second-class Honours (2.1 grade) or higher degree in Computer Science or a closely related discipline. Applications from other suitably qualified candidate, or from those with equivalent experience/qualifications, will be considered.

**IELTS:** Minimum 6.5 overall score required with no section lower than 6.0.

**Programme Webpage:** <http://www.ucc.ie/en/ckr40/>

Application: Apply online at <https://www.ucc.ie/en/apply/>

**C18 MSc in Computer Science (Negotiated Learning)**

**UCD**

**Study Location:** University College Dublin (Belfield Campus)

**Programme Duration:** 1 year

**Programme Outline:** This programme aims to provide students with a wide range of specialist learning opportunities that can be selected in a bespoke manner to suit the individual skills and aspirations of the individual. Students will select modules from a very broad list (more than 80 modules available), and will therefore encounter many different kinds of instruction. Many students will take part in group projects of a practical nature. The variety of modules on offer ensures that students can develop both technical skills and enhance their critical thinking.

**Indicative Content:** Sample Options – Introduction to Cognitive Psychology; UXD: User-Centred Design; Human Language Technologies; Computer Systems; Wireless Systems; Digital & Embedded Systems; Enterprise, Innovation & Entrepreneurship; Informatics; The Digital Self; Digital Libraries; Computer Graphics; Introduction to Relational Databases and SQL Programming; Data Mining; Machine Learning w/ Python; Optimisation; Statistical Machine Learning; Big Data Programming; Introduction to Data Analytics; Networks and Internet Systems; Cloud Computing; Partial Differential Equations; Multivariate Analysis; Java Programming; Exploring Ruby; Game Development; Leading Teams in the Scientific Enterprise; Business Planning for the Scientific Enterprise; Technical Communication; Comparative Software Engineering Process Frameworks; Agent-Oriented Software.

**Admission Requirements:** This programme is intended for applicants with a Computer Science or ICT background. An upper second class honours degree, or the international equivalent in computer science or a related area or a minimum of three years' relevant industrial work experience is required.

**IELTS:** Minimum 6.5 overall score required with no section less than 6.0.

**Programme Webpage:** [shortened as <https://bit.ly/3g4XOEC>]

**Application:** Apply online via the programme webpage.

## C19 MSc in Computer Science (Conversion)

UCD

**Study Location:** University College Dublin (Belfield Campus)

**Programme Duration:** 1 year

**Programme Outline:** The MSc. Computer Science (Conversion) is a skills conversion programme aimed at students holding a primary degree in another discipline (e.g., Arts, Business, Social Science, etc.) who wish to gain a postgraduate qualification in Computer Science. Building on key transferable graduate outcomes of communication, reflection, critical thinking and independent learning that students bring to the programme, this programme seeks to develop individuals with a passion for Computer Science and the skills and experience necessary to enter into an IT-related career.

**Indicative Content:** Programming (Conversion); Data Structures & Algorithms (Conversion); Relational Databases & Information Systems (Conversion); Python OOP (Conversion); Operating Systems (Conversion); Computer Architecture & Organisation (Conversion); Web Application Development (Conversion); Java Programming (Conversion); Software Engineering (Conversion); Computational Thinking (Conversion); Data Analytics (Conversion); Research Practicum.

**Admission Requirements:** An Upper Second class honours degree, or the international equivalent, in a discipline other than Computer Science is required for entry. (In exceptional circumstances, a Lower Second class honours degree (2:2 grade) will be considered if the applicant shows evidence of significant relevant prior experiential learning.) Computer Science is a mathematical subject involving logical understanding and reasoning and therefore applicants must be able to demonstrate a good knowledge of mathematics.

**IELTS:** Minimum 6.5 overall score required with no section less than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/3idF1ti>

**Application:** Apply online via the programme webpage.

**Study Location:** Dublin Business School

**Programme Duration:** 1 year

**Programme Outline:** This programme is specifically aimed at facilitating the graduate's understanding of how organisations may exploit the vast business opportunities that result from the transformative power that Cloud Computing offers both currently and in the future. There is an emphasis on structured approaches for delivering effective solutions in the Cloud that address value, efficiency, risks and costs associated with an increased reliance on Cloud Computing. The specialism also introduces learners to standard cloud practices and guides them through the planning, deployment and management of a cloud application.

**Indicative Content:** Global Issues for Management; Strategic Marketing Analysis; Managerial Financial Analysis; Research Methods; Applied Strategic Management; Dynamic Leadership Development; Dissertation; Cloud Technologies for Business; Cloud Application Management.

**Admission Requirements:** A primary undergraduate honours bachelor degree with a minimum Second Class Second Division classification (2.2) from a recognised third level institution in any discipline from a recognised third level institution (or equivalent), or an equivalent professional qualification such as ACCA or CIMA.

**IELTS:** Minimum 6.0 overall score required.

**Programme Webpage:** [shortened as] <https://bit.ly/3v1aUhy>

**Application:** Apply online via the programme webpage.

**Study Location:** National College of Ireland

**Programme Duration:** 1 year

**Programme Outline:** By combining technical skills and innovation principles, this programme effectively delivers core technology skills in cloud software development, fog/edge computing, DevOps, security, and data governance. Having also considered global industry trends, this programme includes electives in quantum computing, blockchain and machine learning. Students will gain experience with the latest ethical design principles, models and technologies via our state-of-the-art Cloud Competency Centre. The course is delivered by faculty and industry practitioners with proven expertise in cloud computing. Students are required to bring their own laptop/notebook to successfully participate in this programme. Please check the programme webpage for required laptop specs.

**Indicative Content:** Core – Cloud Architectures; Cloud DevOpsSec; Cloud Platform Programming; Fog and Edge Computing; Research in Computing; Scalable Cloud Programming; Data Governance, Compliance and Ethics; Blockchain Concepts; Cloud Machine Learning; Research Project.

**Admission Requirements:** An honours (level 8) primary degree in a computing discipline with a 2.2 award or higher. The college operates a Recognition of Prior Experiential Learning (RPEL) scheme meaning applicants who do not meet the normal academic requirements may be considered based on relevant work and other experience. This may be assessed using a portfolio of learning, demonstration of work produced, and an interview.

**IELTS:** Overall score of at least 6.0 or equivalent.

**Programme Webpage:** [shortened as] <https://bit.ly/3ePQk94>

**Application:** Apply online via the programme webpage.

## C22 MA in Creative Practice

ATU

**Study Location:** Atlantic Technological University (Galway)

**Programme Duration:** 1 year

**Programme Outline:** The MA in Creative Practice offer artists, designers and filmmakers a creative and critically informed environment in which to develop and consolidate their practice. The course will support imaginative, experimental and interdisciplinary enquiry through a range of media and approaches. Students will choose one of four strands in which to base their study: Contemporary art studio practice; Digital cultures; Film and lens-based media; Socially engaged practice. Students will be encouraged to work collaboratively as well as be independent, self-directed critical thinkers.

**Indicative Content:** Research and Innovation; Themes and Issues; Professional Development; Creative Practice Projects; Research Project and Thesis.

**Admission Requirements:** All qualified applicants with a relevant Level 8 qualification or equivalent will be short-listed for interview. Other applicants may be considered through the Recognition of Prior Learning (RPL) process.

**IELTS:** Minimum 6.0 overall score required with no section less than 6.0.

**Programme Webpage:** [shortened as] <http://bit.ly/2x1dDXy>

**Application:** Apply via an online application form available at <https://www.gmit.ie/international/international-online-applications>

## C23 MSc in Artificial Intelligence

DBS

**Study Location:** Dublin Business School

**Programme Duration:** 1 year

**Programme Outline:** The MSc in Artificial Intelligence aims to develop learners within the Artificial Intelligence (AI) discipline involving skills in technology, programming, Data Science, and information processing to respond to the ever-growing demand across industries for AI specialists. The programme also recognises the interdisciplinary nature of AI, combined with analytics and large data volumes, creating an environment for AI to emerge as key technology for the future. AI is a set of technologies that use machine learning, speech analytics, natural language processing, machine vision and analytics to process the data to make informed decisions or recommendations.

**Indicative Content:** Programming for Data Analysis; Cognitive Science for AI; Machine Learning & Pattern Recognition; Recommender Systems; Deep Learning; Reinforcement Learning; Data Visualisation; Applied Research Methods; Applied Research Project.

**Admission Requirements:** A primary cognate degree with a minimum second-class second division (2.2) classification from a recognised third level institution. Cognate subjects include computer science, technology, networking, information systems, engineering, general science, mathematics, statistics, data analytics or related discipline.

**IELTS:** Minimum 6.0 overall score required.

**Programme Webpage:** [shortened as] <https://bit.ly/3g2Hsfo>

**Application:** Apply online via the programme webpage.

## C24 MSc in Artificial Intelligence

MTU

**Study Location:** Munster Technological University (Bishopstown Campus)

**Programme Duration:** 1 year

**Programme Outline:** This master's programme provides a technical deep-dive into the area of AI. It aims to produce AI engineers with a highly relevant skillset in AI topics. Students will learn how to use and develop intelligent computer systems that can learn from experience, recognise patterns in vast amounts of data and reason strategically in complex decision-making situations. The programme content will deliver a comprehensive range of topics integral to the study of AI. These include machine learning, deep learning, natural language processing, optimisation, and big data processing to name but a few.

**Indicative Content:** Core – Practical Machine Learning; Knowledge Representation; Metaheuristic Optimisation; Big Data Processing; Research Practice & Ethics; Deep Learning; Decision Analytics; Research Project. Options – Robotics & Autonomous Systems; Distributed Ledger Technology; Software Process Engineering; Programming Language Design; Natural Language Processing; Machine Vision.

**Admission Requirements:** Entry to the MSc in Artificial Intelligence will require a minimum of a Level 8 honours degree in Computer Science, Engineering, Computing or an honours degree in a cognate discipline. As this is an expert level programme, it is essential for applicants to have a strong proficiency in mathematics, including statistics, and an advanced level of coding competency in a modern high level computer programming language such as Python or Java.

**IELTS:** Minimum 6.0 overall score required with no section lower than 5.5.

**Programme Webpage:** <http://www.cit.ie/programme/CRKARIN9>

**Application:** Apply online via the programme webpage.

## C25 MSc in Applied Artificial Intelligence

SETU

**Study Location:** South East Technological University (Carlow)

**Programme Duration:** 1 year

**Programme Outline:** This master's programme aims to provide students with a deep understanding of the important topics within Artificial Intelligence. Students will be equipped to apply them in real-life scenarios and to solve (sometimes difficult) business and/or societal problems. Students will learn to discern the possible utility

of A.I. in the real world while understanding the practical considerations that arise, for example: algorithm efficiency, power source, speed, communication, movement, environmental conditions, safety, and ethics.

**Indicative Content:** Programming and Tools for A.I.; Practical Machine Learning; Deep Learning; A.I. Application Domains; Intelligent Cyber Physical Systems; A.I. at the Edge (exploring A.I.'s place in society); Research Methods; Dissertation.

**Admission Requirements:** A second-class honours Level 8 primary degree in Computer Science (or equivalent) with a programming/numerate content. Applicants who do not meet this requirement will also be considered if they have an undergraduate degree (at Level 7 or higher) and a minimum of 5 years verifiable relevant industrial experience.

**IELTS:** Minimum overall score of 6.0 required with no section less than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/3l6dlqk>

**Application:** Apply online at <https://www.itcarlow.ie/international.htm>.

## C26 MSc in Network and Information Security

GC

**Study Location:** Griffith College (Limerick Campus)

**Programme Duration:** 1 year

**Programme Outline:** This MSc in Network and Information Security aims to equip students with the necessary skills to pursue an interesting career in this specialist area. Designed specifically to address a growing need in the industry, the MSc in Network and Information Security at Griffith College is a 1-year programme which aims to enable students to develop robust and efficient network security plans, strategies and solutions.

**Indicative Content:** Information and Network Security Technologies; Legal and Ethical Aspects of Information Security; IT Infrastructure Protection & Ethical Hacking; Cryptography; Computer Forensics; Managing Information Security; Telecommunication Networks and Services; Research Methods; Dissertation.

**Admission Requirements:** Candidates applying for this course should have a 2.2 Level 8 Honours degree or above in Computing Science, or a 2.2 Higher Diploma in Computing or related discipline or international equivalent and/or relevant work experience.

**IELTS:** Minimum 6.5 overall score required.

**Programme Webpage:** [shortened as] <http://bit.ly/2wp5KMw>

**Application:** Apply online via the programme webpage.



**Study Location:** Dublin Business School

**Programme Duration:** 1 year

**Programme Outline:** This programme aims at developing learners within the Cybersecurity discipline and involves theoretical knowledge and advanced skills in technology, communication information management, and processes to enable assured operations in the context of threat identification and mitigation. Learners develop advanced practical skills in essential areas such as programming, advanced databases, networks and systems administration, while also offering theoretical knowledge of cryptography and digital forensics.

**Indicative Content:** Advanced Programming Techniques; Advanced Databases; Network & Systems Administration; Cryptography & Digital Forensics; Communications & Network Security; Cybersecurity for Software Development; Penetration Testing & Business Continuity Management; Organisational and Societal Cybersecurity; Applied Research Methods; Applied Research Project.

**Admission Requirements:** A Level 8 primary cognate degree with a minimum second-class second division (2.2) classification from a recognised third level institution. Cognate subjects include computer science, technology, networking, information systems, engineering, general science, mathematics, statistics, data analytics or related discipline. Applicants who do not have a Level 8 qualification in a cognate area and who have at least 3 years' work experience may also be considered through the college's normal RPL procedures.

**IELTS:** Minimum 6.0 overall score required.

**Programme Webpage:** [shortened as] <https://bit.ly/3yxXgBJ>

**Application:** Apply online via the programme webpage.

**Study Location:** Munster Technological University (Bishopstown Campus)

**Programme Duration:** 1 year

**Programme Outline:** This programme aims to fill the ever-increasing skills gap in the areas of cybersecurity and information systems, and delivers material that follows the most current practice. Upon successful completion of this programme the student will both understand and deploy the most advanced methods to protect information at rest, in transit, and at work. The full-time offer is taught on the Bishopstown Campus while some elective modules may be delivered online.

**Indicative Content:** Core – Incident Response and Digital Forensics; Security Risk and Compliance; Applied Cryptography; Web Application and Network Penetration Testing; Networking Security & Forensics; Scripting for System Administrators; Information Security Research Project. Options – Cloud Security; Data Analytics; Malware Investigations; Malware Reverse Engineering; Threat Intelligence; Software Security.

**Admission Requirements:** A minimum of an Honours Degree in Computing or in a cognate discipline.

**IELTS:** Minimum 6.0 overall score required with no section lower than 5.5.

**Programme Webpage:** <http://www.cit.ie/programme/CRKINFS9>

**Application:** Apply online via the programme webpage.

**C29 MSc in Cybersecurity**

**NCI**

**Study Location:** National College of Ireland

**Programme Duration:** 1 year

**Programme Outline:** The aim of this programme is to provide learners with essential expert technical knowledge, competence and research skills of the most important technical concepts of cybersecurity and how they are applied in emerging areas such as device security and forensics. The course is technical and practical in nature, uniquely embedded in industry, and develops in-depth expertise of core technical topics within the area of cybersecurity such as information security, secure programming, network security, penetration testing, malware analysis, IT law and ethics, and technologies and tools that support application and service vulnerability detection, incident detection, data and log retrieval and analysis. The course also provides a sharper focus into forensics and cloud security through the two specialisations that are offered to the learners. Students are required to bring their own laptop/notebook to successfully participate in this programme. Please check the programme webpage for required laptop specs.

**Indicative Content:** Core – Security Fundamentals; Secure Programming for Web; Network Security and Penetration Testing; IT Law and Ethics; Research in Computing; Cryptography; Secure Programming for Application Development; Malware Analysis; Research Methods; Internship. Options – Incident Response and Analytics; Forensics and eDiscovery; Cloud Security.

**Admission Requirements:** An honours (level 8) primary degree in computing or a cognate area with a 2.2 award or higher. Cognate area means a STEM (science, technology, engineering, and mathematics) degree that also taught programming/application development related modules. Candidates are expected to have programming ability.

**IELTS:** Overall score of at least 6.0 or equivalent.

**Programme Webpage:** [shortened as] <https://bit.ly/39vsZtc>

**Application:** Apply online via the programme webpage.

**C30 MSc in Cybersecurity, Privacy and Trust**

**SETU**

**Study Location:** South East Technological University (Carlow)

**Programme Duration:** 1 year

**Programme Outline:** This programme will develop graduates that are skilled in the latest cybersecurity techniques and technologies. Graduates will be able to propose solutions to solve some of the most pressing issues in cybersecurity that enhance both privacy and trust in ICT systems. The programme will introduce students to innovative ways in which privacy and trust can be established via the Cryptography and Blockchains and Distributed Ledgers modules. Students will develop applications that will provide solutions to create a more trustworthy cyberspace.

**Indicative Content:** Security Management and Compliance; Network and Cloud Security; Modern Cryptography; Research Methods; Advanced Incident Response; Penetration Testing; Blockchains and Distributed Ledgers; Dissertation.

**Admission Requirements:** A second-class honours level 8 primary degree (or equivalent) in Computer Science or cognate discipline with significant numerate, technical and analytical content. Applicants who do not meet these standard entry requirements will also be considered if they have an undergraduate degree (at Level 7 or higher) and a minimum of 3 years verifiable relevant industrial experience. Shortlisted applicants who do not meet the standard entry requirements will be invited for interview.

**IELTS:** Minimum overall score of 6.0 required with no section less than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/3KYAwxu>

**Application:** Apply online at <https://www.itcarlow.ie/international.htm>.

**C31 MSc in Industrial Networks and Cybersecurity**

**SETU**

**Study Location:** South East Technological University (Carlow)

**Programme Duration:** 1 year

**Programme Outline:** This Master of Science in Industrial Networks & Cybersecurity is designed to meet the needs of companies in traditional manufacturing, smart manufacturing companies and those engaged in Industry 4.0. The aim of the programme is to widen and enhance the existing skills of learners who typically have existing Operations Technology (OT) skills, and supplement these with a strong, skills-based, knowledge of industrial networking and cybersecurity. Graduates will acquire skills to bridge the gap between the manufacturing operations and the business and will gain a range of skills, techniques and approaches to equip them to best develop and protect the network and the processes in the manufacturing zone.

**Indicative Content:** Industrial Control Systems; Advanced Industrial Automation; Programming; Industrial Networks; Cybersecurity; Research Methods for Engineering; Dissertation; Work-Based Project & Professional Development.

**Admission Requirements:** A minimum of 2.1 honours in a degree such as Aerospace/Aeronautical/Aircraft Engineering or equivalent programme.

**IELTS:** Minimum overall score of 6.0 required with no section less than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/3if5a18>

**Application:** Apply online at <https://www.itcarlow.ie/international.htm>.

**Study Location:** Maynooth University

**Programme Duration:** 1 year

**Programme Outline:** The MSc in IT-Enabled Innovation is aimed at **both Business and non-Business graduates**. This programme develops the capacity for participants to understand how IT operates both as a function and as a key interrelated resource within an organisational context. This involves understanding people, work processes, relationships, organisation structures, and organisation strategies, and how all of these impact on and are impacted by Information Technology.

**Indicative Content:** IT Governance, Performance and Risk; Digital Business; Strategic Management; Career Planning and Development; Contemporary Issues in IT; IT Skills and Capabilities: Digital Enablement; Financial Management; Actionable Insights Through Research; Business Research Project; Placement Project; Dissertation

**Admission Requirements:** This programme assumes no prior knowledge of IT, Business or Management topics, but does assume the capacity for study and rapid development associated with an honours degree graduate. Candidates should have a minimum 2.2 grade, honours (level 8) degree. In exceptional circumstances, consideration will be given to candidates who do not hold a primary degree but who do have significant relevant work experience, at least three years of which must be in a management position.

**IELTS:** Minimum 6.5 overall score required.

**Programme Webpage:** [shortened as] <https://bit.ly/2BBqNin>

**Application:** Apply online at <https://v2.pac.ie/institute/2> - using the **PAC Code: MH84D**

**Study Location:** Dublin Business School

**Programme Duration:** 1 year

**Programme Outline:** This MSc in FinTech is a programme with an integrated delivery from end-to-end covering a wide range of financial technology topics, whilst providing a focus on application and the regulation required in this area. The programme focuses on practical skills in core areas such as financial analytics, advanced databases, disruptive technologies, web technologies and security while also offering applied skills in contemporary topics such as data analytics, and financial applications. Its aim is to create a critical understanding of core financial technologies and financial systems while also enhancing the practical technical skills of the learners.

**Indicative Content:** FinTech: Markets and Services; Quantitative Financial Modelling; Information and Cybersecurity Management; Blockchain and Distributed Ledger Technologies; FinTech Regulation; Data Analytics and Machine Learning; Applied Financial Analysis; Innovation and Entrepreneurship in FinTech; Research Methods; Applied Project.

**Admission Requirements:** A Level 8 honours degree with a 2.2 or above in a cognate (science, technology, computing, business, finance or related) discipline, OR a Level 8 honours degree with a 2.2 or above in a non-cognate discipline with at least 2-3 years professional industry experience.

**IELTS:** Grade 6.0 minimum overall score required.

**Programme Webpage:** [shortened as] <https://bit.ly/3whnTqM>

**Application:** Apply online via the programme webpage.

**C34 MSc in FinTech**

**NCI**

**Study Location:** National College of Ireland

**Programme Duration:** 1 year

**Programme Outline:** This course provides learners with the latest knowledge and competencies at the intersection of finance and technology, allowing them to exploit opportunities in this rapidly evolving area. NCI is perfectly placed to deliver an industry-focused programme inspired by its location at the heart of the International Financial Services Centre. The course is completely delivered by faculty and industry practitioners with established experience in the fintech domain.

**Indicative Content:** Core – Data Analytics; Data Governance and Compliance; Financial Markets; Information Assurance and Cybersecurity; Blockchain Technologies; Contemporary Topics in Fintech; Financial Analytics; Entrepreneurship in Fintech; Industry Based Research Project; Research Project. Options – Crowd Markets; Digital Forensics and Auditing.

**Admission Requirements:** A level 8 degree (2.2 award) or its equivalent in one or more of the following domains: computer science, finance, business, or economics. Cognate disciplines will also be considered. Note that applicants lacking both a clear financial and technology component may still be eligible but will be subject to review. The college operates a Recognition of Prior Experiential Learning (RPEL) scheme - meaning applicants who do not meet the normal academic entry requirements, may be considered based on relevant work or other experience.

**IELTS:** Grade 6.5 minimum overall score required.

**Programme Webpage:** [shortened as] <https://bit.ly/3wbPJon>

**Application:** Apply online via the programme webpage.

**C35 MSc in Interactive Digital Media**

**TCD**

**Study Location:** Trinity College Dublin

**Programme Duration:** 1 year

**Programme Outline:** The course is designed to help students learn how to design, develop and understand digital media applications and content on existing and emerging platforms. The course covers the programming languages and applications used in digital media, a range of design techniques (graphic design, interactive design, UI/UX design, game design) as well as approaches to content creation in a range of modalities (moving image, audio, sensor technologies). In addition to practical skills, the course also covers critical thinking around digital media, giving the students the ability to situate works and ideas in relevant cultural contexts.

**Indicative Content:** Programming for Digital Media; Authoring for Digital Media; Contextual Media; Audio, Video and Sensor Technologies; Visual Computing and Design; Research Paper; Final Project.

**Admission Requirements:** A 2.1 (60-69%) grade or higher from a reputable university is required, although exceptions can be made on the basis of considerable professional and/or creative experience. Students are accepted from a wide range of disciplines, ranging from computer science and engineering to the arts, humanities and design.

**IELTS:** Minimum 6.5 overall score required with no section less than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/2JO9Xxv>

**Application:** Apply online via the programme webpage.

### C36 MSc in Interactive Digital Media

GC

**Study Location:** Griffith College (Dublin Campus)

**Programme Duration:** 1 year

**Programme Outline:** This multidisciplinary programme enables students to develop a cutting-edge skillset using the most up to date, industry-standard technology and challenges its students to innovate and develop ground-breaking new interactive digital technologies and experiences. The programme aims to build upon students' knowledge of digital for an exciting career in a growing media industry.

**Indicative Content:** Core – Web Authoring; Visual Communication; Digital Media & Society; Research Methods; Interaction Design; Multimedia Programming; Business of Digital Media; Digital Media Platforms; Dissertation. Options – Game Design and Development; Theories & Principles of Animation; Digital Storytelling; 3D Modelling & Rendering; Desktop Publishing; Server-side Web Development & Databases; eLearning; Video Production.

**Admission Requirements:** Candidates applying for this course should have a Level 8 Honours degree 2:2 or above in any discipline or international equivalent and/or relevant work experience.

**IELTS:** Minimum 6.5 overall score required.

**Programme Webpage:** [shortened as] <https://bit.ly/2Wgl5sl>

**Application:** Apply via the programme webpage.

### C37 MSc in Interactive Media

UCC

**Study Location:** University College Cork

**Programme Duration:** 1 year

**Programme Outline:** The MSc in Interactive Media is a conversion course; it is an intensive taught course focusing on the practical and technical aspects of interactive media. The broad aim of the course is to equip students from a wide range of backgrounds with a thorough understanding of the technology and industry-standard tools used in the digital media sector. Interactive digital media seeks to entertain, inform and inspire an audience. The creation of interactive digital media is a challenging and complex activity requiring a blend of creative and technical skills using a range of existing and emerging technologies. On successful completion of the course, you

will have a comprehensive knowledge of the underlying concepts, technologies and practices of interactive digital media and be able to apply these to create interactive digital media products.

**Indicative Content:** Authoring; Web Development for Digital Media; Graphics for Interactive Media; Audio and Sound Engineering; Digital Video Capture and Packaging; 3D Graphics and Modelling; Future and Emerging Interaction Technologies; Internet-Based Applications; Digital Video Compression and Delivery; Human Computer Interaction; Mobile Multimedia; Audio Processing; Dissertation.

**Admission Requirements:** Graduates of any discipline who have achieved at least a 2:2 Honours degree, or equivalent professional qualification, provided there is no significant overlap between their previous programmes of study and the content of this programme. Applicants without the requisite primary degree will be subject to the approval of the School and the College of Science, Engineering and Food Science under Recognition of Prior Learning (RPL).

**IELTS:** Minimum 6.5 overall score required with no section lower than 6.0.

**Programme Webpage:** [www.ucc.ie/en/ckr05](http://www.ucc.ie/en/ckr05)

Application: Apply online at <https://www.ucc.ie/en/apply/>

## C38 MA in Interaction Design

NCAD

**Study Location:** National College of Art and Design

**Programme Duration:** 1 year

**Programme Outline:** The MA Interaction Design programme teaches fundamental approaches, methods and tools related to the design of digital products, experiences, systems, and services with a focus on users and context of use. The MA is studio-based with students engaging in lectures, seminars, workshops, fieldwork, and independent and group projects. The programme focuses on the interdisciplinary nature of Interaction Design, covering topics ranging from human-computer interaction and psychology, to product design and experience prototyping. At the core of the programme is a focus on the needs of people. Through a range of studio projects students learn to conduct people-centred research, extract meaningful insights, create and visualise concepts, and develop and evaluate prototypes in context. Covering the theoretical and practical aspects of the discipline, the course encourages students to design from both a pragmatic and speculative perspective, to imagine things as they might be and not necessarily as they are.

**Indicative Content:** Research Methods for Creative and Critical Practice; Foundation Skills in Interaction Design; Interaction Design Fundamentals; Web Design; Advanced Skills in Interaction Design; Design Studio: Minor Project; Designing for Interaction; Entrepreneurship and Social Innovation; Design Studio: Major Project.

**Admission Requirements:** An Honours degree award of 2.2 or higher, or an equivalent academic or professional qualification across various disciplines including design, art, the humanities, social science, computer science, engineering, and business. The college also takes into consideration prior learning and experience.

**IELTS:** Minimum 6.5 overall score required with a minimum of 6 in the writing section.

**Programme Webpage:** <https://bit.ly/3g9GTSS>

**Application:** Apply online via the programme webpage.

**Study Location:** South East Technological University (Wexford)

**Programme Duration:** 1 year

**Programme Outline:** Digital Media is now an integrated part of all areas of the digital landscape. Covering areas from tradition graphic design and web and digital media, but also now a key skill in all forms of marketing, business and data analysis. Technology and its seamless integration into our lives has now caused an increased need for well-designed information and assets, delivered in a bespoke, market focused format. Analytics, and information and the use of data, is now a major role in the digital landscape. Understanding data, retrieval, processing and presentation of data is a highly sought-after skillset, across many if not all areas of business world. This programme aims to marry these two skills together and create a learner that is highly skilled in Digital Media Design with an in-depth knowledge of Business Analytics.

**Indicative Content:** Digital Media Design; Information Design; Digital Media Applications; Programming for Data Analytics; Business Intelligence Applications; Business Data Analytics; Digital Strategy; Research Methods; Placement or Research Project.

**Admission Requirements:** All applicants will need to have a Level 8 honours degree with 30 ECTS credits in a design/digital related subject/module. Candidates are sought from the areas of Design, Creative Arts, Computing, TV & Media, Business, Digital Marketing, Business Analytics & Data Science.

**IELTS:** Minimum overall score of 6.0 required with no section less than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/3f8MOnN>

**Application:** Apply online at <https://www.itcarlow.ie/international.htm>.

**Study Location:** Dublin Business School

**Programme Duration:** 1 year

**Programme Outline:** The Master of Science in Digital Marketing and Analytics programme enables learners to develop the specialised skills and attributes necessary to meet the demand of the modern-day digital marketing environment and be able to make fully informed marketing decisions at leadership level. Graduates of the Master of Science in Digital Marketing and Analytics will understand the core principles of digital marketing and analytics, be equipped to utilise data and visualisation tools, apply the appropriate marketing models, and inform business decision making in an ethical context.

**Indicative Content:** Core – Web Marketing Management and Metrics; Digital Design and Development; Strategic Thinking in the Digital Age; Research Methods; Data and Digital Marketing Analytics; Digital Advertising and Online Marketing Communications; Business Intelligence and Visualisation. Options – Applied Research Project; Dissertation; Placement.

**Admission Requirements:** A minimum Second Class Level Honours Degree (2.2) in a cognate discipline.

**IELTS:** Minimum 6.0 overall score required.



**Programme Webpage:** [shortened as] <https://bit.ly/3ztVBLQ>

**Application:** Apply online via the programme webpage.

**C41 MSc in Digital Marketing and Analytics**

**SETU**

**Study Location:** South East Technological University (Carlow)

**Programme Duration:** 1 year

**Programme Outline:** The MSc in Digital Marketing and Analytics is aimed at graduates and professionals seeking to explore the strategic implications of the digital era and to develop their career path in digital marketing. The MSc combines academic study and industry exposure to deliver a course that has a strong focus on current and emerging research and practice. The MSc in Digital Marketing and Analytics is designed to help learners identify the strategic implications of digital marketing and to create and implement effective digital marketing data driven strategies.

**Indicative Content:** Core – Data Analytics and Consumer Insights; Search Marketing and Digital Analytics; Strategic Marketing Management; Digital Marketing Landscape and Strategy; Digital Marketing Technologies; Strategic Brand Management; Digital Marketing Research Project. Options – Ecommerce; Law and the Digital Environment; Strategic Design; Strategic CRM.

**Admission Requirements:** Although applications are welcome from a broad range of disciplines, ideal candidates will come from a marketing background and/or demonstrate an interest in and aptitude for digital marketing. Candidates should hold a recognised third level Honours Degree (Level 8 – minimum 2nd class Honours) in (a) Marketing or a business discipline, (b) Computer Science, or (c) Cognate programmes. Applicants applying for entry through progression routes other than those listed above will be considered through IT Carlow's Recognition of Prior Learning (RPL) Policy.

**IELTS:** Minimum overall score of 6.0 required with no section less than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/3zho8Ef>

**Application:** Apply online at <https://www.itcarlow.ie/international.htm>.

**C42 MSc in Digital Media & Marketing**

**ATU**

**Study Location:** Atlantic Technological University (Galway)

**Programme Duration:** 1 year

**Programme Outline:** The aim of this structured Master of Science in Digital Media and Marketing is to develop participants' expertise and scholarship within the rapidly evolving professional discipline of strategic digital media and marketing. The applied curriculum in this master's programme integrates at its core the technological instruments which have changed the professional practice of the marketing discipline fundamentally.

**Indicative Content:** Digital Content and Marketing Technology; Marketing Strategy Theory and Application; Research Methods and Critical Analysis; Search Engine Analytics; Visualisation for Strategic Decision Making; Dissertation.

**Admission Requirements:** A 2.2 Honours Bachelor degree in any cognate discipline or equivalent in science, technology or engineering, is the minimum entry requirement for this programme.

**IELTS:** Minimum 6.0 overall score required with no section less than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/3vVpof9>

**Application:** Via an online form available at <https://www.gmit.ie/international/international-online-applications>

#### **C43 MA in Public Relations with New Media**

**MTU**

**Study Location:** Munster Technological University (Bishopstown Campus)

**Programme Duration:** 1 year

**Programme Outline:** The course aims to provide students with a strategic and systematic understanding of the theory and practice of public relations and offers students the opportunity to develop their professional communication skills within a challenging, supportive and easily accessible framework. This innovative MA programme offers the opportunity to gain a comprehensive understanding of public relations as a form of communication and pays particular attention to the growing importance of digital and interactive media on the practice of public relations and its manifold impacts on the mass media industry.

**Indicative Content:** Core – PR Theory & Application; Research Methods and Practice; Ethics & Social Responsibility; Multimedia Production; Media Writing; Cybercultures; New Media Production; PR and New Media; Public Relations Campaigns; Business Communications & Online Writing; Project. Options – Brand Management; Digital Marketing Environment; Event & Project Management; Media & Communications Law, Enterprise, and Innovation; Design for Print; Web Design Basics.

**Admission Requirements:** A minimum 2:2 Honour's degree. Admission to the programme will be based on interview. Recognition of Prior Learning (RPL) will be applicable for candidates entering from the workplace.

**IELTS:** Minimum 6.5 overall score required with no section lower than 6.0.

**Programme Webpage:** <http://www.cit.ie/programme/CRBPRNM9>

**Application:** Apply online via the programme webpage.

#### **C44 MA in Media Studies**

**MIC**

**Study Location:** Mary Immaculate College

**Programme Duration:** 1 year

**Programme Outline:** The Master's in Media Studies at MIC is an innovative programme that offers students the opportunity to study a wide range of contemporary media topics at an advanced level. These include streams in Film Studies, Audio Studies and Cultural Studies. All courses are taught by experienced researchers with practical knowledge of the industry and the small group sessions facilitate collaborative learning, both theoretical and practical. The programme enables graduate students to develop a deeper understanding of the field and provide the foundations for their own original research and career development

**Indicative Content:** Critical Issues in Media Theory; Mass Media Research Methods; Radio: Invisible Medium; Television Drama: Industry, Form & Audience; Ireland and Film; News and News Media; Researching Irish Media Audiences; Sociolinguistics of Irish Media; Women and Ageing in Popular Culture; Scriptwriting for TV Drama and Film; Music and Sound in Popular Culture; Media, Sport and Popular Culture; Popular Music Studies; Sound, Media & Society; Community Media Engagement; The Development of Irish Media: A Theoretical Overview; Dissertation.

**Admission Requirements:** 2.2. in relevant degree or media industry experience.

**IELTS:** Minimum 6.5 overall score required with no section less than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/2TkMHQ2>

**Application:** Apply online via the [programme](#) webpage.

**C45 MA in Communication Design**

**NCAD**

**Study Location:** National College of Art and Design

**Programme Duration:** 15 months

**Programme Outline:** The MA Communication Design operates across a range of disciplines and methodological approaches and contexts. It combines core taught elements in research and critical studies, with advanced studio practice. The programme is a research-led taught masters aimed at building on knowledge and practice acquired at undergraduate level and within professional practice. We encourage our students to explore contemporary themes that connect all the design disciplines. Building on the knowledge and skills developed at undergraduate level and professional practice, students encounter new contexts in which to develop their skillsets and deepen their knowledge of design through a number of interdisciplinary projects, alongside undertaking an intensive one year design research process addressing a specific research agenda.

**Indicative Content:** Core – Design Research through Practice; Collaborative Design Studio; Introduction to Research Methods; Design Development; Design to Change; Author & Audience; Design Studio, Major Project Proposal. Options – Design Industry Internship; Design Incubation and Enterprise; Design Research & Innovation.

**Admission Requirements:** The programme is open to graduates with an honours degree award of 2.2 or higher, or an equivalent academic or professional qualification in a related discipline. NCAD also takes into consideration prior learning and experience. Professional design experience before or after a first degree is beneficial.

**IELTS:** Minimum 6.5 overall score required with a minimum of 6 in the writing section.

**Programme Webpage:** <https://bit.ly/2SruOz1>

**Application:** Apply online via the programme webpage.

**Study Location:** NUI Galway

**Programme Duration:** 1 year

**Programme Outline:** This programme aims to prepare you to work as a professional in the international media and communications industries with a specialism in a chosen area. The programme will give you a critical understanding of the 21<sup>st</sup> Century complex global media ecosystem, and will prepare you to work as a communications professional with high-end production skills to work across multiple platforms. You will have an opportunity to further specialise and develop a niche in a subject area of particular interest via a choice of elective programme streams. Students from all streams will also complete a final project and may undertake an optional internship during the third semester.

**Indicative Content:** Core – Global Media and Society; Social Media & Digital Production. Options – Digital Sandbox; Data Journalism and Visualisation; Researching the Media; Strategic Communications; Reporting Economics and Politics; Investigating Miscarriages of Justice; Business and Financial Journalism; Weather and Climate; Communicating Climate Action and Science; Climate Justice; Introduction to Paleoclimatology; International Human Rights Law; Humanitarian Communication; International Peace Operations; Media Law.

**Admission Requirements:** To be accepted you must have a minimum Second Class Honours degree. We also welcome applications from people with prior experience in journalism looking to update their skills. The programme is particularly welcoming to international students. Applications welcome from all academic backgrounds, particularly Arts and humanities, science and business graduates.

**IELTS:** Minimum 7.0 overall score required with no section less than 6.5.

**Programme Webpage:** [shortened as] <https://bit.ly/38WMMBT>

**Application:** Apply online at <https://nuigalway.elluciancrmrecruit.com/Apply>

**Study Location:** Dublin City University

**Programme Duration:** 1 year

**Programme Outline:** This programme is focused on the Internet of Things [IoT] and aims to provide a pathway for bachelor's degree graduates, existing ICT professionals, and those wishing to convert from associated disciplines, to acquire the necessary skills to pursue careers in the IoT technology and applications domain. The programme offers advanced-level courses in the theory, analysis, design and modelling of electronic and computer technology in an up-to-date, industry-relevant modern programme.

**Indicative Content:** Core – Training & Project Planning; MSc Project. Options – OOP with Embedded Systems; Mathematical Techniques & Problem Solving; Wireless and Mobile Communications; Web Applications Development; Bioelectronics; Data Analysis & Machine Learning; Real-Time Digital Signal Processing; Connected Embedded Systems; Network Stack Implementation; Entrepreneurship for Engineers; Security for Wireless Networks; Blockchain Scalability.

**Admission Requirements:** A Primary Honours degree, Level 8 with an award of H2.2 or higher in Electronic/Electrical/Computer Engineering, Applied Physics, Computer Science or other Engineering Disciplines.

**IELTS:** Minimum overall score of 6.5 required with no section less than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/3Mhf0pk>

**Application:** Apply online at [shortened as] <https://bit.ly/3nSrVIX> - using the **PAC code: DC895**

**C48 MSc in Electronic & Computer Engineering**

**DCU**

**Study Location:** Dublin City University

**Programme Duration:** 1 year

**Programme Outline:** This programme is focused on the Internet of Things [IoT] and aims to provide a pathway for bachelor's degree graduates, existing ICT professionals, and those wishing to convert from associated disciplines, to acquire the necessary skills to pursue careers in the IoT technology and applications domain. The programme offers advanced-level courses in the theory, analysis, design and modelling of electronic and computer technology in an up-to-date, industry-relevant modern programme.

**Indicative Content:** Core – Training & Project Planning; MSc Project. Options – OOP with Embedded Systems; Mathematical Techniques & Problem Solving; Wireless and Mobile Communications; Web Applications Development; Bioelectronics; Data Analysis & Machine Learning; Real-Time Digital Signal Processing; Connected Embedded Systems; Network Stack Implementation; Entrepreneurship for Engineers; Security for Wireless Networks; Blockchain Scalability.

**Admission Requirements:** A Primary Honours degree, Level 8 with an award of H2.2 or higher in Electronic/Electrical/Computer Engineering, Applied Physics, Computer Science or other Engineering Disciplines.

**IELTS:** Minimum overall score of 6.5 required with no section less than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/3Mhf0pk>

**Application:** Apply online at [shortened as] <https://bit.ly/3nSrVIX> - using the **PAC code: DC895**

**C49 MEngSc in Electronic & Computer Engineering**

**UCD**

**Study Location:** University College Dublin (Belfield Campus)

**Programme Duration:** 1 year

**Programme Outline:** The MEngSc in Electronic & Computer Engineering is a year-long programme designed to meet the demands of modern high technology industries and to provide training for engineers who wish to work at a high level in the electronic and computer sectors worldwide. You will develop an advanced understanding of the theory and technology of modern electronic and computer systems and their business environment. You will build your knowledge through taught modules and project work and you will learn about design, innovation and problem solving at a level significantly beyond that of your primary degree.

**Indicative Content:** Core – MEngSc Project. Options – Numerical Algorithms; Networks and Internet Systems; Advances in Wireless Networking; Introduction to Information Security; Communication Theory; Signals and Systems; Digital System Design; Control Theory; Wireless Systems; Digital Communications; Neural Engineering;

Advanced Signal Processing; Radio-Frequency Electronics; Digital and Embedded Systems; Entrepreneurship in Engineering; Power Electronics Technology; Optimisation Techniques for Engineers; Mixed Signal Integrated Circuits; Professional Engineering (Finance); Professional Engineering (Management).

**Admission Requirements:** An honours undergraduate degree (NFQ Level 8) with a minimum upper Second-class honour (2.1) or international equivalent in an Electrical, Electronic or Computer Engineering programme is required.

**IELTS:** Minimum 6.5 overall score required with no section less than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/3vaSTHM>

**Application:** Apply online via the programme webpage.

# D

**Food Science,  
Food Engineering,  
Food Industry**

**D1 MSc in Culinary Innovation & Food Product Development****TUD**

**Study Location:** Technological University Dublin (Grangegorman Campus)

**Programme Duration:** 1 year

**Programme Outline:** This programme is designed to uniquely bridge the knowledge gap between science, business and the culinary arts. It offers a combination of critical, reflective and technical knowledge of the development of innovative food products. If any applicant has a medically diagnosed food allergy (note; not an intolerance), these programmes are not recommended.

**Indicative Content:** Core – Culinary Ingredients and Food Product Development Concepts; Technology and Innovation Management; Gastronomy and Culture; Life Cycle and Therapeutic Nutrition; Food Prototype Development and Evaluation; Food Regulatory Affairs; New Food Business Creation; Marketing Communications and Consumer Behaviour; Post-Graduate Research Methodology. Options – Molecular Gastronomy; Food Packaging Design; Intercultural Studies; Sports and Exercise Nutrition.

**Admission Requirements:** Applicants will normally hold a second class honours bachelor degree (level 8), lower division (2.2) or higher in the area of the culinary arts or a food related discipline. Applicants who do not meet the minimum academic requirements, but who have significant professional or vocational experience in culinary arts or food related areas shall also be considered.

**IELTS:** Minimum 7 overall score required with no section less than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/3wmORRX>

**Application:** Apply online via the programme webpage.

**D2 MSc in Food Safety Management****TUD**

**Study Location:** Technological University Dublin (Grangegorman Campus)

**Programme Duration:** 1 year

**Programme Outline:** Recent food crises highlight the essential need for professional, up to date training in Food Safety Management. This interdisciplinary, skills based MSc. Programme, focuses on the complex, national and EU regulatory and management systems in place to ensure Food Safety and consumer protection, and reviews the many proposed future changes in Food Regulation.

**Indicative Content:** Food Regulatory Affairs; Food Safety, the Consumer, and the Media; Food Law and Media Research; Chemical and Microbial Hazards in Foods; Food Hazards – Chemical; Food Hazards – Microbiological; Food Hazards Research; Food Safety Management Systems; Food Safety Management Risk Analysis; Food Safety Management Toolkit; Safety Aspects of Primary Production; Safety Aspects of Food Processing; Food Production Research; Dissertation.

**Admission Requirements:** An honours bachelor degree (2.2 grade or higher) or equivalent in a discipline relevant to Food Safety Management. It is expected that participants will have significant work experience and fit the profile of a manager or technical professional.

**IELTS:** Minimum 6.0 overall score required with no section less than 6.0.



**Programme Webpage:** [shortened as] <https://bit.ly/3cCeF0s>

**Application:** Apply online via the programme webpage.

**D3 MSc in Food Science**

**UCC**

**Study Location:** University College Cork

**Programme Duration:** 1 year

**Programme Outline:** This programme offers advanced modules in established and emerging areas of Food Science plus modules in research methods. Novel methods of teaching with emphases on project work and innovative forms of learning are used.

**Indicative Content:** Core – Scientific Training for Enhanced Postgraduate Studies; Food Business: Markets and Policy; Library Project in Food Science; Novel Processing Technologies and Ingredients; Advances in Food Formulation: Science and Technology; Cheese and Fermented Dairy Products; Meat Science and Technology; Dissertation in Food Science. Options – Global Food Policy Issues; Chemistry of Food Proteins; Macromolecules and Rheology; Food Product Development and Innovation; Advanced Analytical Methods; Cereals and Related Beverages; Microbial Food Safety; Functional Foods for Health; Hygienic Production of Food; Sensory Analysis in Nutrition Research.

**Admission Requirements:** Candidates must be holders of a minimum Second Class Honours Grade I in a primary BSc honours degree (NFQ, Level 8) or equivalent qualification, in a discipline with a significant element of laboratory science. However, candidates with equivalent academic qualifications may be accepted subject to the approval of College under Recognition of Prior Learning (RPL).

**IELTS:** Minimum 6.5 overall score required with no individual section lower than 6.0.

**Programme Webpage:** <https://www.ucc.ie/en/ckr22/>

**Application:** Apply online at <https://www.ucc.ie/en/apply>

**D4 MSc in Food Business Strategy**

**UCD**

**Study Location:** University College Dublin (Michael Smurfit Business School)

**Programme Duration:** 1 year

**Programme Outline:** This comprehensive course offers a sound training in business concepts and practice, as well as a wider understanding of the unique environment within which food businesses operate. Students will gain advanced knowledge of the factors specific to food effecting the sustainability of food production and the role that innovation can play in the sector. They will also gain an appreciation of the increasingly complex and global environment in which the food business currently operates and the uncertainties and risks attached to food production. This course is open to a wide range of undergraduate profiles, but is especially suitable for those with a background in agriculture-based or other science degrees seeking to develop their business expertise and those with more business-focused degrees and an interest in moving into the food sector. The course is designed to offer students a strategic perspective on doing business within the industry, as well as the management techniques required, current marketing issues, leadership approaches and global policy demands.

**Indicative Content:** Core – Food Economics; Supply Chain Management Global Food Systems; Customer Focused Food; Competitive Strategy in Global Food Industry; Food Policy; Group Project: Future of Food; Innovation for Food Business. Options – Economics of Entrepreneurship; Project Management; Creativity Innovation & Entrepreneurship.

**Admission Requirements:** A minimum Second Class Honours degree (or equivalent) in any discipline, or a primary degree with a minimum of three years' work experience

**IELTS:** Minimum 7.0 overall score required with no section less than 6.0.

**Programme Webpage:** [shortened as] <http://bit.ly/1jUoBj5>

**Application:** Apply online via programme webpage.

## D5 MEngSc in Food Engineering

UCD

**Study Location:** University College Dublin (Belfield Campus)

**Programme Duration:** 1 year

**Programme Outline:** The MEngSc in Food Engineering provides a comprehensive coverage of bioprocess and food manufacturing systems engineering. The programme will be of particular interest to graduates in Engineering, Science and related disciplines who are interested in food and bioprocess engineering, risk assessment, process development, process control, advanced manufacturing systems and associated environmental issues. On this programme you will develop new technical competencies in food and bioprocess engineering, learn how to develop and execute a research plan, and acquire skills in the application of leading-edge technologies to the agri-food and biotechnology industries, including novel food processing technology, food process automation, risk assessment, computer vision for food quality and food safety.

**Indicative Content:** Bioprocess Engineering Principles; Quantitative Risk Assessment for Human and Animal Health; Life Cycle Assessment; Advanced Food Process Engineering; Thesis; Global Cold Chain Safety; Waste to Energy Processes & Technologies; Food Chain Integrity; Food Refrigeration Engineering; Research and Teaching Methods; Unit Ops for Bioprocess Eng.

**Admission Requirements:** An Honours undergraduate degree (NFQ level 8) with a minimum upper second class honours or international equivalence in a relevant Engineering, Science or cognitive technology degree programme.

**IELTS:** Minimum 6.5 overall score required with no section lower than 6.0.

**Programme Webpage:** [shortened as] <https://bit.ly/3th2r5M>

**Application:** Apply online via the programme webpage.

**Study Location:** University College Dublin (Belfield Campus)

**Programme Duration:** 1 year

**Programme Outline:** The MSc Horticulture caters for early career graduates working or intending to work in the global dynamic horticulture production and supply industry. It is designed for students who wish to acquire greater expertise in horticulture, mature students, and career changers, and draws on the academic expertise available in the UCD School of Agriculture and Food Science. Student education is informed by active internationally recognised research where engagement in learning is through formal lectures, practical classes, scenario based learning, group and individual research project work.

**Indicative Content:** Core – Enterprise Development, Data Analysis for Biologists; Food Diet and Health – Making Healthy Food Choices; Introduction to Nutrition; Food Quality and Safety (O/L); Food Production: Fruit and Post-Harvest Physiology; Horticulture Field Studies; Nursery Production & Management; Food Production Vegetable Crops; Food Production: Protected Crops; Professional Communication; Thesis. Options – Elements of Landscape Design; Sportsturf Management.

**Admission Requirements:** Applicants must hold a minimum of an upper second class honours degree, or international equivalent in a biological, environmental, agricultural or related science degree. Mature candidates will be considered on the basis of relevant experience. Prospective candidates are encouraged to contact the course coordinator to discuss their eligibility.

**IELTS:** Minimum 6.5 overall score required with no section less than 6.0.

**Programme Webpages:** [shortened as] <https://bit.ly/2RXZpUN>

**Application:** Apply online via the pro

