



Irish Aid

Rialtas na hÉireann

Government of Ireland

**Ireland Fellows Programme -
SIDS**

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

Important Information for Applicants

ABOUT THIS DIRECTORY

This directory should be read alongside the guidance notes and the programme application form. 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

You must 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. 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). 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

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

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)



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A3	MSc in Coastal & Marine Environments: Physical Processes, Policy & Practice	NUIG
A4	MSc in Marine and Freshwater Resources: Management	NUIG
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A6	MSc in Wildlife Conservation & Management	UCD
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A18	MSc in AgriFood Sustainability & Technology	NUIG
A19	MSc in Co-operatives, Agri-Food and Sustainable Development	UCC
A20	MSc in Food Security Policy and Management	UCC
A21	MSc in AgriBiosciences	NUIG
A22	MSc in Digital Agriculture	UCD
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A30	MSc in Architecture, Urbanism & Climate Action	UCD
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A32	MSc in Planning, Development & Urban Design	UCD
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A34	MSc in Global Environmental Economics	NUIG
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B Engineering and Sustainable Technology

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B12	ME in Sustainable Electrical Energy Systems	TUD
B13	MEngSc in Electrical Power Networks	UCD
B14	ME in Sustainable Infrastructure	TUD
B15	MEngSc in Structural Engineering	UCD
B16	MSc in Engineering (Transport)	TCD
B17	MEngSc in Materials Science and Engineering	UCD
B18	MEng in Applied Materials	SETU
B19	MSc in Innovative Technology Management	SETU
B20	MApplSc in Enterprise Systems	NUIG
B21	MEngSc in Chemical Engineering	UCD

A

**Climate Change &
Resilience, Environment,
Marine, Sustainable
Development, GIS**

A1 MSc in Applied Marine Conservation**ATU**

Study Location: Atlantic Technological University (Galway)

Programme Duration: 1 year

Programme Outline: This one-year MSc degree focuses on core and specialist competences in key themes of fisheries, marine conservation; sustainability and ecosystem based management. Teaching by research-active staff working in the field of applied marine conservation with particular interest in fisheries, marine mammals and seabirds. Includes fieldwork, practicals and 100% continuous assessment.

Indicative Content: Ecology of Top Predators in Marine Systems; Secondary Impacts of Harvest on Wild Populations and Ecosystems; Applied Geographic Information Systems; Data Analysis Using R and R Studio; Seabird and Marine Mammal Population Assessment Techniques; Life History Strategies and Trade-Offs; Research Thesis.

Admission Requirements: The minimum requirement is a 2:2 in a cognate Honours Degree, e.g., Zoology, Ecology, Marine Biology, Wildlife Management, Conservation Biology.

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

Programme Webpage: [shortened as] <https://bit.ly/3MELg5r>

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

A2 MSc in Applied Coastal and Marine Management**UCC**

Study Location: University College Cork

Programme Duration: 1 year

Programme Outline: The programme focuses on the science (including the social sciences) of Coastal and Marine management and policy-making today. It is designed to give students professional competency to make sound, scientifically-informed, strategic and operational decisions regarding the sustainable governance, use and protection of coastal and marine environments. It also provides training in applied practical skills, with an emphasis on geospatial techniques relevant to coastal and marine data capture, analysis, integration, and visualisation. Students will also receive training in important transferrable skills including principles and practice of scientific research, effective communication and presentation techniques, and sound project management.

Indicative Content: Introduction to Geographical Information Systems; Introduction to Remote Sensing; Digital Image Processing; Coastal and Marine Processes; Coastal and Marine Resource Use Practices; Spatial Ecology and GIS; Natural and Anthropogenic Coastal Hazards; Introduction to Coastal and Marine Governance; Offshore Environmental Geology; Dissertation.

Admission Requirements: A primary degree to upper Second-class Honours level (2:1 grade) or higher from a recognised third-level institution in Geography, Geology, Environmental Sciences, Biology, Oceanography, Physics, Mathematics, Engineering or a related discipline. Applicants with a primary degree in a cognate area, plus at least two years of work experience in a relevant marine industry, will also be considered on a case by case basis under Recognition of Prior Learning (RPL).

IELTS: Minimum 6.5 overall score required with no individual section lower than 5.5.

Programme Webpage: <https://www.ucc.ie/en/cke39/>

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

A3 MSc in Coastal & Marine Environments: Physical Processes, Policy & Practice NUIG

Study Location: NUI Galway

Programme Duration: 1 year

Programme Outline: This field-intensive postgraduate programme examines emerging discourses surrounding the long-term health, use, and management of coastal and marine systems. Through lectures, workshops, ship time, field work, and independent research, MSc students are challenged to: (i) Develop competencies in principal biogeochemical processes and ocean circulation patterns, including the role of climate, which shape our coasts and marine environments; (ii) Gain experience in methodologies and data collection techniques through field-based research to describe coastal and marine systems as well as document their change over time; (iii) Critically analyse how coastal and marine systems function and are used by communities and economic sectors; (iv) Evaluate plans and policies that address the complex relationships between coastal and marine environments and communities; (v) Assess how well policies and legislation work to ensure long-term ecosystem sustainability and mitigate negative impacts on coastal communities and economic sectors.

Indicative Content: Biodiversity and Coastal Change; Dynamics of Climate Change; Research Methods and Mapping; Coastal Processes and Landforms; Reconstructing Marine Environments (Research Vessel Skills); Marine Spatial Planning and Policy; Dissertation.

Admission Requirements: Level 8 degree, Second Class Honours or equivalent, with Second Class Honours Grade 1 or equivalent in a relevant field of study. Selection is based on candidates' academic record at undergraduate level, statement of intent and academic letters of recommendation.

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

Programme Webpage: [shortened as] <https://bit.ly/3NaH65M>

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

A4 MSc in Marine and Freshwater Resources: Management NUIG

Study Location: NUI Galway

Programme Duration: 1 year

Programme Outline: The MSc in Marine and Freshwater Resources: Management will enable graduates to develop a core understanding and advanced level of knowledge and skills in key areas relevant to the marine and freshwater environment. This course sets out to equip students with a broad range of skills and an understanding of the fundamental concepts underpinning the functioning of aquatic systems, the ability to communicate about them in a meaningful way and the ability to make informed and responsible decisions regarding marine and freshwater resources. The course has a focus on cross-sector skills and competences that can be transferred from

one topic/occupational area to another, enabling national and international occupational mobility for its graduates, and giving them the skill set to work in and lead multidisciplinary teams.

Indicative Content: Core – Environmental Problems in Marine and Freshwater Environments: Contaminants; Environmental Problems in Marine and Freshwater Environments: Methodological Aspects and Applications; Marine and Freshwater Acidification; Literature Review, Project Planning and Proposal; Water Framework Directive; Metals in the Environment, Speciation, Bioavailability, Remediation; Green Lab Principles and Practice; Marine and Freshwater Resources: Monitoring and Management Dissertation Project. Options – Water Quality; Global Change; Introduction to Data Analysis Tools for Earth and Ocean Studies; Ecosystem Science; Invasive Species & Biodiversity; Marine Spatial Planning and Policy; Project Management; Communicating Science and Research; Biodiversity Legislation and Policy; Data Analysis for Sustainability Research; Applied Data Science with R; Geospatial Analysis and Remote Sensing; The Environment and Human Health; Legislation for Environmental Scientists.

Admissions Requirements: Minimum 2.1 honours, or equivalent, though 2.2 students (or equivalent) with relevant experience will also be considered. Recognition of Prior Learning (RPL) is considered.

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

Programme Webpage: [shortened as] <https://bit.ly/3afic6L>

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

A5 MSc in Conservation Behaviour

ATU

Study Location: Atlantic Technological University (Galway)

Programme Duration: 1 year

Programme Outline: This one-year MSc degree focuses on how animal behaviour can be applied to wildlife conservation. You will study the behaviour of a wide range of species from marine, freshwater, and terrestrial habitats, and you will learn how an understanding of animal behaviour can contribute to the conservation and management of those species. You will acquire a range of applied skills, such as camera trap surveying for terrestrial mammals, visual and acoustic monitoring of marine mammals, abundance estimation of marine mammals using mark-recapture and DISTANCE, geographic information systems (GIS), and data analysis using R and RStudio.

Indicative Content: Studies in Conservation Behaviour; Data Analysis using R and RStudio; Residential Field Programme; Applied Geographic Information Systems; Animal Behaviour: Recording and Analysis; Acoustic Monitoring as a Marine Conservation Tool; Research Thesis.

Admission Requirements: The minimum requirement is a 2:2 in a cognate Honours Degree, e.g., Animal Behaviour, Conservation Biology, Zoology, Ecology, Environmental Science, etc.

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

Programme Webpage: [shortened as] <https://bit.ly/3kr2WVX>

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

Study Location: University College Dublin (Belfield Campus)

Programme Duration: 1 year

Programme Outline: The MSc Wildlife Conservation and Management uniquely integrates the principles of wildlife conservation and zoonotic epidemiology, to underpin the effective management of wildlife populations and ecosystem health. This programme is suitable for students who wish to undertake further studies in pursuit of a career in the agricultural and environmental sciences, with a particular emphasis on the sustainable management of wildlife resources within rural landscapes.

Indicative Content: Wildlife Conservation; Data Analysis for Biologists; Habitat Evaluation; Conservation Genetics; One Health; Research Project; Human Impact on the Environment; Geographic Information Systems; Biodiversity and Ecosystem Services; Biological Invasions; Seminar Presentation.

Admission Requirements: Applicants must hold the equivalent of a minimum Lower Second Class Honours Degree (NFQ Level 8), or international equivalent, in a Biological Science, Environmental Science, Animal Science, Equine Science or Veterinary Medicine degree programme from a recognised higher education institution. Applicants from other disciplines may be considered if they include strong evaluation, analytical and communication skills and have experience of working in the area.

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

Programme Webpage: [shortened as] <https://bit.ly/3uH3A4B>

Application: Apply online via the programme webpage.

Study Location: University College Dublin (Belfield Campus)

Programme Duration: 1 year

Programme Outline: The UCD Masters Programme in World Heritage Management provides graduates with a thorough knowledge of the World Heritage Convention and its application in solving heritage conservation problems. The programme is designed to accommodate applicants with a variety of academic qualifications including Archaeology, Architecture, Geography, Biology, Arts, Agriculture, Engineering and Economics. Please note that the standard two-year MSc will be adapted as a 16-month programme for Irish Aid Fellowship recipients.

Indicative Content: Core – Heritage Preservation & Interpretation; Nature & Culture: A Bridge; Heritage Management Challenges; Conflict Resolution & Heritage; Methods & Practices; Heritage Marketing & Management; Heritage Management in Practice; Dissertation; Research Project Skills. Options – Historic Urban Landscapes; Culture, Heritage & Human Rights; Decolonising Ethnography; GIS, Cultural Heritage and Spatial Thinking.

Admission Requirements: A minimum of a lower Second-class honour's degree or the international equivalent. Applicants with diverse academic backgrounds including Archaeology, Architecture, Geography, Biology, Arts, Agriculture, Engineering and Economics will be considered.

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

Programme Webpage: [shortened as] www.bit.ly/2c3BVaw

Application: Apply online via the programme webpage.

A8 MSc in Environmental Policy

UCD

Study Location: University College Dublin (Belfield Campus)

Programme Duration: 1 year

Programme Outline: The programme takes an international perspective on environmental issues and explores the increasingly complex environmental challenges that societies and governments face across the globe, addressing contemporary environmental debates such as Climate Change, Water Policy, Energy Security and Sustainability, and Urban Resilience. Teaching is focused on areas and skills within environmental policy-making, and an integrated group-project module provides practice-based insights into the policy-making process. Students can enhance their own specialist research interests during the completion of a thesis or internship in the third trimester.

Indicative Content: Core – Tools for Sustainable Development; Environmental Economics & Climate Policy; Research for Environmental Policy; European Environmental Policy; Applications of Environmental Policy; Environment & Development. Options – Environmental Policy Thesis; Internship – Research Project.

Admission Requirements: An Honours undergraduate degree with a minimum upper Second-class Honours or international equivalence is required in any discipline such as social sciences and arts, environmental sciences, law, business studies or engineering.

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

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

Application: Apply online via the programme webpage.

A9 MSc in Environmental Leadership

NUIG

Study Location: NUI Galway

Programme Duration: 1 year

Programme Outline: The MSc in Environmental Leadership will equip graduates with an advanced level of knowledge and problem-solving, management and communication skills in key areas relevant to the environment, marine and energy sectors. It will equip them with a capacity and capability for environmental leadership relevant to their career trajectory. The course has a focus on cross-sector skills and competences that can be transferred from one topic/occupational area to another, so enabling national and international occupational mobility for its graduates.

Indicative Content: Core – Environmental Problems & Solutions; Project Management; Natural Resource Governance & Sustainability; Research Methods for Engineers; Communicating Science & Research; Research Project; Environment Leadership; Communicating Science and Research. Options – The Environment & Human Health; Environmental Impact Assessment; Marine Spatial Planning & Policy; Introduction to Development;

Climate Change & Biodiversity; Environmental Resilience; Green Lab Principles and Practice; Statistics for Data Science; Dynamics of Climate Change; Invasive Species & Biodiversity; Social Marketing & Sustainability; Geospatial Analysis and Remote Sensing.

Admission Requirements: The programme is open to individuals who have a Level 8 primary degree or equivalent in an appropriate discipline. Applicants who do not have an academic background but have relevant experience may be required to attend an interview.

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

Programme Webpage: [shortened as] <https://bit.ly/2SHFN3b>

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

A10 MSc in Risk Resilience & Sustainability

UCD

Study Location: University College Dublin (Belfield Campus)

Programme Duration: 1 year

Programme Outline: This Masters is ideally suited to anyone who is seeking deeper understanding of risk, resilience and sustainability as they relate to both the natural world through hazards such as flooding, sea level rise, and human vulnerability. This understanding is fundamental to addressing many of our pressing societal issues. The key objective of the course is to explore how sustainability and resilience work together in the safeguarding of ecosystem services, the economy, construction, transportation and political systems. Please note that the option to undertake fieldwork outside of Ireland as part of this course is not open to students on the Ireland Fellows Programme.

Indicative Content: Core – Research Design; Dissertation; Introduction to ArcGIS; Natural Hazards and Risk. Options – Physical Geography of Cities; Practical Environmental Assessment; Advanced GIS; Population Patterns and Challenges; Remote Sensing; Coastal Risks; INFOMAR Marine Seabed Data.

Admission Requirements: A primary degree with at least GPA 3.08 (2.1/2H1) or international equivalent in Geography or a related discipline. We would encourage applicants from those with at least a GPA 3.08 (2.1/2H1) in a related area that provides appropriate background to the programme. In certain circumstances, we will consider students who have a GPA 2.48 (2H2) and some relevant work or other experience.

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

Programme Webpage: [shortened as] <https://bit.ly/3anjT1K>

Application: Apply online via the programme webpage.

Study Location: Dublin City University

Programme Duration: 1 year

Programme Outline: This programme interrogates how societies are responding to climate change, and how that response can be strengthened. It examines the roles played by politics, regulation, law, education and the media in creating the broad societal response demanded by climate change. Students will be equipped with critical insights and analytical skills to enable them to play a part in shaping the transition to a decarbonised and climate resilient future. Most postgraduate programmes focused on climate change are concerned with the science of climate change. DCU's new MSc. in Climate Change: Policy, Media & Society is unique in Ireland in its focus on the social sciences and humanities, on media, policy, law, governance, regulation and politics.

Indicative Content: Core – Climate Change and the Media; Climate Change and Societal Transition; Climate Change: The Physical Science Basis; Climate Change Policy and Governance; Research Methodology; Dissertation. Options – Environmental Ethics through Film & Media; Environmental Change and World Politics; EU and National Climate Change Law; Climate Change Education; Climate Change and Cities.

Admission Requirements: A degree at the level of an Irish or UK Honours undergraduate degree (H2.2 or above) or equivalent. Applicants with appropriate combinations of professional qualifications and experience may also be considered. This includes discipline-specific knowledge and know-how; transferable skills; basic research competency; personal effectiveness.

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/2vKLXFs>

Application: Apply online at [shortened as] <https://bit.ly/3nSrVIX> - using the **PAC code: DC669**

Study Location: Maynooth University

Programme Duration: 1 year

Programme Outline: The MSc in Climate Change at Maynooth University is offered to provide Graduates with the knowledge, skills and experience necessary to enable them to undertake analysis of both global and Irish related climate change science, impacts and policies. The course provides a well-integrated and encompassing programme of taught modules such as, The Ocean and Climate Change, Detection, Attribution and Decision making, Impacts, Adaptation and Mitigation which reflect the major themes of climate change, together with essential technical training in modelling and analysis and are designed to nurture independent and critical thinking on climate change issues. Students gain applied knowledge working with industry stakeholders on proposed dissertation topics on real world problems. This ensures that societally relevant research topics meet stakeholder needs and that students develop links with potential employers.

Indicative Content: Applied Climate Sciences; Impacts, Adaptation and Mitigation; Analysing Spatial and Temporal Data Using R; Detection, Attribution and Decision Making; The Ocean and Climate Change; Field Course; Thesis.

Admission Requirements: A minimum of Second-class Honours, Grade One (2.1) in any of the following subjects or cognate disciplines: Geography, Physics, Computer Science, Environmental Science, Engineering, Mathematics.

Applicants must have a recognised primary degree which is considered equivalent to Irish university primary degree level.

IELTS: Minimum 6.5 overall score required.

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

Application: Apply online at <https://v2.pac.ie/institute/2> - using the **PAC Code: MHN56**

A13 MSc in Climate Change, Agriculture and Food Security

NUIG

Study Location: NUI Galway

Programme Duration: 1 year

Programme Outline: This programme is aimed at students who want to combine scientific, engineering, technical, social or policy skills so that they are better equipped to understand and make significant contributions regarding the adaptation and mitigation of climate change impacts on global agriculture and food security. Students are provided with the skills and tools for developing agricultural practices, policies, and measures to address the challenge that global warming poses for agriculture and food security worldwide.

Indicative Content: Climate Change, Agriculture & Global Food Security; Policy & Scenarios for Climate Change Mitigation; AgriBiological Responses to Climate Change; Climate Change, Agriculture, Nutrition & Global Health; Gender & Climate Justice; Climate Change Adaptation & Risk Management; Low-Emissions & Climate Smart Agriculture & Agrifood Systems; Climate Change, Natural Resources & Livelihoods; Sustainable Bio-Based & Circular Economy; Science Communication; CCAFS Perspectives, Research Skills & Techniques; CCAFS Masters Research Thesis.

Admissions Requirements: Minimum 2:1 Honours degree or equivalent in an appropriate discipline.

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

Programme Webpage: www.nuigalway.ie/ccafs

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

A14 MSc (Agr) in Environmental Resource Management

UCD

Study Location: University College Dublin (Belfield Campus)

Programme Duration: 1 year

Programme Outline: The MSc in Environmental Resource Management is an established programme that develops graduates with the flexible combination of environmental science, policy and management expertise necessary to address these needs. The programme is accessible to candidates from a very broad range of primary degree backgrounds. Graduates from this programme respond to many of the major global sustainability challenges.

Indicative Content: Core – Data Analysis for Biologists; Research Project (AESC); Human Impact on the Environment; Seminar Presentation; Soil, Plant & Water Resources; Geographic Information Systems; Biodiversity

and Ecosystem Services; Literature Review (AESC); Practice Research Skills; Ecological Modelling; Environmental Assessment. Options – Wildlife Conservation; One Health.

Admission Requirements: Applicants must hold minimum Lower Second-class Honours Degree in Biological Science, Environmental Science, Agricultural Science, Geography, Earth Sciences, Natural Sciences or cognate degree programme from a recognised higher education institution. Cognate degree programmes would include humanities, arts, business, law and engineering. Mature candidates have previously been accepted on the basis of relevant experience and prospective candidates are encouraged to contact the Programme Director to discuss their eligibility.

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

Programme Webpage: [shortened as] www.bit.ly/2c3C2mu

Application: Apply online via the programme webpage.

A15 MSc (Agr) in Sustainable Agriculture and Rural Development

UCD

Study Location: University College Dublin (Belfield Campus)

Programme Duration: 1 year

Programme Outline: This programme represents a return to core values in the development of rural areas which are rooted in agricultural change as well as responding to new societal demands such as safe and ethically produced food, a healthier environment and sustainable and affordable energy. The programme will equip graduates with capabilities in core analytical, conceptual, communications and research skills as well as providing the knowledge base required to develop careers in the broad arena of sustainable agriculture and rural development.

Indicative Content: Core – Sustainable Agriculture; Strategic Communications; Policies and Strategies for Sustainable Agriculture and Rural Development; Research Methods; Theory & Practice of Rural Enterprises; Minor Thesis. Options – Organic Agriculture; Economics and Sociology in Rural Development; Planning for Development; Agricultural Extension & Innovation; Green Care Policy and Practice.

Admission Requirements: Applicants must hold a minimum of a second class honours degree, or international equivalent, in a range of subject areas. Applications are welcome from people from a broad range of disciplinary backgrounds including humanities, sciences and business who are interested in pursuing careers in the broad arena of rural and community development. Exceptions may be made for applicants who do not hold the minimum educational requirement if they can demonstrate substantial relevant professional or voluntary experience.

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

Programme Webpages: [shortened as] <http://bit.ly/2thpPm8>

Application: Apply online via the programme webpage.

Study Location: University College Dublin (Belfield Campus)

Programme Duration: 1 year

Programme Outline: This MSc will equip graduates with the skills and knowledge to understand more about the processes of learning that underpin change and development and to be effective in building the capacity of farmers to adopt new practices and technologies. Students will develop competencies in: analysis of the context of agricultural change; design and development of appropriate advisory strategies to support agricultural development; how to support adult learning and behaviour change and research and analytical skills to identify and support worthwhile innovations.

Indicative Content: Core – Design Thinking for Agricultural Innovation; Research Methods; Agricultural Extension & Innovation; Thesis; Group Approaches in Agricultural Extension; Project Management in Agricultural Extension; Understanding the Family Farm Business. Options – Agri-Environmental Nutrient Management; Animal Nutrition II; Dairy Production; Developments in Grassland; How To Change Behaviour; Policies & Strategies for Sustainable Agriculture and Rural Development; Strategic Communications; Sustainable Agriculture.

Admission Requirements: A minimum 2:2 Honours university degree in a range of academic qualifications, including Agricultural Science, Life Science and Business degree programmes from a recognised higher education institution. Applications are welcome from people with work experience in government and non-governmental organisations that provide rural extension services in agriculture, environmental and community development.

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

Programme Webpages: [shortened as] <https://bit.ly/3yY9b9M>

Application: Apply online via the programme webpage.

Study Location: NUI Galway

Programme Duration: 1 year

Programme Outline: The aim of this programme is to address an observed gap in rural specialist knowledge and training that can identify future planning needs and challenges and respond in a critical and reflexive way with innovative and alternative practical strategies, policy narratives and theoretical perspectives to those that have tended towards reactive, predictive and low-impact intervention in this dynamic sphere of development and change. The programme aims to produce graduates who are aware of the complexities of rural issues, the associated innovation and planning processes and the implications for sustainable development at the level of the local place as well as at national and international scales. It aims to produce graduates who are confident in their identification of professional selves in rural innovation planning and futures planning; this means that on completion of this programme their belief in the vital importance of the rural to future sustainable development, and in their professional responsibility and capacity to advance its interests, will be assured.

Indicative Content: Research Methods and Mapping; Innovation and Futures Planning for Rural Development and Sustainability; Planning and Innovation for Rural Service Provision; Research and Professional Development Portfolio; Rural Futures in Agriculture and the Multifunctional Countryside; Rural Enterprise and Industry Innovation and Development; Rural Tourism Networks – A Planning Perspective.

Admission Requirements: A Level 8 Degree with a standard of H2.2 overall, with H2.1 in a relevant discipline.

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

Programme Webpage: [shortened as] <https://bit.ly/3GDS29A>

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

A18 MSc in AgriFood Sustainability & Technology

NUIG

Study Location: NUI Galway

Programme Duration: 1 year

Programme Outline: Graduates of the MSc (AgriFood Sustainability & Technology) will fill a critical skills gap in the workplace for graduates who have the multidisciplinary knowledge and skills regarding agrifood sustainability and innovation to drive positive change in the agrifood sector in Ireland and globally. Graduates will be provided with significant career training throughout the program so that they will be highly competitive for positions in leading-edge agrifood companies and public sector organisations (e.g., government agencies, regulatory bodies, etc) in Ireland and globally. Graduates who are interested in establishing their own enterprises or companies will also be facilitated by the MSc (AgriFood Sustainability & Technology) programme. The programme is run in collaboration with Ireland's Agriculture and Food Authority (Teagasc) and other leading agrifood partners from Ireland and internationally.

Indicative Content: Core – Writing a Review Article on a Sustainable Development Topic; Understanding Ireland's Agriculture & Agrifood Sector; AgriFood Sustainability & Agri-Resilience Challenges; Understanding AgriBusiness & AgriFood Market Trends; AgriGood Career, Communications & Impact Pathway Skills; Food Systems, Diets, Nutrition & Technology; Designing and Writing a Sustainability Research Fellowship; Minor Research Project; One Health; AgriEngineering, Agritech & AgriInformatics; Geospatial Analysis and Remote Sensing; Data Analysis for Sustainability Research. Options – Green Lab Principles and Practice; How to Write a Peer-Reviewed Sustainability Primary Research Article.

Admission Requirements: A Level 8 honours degree or equivalent to a minimum standard of Second Class Honours, Grade 1 or equivalent in an appropriate discipline is required.

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

Programme Webpage: [shortened as] <https://bit.ly/3NP4PIY>

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

A19 MSc in Co-operatives, Agri-Food and Sustainable Development

UCC

Study Location: University College Cork

Programme Duration: 1 year

Programme Outline: This is a unique programme, with a very strong practical emphasis and will equip participants with the organisational and management skills needed to make innovative contributions to the development of

local economies, with particular emphasis on co-operatives, social enterprises, and food businesses in Ireland and overseas. It is aimed at graduates from a wide range of disciplines who wish to pursue careers in sustainable development and innovative practice leading to positions in the food sector (ranging from local food enterprises to large multi-nationals), local and international rural development, shared and collaborative economy, NGOs, innovative community businesses including co-operatives and social enterprises, local and regional enterprise development, corporate social responsibility, policy formulation and analysis.

Indicative Content: Core – Sustainable Rural Development; Co-operative and Collaborative Responses; Contemporary Socio-Economic and Environmental Issues; Marketing and Communications for Sustainable Food Production and Consumption; Economics of Agri-Food Markets and Value Chain Analysis; Sustainable Food Systems; The Sharing Economy; Global Food Policy Issues; Project Management; Practice-Based Research Project. Options – Food Branding and Digital Media Marketing; Soil Science and Soil/Land Management; Sustainable Energy.

Admission Requirements: A minimum Second Class Honours in a primary honours degree (NFQ, Level 8) or equivalent, in a wide range of disciplines. Consideration under Recognition of Prior Learning (RPL) may be given to applicants who do not hold a second class honours degree but who have sufficient relevant experience, subject to approval by the Cork University Business School (CUBS).

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

Programme Webpage: <https://www.ucc.ie/en/ckl03/>

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

A20 MSc in Food Security Policy and Management

UCC

Study Location: University College Cork

Programme Duration: 1 year

Programme Outline: This course is designed to equip recent graduates and professionals with the knowledge, skills and competencies needed to work in the field of food security, particularly policy and programme management. The programme aims to provide students with skills that can be applied particularly in the areas of project and programme management, policy development and implementation, and impact assessment of programmes aimed at improving food security and dietary quality. The course is open to students from a wide range of backgrounds, including economics, nutrition, food security, international development, humanitarian assistance and programme management. Course inputs will be provided by experienced faculty from a range of disciplines, as well as senior development professionals from a range of international institutions. Graduates of the programme are ideally qualified for positions in Irish and international development agencies, policy and research institutes, and consultancies across the public, private and non-profit/NGO sectors.

Indicative Content: Sustainable Food Systems; Advanced Food Security Theory, Practice and Analysis; Rural Development, Gender and Livelihoods; Economics of Agri-Food Markets and Value Chain Analysis; Health Information Systems and e-Health Analysis; Programme Planning and Impact Assessment; Research Methods; Food Security in Humanitarian Crises; Programme Planning and Impact Assessment; Public Health Nutrition: From Principles to Practice; Global Food Policy Issues; Applied Food Security Research Project.

Admission Requirements: At least a 2:2 in their primary degree, or equivalent in a relevant subject. Consideration may be given to applicants who do not hold a Second-class Honours degree but who have at least five years

general professional experience in a relevant field or three years managerial/specialist experience, subject to approval of the Programme Director and the Head of the College of Business & Law.

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

Programme Webpage: <https://www.ucc.ie/en/ckl04/>

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

A21 MSc in AgriBiosciences

NUIG

Study Location: NUI Galway

Programme Duration: 1 year

Programme Outline: This is a modular course with a blend of 30 ECTS taught elements that provides a broad foundation of advanced knowledge of AgriBiosciences (Semester 1) and a 60 ECTS research project (Semester 2 & 3) to allow sufficient time for students to gain in-depth exposure to research and innovation. Integral to this one-year structured MSc programme is a seven-month research internship placement in Teagasc, in NUI Galway, or in a cutting edge agri-business. The placements offer students the opportunity to develop the necessary skills to work within a research and innovation setting aligned to their interests and expertise, to develop a research project of relevance to the host entity, and to draft an associated MSc (AgriBiosciences) thesis, whilst simultaneously positioning the student for excellent employment opportunities in industry and research.

Indicative Content: Core – AgriBiosciences Research Project; AgriFood Career, Communication & Impact Pathway Skills; AgriFood Sustainability & Agri-Resilience Challenges; Understanding AgriBusiness & AgriFood Market Trends; Understanding Ireland’s Agriculture & AgriFood Sector. Options – Participation in Workshops/Courses; Graduate Research Skills; Graduate Research Information Skills; Formulating a Research Project Proposal; CCAFS Research Skills & Techniques.

Admission Requirements: Bachelor of Sciences (2.1 honours degree required) or equivalent in agri-related sciences, or a BA in Social Sciences with a particular experience in agriculture.

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

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

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

A22 MSc in Digital Agriculture

UCD

Study Location: University College Dublin (Belfield Campus)

Programme Duration: 1 year

Programme Outline: The programme is aimed at students and industry professionals who wish to build their knowledge and skills-base to address the complexities of developing, deploying and managing digital technology in the agriculture sector. With a focus on design, numeracy, hardware and software technology, our students will be deeply engaged with agricultural production, and specifically technology to enhance efficiency, sustainability, resilience and reliability. The modules will be part of existing final year full-time bachelor’s and master’s degrees

and are appropriate for professionals seeking to deepen existing skills or learn brand new skill sets. Students will be able to take themed clusters of modules (e.g. three modules of precision farming, three modules of sensing technology, three modules of computers and electronics, three modules of data science) to reflect specific technical interests or needs for upskilling.

Indicative Content: Core – Research Project. Options – Land Use and the Environment; Soil Science Basics; Climate, Carbon and Soil; Soil Resources; Introduction to Animal Science; Precision Agriculture; Sensors and Sensing Systems; Numerical Methods for Agriculture; Hyperspectral Imaging; Precision Livestock Management; Optical Sensing Technology; Soil Technology; Computers & Electronics in Agriculture; Advances in Crop Mechanisation; Remote Sensing and GIS; Introduction to Crop Science; Fundamentals of Arable Crop Production; Principles of Crop Science; Root and Alternative Crop Production; Organic Agriculture; Cereal Production; Agricultural Botany; Inference for Data Analytics (online); Introduction to Data Analytics (online); Data Programming with *R* (online); Statistical Machine Learning (online); Data Programming with *Python* (online).

Admission Requirements: A 2.2 or higher honours degree in agriculture, biological science, physical science, environmental related, engineering or computer science is required. Where an applicant has no formal qualification encompassing agriculture/biology a personal experience of informal experience with agriculture will be required. Other disciplines and holders of Certificate and Diploma qualifications will be considered subject to an application detailing suitable mathematical, technological, and analytical skills, particularly if these can be demonstrated by experience in a relevant industrial/work environment.

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

Programme Webpage: [shortened as] <https://bit.ly/3m8gdDU>

Application: Apply online via the programme webpage.

A23 MSc in Plant Biology & Biotechnology

UCD

Study Location: University College Dublin (Belfield Campus)

Programme Duration: 1 year

Programme Outline: Government and private companies are working to develop new ways to improve existing food and animal feed crops, and to develop novel crops to meet future challenges. Graduates of this one-year MSc will be equipped with the knowledge and skills in these recent advances to rise to the future challenges in academia, industry and policy development. Innovation and entrepreneurship permeate the course as central themes and, in addition, a specific module on entrepreneurship in plant biology is delivered.

Indicative Content: Core – Plant Biotechnology & Entrepreneurship; Research Project; Current Developments in Plant Biology. Options – Plant Diseases: Biology and Control; Plant Pathology and Biotechnology; Biological Imaging; Diversity of Plant Form & Function; Experimental Plant Physiology; Plants and Stress; Plant Phenotyping: from Basics to Robotics; Biology and Ecology of Coastal Wetlands; Carbon & Sustainability; Plant Cell Biology; Developmental Plant Genetics; Programmed Cell Death in Plants; Cell Signalling in Plants; Environmental Impact Assessment; Peatlands & Global Change (online); Genome Structure and Evolution; Biological Invasions.

Admission Requirements: This programme is intended for applicants with a degree in an appropriate life science discipline. An upper second class honours or international equivalent is required.

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

Programme Webpage: [shortened as] <https://bit.ly/3zk8Eld>

Application: Apply online via the programme webpage.

A24 MSc in Environmental Science

UCD

Study Location: University College Dublin (Belfield Campus)

Programme Duration: 1 year

Programme Outline: This programme provides graduates with a thorough knowledge of Environmental Science and there is a heavy emphasis on practical training in fieldwork, laboratory analyses, information sourcing, data analysis, planning, reporting and communication. A work placement in an agency servicing the environmental sector is undertaken during the third semester obtaining industry relevant skills.

Indicative Content: Core – Soil Ecology; Quantitative Tools for the Life Sciences; Introduction to Water Resource Engineering 1; Freshwater Resources Assessment; Global Change Ecology; Analyses for Environmental Investigations; Thesis; G.I.S. for Environmental Assessment; Environmental Geology. Options – Wildlife Conservation; Remote Sensing; Waste Management; Introduction to Water Resources Engineering 2; Water Waste and Environmental Modelling; Marine Community Ecology; Environmental Impact Assessment; Wildlife Management/Conservation (Online); Appl. Ecotoxicology (Online); Environmental-based internship; Research-based internship; Essay (MSc Applied Science).

Admission Requirements: This programme is intended for applicants with a primary degree in Science, Engineering, Geography, Architecture or a related subject. An Upper Second-class honour, or international equivalent is required.

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

Programme Webpage: [shortened as] www.bit.ly/2c1YgQN

Application: Apply online via the programme webpage.

A25 MSc in Environmental Science

TCD

Study Location: Trinity College Dublin

Programme Duration: 1 year

Programme Outline: This full-time intensive course is intended for administrative and scientific workers and new graduates with an appropriate biological/earth science background. The course provides students with a wide range of knowledge and skills relating to environmental science. It aims to provide a firm scientific understanding of current environmental issues that will be of relevance to those interested in environmental management and related areas. The course provides a foundation and understanding of current environment policies and legislation, and building on this with practical and theoretical courses.

Indicative Content: Introduction to Environmental Science; Environmental and Chemical Analysis; Hydrology and Groundwater Quality; Earth System Science I: Deep Time; Earth System Science II: Environmental and Climate Change; Environmental Policies; Data Handling and Analysis; Practical Environmental Skills; Project Planning; Individual Research Project.

Admission Requirements: First or upper Second-class Honour's degrees, or their overseas equivalent, awarded by recognised universities, institutions and degree awarding bodies; or holders of other degrees or relevant qualifications including professional qualifications, who have at least three years' work experience in an environmental profession.

IELTS: Minimum 6.5 overall score required.

Programme Webpage: <https://naturalscience.tcd.ie/postgraduate/msc-envirsci/>

Application: Apply online via the programme webpage.

A26 MSc in Geographic Information Science

TUD

Study Location: Technological University Dublin (Bolton Street Campus)

Programme Duration: 1 year

Programme Outline: Competency in information technology skills has consistently been identified as a critical need in the geospatial industry and in the wider workplace in Ireland. This programme has been designed specifically to address these issues and will provide graduates with a thorough grounding in information technology including spatial databases and web technology as well as programming skills tailored to the particular requirements of geospatial data. This is a conversion programme to enable graduates of a related discipline or current practitioners in the geospatial or related industry to acquire a qualification in Geographic Information Science at Masters Level.

Indicative Content: Fundamentals of GIS; Spatial Data Acquisition; GI Project Management; Web and User Interface Design; Spatial Databases; Introduction to Programming; Advanced GIS; GIS Modelling; Work Placement; Web GIS; Programming for GIS; Advanced Spatial Data Management; Research Project and Dissertation.

Admission Requirements: To be admitted to the programme, students should have a minimum of a 2:2 in an Honours bachelor's degree. Applications from candidates who have an equivalent qualification at Honours level (for example, a professional qualification) will also be considered. Prior work or industrial experience is not a pre-requisite for entry on to the course. Applications may be considered from candidates who do not have the minimum academic requirements set out above but who do have significant relevant industry experience.

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

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

Application: Apply online via the programme webpage.

A27 MSc in Geographical Information Systems & Remote Sensing

MU

Study Location: Maynooth University

Programme Duration: 1 year

Programme Outline: The course is equally split between both parts – GIS and Remote Sensing – with four core modules introducing the theory and practice of both subjects at an introductory and advanced level. Additional

optional modules in Programming, Spatial Databases and Remote Sensing of the Subsurface are also available to students who want to develop the technical side more fully, though the course has a strong applied flavour throughout. In addition, all students complete a work placement in the Summer months which allows them to gain valuable practical experience to test and develop the skills learnt across the course.

Indicative Content: Introduction to Geographical Information Systems and Science; Aerial Surveys and Drone Operations; Structured Programming; Spatial Databases; Analysing Spatial and Temporal Data Using *R*; Geographical Information Science in Practice; Satellite Remote Sensing and Earth Observation; Marine Remote Sensing; Work Placement.

Admission Requirements: The basic entry requirement is a degree with a minimum of Second Class Honours (2:1) or equivalent in any of the following subjects: Geography, Planning; Physics; Computer Science; Environmental Science; Geology; Mathematics; Engineering; Geophysics; Public Administration; Public Health or a cognate discipline. Applicants must have a recognised primary degree which is considered equivalent to Irish university primary degree level.

IELTS: Minimum 6.5 overall score required.

Programme Webpage: [shortened as] <http://bit.ly/2uOy7Da>

Application: Apply online at <https://v2.pac.ie/institute/2> - using the **PAC Code: MHN58**

A28 MSc in Geospatial Data Analysis

UCD

Study Location: University College Dublin (Belfield Campus)

Programme Duration: 1 year

Programme Outline: The MSc in Geospatial Data Analysis will provide you with strong theoretical, conceptual and practical foundation on spatial analytics, covering legislative requirements and ethical considerations. The aim of the programme is to provide you with the skillset for real-world spatial exploration of social, economic and environmental patterns and interactions in support of evidence-based planning and decision-making. It will afford you the opportunity to apply acquired skills in pragmatic contextual settings. Please note that the option to undertake fieldwork outside of Ireland as part of this course is not open to students on the Ireland Fellows Programme.

Indicative Content: Core – Research Design; Dissertation; Introduction to ArcGIS; Remote Sensing. Options – GIS, Cultural Heritage and Spatial Thinking; Critical Geographies of Europe; Reimagining Dublin: An Interdisciplinary Exploration in Urban Regeneration; Physical Geography of Cities; Practical Environmental Assessment; Population Patterns and Challenges; Critical Geographies: Spatialising Power and Inequalities; Social Simulation: Methods and Models; Coastal Risks; INFOMAR Marine Seabed Data.

Admission Requirements: A primary degree with at least GPA 3.08 (2.1/2H1) or international equivalent in Geography or a related discipline. We would encourage applicants from those with at least a GPA 3.08 (2.1/2H1) in a related area that provides appropriate background to the programme. In certain circumstances, we will consider students who have a GPA 2.48 (2H2) and some relevant work or other experience.

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

Programme Webpage: [shortened as] <https://bit.ly/3anjT1K>

Application: Apply online via the programme webpage.

A29 MSc in Spatial Demography

UCD

Study Location: University College Dublin (Belfield Campus)

Programme Duration: 1 year

Programme Outline: The interdisciplinary programme provides students with an opportunity to study population issues in a research-led environment, with a focus on applying learning to real-world scenarios. Upon graduation, students will have the technical and substantive know-how to fill a large and important gap in an increasingly competitive global economy. Please note that the option to undertake fieldwork outside of Ireland as part of this course is not open to students on the Ireland Fellows Programme.

Indicative Content: Introduction to ArcGIS; Advanced GIS; Population Patterns and Challenges; Population and Society; Research Design; Spatial Demography Dissertation; Data Programming with R; Sociological Thinking in the Digital Age.

Admission Requirements: Applicants must hold a primary degree with at least Second Class Honours Grade 1 (2H1) or equivalent in a relevant discipline.

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

Programme Webpage: [Shortened as] <https://bit.ly/3wu1EgX>

Application: Apply online via the programme webpage.

A30 MSc in Architecture, Urbanism & Climate Action

UCD

Study Location: University College Dublin (Belfield Campus)

Programme Duration: 1 year

Programme Outline: The MSc programme equips graduates and returning professionals with specialist skills to respond to the challenge of planning, designing, and actioning a sustainable built environment. The School of Architecture, Planning and Environmental Policy (APEP) brings together four key disciplines to provide a unique graduate learning experience. Core modules are specifically designed to enhance knowledge of Sustainable Development Goals, climate science and policy as well as skills for sustainable building and urban design.

Indicative Content: Core – Introduction to Urban Design; Architecture in a Climate Emergency; Linked Research Project; Climate Carbon Cities Change; Research for Environmental Policy. Options – Historic Urban Landscapes; Realising Built Projects; Architectural Design VIII; Urban Design Theory; Postgraduate Studio; Urban Design Studio; Agency: Design/Build; Computational Design; Irish Timber & Sustainability; Retrofit Existing Buildings; Air Pollution; Advanced Air Pollution; Energy System & Sustainable Environments; Introduction to Transportation and Traffic Engineering; Tools for Sustainable Development; Environmental Economics & Climate Policy; European Environmental Policy; Reimagining Dublin: An interdisciplinary Exploration in Urban Regeneration; Physical Geographies of Cities; Practical Environmental Assessment; Remote Sensing; Coastal Risks; Climate Change Law and Policy; Planning, Society and Diversity; Rural & Landscape Planning; Urban & Regional Development; Housing Policy & Planning; Nature-Based Solutions; Geographical Information Systems for Policy and Planning; Economic Globalisation and Social Change

Admission Requirements: An honours undergraduate degree (NFQ level 8) with a minimum upper second class honours or international equivalent in subjects related to the built environment including architecture, urban design, engineering, environmental sciences, or humanity degrees involving social or natural sciences.

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

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

Application: Apply online via the programme webpage.

A31 MSc in Urban Design & Planning

UCD

Study Location: University College Dublin (Belfield Campus)

Programme Duration: 1 year

Programme Outline: This Master's programme is focused on the role of urban design in the context of urban planning and is delivered with an emphasis on the distinct methodologies, professional perspectives and pedagogies of that discipline. It provides specialist knowledge and skills in urban design theory and practice, urban conservation; nature-based solutions, and the role of research in design. The programme will enable graduates to work as part of a multidisciplinary team to create better places through urban design. Students will also have the opportunity to draw upon the school's research expertise to place urban design centre stage in tackling a range of pressing environmental and other issues.

Indicative Content: Core – Conservation History, Theory and Policy; Urban Design Theory; Postgraduate Studio; Urban Design Studio; Nature-Based Solutions; Research Design & Methods. Options – Placemaking: Urban and Rural & Landscape Planning; Urban and Regional Development; Housing Policy and Planning; Planning, Environ & Public Pol; Design Thesis; Thesis; Planning Law.

Admission Requirements: An honours undergraduate degree (NFQ level 8) with a minimum upper second class honours or international equivalent in planning or cognate discipline, including architecture and landscape architecture. Applications from graduates with a degree in another related subject area will also be considered, including geography, engineering, property economics, and surveying.

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

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

Application: Apply online via the programme webpage.

A32 MSc in Planning, Development & Urban Design

UCD

Study Location: University College Dublin (Belfield Campus)

Programme Duration: 1 year

Programme Outline: The MSc Planning, Development & Urban Design has been specifically tailored to enable fully-qualified architects to further develop, build upon and enhance relevant pre-existing professional knowledge, understanding, and skills, to specialise in both spatial planning and urban design. The programme also

draws upon the particular research strengths of the School, providing students with the opportunity to engage with innovative approaches to sustainable and resilient urbanism, exploring emerging challenges surrounding the role of urban design in mitigating or adapting to climate change, in promoting 'healthy' cities or neighbourhoods, and the incorporation of 'nature' into design (e.g. nature-based solutions) to address habitat fragmentation and biodiversity loss. ***This programme is open to Architects on the RIAI Register of Architects or persons eligible to seek registration as an architect in Ireland without further assessment.***

Indicative Content: Core – Street Life: Urban Design, an Introduction; Urban Design Studio; Planning Methodology; Planning, Society and Diversity; Urban and Regional Development; Planning Studio: Plan Making; Nature-Based Solutions; Research Design & Methods; Planning Law. Options – Design Thesis; Thesis.

Admission Requirements: The programme is open to applications from fully qualified architects, i.e. applicants must have completed their architectural education and be listed on a recognised statutory professional architectural register (e.g. RIAI, ARB) or fully qualified and registered as an architect in accordance with EU Directive 2005/36/EC (recognition of professional qualifications), or other international equivalent.

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

Programme Webpage: [shortened as] <https://bit.ly/3x2xdR3>

Application: Apply online via the programme webpage.

A33 MA in Geography: Spatial Justice

MU

Study Location: Maynooth University

Programme Duration: 1 year

Programme Outline: In this course, students will consider pressing global, European and Irish issues through the lens of spatial justice. In addition to learning how to understand, document and map forms of discrimination, violence and displacement at different scales, students will learn how citizens and groups challenge historical legacies and existing structural injustices, and seek more equitable alternatives. Students will gain insights into 'third spaces', grassroots movements, and forms of solidarity that may significantly lead to re-thinking current inhabitants' rights to the city, shared resources, and the right to living in healthy places in Ireland. This MA is flexible in delivery, innovative in emphasis, and stresses experiential- and field-based learning opportunities for students to develop ethical research skills and other employability competencies.

Indicative Content: Core – Thinking Geographically; Public Engagement and Spatial Justice; Field School; Spatial Justice: Geographies of Social & Environmental Change; Thesis. Options – Anthropology and Development; Elections & Geography; Advanced Studies in Human Geography; Advanced Studies in Physical Geography; Gender, Sexuality and Law: Comparative Perspectives; Irish Media History; Foundations of Medical Anthropology; Ethnography Winter School; Topics in Medical Anthropology; Dublin Urban Laboratory; Environmental Remote Sensing; Media Publics: Digital Media, Public Discourse and Political Formations; Qualitative Methods.

Admission Requirements: Students should normally have earned a 2.1 or above in Geography (either subject degree in Geography or overall) or related disciplines. A personal statement is required so the Director can give consideration to applicants with relevant academic, work or professional experience if coming from a different background than the social sciences and/or if earned a 2.2 mark. Applicants must have a recognised primary degree which is considered equivalent to Irish university primary degree level.

IELTS: 6.5 Minimum overall score required.

Programme Webpage: [shortened as] <https://bit.ly/3evC95t>

Application: Apply online at <https://v2.pac.ie/institute/2> - using the **PAC Code: MHN66**

A34 MSc in Global Environmental Economics

NUIG

Study Location: NUI Galway

Programme Duration: 1 year

Programme Outline: The programme is specifically targeted to provide students with employability skills that are relevant to shape and influence future public policy, conduct environmental evaluations, lead research projects, work in a business or consultancy role, with international development and aid agencies or continue education through further academic study. The aims of the MSc in Global Environmental Economics are to equip graduates with the skills to understand and analyse global environmental issues from an economic perspective, critically evaluate and inform future public policy in relation to the environment, advance knowledge of economic methods used to analyse environmental problems and understand global interlinkages of environmental problems and how these differ around the world.

Indicative Content: Core – Microeconomic Theory; Econometrics; Natural Resource Governance and Sustainability; Climate Change Economics; Cost-Benefit Analysis and Evaluation; Environmental Economic Modelling; Global Issues in Agricultural, Marine and Renewable Energy Economics; Dissertation. Options – Renewable Energy Economics and Policy; Innovation and Management; Social Marketing and Environmental Sustainability; Business Analytics with SAP.

Admission Requirements: Students with a primary degree with Second Class Honours, Grade 1 or equivalent, which will have included the study of Economics can apply.

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

Programme Webpage: [shortened as] <https://bit.ly/35xry8i>

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

A35 LLM in Environmental and Natural Resources Law

UCC

Study Location: University College Cork

Programme Duration: 1 year

Programme Outline: offers a wide variety of legal topics ranging across traditional areas of environmental law, policy and regulation, as well as planning and land-use law, heritage protection, international environmental law, marine environmental law, natural resources law and human rights law. It aims to prepare graduates for a variety of careers in the broader environmental regulatory space, including in the legal professions, governmental and regulatory agencies, environmental NGOs, compliance roles in industry, academia and environmental consultancy. The LLM seeks to integrate theoretical and practical aspects of the application of environmental and

natural resources law, and to connect module content with legal and regulatory frameworks operating locally, nationally, regionally and globally.

Indicative Content: Core – Introduction to Planning Law; Environmental Law in Practice; Method in Environmental Law; International Biodiversity and Ecosystems Law and Policy; Climate Change Law and Policy; International Environmental Law; Marine Environmental Law; Natural Resources Law; Dissertation. Options – Introduction to Geographical Information Systems; International Criminal Law; Law of Cybercrime; Contemporary Issues in International Law; Contemporary Issues in EU Competition Policy; International Human Rights Law; Advanced Alternative Dispute Resolution; Public International Law; Refugee and Forced Displacement Law; Environmental Law Clinic; European Corporate Restructuring, Insolvency and Rescue; Brexit - Legal and Political Perspectives; Brexit and the Future of Europe; FinTech: Law and Regulation.

Admission Requirements: Candidates must be approved by the School of Law. They must normally hold a Second Class Honours Grade I in a primary honours Law degree (NFQ, Level 8). Candidates with other third level qualifications and/or relevant professional experience are also encouraged to apply. Applications from overseas candidates are welcome, and their qualifications will be considered on a case-by-case basis.

IELTS: Minimum 6.5 overall score required with no individual section lower than 5.5.

Programme Webpage: <https://www.ucc.ie/en/ckl48/>

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

A36 MSc in Renewable Energy & Environmental Finance

UCD

Study Location: University College Dublin (Michael Smurfit Business School)

Programme Duration: 1 year

Programme Outline: As the only Masters in the world which has an in-depth coverage of environmental and impact finance and green data science, this programme offers an unrivalled level of specialisation in global clean energy and sustainable finance markets. The curriculum encompasses the major theoretical aspects of renewable energy and environmental finance, along with modules focusing upon the tools and techniques for evaluating a comprehensive range of global, regional and firm level environment and financial issues.

Indicative Content: Core – Quantitative Methods for Finance; Financial Econometrics; Capital Markets and Instruments; Derivative Securities; Financial Theory; Financial Analysis; Environmental Finance & Impact Investing; Renewable Energy Finance; Energy Economics and Policy; Business; Portfolio and Risk Management. Electricity Markets; Energy Economics and Policy; Green Business; Portfolio and Risk Management. Options – Mergers and Acquisitions; Financial Technology; Advanced Treasury Management; Behavioural Finance; Green Data Science; Summer Internship; Research Dissertation.

Admission Requirements: Minimum 2:1 undergraduate degree in (i) Business/Commerce including quantitative subjects such as Economics, Finance or Accounting; or (ii) a Finance-related area, Mathematical Finance, Economics, Mathematics, Statistics, Environmental Science, Science, Computer Science, Engineering or Physics. Applicants should have demonstrated strong academic ability (a 1:1 or 2:1) in a number of quantitative modules in their degree, such as Mathematics, Statistics, or Econometrics. Candidates may be asked to sit the Graduate Management Admissions Test (GMAT).

IELTS: Minimum 7.0 overall score required with no section less than 6.0.

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

Application: Apply online via the programme webpage.

A37 MA in International Development Practice

NUIG

Study Location: NUI Galway

Programme Duration: 1 year

Programme Outline: The dynamic MA in International Development Practice (MIDP) at NUI Galway focuses on the wide-ranging social, economic, political and environmental challenges of our rapidly changing world. Spanning global concerns, from sustainable development and climate action, to food security and alleviating poverty, this MA's focus on international development challenges enables you to develop your capacities to understand and engage with both theories and practices relating to contemporary international development as a distinct career path, with a strong emphasis on inter-disciplinarity. Given that international development challenges are multi-dimensional, they require interlinked strategies across multiple disciplines and perspectives. The programme is led by highly experienced staff who work in multilateral agencies, and have a backgrounds in human rights, policy, planning, gender, migration etc, along with practical field based research experience across many countries worldwide. When selecting optional modules on this programme, *Ireland Fellows Programme – SIDS* students must select modules related to climate change and sustainability.

Indicative Content: Introduction to Development; International Development Policy and Practice; Development Perspectives Seminar Series; Data Analytics and Statistics; Research Communications for Development; Research Project; Climate Change, Agriculture and Food Security; Sustainable Development Practice.

Admission Requirements: An upper second class degree in wide range of areas, including social or economic sciences, environmental sciences, management, business, health, human rights, engineering or sciences. In other circumstances, those with a lower degree grade or who have relevant work experience in the field of international development will be considered.

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

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

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

B

**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**

B3 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**

B4 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.

B5 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.

B6 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.

B7 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.

B10 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.

B11 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.

B12 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.

B15 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.

B16 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.

B17 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**

B20 MApplSc 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>

B21 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.