

Irish Aid IDEAS Programme

Directory of Postgraduate Courses suitable for Scholarship Awards 2017 (for 2018-2019 Entry)

VIETNAM

Compiled by:



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UNIVERSITIES, INSTITUTES OF TECHNOLOGY AND COLLEGES WITH LISTED COURSES

AIT	Athlone Institute of Technology	Athlone	www.ait.ie
СІТ	Cork Institute of Technology	Cork	www.cit.ie
DBS	Dublin Business School	Dublin	www.dbs.ie
DCU	Dublin City University	Dublin	www.dcu.ie
DIT	Dublin Institute of Technology	Dublin	www.dit.ie
DKIT	Dundalk Institute of Technology	Dundalk	<u>www.dkit.ie</u>
GCD	Griffith College Dublin	Dublin	www.gcd.ie
GCL	Griffith College Limerick	Limerick	www.gcl.ie
GMIT	Galway-Mayo Institute of Technology	Galway	www.gmit.ie
LIT	Limerick Institute of Technology	Limerick	www.lit.ie
MU	Maynooth University	Near Dublin	maynoothuniversity.ie
NCI	National College of Ireland	Dublin	www.ncirl.ie
NUIG	National University of Ireland, Galway	Galway	www.nuigalway.ie
TCD	Trinity College Dublin	Dublin	www.tcd.ie
UCC	University College Cork	Cork	www.ucc.ie
UCD	University College Dublin	Dublin	www.ucd.ie
UCDMS	UCD Michael Smurfit Business School	Dublin	smurfitschool.ie
UL	University of Limerick	Limerick	www.ul.ie

NOTES ON COURSE LISTINGS

The courses included here have been identified as appropriate for applicants to the Irish Aid IDEAS Programme. Every care has been taken in compiling the listing. However, certain information for 2018-2019 was not fully available at the time of printing. In addition, some course information, web addresses and contacts will inevitably change during each academic year. Before preparing or submitting an application, you are advised to check the latest details provided online by the relevant institution and you should not rely solely on the information in this document.

ABBREVIATED WEB ADDRESSES

Many long course web addresses have been shortened, e.g. <u>www.bit.ly/qEdRCn</u>, for ease of transcription, if required. Any capitalisation should be noted accurately as these addresses are case-sensitive.

Irish Council for International Students (ICOS)

The Irish Council for International Students (ICOS), based in Dublin, is an independent non-profit network of educational institutions, NGOs and individuals interested in international education and working with government and other agencies to promote good policies and best practice in relation to the recruitment, access and support of international students in Irish education. ICOS manages administrative aspects of the IDEAS Scholarship Programme on behalf of Irish Aid.

Map of Ireland

The Irish 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 p2).



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F15	MSc in Food Marketing	UCC

C Pharmacy and Biotechnology

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C3	MSc in Biomedical Science	NUIG
C4	MSc in Biotechnology	NUIG
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C6	MSc in Chemistry – Analysis of Pharmaceutical Compounds	UCC
C7	MSc in Biotechnology	UCC
C8	MSc in Pharmaceutical Sciences	TCD
C9	MSc in Immunology	TCD
C10	MSc in Bioprocess Engineering	DCU
C11	MSc in International Pharmaceutical Business Management	GCD
C12	MSc in Pharmaceutical Business and Technology	GCD
C13	MEng in Chemical and Biopharmaceutical Engineering	CIT

D Engineering, Hydrology, Sustainable Technology

D1 MEngSc Structural Engineering

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D7	ME in Mechanical Engineering	DIT
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D9	MSc in Engineering (Environmental / Structural and Geotechnical / Transport)	TCD
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D23	MSc in Water Resource Engineering	NUIG
D24	MEng in Civil Engineering (Environment and Energy)	CIT
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E Information and Communication Technology

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E10	MSc in Cloud Computing	NCI
E11	MSc in Information Systems Management	NUIG
E12	MSc in Computer Science (Data Science)	TCD
E13	MSc in Computer Science (Future Networked Systems)	TCD
E14	MSc in Computer Science (Intelligent Systems)	TCD
E15	MSc in Computer Science (Graphics and Vision Technologies)	TCD
E16	MSc in Information Systems for Business Performance	UCC
E17	MSc in Computer Science (Interactive Media)	UCC
E18	MSc in Data Science and Analytics	UCC
E19	MEngSc in Electrical & Electronic Engineering	UCC
E20	MSc in Computing Science	UCC
E21	MEng in Computer and Communications Systems	UL
E22	MEng in Information and Network Security	UL
E23	MSc in Computing (Information Systems Processes)	WIT

E24	MSc in Information Security	CIT
E25	MSc Data Science and Analytics - <u>http://www.cit.ie/course/CRSDAAN9</u>	CIT
See a	lso:	
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A13	MSc in Geocomputation	MU
D8	MSc in Electronic and Communications Engineering	DIT
D15	MEngSc in Electrical and Electronic Engineering	UCC

F Management, Business and Related

F1	MSc in Strategic Management	DIT
F2	MSc in Supply Chain Management	
F3	MSc in Management	TCD
F4	MSc in Food Business Strategy	UCDMS
F5	MSc in Management Consultancy	UCDMS
F6	MSc in Digital Innovation	UCDMS
F7	MSc in Aviation Finance	UCDMS
F8	MSc in Finance	UCDMS
F9	MSc in Management (Business)	DCU
F10	MSc in Management (Strategy)	DCU
F11	MSc in Human Resource Management	DCU
F12	MSc in Management (Aviation Leadership)	DCU
F13	MSc in Business Economics	UCC
F14	MSc in Business Information and Analytics Systems	UCC
F15	MSc in Food Marketing	UCC
F16	MSc in Financial Economics	UCC
F17	Masters in Business Studies (MBS) – Management	WIT
F18	Master of Business	AIT
F19	MSc in Project Management*	UL
F20	MA in Business Management	UL
F21	Master of Business in Marketing & Management Strategy	LIT
F22	MSc in Accounting and Finance Management	GCD
F23	MSc in Strategy and Innovation	MU
F24	MSc in Business Management	MU
F25	MSc in Human Resource Management	NUIG
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See a	lso:	
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C11	MSc in Pharmaceutical Business and Technology	GCD

G Other Courses

G1	MSc in Tourism Management	DIT
G2	MSc in Hospitality Management	DIT
G3	MSc in Interactive Digital Media	TCD

G4	MSc in Digital Humanities and Culture	TCD
G5	MA/MSc in Interactive Media	UL
G6	MA in International Tourism	UL
G7	MA in Creative Practice	GMIT
G8	MA in Public Relations with New Media	CIT

A

Agriculture, Environmental Science, Conservation, Rural Development and related studies

A1 MSc (Agr) in Sustainable Agriculture and Rural Development

Study Location: University College Dublin

Course Duration: 1 year

Course Outline: This course 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.

Course Suitability: Graduates of this programme typically work in government, agricultural and rural development agencies, local development agencies, NGOs involved in rural development as well as donor agencies and international development organisations.

Indicative Content: <u>Core</u> - Sustainable Agriculture; Strategic Communications; Policies and Strategies for Sustainable Agriculture and Rural Development; Research Methods I and II; Theory & Practice of Rural Enterprises; Minor Thesis. <u>Options</u> - World Heritage and Sustainable Development; Global Biodiversity and Heritage; Economics and Sociology in Rural Development; Planning for Development; Agricultural Extension and Innovation.

Admission Requirements: Normally an Honours university degree. Graduates who hold a pass level combined with substantial relevant professional or voluntary experience will be considered.

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

Application: Apply online from course webpage.

A2 MSc (Agr) in Environmental Resource Management

Study Location: University College Dublin

Course Duration: 1 year

Course Outline: This course provides training in development and utilisation of land resources in an environmentally sensitive manner. It is concerned with the nature, utilisation and conservation of land and other biogeophysical resources. It addresses the impact of agricultural and industrial activities on the environment, and fosters the planned development and sustainable management of the rural environment and other resource sectors.

Course Suitability: Graduates in a wide range of disciplines, including Agriculture, Engineering, Geography, Economics and various Sciences, seeking to operate effectively as professionals in natural resource management and conservation.

Indicative Content: 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. <u>Options</u> – Wildlife Conservation; One Health; Rural Planning & Environmental Law.

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UCD

Admission Requirements: Normally the equivalent of a 2:2 honours degree from a recognised higher education institution. However, in special circumstances, relevant work experience may be taken into account.

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

Application: Apply online from course webpage.

A3 MSc Applied Science (Environmental Science)

UCD

Study Location: University College Dublin

Course Duration: 1 year

Course Outline: This course seeks to provide a broad training in the science underpinning environmental assessments and related disciplines. There is a heavy emphasis on practical training in fieldwork, laboratory analyses, information sourcing, data analysis, reporting and communication. Some exercises provide experience in planning and teamwork. A major input from Civil Engineering is included, relating particularly to water quality, hydrology and waste treatment processes.

Course Suitability: Graduates, especially in Science, Engineering or Architecture, employed by local authorities, state or semi-state agencies, industry and environmental consultants.

Indicative Content: Applied Water Resources Engineering; Environmental Impact Assessment; Core Skills for Research; Freshwater Resources Assessment (included biological and chemical assessment of water quality); Global Change Ecology; Wildlife and Resources Management; Marine/Coastal Ecology; Soil Ecology; Environmental Geology; Ecotoxicology and Air Quality Monitoring; Vegetation Ecology; Geographic Information Systems (GIS); Remote Sensing; Introduction to Ecological Modelling; Literature Review; Minor Research Project and Thesis.

Admission Requirements: An Honours primary degree in Science, Engineering, Geography, Architecture or related subject. Candidates with a pass degree will be considered with relevant work experience or academic award.

Course Webpage: [shortened as] <u>www.bit.ly/2c1YgQN</u>

Application: Apply online from course webpage.

A4 MSc in World Heritage Management and Conservation

Study Location: University College Dublin

Course Duration: 1 year

Course Outline: This multi-disciplinary course provides the theoretical knowledge and practical skills required by conservation managers, including comprehensive understanding of the World Heritage Convention and of the challenges facing site managers and policy-makers. It is unique in its emphasis on

UCD

natural heritage, conservation biology, wildlife management and climate change. * Please note that the standard two year MSc will be adapted as a 16 month programme for Irish Aid Fellowship recipients.

Course Suitability: Managers responsible for World Heritage sites and equivalent protected areas and those involved in the conservation and management of natural habitats worldwide.

Indicative Content: <u>Core</u> - Heritage and Environmental Interpretation; International Strategies and the World Heritage Convention; Cultural Heritage; Project Development, Management and Marketing; Sustainable Development; Conflict Resolution and Conservation; End of course project. <u>Options</u> - Global Biodiversity and Heritage; Conservation Biology; Wildlife Management; Remote Sensing; Cultural Heritage and Conservation Practice; Landscape Management and Characterisation; Archaeology and World Heritage Management in Ireland; Climate Change.

Admission Requirements: Normally an Honours university degree as well as experience of conservation heritage issues.

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

Application: Apply online from course webpage.

A5 MSc in Sustainable Energy and Green Technologies

UCD

Study Location: University College Dublin

Course Duration: 1 year

Course Outline: This course focuses on the development and optimisation of crop production and renewable energy resource exploitation, the efficiency in renewable energy generation and utilisation pathways (including energy conservation) and the mitigation of environmental impacts.

Course Suitability: Graduates of engineering, science and related disciplines seeking to specialise in renewable energy systems technology development.

Indicative Content: Energy Systems and Sustainable Environments; Life Cycle Assessment (LCA); GIS and data management; Plant genetics and biotechnology; Research skills; Innovation and Technology Transfer; Root and Alternative crop production; Renewable energy projects evaluation and market analysis; Concepts and principles of Environmental Law, Energy systems integration; Major Research Project

Admission Requirements: An undergraduate degree in science or a related discipline (e.g. degrees in science, engineering and agricultural science).

Course Webpage: [shortened as] www.bit.ly/1KvElDI

Application: Apply online from course webpage.

A6 MSc in Environmental Science

Study Location: Trinity College Dublin

Course Duration: 1 year

Course Outline: 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.

Course Suitability: Administrative and scientific workers with an appropriate biological/earth science background.

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. <u>Practical skills modules</u>: Data handling and analysis; Practical environmental skills. Project Modules: Individual desk study; Project planning; Individual research project.

Admission Requirements: Minimum 2:1 Honours degree or equivalent <u>or</u> other degree or relevant qualifications, including professional qualifications, with at least three years' work experience in an environmental profession.

Course Webpage: [shortened as] www.bit.ly/1scpnzt

Application: Apply online from course webpage.

A7 MSc in Biodiversity and Conservation

Study Location: Trinity College Dublin

Course Duration: 1 year

Course Outline: This course is designed to provide students with a sound theoretical and practical grounding in the science of biological diversity and its conservation. It will utilise a range of teaching methods to develop key theoretical knowledge and link this to practical skills. Skills in developing research methods will be developed through desk studies and a research project.

Indicative Content: Introduction to Biodiversity; Introduction to Conservation Biology; Practical Environmental Assessment; Human Interactions With Biodiversity; Data Handling and Analysis; Taxonomy systematics and ID Skills; Project Planning; Overseas Field Course; Individual Desk Study; Practical Conservation Skills; Individual Research Project.

Admission Requirements: At least a 2:1 Honours degree in a science subject that includes significant components of botany, zoology or a relevant life science. Candidates with relevant, and significant, experience as professional practitioners in Biodiversity management or policy may be accepted with lower qualifications.

Course Webpage: [shortened as] www.bit.ly/1raoOnr

TCD

13

Application: Apply online from course webpage.

A8 MSc in Applied Coastal and Marine Management

Study Location: University College Cork

Course Duration: 1 year

Course 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: Marine Ecology and Conservation; Introduction to Geographical Information Systems; Introduction to Remote Sensing; Coastal and Marine Resource Use Practices; Coastal and Marine Governance; Coastal and Marine Processes; Practical Offshore Geological Exploration; Research 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. Applications will also be considered from graduates in other disciplines, including those in the Arts and Social Sciences, who have a demonstrable interest and/or experience in coastal and marine management, and who can offer sufficient numerical abilities. Applicants with a degree of at least lower second class honours (2.2 grade), or its equivalent, in one of the areas mentioned above, plus at least five years of work experience relevant to the field of applied coastal and marine management will also be considered. English Language Requirements: IELTS 6.5 with no individual section lower than 6.0.

Course Webpage: [shortened as] <u>http://bit.ly/2cX33GV</u>

Application:

Apply online via The Postgraduate Applications Centre (PAC) – <u>www.pac.ie</u> – using the PAC application code shown above.

A9 MSc in Climate Change, Agriculture and Food Security

Study Location: NUI Galway

Course Duration: 1 year

Course Outline: The programme provides students with the skills and tools for developing agricultural practices, policies and measures addressing the challenge that global warming poses for agriculture and food security worldwide. It will develop a balance of scientific, technical, analytical and crosscutting skills.

UCC

NUIG

PAC Code: CKE39

Course Suitability: Graduates seeking the necessary skills and capabilities to pursue a career in both climate change mitigation and adaptation for agriculture and food security.

Indicative Content: Climate Change, Agriculture & Global Food Security; Climate Change, Agriculture, Nutrition & Global Health; Policy & Scenarios for Climate Change Adaptation & Mitigation; Gender, Agriculture & Climate Justice; Low-Emissions Climate-Smart Agriculture & AgriFood Systems; Climate Change Adaptation, Mitigation & Risk Management; Monitoring Climate Change: Past, Present, Future; Climate Change, Natural Resources & Livelihoods; AgriBiological Responses to Climate Change; CCAFS Science Communication: Techniques & Models; CCAFS Case Studies, Journal Club & Datasets; CCAFS Research Skills/Techniques; CCAFS Research Project.

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

Course Webpage: www.nuigalway.ie/ccafs

Application:

Apply online via The Postgraduate Applications Centre (PAC) – www.pac.ie – using the PAC application code shown above.

A10 MA in Rural Sustainability

Study Location: NUI Galway

Course Duration: 1 year

Course Outline: This course aims to equip future decision-makers with theoretically informed, critical and practical skills focused on the interrelationship between rural activities and the global economy. Students will gain a clear understanding of the processes, perspectives and practices shaping the contemporary and future rural world. There is a strong focus on the formulation of rural and agricultural development policies and strategies; the role of global actors; the nature and impact of rural-related governance from the WTO and EU to local institutions and grassroots organisations.

Course Suitability: Staff of national and international organisations and agencies with a rural development remit; staff of government departments and public sector organisations concerned with the rural sector.

Indicative Content: Conceptualising the Rural - Policy, Strategy and Governance; Rural Community and Fieldbased Learning; Rural Development and Communication for Rural Innovation; The Multifunctional Countryside; Research Methodologies & Practising Rural Geography; Dissertation (Research Paper).

Admission Requirements: A 2.1 Honours Degree in Geography or a related discipline, or equivalent (prior learning in terms of relevant work experience is also recognised).

Course Webpage: [shortened as] www.bit.ly/1scnXF6

Application:

Apply online via The Postgraduate Applications Centre (PAC) - www.pac.ie - using the PAC application code shown above.

PAC Code: GYA95

PAC Code: GYS00

NUIG

A11 MSc in Environmental Leadership

Study Location: NUI Galway

Course Duration: 1 year

Course 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.

Indicative Content: <u>Core</u> – Environmental Problems & Solutions; Project Management; Natural Resource Governance; Research Methods 1 and 2; Communication Science & Research; Introduction to Statistics and Data Analysis; Research Project. <u>Options</u> – Conceptualising Environment Society & Development; Environment & Human Health; Environmental Impact Assessment; Marine Spatial Planning & Policy; Introduction to Practical GIS; Introduction to Oceanographic and Environmental Data Analysis; Climate Change & Biodiversity.

Admission Requirements: Minimum 2.2 primary degree or it equivalent in an appropriate discipline, including Science, Geography and Social Science.

Course Webpage: [shortened as] <u>http://bit.ly/2w8g8rr</u>

Application:

Apply online via The Postgraduate Applications Centre (PAC) – <u>www.pac.ie</u> – using the PAC application code shown above.

A12 MSc in Geographical Information Systems & Remote Sensing

Study Location: Maynooth University

Course Duration: 1 year

Course Outline: This programme aims to provide highly qualified, motivated graduates who have been trained in Geographical Information Systems, Remote Sensing and Digital Image Processing and who can apply the information technology skills they obtain; to produce marketable graduates who will make significant contributions to GIS and RS application areas including; industry, government, academia, the community and voluntary sector and other public and private bodies; to provide an understanding of Geographical Information Systems and Remote Sensing, the technology involved and its applications for specific investigations.

Indicative Content: Introduction to Geographical Information Systems and Science; Theoretical Remote Sensing; Structured Programming; Spatial Databases; Analysing Spatial and Temporal Data using R; Digital Image Processing & Advanced Remote Sensing; Work Placement; Geographical Information Science in Practice.

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.

MU

PAC Code: GYS33

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

Application:

Apply online via The Postgraduate Applications Centre (PAC) – <u>www.pac.ie</u> – using the PAC application code shown above.

A13 MSc in Geocomputation

Study Location: Maynooth University

Course Duration: 1 year

Course Outline: This programme aims to provide a sound theoretical and practical foundation in geocomputation for numerate graduates with suitable backgrounds in subjects such as mathematics, engineering, geography, computer science, geomatics, and mining, and professionals working in cognate disciplines. The programme will provide students with a sound understanding of the theoretical principles underlying geocomputation. Students will gain a sound understanding of the practical aspects of Geographical Information System software and management.

Indicative Content: Structured Programming; Spatial Databases; Theoretical Remote Sensing; Geographic Information Science in Practise; Introduction to Geocomputation; Advanced Topics in Geocomputation; Object-Oriented Programming; Methods & Techniques in Geocomputation; Dissertation.

Admission Requirements: A minimum 2.1 honours degree or equivalent in a cognate discipline. Cognate disciplines include, but are not limited to: geography, computer science, geomatics, mining, engineering, mathematics. Applicants must have a recognised primary degree which is considered equivalent to Irish university primary degree level.

Course Webpage: [shortened as] <u>http://bit.ly/2v7zpo7</u>

Application:

Apply online via The Postgraduate Applications Centre (PAC) – www.pac.ie – using the PAC application code shown above.

A14 MA in Development Studies

Study Location: Kimmage Development Studies Centre

Course Duration: 14 months

Course Outline: The MA in Development Studies is designed to prepare participants for development work in a community, government, youth/adult education, or NGO setting. It offers learners an opportunity to explore contemporary theories of social change and development and to analyse development policies and practices. It builds skills, especially in relation to research, leadership and working with groups, and in the planning, management and evaluation of development projects.

Course Suitability: The MA is aimed at advanced level participants who hold a primary degree or equivalent qualifications and who have experience of working in a development context. Particularly welcome are



MU

PAC Code: MHN58

PAC Code: MH50B

leaders, facilitators and managers of community development projects, government and development agency staff, researchers and activists. It should also appeal to academics in the countries of the Global South engaged in teaching and research in development.

Indicative Content: <u>Core</u> - Political Economy of Development; Managing Development Organisations; Gender and Development; Introduction to Development and Organisations; Adult Learning; Research Methodologies; Dissertation (MA only). <u>Elective Options</u> include - Results Based Management for Development; Sustainable Livelihoods and Climate Change Adaptation; Human Rights and Advocacy; Health and Development; Globalisation and Anthropology; Conflict, Development and Security; Political Economy of Environment and Development; Facilitation for Transformation; Leadership in Groups; Financial Management; Globalisation and Movements For Change.

Admission Requirements: A University Degree, preferably in a development related discipline. Those with a professional background in some form of development work are particularly welcome to apply.

Course Webpage: <u>www.kimmagedsc.ie/full-time-study/ma</u>

Application: See www.kimmagedsc.ie for details or contact info@kimmagedsc.ie

AAE BAC.	 A · · · · · ·	
	/arine / or	CARVATION

Study Location: Galway-Mayo Institute of Technology

Course Duration: 1 year

Course Outline: This one year MSc degree focuses on core and specialist competences in key themes of fisheries, marine conservation; sustainability and ecosystem based management.

Indicative Content: <u>Core</u> – 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; Thesis. <u>Options</u> – Seabird and Marine Mammal Population Assessment techniques; Acoustic Monitoring as a Marine Conservation Tool; Stakeholder engagement; Life History Strategies and Trade-Offs.

Admission Requirements: The minimum requirement is a 2.2 in a cognate Honours Degree, e.g. Zoology, Ecology, Marine Biology, Wildlife Management, Conservation Biology.

Course Webpage: [shortened as] <u>http://bit.ly/2xkKLdu</u>

Application: See <u>www.gmit.ie/apply-gmit</u> for details or contact <u>international@gmit.ie</u>.

GMIT



Food Science

B1 MSc in Applied Science (Food Science)

Study Location: University College Cork

Course Duration: 1 year

Course Outline: This course offers advanced modules in established and emerging areas of Food Science plus modules in research methods. Novel methods of teaching with emphases on project work and innovative forms of learning are used.

Indicative Content: <u>Core</u> - Scientific Training for Enhanced Postgraduate Studies; Library Project in Food Science; Dissertation In Food Science. <u>Options</u> – Food Business, Markets and Policy; Material Science for Food Systems; Advanced Topics in Dairy Biochemistry; Advances in the Science of Muscle Foods; Advances in Food Formulation Science and Technology; Novel Processing Technologies and Ingredients; Cheese and Fermented Dairy Products; Meat Science and Technology; Hygienic Production of Food; Human Nutrition and Health; Sensory Analysis in Nutrition Research; Chemistry of Food Proteins; Macromolecules and Rheology; Advanced Analytical Methods; Cereals and Related Beverages; Food Product Development and Innovation; Microbial Food Safety.

Admission Requirements: Normally an honours BSc degree, minimum grade of 2:2, from programmes in Food Science, Food Technology, Nutritional Sciences, Food Business, Microbiology or any discipline within Biological or Chemical Sciences.

Course Webpage: [shortened as] <u>www.bit.ly/aKQbk5</u>

Application:

Apply online via The Postgraduate Applications Centre (PAC) – <u>www.pac.ie</u> – using the PAC application code shown above. *Additional application information is posted on the course webpage.*

B2 MSc in Applied Science (Food Microbiology)

Study Location: University College Cork

Course Duration: 1 year

Course Outline: This course aims to provide graduates with the knowledge and skills to enable them to contribute to the Irish and international food industries. Content will focus on the practical value of food microbiology in ensuring food quality and food safety and its importance of food microbiology in developing new, innovative and healthy foods. It covers both classical and modern food microbiology, including food safety and spoilage; food fermentation; food biotechnology; hygienic production of food; the impact of diet on health; the molecular mechanisms of infectious microbes and the role of the gut microbiota in human health.

Indicative Content: <u>Core</u>: Scientific Training for Enhanced Postgraduate Studies; Biotechniques; Library Project in Food Microbiology; Research Dissertation. <u>Options</u>: Food Fermentation and Mycology; Microbial Food Safety; Food Biotechnology; Hygienic production of Food; Functional Foods for Health; Food Markets and Policy

Admission Requirements: Minimum 2:2 Honours in any relevant primary degree.

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PAC Code: CKR22

Course Webpage: [shortened as] www.bit.ly/cH3iJY

Application:

PAC Code: CKR19

Apply online via The Postgraduate Applications Centre (PAC) – <u>www.pac.ie</u> – using the PAC application code shown above. *Additional application information is posted on the course webpage.*

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Pharmacy & Biotechnology

C1 MSc in Pharmaceutical Quality Assurance & Biotechnology

Study Location: Dublin Institute of Technology

Course Duration: 18 months

Course Outline: This programme is offered on a one year full—time basis followed by a 6 months industry based dissertation. It is designed to provide a bridge for graduates with a degree in science or related disciplines to the specific requirements of the pharmaceutical sector. The programme offers a broad based curriculum covering aspects of quality assurance, auditing, manufacturing and pharmaceutical science and biotechnology.

Indicative Content: Q.A., Auditing and Inspection; GMP and Validation; Biotechnology; Pharmaceutical Technology and Research Methods; Pharmaceutical Facilities and Utilities; Pharmaceutical Manufacturing and Management; Pharmaceutical Analysis & Method Validation; Medicinal Chemistry and Process Design & Development for API Production; Process Analytical Technology & Quality by Design; Biopharmaceutical Analysis; Validation of Aseptic Pharmaceuticals; Pharmaceutical Microbiology and Aseptic Manufacture; Pharmacology and Toxicology; Quality Risk Management; Process Validation for Biopharmaceuticals; Dissertation

Admission Requirements: Honours bachelor degree in science or related discipline at 2.2 grade or higher or equivalent qualification.

Course Webpage: [shortened as] http://bit.ly/2vRCooC

Application: Apply online via course webpage.

C2 MSc in Neuropharmacology

Study Location: NUI Galway

Course Duration: 1 year

Course Outline: This course will equip students with the skills necessary to develop a career in important area of research, and aims to provide: a sound theoretical knowledge of neuropharmacology; laboratory-based skills in various neuropharmacological techniques; an appreciation of the regulatory issues associated with conducting neuropharmacological research; the application of experimental design and statistics to neuropharmacological research; a detailed understanding of a range of computer packages involved in data processing and presentation; a research project which will allow these skills to be further developed.

Indicative Content: <u>Core:</u> General Pharmacology Central transmitters and signalling mechanisms, (Neuroscience, Neuroanatomy, Neurophysiology), and Research Methodology. Practical, Computing, Experimental Design, and Laboratory Safety programmes will also be delivered. Semester 2 - Selected areas of Neuropharmacology are studied in depth, including receptor and behavioural pharmacology, drugs of abuse, and the development of drugs to treat the main CNS diseases (anxiety, schizophrenia, depression, epilepsy, Alzheimer's Disease, Parkinson's Disease, and stroke). Semester 3 – Research Project.

Admission Requirements: Normally at least a Second Class Honours Level 8 degree from a diversity of undergraduate disciplines, ranging from Chemistry through Life Science subjects to Psychology. Students are

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also considered who have a Level 7 degree and three years relevant work experience. Overall IELTS score of 6.5+ must include a minimum of 5.5 in all components).

Course Webpage: [Shortened as] <u>www.bit.ly/9ddKv5</u>

Application:

Apply online via The Postgraduate Applications Centre (PAC) – <u>www.pac.ie</u> – using the PAC application code shown above.

C3 MSc in Biomedical Science

Study Location: NUI Galway

Course Duration: 1 year

Course Outline: The objective of this programme is to introduce students to an interdisciplinary approach to research, which utilises technologies and skills from a wide spectrum of scientific, engineering and clinical disciplines to address fundamental questions originating in biology and medicine.

Indicative Content: Material Science and Biomaterials, Tissue Engineering, Bioinformatics, Medical Imaging, Molecular Medicine, Product Development and Validation and Regulation, Optics and Lasers in Biomedicine, Introduction to Business.

Admission Requirements: Minimum Second Class Honours degree in a related subject area or a primary without honours but with three years relevant practical experience in the subject area.

Course Webpage: [shortened as] www.bit.ly/d5o1r5

Application:

Apply online via The Postgraduate Applications Centre (PAC) – <u>www.pac.ie</u> – using the PAC application code shown above

C4 MSc in Biotechnology

Study Location: NUI Galway

Course Duration: 1 year

Course Outline: This programme focuses on the adaptation and application of biological processes for commercial and industrial use and aims to provide participants with the skills, knowledge and experience required for work in this area.

Course Suitability: Graduates with a primary degree in the Biological Sciences who wish to extend their knowledge and skills for a career in the biotechnology sector for working in the pharmaceutical and food industries, and in diagnostic and research services.

Indicative Content: Introduction to Biotechnology, BioProcess Technology, Genetic Technology, Immunodiagnostics, Pharmacology, Protein Technology, Quality Management Systems, Introduction to Business, Research Project.

PAC Code: GYS03

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PAC Code: GYS11

Admission Requirements: Minimum Second Class Honours primary degree in Science or a related subject, with a strong background in Biological Sciences. Candidates with a suitable primary degree without honours and three years relevant and appropriate practical experience may also be considered. IELTS score must be not less than 5.5 in any one component.

Course Webpage: [shortened as] www.bit.ly/avHELs

Application:

Apply online via The Postgraduate Applications Centre (PAC) – <u>www.pac.ie</u> – using the PAC application code shown above

C5	MSc Bior	nedical	Engine	ering
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Study Location: NUI Galway

Course Duration: 1 year

Course Outline: The course provides training in biomedical engineering and focuses on developing advanced technical knowledge and skills for implementation in terms of innovation, commercialization and business development. The programme aims to equip students with biomedical engineering skills for the medical technology industry, and for academic research and teaching. The course combines instruction through taught modules and a significant project-based learning component.

Course Suitability: Qualified and experienced graduates of Biomedical Engineering or a related discipline.

Indicative Content: Biomechanics; Biomaterials; Medical and Surgical Practice; Medical Implant and Device Design; Tissue Engineering/Advanced in Engineering Analysis/Advanced Finite Element Methods; Mechanobiology; Nin-Linear Elasticity; Practical Differential Equations; Graphics and Image Processing; Bioinstrumentation Design; Embedded Image Processing; Reconfigurable System on a Chip; Stem Cells and Gene Therapy II; Financial Management; Project Management; Lean Systems; Research Methods for Engineers; Technology, Innovation and Entrepreneurship; Human Reliability.

Admission Requirements: A minimum 2:2 Honours degree in a Biomedical Engineering related programme.

Course Webpage: [shortened as] <u>www.bit.ly/1Nm3K84</u>

Application:

Apply online via The Postgraduate Applications Centre (PAC) – www.pac.ie– using the PAC application code shown above.

C6 MSc in Chemistry – Analysis of Pharmaceutical Compounds

Study Location: University College Cork

Course Duration: 1 year

Course Outline: This programme consists of coursework and laboratory set experiments designed to provide skilled training in modern chemical methods of pharmaceutical analysis. While building on existing core

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PAC Code: GYS04

PAC Code: GYE24

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analytical chemistry units, the emphasis will be on method selection, development and validation for pharmaceutical compounds, as required in quality control and trace drug analysis.

Indicative Content: Modern Analytical Techniques; Chemical Data Analysis and GLP; Separation Science, Sensors and Process Analytical Technology; Materials, Pharmaceutical and Bioanalysis Practice of Analytical Chemistry; Biopharmaceuticals; Formulation Design; Secondary Processing and Regulatory Compliance; Environmental Monitoring; Research Project and Dissertation.

Admission Requirements: Candidates must hold at least a Second Class Honours, Grade II primary degree or equivalent, with appropriate information systems or computing technology skills content. English Language Requirements: IELTS 6.5 with no individual section lower than 6.0.

Course Webpage: [shortened as] www.bit.ly/YsMu9e

Application:

PAC Code: CKR02

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Apply online via The Postgraduate Applications Centre (PAC) – www.pac.ie – using the PAC application code shown above.

C7 MSc in Biotechnology

Study Location: University College Cork

Course Duration: 1 year

Course Outline: This course is designed to provide highly motivated graduates with the appropriate theoretical and practical skills for leadership in the biopharmaceutical, agrochemical and biotechnology industries.

Course Suitability: Graduates with a second class honours degree or higher in Biotechnology, Biochemistry, Biology, Chemistry, Microbiology or similar science-based subjects.

Indicative Content: Biopharmaceuticals and Quality Assurance; Bioprocess Engineering, Analytical chemistry and Quality Control; Cell and Molecular Biology; Genetic Engineering Functional Foods for Health; Research Dissertation and Industry Placement.

Admission Requirements: Candidates must have obtained at least a Second Class Honours Grade 2 degree or equivalent in a subject(s) related to that of the MSc in Applied Science programme. Graduates with equivalent qualifications in related areas of science and technology, or with proven and relevant industrial experience can be considered for places following interview and assessment by the Director of the MSc in Applied Science (Biotechnology) Programme.

Course Webpage: <u>www.ucc.ie/en/ckr01</u>

Application:

Apply online via The Postgraduate Applications Centre (PAC) – www.pac.ie – using the PAC application code shown above.

PAC Code: CKR01

C8 MSc in Pharmaceutical Sciences

Study Location: Trinity College Dublin

Course Duration: 1 year

Course Outline: This course involves a comprehensive treatment of the science and technology of pharmaceutical analysis with particular emphasis on the regulatory environment in which the pharmaceutical industry operates. The objective is to equip graduates with the appropriate analysis skills required by the pharmaceutical and veterinary manufacturing industries.

Course Suitability: Aimed at suitably qualified graduates currently working in or aspiring to work in the pharmaceutical industry - in particular non-pharmacy graduates employed in quality control or quality assurance roles requiring specialised training, retraining or upgrading of skills. The course may also be attractive to technical managers in regulatory affairs, product development and other related areas.

Indicative Content: Regulatory aspects of pharmaceutical analysis, statistics, GLP chromatographic analysis, spectroscopic and physical methods of analysis, pharmacopoeial methods of drug analysis, analysis of low level drug analysis, specialized pharmaceutical methods of analysis, biological and pharmacological methods and pharmaceutical formulation.

Admission Requirements: Applicants are accepted, subject to the availability of places, from holders of honours degrees in a relevant Science discipline (e.g. Pharmacy, Chemistry, Analytical Chemistry, Microbiology, Biochemistry, Pharmacology and other appropriate primary honours degrees e.g. I.T., Medicine or Veterinary). Equivalent primary and/or postgraduate qualifications are considered, particularly with relevant professional experience.

Course Webpage: [shortened as] <u>http://bit.ly/1Pt0XZW</u>

Application: Apply online from course webpage.

C9 MSc in Immunology

TCD

Study Location: Trinity College Dublin

Course Duration: 1 year

Course Outline: The course involves in-depth instruction in modern methodologies used in immunology/biomedical research, including the fundamentals of molecular and cellular biology. Students will also be trained in experimental design, data handling and basic research skills. The course aims to provide students with a well-balanced and integrated theoretical and practical knowledge of Immunology, and to highlight the progress and intellectual challenges in this discipline.

Indicative Content: Basic Immunology; Immunological Technologies; Communicating Science/Critical Analysis: How to read and evaluate scientific literature; Computational and Comparative Immunology; Genes and Immunity; Pathogen Detection and Evasion; Clinical Immunology: Immuno-technologies and diagnostics tests; Parasite Immunology; Tumour Immunology; Global Infectious Diseases; Immuno-therapeutics and product development; Dissertation.

Admission Requirements: Normally an Upper Second Class Honours degree (2.1) or higher in Medicine, Veterinary Science, Molecular Biology, Genetics, Immunology, Biochemistry or a related subject.

Course Webpage: [shortened as] www.bit.ly/MXvy4A

Application: Apply online from course webpage.

C10 MSc in Bioprocess Engineering

Dublin City University Study Location:

Course Duration: 1 year

Course Outline: The M.Sc. is an interactive and dynamic programme that will develop your knowledge and appreciation of the conceptual and factual bases for bioprocess design and operation. It also develops your understanding of bioprocessing, particularly the structures, roles and experimental methods associated with biopharmaceuticals, their analysis, production methods and technology for monitoring and control of bioprocesses.

Indicative Content: Core – Fundamentals of Bioreaction Engineering; Bioseparations; Recombinant DNA Technology; Bioprocessing Laboratory; Introduction to Bioprocess Engineering; Bioprocess Scale Up & Technology Transfer; Animal Cell Culture Technology; Biopharmaceutical Industry Regulation & Management; Bioreactor Design, Modelling & Monitoring; Regulatory Affairs Science for Biotech Products; Formulation & Delivery of Biopharmaceuticals; Biopharmaceutical Facility Design & Operation. Options – Bioprocess Engineering Research Project; Bioprocess Engineering Design Project.

Admission Requirements: Minimum 2:2 degree in science or engineering. Applicants who do not hold an honours degree but who have significant relevant industrial experience will also be considered, and should contact the Programme Chair to discuss this prior to applying.

Course Webpage: [shortened as] <u>http://bit.ly/2vlehcl</u>

Application:

Apply online via The Postgraduate Applications Centre (PAC) – www.pac.ie – using the PAC application code shown above. Additional application information is posted on the course webpage.

C11 MSc in International Pharmaceutical Business Management

Study Location: **Griffith College Dublin**

Course Duration: 1 year

Course Outline: The programme develops learners' abilities to research current trends and developments in the Pharmaceutical Business Management Industry and to develop their knowledge, skill and competencies to work in this dynamic business arena across multiple industries, whether they are service or manufacturing oriented.

Indicative Content: International Strategy; International Marketing Management; Globalisation and Corporate Responsibility; Marketing Management for Pharmaceutical Marketers; Business and Technology

PAC Code: DC735

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Innovation in the Pharmaceutical Industry; International Financial Accounting; Management Accounting and Control; Leadership and Management Development; Business Research Methods; Commercial and Financial considerations in the Pharmaceutical Industry; Pharmaceutical Technologies and Product Release

Admission Requirements: (i) An Honours Degree, 2.2H or higher, in Pharmacy, Science or equivalent discipline; or (ii) an Honours Degree, 2.2H or higher, in business or related discipline, with at least three years Pharmaceutical related industry experience.

Course Webpage: [shortened as] <u>http://bit.ly/2vMm7PS</u>

Application: Apply online via the course webpage.

C12 MSc in Pharmaceutical Business and Technology

GCD

Study Location: Griffith College Dublin

Course Duration: 1 year

Course Outline: The course will focus on core competencies such as pharmaceutical processes and production, pharmaceutical business introduction & technology transfer, emerging trends, operational excellence (Lean & Six Sigma), regulatory affairs, data analytics, strategic thinking and leadership development.

Course Suitability: Science and Engineering graduates seeking to work in R & D Project Management, Production/Supervisory Management or Quality/Regulatory Control.

Indicative Content: Process, Production & Pharmaceutical Quality; 21st Century Dynamics & Emerging Trends; Regulatory Landscape of Pharmaceutical Business; Clinical Research Management; Pharmaceutical Technology Transfer; Strategy, Leadership & the Culture of Innovation; Operational Excellence & the Science of Innovation; Research Methods; Dissertation.

Admission Requirements: Minimum qualification of higher degree (minimum 2.2 or higher) in Science, Engineering or Quality or related discipline.

Course Webpage: [shortened as] <u>http://bit.ly/2uOgu6u</u>

Application: Apply online via the course webpage.

C13 MEng in Chemical and Biopharmaceutical Engineering

Cork Institute of Technology

Course Duration: 1 year

Study Location:

Course Outline: This programme aims to develop advanced analytical, design and research skills in Chemical Engineering with an industrial focus. Postgraduate students will undertake the final research element of this Masters programme in a host company or with their current employer. This will provide the researcher with an insight into the commercial aspects of engineering research and innovation and the opportunity to contribute to the development of the latest products and techniques. Graduates of the programme will be

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well equipped to respond to the needs of the high technology industries particularly those with a focus on Research & Development, and product or process innovation.

Indicative Content: <u>Core</u> – Emerging Technologies; Industrial Heat and Power; Engineering Research Skills; Environment, Health & Safety; Lean Sigma–Advanced Stats; Computational Fluid Dynamics; Managing Innovation; Industrial Control Systems; Process Technology Transfer; Research Project. <u>Options</u> – Strategic Business Management; Sustainability in Engineering; Engineering Project Management; Environmental Management.

Admission Requirements: Applicants must have achieved a minimum of Second Class Honours in a Level 8 Honours Bachelor Programme in Chemical and Biopharmaceutical Engineering or equivalent.

Course Webpage: http://www.cit.ie/course/CRECHBI9

Application: Apply online via the course webpage.

D

Engineering, Hydrology, Sustainable Technology

D1 MEngSc Structural Engineering

Study Location: University College Dublin

Course Duration: 1 year

Course Outline: This course provides students with the opportunity to specialise in the area of Structural Engineering. Participants will be shown how to apply knowledge, understanding, and problem-solving abilities in new or unfamiliar environments. They will also have the ability to integrate knowledge and handle complexity, and formulate judgments with incomplete or limited information, and to reflect on wider disciplinary, scientific, professional issues and social and ethical responsibilities.

Course Suitability: Graduates of Engineering, or those already in employment, who wish to specialise in the area of Structural Engineering.

Indicative Content: Core – Realising Built Projects; Innovation Leadership; Structural Research Project; Fibre Reinforced Composites; Quantitative Methods for Engineers; Structural Dynamics; Advanced Structural Analysis & Design. <u>Options</u> – Agency Design/Build; Structural Design (Building Construction); Bridge Engineering; Soil Mechanics and Geotechnical Engineering; Construction Management; Engineering Design Project; Energy Systems in Buildings I and II; Professional Engineering (Management); Environmental Assessment and Management.

Admission Requirements: Honours Bachelors Degree in Engineering or equivalent (with a minimum of 2H2 honours level, or equivalent) and the appropriate prior learning.

Course Webpage: [shortened as] <u>http://bit.ly/2ctjjzc</u>

Application: Apply online via course webpage

D2 MSc in Environmental Technology

Study Location: University College Dublin

Course Duration: 1 year

Course Outline: This programme provides an intensive treatment of environmental technologies with an emphasis on air, water and soil protection. Students will enhance their ability to work effectively as individuals, in teams and in multi-disciplinary settings.

Course Suitability: Science, engineering and technology graduates seeking additional skills to develop technology solutions for air, water and soil protection in existing and emerging sectors across industry (particularly agri-food and bioresources), consulting companies and regulatory authorities.

Indicative Content: Environmental Engineering; Advanced Air Pollution; Waste to Energy Processes & Technologies; Life Cycle Assessment; LCA Applications; Research and Teaching Methods; Quantitative Risk Assessment for Human and Animal Health; Buildings and Environment; Energy Systems and Sustainable Environment.

Admission Requirements: Minimum of a 2nd Class honours degree in Science, Engineering, Agricultural Science, Environmental Science or related discipline.

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Course Webpage: [shortened as] www.bit.ly/14UK6XV

Application: Apply online via course webpage

D3 MEngSc in Water Waste and Environmental Engineering

Study Location: University College Dublin

Course Duration: 1 year

Course Outline: 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: <u>Core</u> - Introduction to Water Resources Engineering 1; Science and Technology for Sustainable Development; Water Waste and Environmental Modelling; Environmental Impact Assessment; Quantitative Methods for Engineers; Environmental Research Project. <u>Options</u> - Unit Treatment Process in Water Engineering; Hydraulic Engineering Design; Introduction to Water Resources Engineering 2; Integrated Municipal Solid Waste; Remote Sensing; Advanced Air Pollution; Civil Engineering Systems; Freshwater Resources Assessment; GIS and Data Analysis; GIS and Remote Sensing; Geographical Information Systems for Policy and Planning; Applied Statistical Modelling.

Admission Requirements: A recognised bachelor's degree (honours) in engineering (minimum 4-yr, 240 ECTS), preferably in civil engineering or environmental engineering, or equivalent.

Course Webpage: [shortened as] www.bit.ly/1607Ekt

Application: Apply online via course webpage

D4 MSc in Energy Management

Study Location: Dublin Institute of Technology

Course Duration: 1 year

Course 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.

Course Suitability: 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: <u>Core</u> – Business (Organisational Behaviour); Law (Business Law); Financial Decision Making; Energy Supply; Energy Conversion and Use; Energy Management Principles and Practice; Research

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DIT

Methodologies and Dissertation. <u>Options</u> – 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 / Bio fuels for Transport; Energy Control Systems; Low Energy Lighting Design.

Admission Requirements: Standard applications: 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

Course Webpage: [shortened as] <u>http://bit.ly/2dgb2gG</u>

Application: Apply via the 'Non-EU Sept Intake' button on the course webpage.

D5	ME in Sustainable Infrastructure	DIT

Study Location: Dublin Institute of Technology

Course Duration: 1 year

Course Outline: The programme consists of 12 taught modules and a Research Project module, and focuses, in particular, sustainability, water engineering, numerical techniques, renewable and sustainable technologies and transport planning with options in advanced structural engineering. It provides specialised skills and knowledge in technical design for Sustainable Infrastructure.

Course Suitability: This programme is aimed at Civil, Structural and Environmental Engineering graduates, and graduates from closely-related disciplines.

Indicative Content: Entrepreneurship for Engineers; Innovation and Knowledge Management; Research Methods; Statistical Analysis for Engineers; Introduction to Sustainable Infrastructure; 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; Advanced Structural Design; Structural Analysis & Dynamics and Sustainable Infrastructure Research Project; Dissertation.

Admission Requirements: An honours bachelor degree, with a minimum 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.

Any qualification(s) deemed by the DIT as being equivalent to the above, when taken in conjunction with relevant work experience, will be considered.

Course Webpage: [shortened as] www.bit.ly/2d1jEIV

Application: Apply via the 'Non-EU Sept Intake' button on the course webpage.

D6 ME in Sustainable Electrical Energy Systems

Study Location: Dublin Institute of Technology

Course Duration: 1 year

Course Outline: This programme has been planned in response to a need in Industry for a master's degree programme that addresses the technology of sustainable electrical energy systems and the issues surrounding their integration into electrical power systems.

Course Suitability: 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: <u>Core</u> - Research Methods; Entrepreneurship; Statistical Analysis; Innovation and Knowledge Management; Dissertation. <u>Options</u> - Power Electronic Energy Conversion Systems; DSP Platforms; Wind Energy for Electricity Supply; Renewable Energy Technologies; Embedded Generation; Power Systems Analysis 1 and 2; Energy Supply; Gas and Electricity Markets; Energy Conversion Systems.

Admission Requirements: A minimum Second Class Honours accredited 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.

Course Webpage: [shortened as] www.bit.ly/2d1jqBC

Application: Apply via the 'Non-EU Sept Intake' button on the course webpage.

D7	MEin	Mechanica	I Engin	oring
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Study Location: Dublin Institute of Technology

Course Duration: 1 year

Course Outline: The programme consists of 12 taught modules and a Research Project module. The programme focuses on numerical simulation techniques for structural and fluid-flow analyses, renewable and sustainable energy technologies, and biomechanics while also offering modules on innovation and entrepreneurship.

Course Suitability: This programme is designed to provide mechanical engineering graduates, and graduates from closely-related engineering disciplines, with specialised skills and knowledge in mechanical engineering.

Indicative Content: Entrepreneurship for Engineers; Innovations and Knowledge Management; Research Methods; Statistical Analysis for Engineers; Lean Operations & Continuous Improvement Systems; Finite Element Analysis; Advanced Dynamics with Applied Computer Modelling; Computational Fluid Dynamics; Heat and Mass Transfer; Advanced Energy Engineering Economics; Renewable Energy Engineering; Biomechanics; Research Project.

Admission Requirements: An honours bachelor degree, with a minimum attainment of second class honours grade 2, in mechanical engineering or a closely-related engineering discipline (e.g., manufacturing, chemical, energy etc.).

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

Course Webpage: [shortened as] http://bit.ly/2cU8p7l

Application: Apply via the 'Non-EU Sept Intake' button on the course webpage.

D8 MSc in Electronic and Communications Engineering

- **Study Location:** Dublin Institute of Technology
- **Course Duration:** 14 months

Course Outline: The aim of this programme is to provide industry with engineers with a high level of in-depth knowledge and expertise in a selected range of advanced topics in Electronic and Communications Engineering.

Indicative Content: Entrepreneurship for Engineers; Research Methods; Statistical Analysis for Engineers; Innovation and Knowledge Management; VLSI Design; Wireless Systems; Advanced Digital Signal Processing; Microelectronic Materials Devices; Optoelectronics; Energy Conversion & Use; Dissertation.

Admission Requirements: A minimum Second Class Honours Bachelor Degree (2.2 grade or higher) in Electronic, Computer or Communications Engineering or a related discipline.

Course Webpage: [shortened as] <u>http://bit.ly/2dAxdSQ</u>

Application: Apply via the course webpage.

D9 MSc in Engineering (Environmental / Structural and Geotechnical / Transport)

Study Location: Trinity College Dublin

Course Duration: 1 year

Course Outline: This course provides students with specialist understanding in one of: Environmental Engineering, Structural Engineering or Transport Engineering. In addition, it offers students the opportunity to obtain knowledge in complimentary subject areas within Civil Engineering.

Course Suitability: Graduate engineers seeking advanced knowledge in various aspects of Civil Engineering.

Indicative Content: <u>Core</u> - Civil Engineering Management; Research Methodology; Dissertation. <u>Environmental</u> - Engineering Hydrology; Environmental Monitoring & Assessment; Environmental Processes & Technology; Environmental Engineering; Waste and Environmental Management; Water Quality and Hydrological Modelling; Water Resource Planning. <u>Structural</u> - Geotechnical Engineering; Advanced Structural Analysis; Wind and Earthquake Engineering; Bridge Engineering; Advanced Concrete Technology; Soil-Structure Interaction; A Unified Theory of Structures; Concrete Durability and Sustainability; Advanced Theory of Structures. <u>Transport</u> - Introduction to Transportation Engineering; Transport Modelling; Highway Engineering; Applied Transportation Analysis.

DIT

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Admission Requirements: A minimum 2:1 Honours degree in Civil Engineering or a related discipline. Relevant industrial experience may be taken into account.

Course Webpage: [shortened as] http://bit.ly/2sJrqBs

Application: Apply online via course webpage

D10 MSc in Bioengineering

Study Location: Trinity College Dublin

Course Duration: 1 year

Course Outline: The MSc in Bioengineering is designed to provide engineers and scientists with the education, training and creative skills needed to practice and focus on important clinical needs in the medical devices industry, or research and clinical institutes. Students of the MSc in Bioengineering with the appropriate background have the opportunity to specialise in one of three key research themes - neural engineering, medical device design, or tissue engineering.

Indicative Content: <u>Neural Engineering stream</u> – Neural Signal Analysis; Implantable Neural Systems; Neuroimaging Technologies. <u>Medical Device Design</u> stream – Current Research Topics and Techniques in Medical Device Design; Biomechanics. <u>Tissue Engineering stream</u> – Biomaterials; Advanced Cell and Tissue Engineering; Laboratory Techniques in Cell and Tissue Engineering.

Admission Requirements: A minimum 2:1 Honours degree in engineering, biomedical technology, or a cognate discipline.

Course Webpage: [shortened as] http://bit.ly/2wKKBZi

Application: Apply online via course webpage

D11 MSc in Engineering (Sustainable Energy)

Study Location: Trinity College Dublin

Course Duration: 1 year

Course Outline: The Sustainable Energy stream of the MSc in Engineering is designed to provide civil engineers and other suitably qualified professionals with a good understanding of energy management and efficiency as well as sustainable energy generation. The course will further advanced knowledge in efficiency techniques, sustainable energy technologies and energy management systems and strategies. It will include theory and practice along with economics, current legal requirements and standards.

Course Suitability: Engineering graduates and those already in employment as part of ongoing professional training.

Indicative Content: Civil Engineering Management; Research Methodology; Dissertation; Wind Energy; Solar Energy Conversion and Applications; Energy Policy and Demand; Building Energy Physics and Control; Renewable Heat; Wave and Hydro Energy.

TCD

TCD
Admission Requirements: A minimum 2:1 Honours degree in engineering or related discipline.

Course Webpage: [shortened as] http://bit.ly/2vmA5tn

Application: Apply online via course webpage

D12 MSc in Engineering (by module)

Study Location: Trinity College Dublin

Course Duration: 1 year

Course Outline: The MSc (by module) is designed to provide a flexible route to a master's qualification for students who have completed a bachelor's degree. The degree spans a range of disciplines. Each student assembles a coherent group of modules focusing on a particular theme with the guidance and approval of a study committee. This facilitates a multidisciplinary approach to their studies and in particular their research project.

Indicative Content: <u>Core</u> - Research Methods module OR Research Methods module. <u>Options</u> - Flow induced vibration and fluid structure interaction; Advanced materials; Advanced thermal fluid sciences; Engineering Vibrations; Control Engineering; Instrumentation and Experimental Techniques; Micro and Precision Manufacturing; Advanced manufacturing; Supply chain management; Wind Energy; Energy Policy and Demand; Wave and Hydro Energy; Transportation; Medical devices; Tissue engineering; Biomechanics; Biomaterials; Spatial analysis using GIS; Digital Media Systems; Wireless Networks and Communications; Statistical Signal Processing; Speech and Audio; Engineering; Complex Systems Science

Admission Requirements: A minimum 2:1 Honours degree in engineering or related discipline.

Course Webpage: [shortened as] http://bit.ly/2vpnx2z

Application: Apply online via course webpage

D13	MEngSc in Mechanical and Manufacturing Engineering	DCU
	(Sustainable Systems/Energy Major)	

Study Location: Dublin City University

Course Duration: 1 year

Course Outline: This programme allows the candidate to keep up with the rapidly changing manufacturing and design sectors, and to become specialists in sustainable energy and development, eco-innovation, resource efficiency and clean-tech sectors. The course introduces the use of advanced Computer Aided Engineering tools.

Course Suitability: Graduates of mechanical or manufacturing engineering with a particular interest in sustainable energy and development and working in the growing fields of Energy/Renewable Energy (wind, wave, solar, biomass etc.)

TCD

Indicative Content: Entrepreneurship for Engineers; Finite Element Analysis; Heat Transfer and Fluid Mechanics; Research Practice and Methodology; Product Design, Development and Value Analysis; Advanced FEA; Project Sustainable Systems/Energy; Project (Masters); Biomedical Project (Masters); Manufacturing Systems Simulation; Manufacturing Process Analysis and Tool Design.

Admission Requirements: Minimum 2:2 Honours degree in Mechanical and/or Manufacturing Engineering.

Course Webpage: [shortened as] www.bit.ly/2cccQs3

Application:

Apply online via The Postgraduate Applications Centre (PAC) – www.pac.ie – using the PAC application code shown above.

D14 MEngSc Sustainable Energy

Study Location: University College Cork

Course Duration: 1 year

Course Outline: This programme aims to equip students with the information base and skill set to actively participate in this growing global market where energy/environment policy and technological innovation meet. It will provide students with knowledge and understanding of: (i) energy trends, their impacts on the environment and the engineering solutions to mitigate the damage; (ii) engineering of individual renewable energy sources of wind, hydro, biomass, wave, solar and geothermal; (iii) energy conversion processes for electrical, thermal and transport energy supply; (iv) the integration of intermittent renewable energy with the electricity network; (v) sustainable energy end use in building design, construction and management.

Indicative Content: Sustainable Energy; Solar and Geothermal Energy; Electrical Power System; Energy in Buildings; Energy Systems in Buildings; Wind Energy; Energy Systems Modelling; Biomass Energy; Photovoltaic Systems; Control Engineering; The Engineer in Society; Ocean Energy; Biomass Energy; Power Electronic Systems; Preliminary Research Project; Dissertation.

Admission Requirements: Minimum 2:2 Honours BE or BEng Degree. Candidates with equivalent academic qualifications and suitable experience may be accepted.

Course Webpage: [shortened as] www.bit.ly/bCzVWR

Application:

Apply online via The Postgraduate Applications Centre (PAC) – <u>www.pac.ie</u> – using the PAC application code shown above.

PAC Code: CKR26

PAC Code: DC814

UCC

D15 MEngSc in Electrical & Electronic Engineering

Study Location: University College Cork

Course Duration: 1 year

Course Outline: The MEngSc (EEE) has three Streams which include coursework only, coursework with a research project, or coursework with an industrial placement. In all Streams, students take five core modules. Students following Stream 1 (Research Project) and Stream 2 (Industry Placement) carry out a Research Report. Following successful completion of the coursework and Research Report, students in Streams 1 and 2 carry out a research project or industry placement over the summer months. Students who choose the coursework-only option, Stream 3, take additional courses in lieu of the project or placement. These can be chosen from a range of electives.

Indicative Content: Advanced Analogue and Mixed Signal Integrated Circuit Design; Advanced RF Integrated Circuit Design; Advanced VLSI Architectures; Intelligent Sensors and Wireless Sensor Networks; Wireless Communications; Robotics and Mechatronics; Advanced Power Electronics and Electric Drives; Optoelectronics; Adaptive Signal Processing and Advanced Control. <u>Stream 3 additional courses:</u> Computer Architecture; Biomedical Design; Microsystems; Nanoelectronics; Innovation; Commercialisation; Entrepreneurship.

Admission Requirements: Upper second class honours (2.1 grade) or higher degree in Electrical and/or Electronic Engineering, or equivalent engineering qualification.

Course Webpage: <u>https://www.ucc.ie/en/ckr47/</u>

Application:

Apply online via The Postgraduate Applications Centre – (PAC) – <u>www.pac.ie</u> – using the PAC application code above.

D16	MSc in	Sustainal	ble Energ	v Engineering	

Study Location: Waterford Institute of Technology

Course Duration: 1 year

Course Outline: This course will provide students with expertise in energy use, environmental performance and sustainability in the design and operation of buildings and their associated facilities and services systems. It will encourage the development of students' powers of analysis, synthesis and communication to develop a broader understanding of Low Energy Building Design and Management.

Course Suitability: Professionals practicing in the areas of building design, management and technology.

Indicative Content: Sustainability and the Environment; Personal Effectiveness; Advanced Dynamic Thermal Simulation – Services Systems; Statistical Analysis; Energy Auditing; Dynamic Thermal Simulation – Building Fabric; Building Pathology and Investigation; Building Services Systems; Facilities Management; Passive and Low Energy Building Design; Sustainable Energy Technology; Research Methods; Dissertation.

Admission Requirements: Normally a second class honours degree in an engineering related and technical programme such as building services engineering, mechanical engineering, civil engineering, construction

UCC

WIT

PAC Code: CKR47

management, quantity surveying, architectural technology and architecture. Students from other associated engineering and science disciplines are welcome to apply.

Course Webpage: [shortened as] www.bit.ly/1Qhjj07

Application:

Apply online via The Postgraduate Applications Centre (PAC) – <u>www.pac.ie</u> – using the PAC application code shown above.

D17	MEng in Electronic Engineering	
	0 0 0	

Study Location: Waterford Institute of Technology

Course Duration: 1 year

Course Outline: This programme provides tuition and practice in state of the art technology areas such as wireless communications, nanotechnology, and mixed-signal IC design. It will extend the student's capabilities in a number of established topic areas, e.g. semiconductor engineering and digital communication systems, while also enhancing the analytical skills of students and engineering management skills. The programme will also provide students with experience of carrying out post-graduate level research in selected topic areas. The Master's degree requires successful completion of ten compulsory modules and two out of four elective modules. The student must also complete an applied programme consisting of the design project plus dissertation, the mini-project and the workshop seminar series

Indicative Content: <u>Core</u> – Technology Management; Mathematical Modelling; Analogue IC Design; Embedded Systems Design; Advanced DSP; Semiconductor Process Engineering; HDL Digital Design; Semiconductor Device Engineering; Digital Communications; Wireless Communications; Design Project and Dissertation. <u>Options</u> – Mixed Signal IC Design; Nanotechnology; Optoelectronics; Communication Networks.

Admission Requirements: Second class honours degree (2:2 grade) or higher in Electronic Engineering.

Course Webpage: [shortened as] <u>http://bit.ly/2d3hI3j</u>

Application:

Apply online via The Postgraduate Applications Centre (PAC) – <u>www.pac.ie</u> – using the PAC application code shown above.

D18 MEng in Innovative Technology Engineering

Study Location: Waterford Institute of Technology

Course Duration: 1 year

Course Outline: The student will embark on a programme that will assess and analyse a number of emerging technologies and the developing potential for the convergence of these technologies. The course aims to prepare students for a rewarding career in industry or academic research. In addition, the course will facilitate for them the development of a set of personal and professional attributes that will allow them greater flexibility in the development of their own career options. The programme is designed to develop the student's knowledge and skills in strategies for innovation management, product design and development and optimum



PAC Code: WD543

WIT

PAC Code: WD554

routes to market. The student will also carry out post-graduate level research of industrial relevance in selected topic areas. The Master's degree requires successful completion of six mandatory modules and four out of eight elective modules. The student must also complete an applied programme consisting of a Research Dissertation and an Industrial Research seminar series.

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

Admission Requirements: Second class honours degree (2:2 grade) or higher in Innovative Technology Engineering or a cognate discipline.

Course Webpage: [shortened as] <u>http://bit.ly/2cSAhc5</u>

Application:

Apply online via The Postgraduate Applications Centre (PAC) – <u>www.pac.ie</u> – using the PAC application code shown above.

D19 MSc in Sustainable Resource Management: Policy and Practice

UL/NUIG

PAC Code: WD555

Study Location: University of Limerick

Course Duration: 1 year

Course Outline: The course will help develop government policy and economic recovery by producing top quality graduates who can contribute to a smart economy and hasten implementation of green technologies. The course applies an evidence based approach to developing solutions for all system users. Graduates will become technically fluent in selected environmental science theory, policy development, implementation and best practice.

Course Suitability: This course is suitable for graduates with a primary degree in the Environmental Sciences/Engineering/Economics or Geography/Biological Sciences/Ecology and Earth Sciences who wish to extend their knowledge and skills for a career related to resource management.

Indicative Content: <u>NUIG</u> – Ecosystem Assessment; Biodiversity and Conservation; Environmental Problems and Solutions. <u>UL</u> – Material and Energy Flows; Urban Form and Transport; Urban Household Sustainability; Sustainable Life-cycle Engineering; Research Project.

Admission Requirements: At least a second class honours primary degree in an appropriate discipline, or equivalent.

Course Webpage: [shortened as] http://bit.ly/1QCJSLp

Application: Apply online via course webpage

Course Webpage: [shortened as] www.bit.ly/1KfsWvO

D20 MSc in Quantity Surveying

Study Location: Limerick Institute of Technology

Course Duration: 1 year

Course Outline: The aim of this programme is to enable learners to acquire a highly practical level 9 qualification in quantity surveying. The programme will enable the learner to specialise in one of three aspects of Quantity Surveying, namely, public sector building, civil engineering and mechanical & electrical engineering.

Course Suitability: The programme will create a progression opportunity for level 8 undergraduates and other learners with a mix of academic qualifications, relevant professional institute membership and experiential learning gained from working within the built environment.

Indicative Content: Specialisation modules; project management modules; elective modules; research modules.

Admission Requirements: A primary degree in a built environment programme with a minimum award of Second Class Honour Grade, or a primary degree and at least 5 years relevant professional responsibility and experience.

Course Webpage: [shortened as] http://bit.ly/2vM2Yhf

Application: Forms can be downloaded at www.lit.ie/International/Study/Application.aspx For enquiries, contact international@lit.ie.

D21 Master of Civil Engineering

Study Location: **NUI Galway**

Course Duration: 1 year

Course Outline: This course aims to equip Civil Engineers with advanced skills. It is a broad design-focussed programme with three primary elements: (i) advanced core modules in Civil Engineering, (ii) modules on transferrable skills/professional development and (iii) an individual capstone research project.

Course Suitability: Graduates of Civil Engineering seeking to further enhance their skills.

Indicative Content: Advanced Structures; Design of Sustainable Environmental Systems; Transportation Systems and Infrastructure; Offshore and Coastal Engineering; Energy in Buildings; Computational Methods in Civil Engineering; Hydrology and Water Resources Engineering; Hydrological Modelling; The Built Environment; Project Management; Applied Mathematics; Programming; Financial Management; Technology, Innovation and Entrepreneurship; Engineering Research Methods and Research Project; Advanced Statistics for Engineers; Graphics and Image Processing.

Admission Requirements: Minimum entry requirement is a Second Class Honours Degree in a Civil Engineering programme

NUIG

Application:

PAC Code: GYE19

Apply online via The Postgraduate Applications Centre (PAC) – www.pac.ie– using the PAC application code shown above.

D22 ME in Energy Systems Engineering

Study Location: NUI Galway

Course Duration: 1 year

Course Outline: This course aims to advance students' engineering knowledge. It provides training in advanced technologies in energy systems engineering, transferrable skills for employment and/or a research career in the energy sector, and technology development through an energy systems engineering project.

Course Suitability: Graduates of Engineering related courses seeking to advance their engineering knowledge towards a career in industry or research based on energy systems applications

Indicative Content: Project Management; Environmental Economics; Engineering Finance; Engineering Research Methods; Technology Innovation & Entrepreneurship; Applied Statistics for Engineers; Advanced Applied Maths; Internet Programming; Database Development; Global Change; Smart Grid Sustainable Energy and Buildings; Advanced Energy Systems Engineering; Computational Methods in Engineering Analysis; Advanced Finite Element Analysis; Coastal and Offshore Engineering; Design of Sustainable Environmental Systems I; The Built Environment; Integrated Engineering Design Project; Power Electronics; Advanced Power Electronics; Power Systems; Power Machines and Control; Communications Systems Engineering; Thermal Energy Conversion; Turbomachanics and Advanced Fluid Dynamics; Combustion Science and Engineering; Advanced Mechanical Analysis and Design.

Admission Requirements: Minimum of a Second Class Honours Degree in an Engineering programme.

Course Webpage: [shortened as] www.bit.ly/1F1D62N

Application:

Apply online via The Postgraduate Applications Centre (PAC) – www.pac.ie– using the PAC application code shown above.

D23 MSc in Water Resource Engineering

Study Location: NUI Galway

Course Duration: 1 year

Course Outline: Water security is one of the main threats facing humanity and engineers are the primary professionals responsible for addressing this problem. This new course will cover advanced water engineering topics in hydraulics and hydrology with an emphasis on engineering hydraulic design and hydrological analysis. The programme provides a focus on understanding and using modern hydrological/hydraulic modelling tools; the course will contain real world design projects using these models. Students, working in groups, complete several designs and submit detailed design reports including excel sheet calculations, drawings and design justifications. This programme will provide engineers will the technical competences to provide solutions to

NUIG

PAC Code: GYE20

NUIG

deliver safe/clean water. The programme will also give opportunities to students to study economics and project management of large water engineering projects in developed and developing countries.

Course Suitability: Civil and environmental engineers and scientists with an appropriate earth science background.

Indicative Content: <u>Core:</u> Hydrology and Water Resources; Hydraulic Modelling; Design of Sustainable Environmental Systems; Hydropower; Water Quality Modelling; Water Resources in Developing Countries; Applied Field Hydrogeology; Numerical Analysis. <u>Options:</u> Computational Methods in Civil Engineering; Turbomachines & Advanced Fluid Dynamics; Environmental Economics; Engineering Finance Project Management; Applied Statistics for Engineers; Computational Fluid Dynamics; Environmental Impact Assessment; Global Climate Change; Introduction to Applied Field Hydrology.

Admission Requirements: Minimum 2:1 Honours degree or equivalent <u>or</u> other degree or relevant qualifications, including professional qualifications, with at least three years' work experience in an environmental profession.

Course Webpage: [shortened as] <u>www.bit.ly/1KnchlU</u>

Application:

Apply online via The Postgraduate Applications Centre (PAC) – <u>www.pac.ie</u> – using the PAC application code shown above.

D24 MEng in Civil Engineering (Environment and Energy)

Study Location: Cork Institute of Technology

Course Duration: 1 year

Course Outline: The course will help develop government policy and economic recovery by producing top quality graduates who can contribute to a smart economy and hasten implementation of green technologies. The course applies an evidence based approach to developing solutions for all system users. Graduates will become technically fluent in selected environmental science theory, policy development, implementation and best practice.

Course Suitability: This course is suitable for graduates with a primary degree in the Environmental Sciences/Engineering/Economics or Geography/Biological Sciences/Ecology and Earth Sciences who wish to extend their knowledge and skills for a career related to resource management.

Indicative Content: <u>NUIG</u> – Ecosystem Assessment; Biodiversity and Conservation; Environmental Problems and Solutions. <u>UL</u> – Material and Energy Flows; Urban Form and Transport; Urban Household Sustainability; Sustainable Life-cycle Engineering; Research Project.

Admission Requirements: At least a second class honours primary degree in an appropriate discipline, or equivalent.

Course Webpage: [shortened as] http://bit.ly/1QCJSLp

Application: Apply online via course webpage

PAC Code: GYE23

CIT

D25 MEng in Mechanical Engineering

Study Location: Cork Institute of Technology

Course Duration: 1 year

Course Outline: The programme has been developed to address the need for both new graduates and existing engineers to acquired advanced competencies in computational methods, analytical methods, and design. Specifically this programme of study is designed to progress your qualifications by deepening your technical knowledge, skills and competencies in the core field of Mechanical Engineering, by enhancing your knowledge and entrepreneurship through strategic business management and managing innovation and by enabling you to carry out in depth research in an industrially focused sector of Mechanical Engineering.

Indicative Content: <u>Core</u> – Computational Solid Modelling; Lean Sigma – Advanced Stats; Industrial Heat and Power; Integrated Design & Manufacture; Computational Fluid Dynamics; Modelling of Manufacturing Processes; Research Project. <u>Options</u> – Engineering Research Skills; Statistical Methods for Big Data; Sustainability in Engineering; Strategic Business Management; Automatic Process Control; Advanced PLC Programming; Control System Design; Engineering Project Management; Managing Innovation.

Admission Requirements: Second class honours degree (2:2 grade) or higher in Mechanical Engineering.

Course Webpage: www.cit.ie/course/CREMENG9

Application: Apply online via the course webpage.

E

Information & Communication Technology

Dublin City University

E1 MEng in Electronic and Computer Engineering

Course Duration: 1 year

Study Location:

Course Outline: This programme offers advanced-level courses in the theory, analysis, design, modelling and manufacturing of electronic and computer systems. This newly revised offering combines the expertise of Electronic Systems and Telecommunications Engineering in an updated, industry-relevant modern programme. Choose the General Award option, or major in one of the following: Nanotechnology, Advanced Data Networks, The Internet of Things, or Image Processing & Analysis.

Indicative Content: <u>General</u> – Choose 8 modules from those listed below; Capstone Project. <u>Nanotechnology</u> <u>Major</u> – HDL/High Level Logic Synthesis; Fundamental of Nanoelectronics Technology; Fundamentals of Photonic Devices; Fundamentals of Device Manufacturing; Nanotechnology Project; 4 additional modules from across other majors. <u>Advanced Data Networks Major</u> – Network Performance; Data Network Protocols Analysis & Simulation; Network Stack Implementation; Network Analysis & Dimensioning; Networks Project; 4 additional modules from across other majors. <u>Internet of Things Major</u> – Connected Embedded Systems; Network Stack Implementation; Data Analysis & Machine Learning; Real-Time Digital Signal Processing; IoT Project; 4 additional modules from across other majors. <u>Image Processing & Analysis Major</u> – Computer Vision; Entrepreneurship for Engineers; Data Analysis & Machine Learning; DSP (Signal Models & Compression); Image Processing Project; 4 additional modules from across other majors.

Admission Requirements: A basic primary degree in a relevant disciple

Course Webpage: [shortened as] <u>http://bit.ly/2v6cSsS</u>

Application:

Apply online via The Postgraduate Applications Centre (PAC) – <u>www.pac.ie</u> – using the PAC application code shown above. Additional application information is posted on the course webpage.

E2 MSc in Computing (with Major Options)

Study Location: Dublin City University

Course Duration: 1 year

Course Outline: The MSc in Computing offers a choice of Majors, designed to equip graduates with a range of cutting-edge skills, enabling them to produce high-quality software and systems that deliver solutions to business and the economy. Major options are Data Analytics, Cloud Computing, Software Engineering, and Security and Forensic Computing.

Indicative Content: Practicum (Security and Forensic Computing); Practicum (Software Engineering); Professional & Research Practice; Cryptography & Number Theory; Forensic Computing; System Software; Network Security; P-Key Cryptography & Sec Protocols; Secure Programming; Formal Programming; Software Process Quality; Mathematical Methods/Computational Science; Statistical Data Analysis; Concurrent Programming; Cloud Architectures; Cloud Technologies; Practicum (Cloud Computing); Practicum (Human Language Technology); Data Management and Visualisation; Data Analytics and Data Mining; Machine Learning; Data Analytics Practicum.

PAC Code: DC883

DCU

Admission Requirements: The entry requirements for this programme is a 2.1 or higher in computer science or related discipline.

Course Webpage: [shortened as] http://bit.ly/2uYqEln

Application:

Apply online via The Postgraduate Applications Centre (PAC) – <u>www.pac.ie</u> – using the PAC application code shown above. Additional application information is posted on the course webpage.

E3	MSC	in C	ombi	uting

Study Location: Griffith College Dublin

Course Duration: 1 year

Course Outline: The Master of Science has been designed to give students an insight into the world of academic and industrial computing research. Students will also develop the skills to carry out innovative work and will gain the ability to research and mater technical issues, to analyse and present findings coherently, and to document their work in a professional manner.

Indicative Content: Algorithm Design and Analysis; Cloud Computing; Concurrent and Parallel Programming; Communication Security; Dissertation/Dissertation by Practice; Information Retrieval and Web Search; New and Emerging Technologies; Research Methods; Telecommunications and Network Services; Dissertation.

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

Course Webpage: [shortened as] http://bit.ly/2xiSCoA

Application: Apply via the course webpage.

E4 MSc in Applied Digital Media

Study Location: Griffith College Dublin

Course Duration: 1 year

Course Outline: This MSc degree course takes students through the skills needed to produce professional media work to the highest standards. The relevant professional applications will be taught in a 'learn by doing' format and students will leave the programme with a portfolio of their practical work. In photography, video, audio, animation, the Internet itself, in design and in multimedia presentation, knowledge of creative media software applications is the key to productivity and success, the programme teaches how to create multimedia applications using digital technology.

Indicative Content: <u>Core</u> – Business of Digital Media; Interaction Design; Multimedia Programming; Game Design and Development; Research Methods; Digital Media and Society; Visual Communication; Web Authoring; Dissertation. <u>Options</u> – Desktop Publishing; eLearning; 3D Modelling & Animation; Server Side

PAC Code: DC836

GCD

GCD

in any discipline or international equivalent and/or relevant work experience.

Course Webpage: [shortened as] <u>http://bit.ly/2wp7g1b</u>

Application: Apply via the course webpage.

E5 MSc in Big Data Management and Analytics

Study Location: Griffith College Dublin

Course Duration: 1 year

Animation.

Course Outline: Designed specifically to address a growing need in the industry, the MSc in Big Data Management and Analytics at Griffith College is a 1 year programme which aims to build upon students' knowledge of computing science and create big data specialists.

Web Development and Databases; Video Production; Digital Storytelling; Theories and Principles of

Admission Requirements: Candidates applying for this course should have a Honours degree 2:2 or above

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

Admission Requirements: Candidates applying for this course should have a 2.2 honours degree in Computing Science.

Course Webpage: [shortened as] http://bit.ly/2baGxbO

Application: Apply via the course webpage.

E6 MSc in Network and Information Security

Study Location: Griffith College Dublin

Course Duration: 1 year

Course Outline: Designed specifically to address a growing need in the industry, the MSc in Network and Information Security at Griffith College is a 1-year programme which aims to enable students to develop robust and efficient network security plans, strategies and solutions.

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

Admission Requirements: Candidates applying for this course should have a 2.2 honours degree in Computing Science.

Course Webpage: [shortened as] <u>http://bit.ly/2wp5KMw</u>

GCD

GCD

Application: Apply via the course webpage.E7 MSc in Computing (Data Analytics)

Study Location: Dublin Institute of Technology

Course Duration: 14 months

Course Outline: This programme is designed to create hybrid technologists to work in the growing and important area of data analytics. Data analytics is the science of extracting actionable insight from large amounts of raw data. Hybrid technologists are graduates equipped with deep technical skills (in data management, data mining, probability and statistics, and machine learning), but also with the softer skills (in communications, research and problem solving) required to work effectively within organisations.

Indicative Content: <u>Core</u> - Probability & Statistical Inference; Machine Learning; & Database Design for Data Analytics; Data Management; Data Mining; Visualisation; Problem Solving, Communication and Innovation; Case Studies in Computing; Research Writing & Scientific Literature; Methods and Proposal Writing. <u>Options</u> - Geographic Information Systems; Spatial Databases; Ubiquitous Computing; Universal Design; Man and Machine; Bioinformatics; Programming for Big Data.

Admission Requirements: Minimum 2.1 honours degree (or 2.2 with at least 2 years of relevant work experience) in Computer Science, Mathematics or other suitably numerate discipline with computing as a significant component.

Course Webpage: [shortened as] http://bit.ly/2a6jTA4

Application: Apply via the course webpage.

E8 MSc in Computing (Advanced Software Development)

Study Location: Dublin Institute of Technology

Course Duration: 14 months

Course Outline: This programme aims to produce graduates with the knowledge and skills to develop the complex software solutions that organizations need to compete in the emerging global digital economy. The target audience is those with an undergraduate qualification in computer science or software development. Students will study advanced technical modules in programming, design, databases, architecture and web development to acquire the advanced technical skills needed to practice as software developers working on leading edge development projects. In addition students will be equipped with key professional, technical communications skills needed to practice as a professional in the computing industry.

Indicative Content: <u>Core</u> - Probability & Statistical Inference; Machine Learning; & Database Design for Data Analytics; Data Management; Data Mining; Visualisation; Problem Solving, Communication and Innovation; Case Studies in Computing; Research Writing & Scientific Literature; Methods and Proposal Writing. <u>Options</u> – Geographic Information Systems; Spatial Databases; Ubiquitous Computing; Universal Design; Man and Machine; Bioinformatics; Programming for Big Data.

DIT

Admission Requirements: Minimum 2.1 honours degree (or 2.2 with at least 2 years of relevant work experience) in Computer Science, Mathematics or other suitably numerate discipline with computing as a significant component.

Course Webpage: [shortened as] <u>http://bit.ly/2dMrYvy</u>

Application: Apply via the course webpage.

E9 MSc in Electronic and Communications Engineering

Study Location: Dublin Institute of Technology

Course Duration: 1 year

Course Outline: This programme aims to provide industry with engineers with a high level of in-depth knowledge and expertise in a selected range of advanced topics in Electronic and Communications Engineering. This course is delivered through lectures, practical work, assignments and tutorials.

Indicative Content: VLSI Design; Optical Communications Systems; Innovation and Technology; Wireless Systems; Simulation for Telecommunications; Advanced Digital Signal Processing; Communications Network Engineering; Microwave and RF Engineering; Microelectronic Materials and Devices and Dissertation

Admission Requirements: A minimum Second Class Honours Bachelor Degree (2.2 grade or higher) in Electronic, Computer or Communications Engineering or a related discipline. Applications from candidates with at least a second class honours degree in Applied Physics or other numerate degree, along with candidates with other 2.2 Honours Bachelor Degrees and suitable strong industrial experience may also be considered on a case-by-case basis

Course Webpage: [shortened as] <u>http://bit.ly/2dAxdSQ</u>

Application: Apply via course webpage. Course code: DT086

E10 MSc in Cloud Computing

Study Location: National College of Ireland

Course Duration: 1 year

Course Outline: This course will provide you with the latest knowledge and competencies required by the fastest growing global industry: the cloud. This course offers specialisations in two key areas: Infrastructure (laaS - Infrastructure as a Service) and Development (SaaS - Software as a Service).

Course Suitability: This computing course is suitable for computer science or engineering graduates, ICT industry practitioners, system administrators, and those with an interest in gaining practical experience in cloud computing.

Indicative Content: <u>Core</u> – Cloud Architecture; Cloud Security; Utility Computing; Research in Computing; Business Strategies for Cloud Computing; Research Methods; Research Project. <u>Options</u> – Cloud

DIT

NCI

Infrastructure Management; Cloud Application Development; Data Storage and Management; Virtualisation; Programming for Data Analytics; Cloud Application Services.

Admission Requirements: An honours primary degree in a cognate discipline with a 2.2 award or higher.

Course Webpage: [shortened as] <u>http://bit.ly/1TliUJV</u>

Application: Apply via the course webpage.

E11 MSc in Information Systems Management

NUIG

Study Location: **NUI Galway**

Course Duration: 1 year

Course Outline: This programme is designed as a specialist course which assists students in blending their existing talents with the technological skills and business knowledge needed to design, develop, use and manage information systems within modern organisations. Students gain practical knowledge of business systems analysis and design; project management; database design; applications development; business information technologies; Internet and multimedia development; and the business context of IS development and management. Specialised aspects are also covered, such as: human-computer interaction, information systems security, enterprise systems, business analytics and decision support systems, electronic commerce, and IS innovation.

Course Suitability: Ideally suited for those with a number of year's technical background that need to develop people and business skills, but also to those with a low level of technical exposure who feel the need to expand their technical skills the course offers up to date IT and computing knowledge for use in a business or organizational context.

Web Design and Development; Interactive Systems Design; Business Data Indicative Content: Communications; Systems Development and Project Management; Database Systems; Business Applications Programming; Information Systems Management; Electronic Commerce Strategy; Enterprise Systems; Applied Systems Analysis; Project, Information Systems Innovation; Information Systems Security and Ethics; Decision Systems and Business Analytics; Advanced Applications Programming.

Admission Requirements: Normally a Second Class Honours Bachelors Degree (or equivalent). Successful applicants will come from a variety of academic and professional backgrounds with prior exposure to information technology and/or business.

Course Webpage: [shortened as] http://bit.ly/2bLE6jt

Application:

PAC Code: GYC24 Apply online via The Postgraduate Applications Centre (PAC) – www.pac.ie – using the PAC application code shown above

E12 MSc in Computer Science (Data Science)

Study Location: Trinity College Dublin

Course Duration: 1 year

Course Outline: This programme combines statistics, cloud and security technologies with data management. It covers all key aspects of the field: how to securely store and manage data, how to visualise and analyse at scale and how to use analysis to make decisions. Graduates of this strand will be equipped to tackle the huge challenges and opportunities that the big-data revolution is bringing to all aspects of life; in IT, health, transport, science and engineering to name but a few.

Indicative Content: Machine Learning; Data Analytics; Research Methods; Innovation; Scalable Computing; Optimisation Algorithms for Data Analysis; Applied Statistical Modelling; Data Visualisation; Security & Privacy; Dissertation.

Admission Requirements: A 2.1 grade or higher from a reputable university in Computing or strongly related discipline. You need to be able to be fully competent in programming in C, C++ or Java.

Course Webpage: [shortened as] <u>http://bit.ly/2fZ0Qyy</u>

Application: Apply online via course webpage

E13 MSc in Computer Science (Future Networked Systems) TCD

Study Location: Trinity College Dublin

Course Duration: 1 year

Course Outline: This programme deals with how things become smart and connected as software systems are more and more embedded in our everyday environments, from mobile social networking to managing city resources such as road traffic. Dealing with such large-scale, cyber-physical and distributed systems requires novel approaches that address timeliness, safety, privacy and scale challenges.

Indicative Content: Machine Learning; Research Methods; Innovation; Scalable Computing; Urban Computing; Security & Privacy; Advanced Software Engineering; Distributed Systems; Dissertation.

Admission Requirements: A 2.1 grade or higher from a reputable university in Computing or strongly related discipline. You need to be able to be fully competent in programming in C, C++ or Java.

Course Webpage: [shortened as] <u>http://bit.ly/2x5PqNS</u>

Application: Apply online via course webpage

E14 MSc in Computer Science (Intelligent Systems)

Study Location: Trinity College Dublin

Course Duration: 1 year

Course Outline: This programme focuses on smart, interactive web applications and systems, which are becoming an integral part of our daily lives – at home, in the workplace, and in social interaction. Designing and building these systems requires expertise in artificial intelligence, human language understanding and generation, web systems and applications, data analytics and knowledge engineering.

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

Admission Requirements: A 2.1 grade or higher from a reputable university in Computing or strongly related discipline. You need to be able to be fully competent in programming in C, C++ or Java.

Course Webpage: [shortened as] <u>http://bit.ly/2x5AK1b</u>

Application: Apply online via course webpage

E15 M	Sc in Computer Scie	nce (Graphics	and Vision Te	chnologies)	TCD

Study Location: Trinity College Dublin

Course Duration: 1 year

Course Outline: This programme equips students with the theoretical and practical knowledge to enable them to participate in the design and development of the technology that underpins fast moving video game market as well as providing transferable skills relevant for careers in the wider industries of interactive entertainment, new media and communication.

Indicative Content: Machine Learning; Research Methods; Innovation; Computer Vision; Computer Graphics; Real-time Rendering; Augmented Reality; Real-time Animation; Advanced Software Engineering; Dissertation.

Admission Requirements: You need to be able to be fully competent in programming in C, C++ or Java [for Graphics and Vision Technologies, you will need to have or acquire competence in C++]

Course Webpage: [shortened as] <u>http://bit.ly/2uZ9fch</u>

Application: Apply online via course webpage

E16 MSc in Information Systems for Business Performance

Study Location: University College Cork

Course Duration: 1 year

Course Outline: This course aims at providing students with a coherent set of skills essential in building, managing, and leveraging an effective and efficient Information Systems (IS) capability for the modern organisation. This means providing students with a clear understanding of how to manage information systems and leverage the potential of the latest Information Technologies (IT) to create value for the firm; reducing costs, solving organisational problems or providing better products and services to customers.

Indicative Content: Electronic Business Models and Systems, Data Modelling and Database Systems, Application Modelling and Design, Storage Technology, Business Continuity and IT Value, IT Organisation, Insourcing and Out-sourcing, Enterprise Business Intelligence, Current Issues in IT and 4 month Collaborative Industry Research Project.

Admission Requirements: A Second Class Honours degree or higher, except graduates from degrees with high levels of software development content (e.g. business information systems, computer science, etc). English Language Requirements: IELTS 6.5 with no individual section lower than 6.0.

Course Webpage: <u>www.ucc.ie/en/ckl18</u>

Application:

Apply online via The Postgraduate Applications Centre (PAC) – <u>www.pac.ie</u> – using the PAC application code shown above.

E17 MSc in Computer Science (Interactive Media)

Study Location: University College Cork

Course Duration: 1 year

Course Outline: This programme aims to equip students from a wide range of backgrounds with a thorough understanding of the technology and industry-standard tools used in the Digital Media sector. The creation of interactive digital media is a challenging and complex activity requiring a blend of creative and technical skills using a range of existing and emerging technologies. On successful completion of the programme students will have a thorough knowledge of the underlying concepts, technologies and practices of interactive digital media and be able to apply these to create interactive digital media products.

Indicative Content: <u>Core:</u> Authoring, Digital Publishing and Hypermedia Systems, Graphics and Graphic Design, Audio and Sound Engineering, Digital Video Capture and Packaging3D, Graphics and Modelling. <u>Options:</u> Future and Emerging Interaction Technologies, Animation Image Processing, Internet-based Applications, Digital Video Compression and Delivery, Human Computer Interaction Mobile Multimedia, Audio Processing, Speech Processing, Interactive Visualisation, Intelligent Media Systems.

Admission Requirements: Graduates of any discipline who have achieved at least a 2:2 Honours degree, or equivalent professional qualification, provided there is no significant overlap between their previous courses of study and the content of this course. English Language Requirements: IELTS 6.5 with no individual section lower than 6.0.

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PAC Code: CKL18

Course Webpage: <u>www.ucc.ie/en/ckr05</u>

Application:

Apply online via The Postgraduate Applications Centre (PAC) – www.pac.ie – using the PAC application code shown above.

E18 MSc in Data Science and Analytics

Study Location: University College Cork

Course Duration: 1 year

Course Outline: This course provides an education in the key principles of the rapidly expanding area of data science and analytics. The combination of sophisticated computing and statistics modules will develop skills in database management, programming, summarisation, modelling and interpretation of data. The programme provides graduates with an opportunity, through development of a research project, to investigate the more applied elements of the disciplines.

Indicative Content: <u>Core</u> – Data Mining; Foundations of Statistical Data Analytics; Generalised Linear Modelling Techniques; Dissertation in Data Analytics. <u>Options</u> – Introduction to Relational Databases; Database Design and Administration; Database Technology; Information Storage and Retrieval; Optimisation; Analysis of Networks and Complex Systems; Internet Computing for Data Science; Stochastic Modelling Techniques; Multivariate Methods for Data Analysis; Operations Research; Stochastic Decision Science; Large-Scale Application Development and Integration; Programming in Python.

Admission Requirements: Second class honours (2.2 grade) or higher degree in computer science or mathematical sciences, or in a degree with a strong numerate content (e.g. engineering, finance, physics, biosciences or economics). Applicants who do not meet this standard will also be considered if they have an undergraduate degree and a minimum of 5 years verifiable relevant industrial experience. Applicants who do not have a primary degree will only be considered with a minimum of 10 years verifiable relevant industrial experience. English Language Requirements: IELTS 6.5 with no individual section lower than 6.0.

Course Webpage: https://www.ucc.ie/en/ckr49/#

Application:

Apply online via The Postgraduate Applications Centre – (PAC) – <u>www.pac.ie</u> – using the PAC application code above.

E19 MEngSc in Electrical & Electronic Engineering

Study Location: University College Cork

Course Duration: 1 year

Course Outline: The MEngSc (EEE) has three Streams which include coursework only, coursework with a research project, or coursework with an industrial placement. In all Streams, students take five core modules. Students following Stream 1 (Research Project) and Stream 2 (Industry Placement) carry out a Research Report. Following successful completion of the coursework and Research Report, students in Streams 1 and

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2 carry out a research project or industry placement over the summer months. Students who choose the coursework-only option, Stream 3, take additional courses in lieu of the project or placement. These can be chosen from a range of electives

Indicative Content: Advanced Analogue and Mixed Signal Integrated Circuit Design; Advanced RF Integrated Circuit Design; Advanced VLSI Architectures; Intelligent Sensors and Wireless Sensor Networks; Wireless Communications; Robotics and Mechatronics; Advanced Power Electronics and Electric Drives; Optoelectronics; Adaptive Signal Processing and Advanced Control. Stream 3 additional courses: Computer Architecture; Biomedical Design; Microsystems; Nanoelectronics; Innovation; Commercialisation; Entrepreneurship.

Admission Requirements: Upper second class honours (2.1 grade) or higher degree in Electrical and/or Electronic Engineering, or equivalent engineering qualification.

Course Webpage: https://www.ucc.ie/en/ckr47/

Application:

Apply online via The Postgraduate Applications Centre – (PAC) – <u>www.pac.ie</u> – using the PAC application code above.

E20 MSc in Computing Science

Study Location: University College Cork

Course Duration: 1 year

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

Indicative Content: Core – Case Studies in Computing Entrepreneurship; Large-Scale Application Development and Integration; Database Technology; Information Storage and Retrieval; Project Development Skills; Dissertation in Computing Science. Options - Mobile Devices and Systems; Mobile Applications Design; Formal Methods for Distributed Systems; Model-Based Software Development; Optimisation; Services and Mobile Middleware; Multimedia Technology in Mobile Networks; Analysis of Networks and Complex Systems; Network Security; Datamining.

Admission Requirements: Second class honours (2.2 grade) or higher degree in Computer Science or a closely related discipline. Applications from other suitably qualified candidate, or from those with equivalent experience/qualifications, will be considered.

Course Webpage: http://www.ucc.ie/en/ckr40/

Application:

Apply online via The Postgraduate Applications Centre – (PAC) – <u>www.pac.ie</u> – using the PAC application code above.

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PAC Code: CKR47

PAC Code: CKR40

E21 MEng in Computer and Communications Systems

Study Location: University of Limerick

Course Duration: 1 year

Course Outline: The Programme is designed to equip students with a detailed knowledge of software engineering and the skills required to apply this knowledge in the field of communications systems. The need for these skills continues to expand as telecommunications becomes an increasingly common and important part of people's lives.

Course Suitability: Graduates with primary degrees in electronics or computing who wish to focus on a career in telecommunications, as well as to those with other science or engineering backgrounds who wish to work in the telecommunications industry.

Indicative Content: <u>Core</u> – C++ Programming; Software Engineering; Multimedia Communications; Digital Signal Processing; Information Theory & Coding; Web-Based Application Design; Real-Time Systems; Communications & Security; Protocols; Project. <u>Options</u> – Digital Control; Digital Communications; Host & Network Security.

Admission Requirements: Minimum 2.2 honours undergraduate degree in a numerate and relevant discipline. An interview may be part of the admission process.

Course Webpage: [shortened as] <u>http://bit.ly/2v1C33W</u>

Application: Apply online via the course webpage.

E22 MEng in Information and Network Security

Study Location: University of Limerick

Course Duration: 1 year

Course Outline: The MEng in Information and Network Security programme aims to provide graduates with the theoretical knowledge and practical skills required to contribute as technical leaders and researchers in systems security management. Graduates of this programme will be able to develop and manage security policies related to organisations' IT systems and to combat threats to corporate technical resources.

Indicative Content: Cryptography & Security Fundamentals; Cryptographic Mathematics; Multimedia Communications; C++ Programming; Software Engineering; Data Forensics; Biometrics; Communication & Security Protocols; Network & Host Security; Web-based Application Design; Engineering Project.

Admission Requirements: An honours primary degree, at minimum second class honours, in a relevant engineering, computing, mathematics, science or technology discipline. Applicants from other disciplines who have a significant mathematics or computing element in their primary degree will also be considered. Applicants who possess an honours undergraduate degree, at minimum second class honours, or equivalent in a non-numerate discipline and have a minimum of three years experiential learning in an appropriate computing discipline will also be considered.

Course Webpage: [shortened as] <u>http://bit.ly/2xnbpiH</u>

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E23 MSc in Computing (Information Systems Processes)

Waterford Institute of Technology Study Location:

Course Duration: 1 year

Course Outline: The MSc in Computing in Information Systems Processes combines the human, the organisational, and the technological to provide a broad perspective of modern information systems and their development. The human aspects of the programme explore issues such as human-computer interaction, psychology, computer ethics, and systems development in the human-centred tradition. The organisational aspects consider successful business processes and how these can be supported through information infrastructures such as supply-chain management systems. Finally, the technological aspects look to trends in information systems development, such as emerging methodologies, software development, and technological systems. The programme also includes a research project and dissertation, thus allowing students to investigate an individual area of personal interest.

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

Admission Requirements: An honours bachelor degree (2.2 grade or higher) in Computing, Information Systems, Information Technology or equivalent. Alternatively, an honours degree in Business Studies or Engineering where there is a strong computing component will also be acceptable. An interview process may be required in the student selection procedure, and there is a prerequisite that a student successfully completes a bridging module in Systems Analysis and Design if they have not taken an equivalent module already. This module in an intensive introduction to object oriented analysis and design techniques.

Course Webpage: [shortened as] <u>http://bit.ly/2dmmzfS</u>

Application:

Apply online via The Postgraduate Applications Centre – (PAC) – <u>www.pac.ie</u> – using the PAC application code above.

E24 MSc in Information Security

Study Location: Cork Institute of Technology

Course Duration: 1 year

Course Outline: This programme aims to fill the ever increasing skills gap in this area and delivers material that follows the most current practice. Upon successful completion of this programme the student will both understand and deploy the most advanced methods to protect information at rest, in transit, and at work.

Indicative Content: Core – Incident Response and Digital Forensics; Security Management and Law; Applied Cryptography Web Application and Network Penetration Testing; Networking Security & Forensics; Scripting

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PAC Code: WD516

for System Administrators; Information Security Research Project. <u>Options</u> – Cloud Security; Data Analytics; Malware Investigations; Malware Reverse Engineering; Threat Intelligence; Software Security; Free Choice Module.

Admission Requirements: Entry to the MSc in Information Security will require a minimum of a Level 8 Honours Degree in Computing or in a cognate discipline. Applicants who do not hold a Level 8 degree but have significant industrial experience will be considered on a case by case basis.

Course Webpage: http://www.cit.ie/course/CRKISEC9

Application: Apply online via the course webpage.

F

Management, Business and Related

Application: Apply via the 'Non-EU Sept Intake' button on the course webpage.

Course Webpage: [shortened as] www.bit.ly/2cKaR1w

F2 MSc in Supply Chain Management

Study Location: Dublin Institute of Technology

Course Duration: 1 year

Course Outline: The overall learning outcomes of the programme are to provide participants with a detailed knowledge of the theory and practice of SCM, develop graduates to contribute effectively to multi-discipline teamwork aimed at radical improvements in supply chain capability, prepare graduates of all disciplines for a variety of roles in SCM, and provide personal development opportunities for students in parallel with their meeting career development objectives.

Indicative Content: Core – Introduction to Supply Chain Management; Understanding Customer Service; Manufacturing Strategy and Operations; Physical Distribution Management; Purchasing; Information Technology in the Supply Chain; Introduction to Business Strategy; Dissertation. Options – Managing People; Management of Information Systems.

Admission Requirements: Applications will be assessed based on your academic grades and may also take into account your work/life experience.

Course Webpage: [shortened as] <u>http://bit.ly/2xccNp4</u>

Application: Apply via the 'Non-EU Sept Intake' button on the course webpage.

F1 MSc in Strategic Management

Study Location: Dublin Institute of Technology

Course Duration: 1 year

Course Outline: This programme is suited to high-potential applicants who wish to develop their capabilities in the field of strategic management. Graduates of this programme will be well placed to undertake strategic planning for businesses whether they are in the public, private or voluntary sectors.

Course Suitability: Aspiring and experienced managers seeking to develop their capabilities in the field of strategic management.

Indicative Content: Core - Strategy and Leadership 1 and 2; Analytical tools for Business Management; Corporate Finance; Business Research Methods; Strategic Marketing; Project and Consultancy Management; Understanding and Leading Organisations. Options - Financial Services; Innovation; Retail Management; Marketing; Human Resources Management; Supply Chain Management.

Admission Requirements: Graduates in business, economics (or an undergraduate programme where business subjects account for at least 50% of the subjects) who have achieved an Honours degree at grade 2:2 grade or higher.

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F3 MSc in Management

Study Location: Trinity College Dublin

Course Duration: 1 year

Course Outline: Designed primarily for non-business graduates, this programme complements your undergraduate degree and equips you with the management skills necessary to succeed in today's globalised business environment. The course covers all the key facets of management, from managing people to finance to strategic planning and operations.

Indicative Content: <u>Core</u> – Financial Management; Management and Organisational Behaviour; Marketing Management; Operations Management; Human Resource Management; Negotiation Theory; Entrepreneurship; Strategic Management; Ethical Business; Dissertation. <u>Options</u> – Social Entrepreneurship; Research Methods; Applied Marketing Strategy; Strategy & Information Systems; Leading Change in a Complex World; Psychology of Management.

Admission Requirements: Bachelor degree with minimum 2.1 result or equivalent.

Course Webpage: <u>https://www.tcd.ie/business/msc/management/</u>

Application: Apply online via course webpage

F4 MSc in Food Business Strategy

Study Location: University College Dublin

Course Duration: 1 year

Course Outline: The curriculum has been co-devised by UCD Smurfit School and UCD School of Agriculture and Food Science in order to offer a unique opportunity to receive the highest quality business training as well as to gain a deep understanding of the food sector.

Course Suitability: This programme is suitable for those with a background in agriculture-based or other science degrees seeking to develop their business expertise and those with more business-focused degrees and an interest in moving into the food sector.

Indicative Content: Food Policy; Customer Driven Marketing for the Food Industry; Competitive Strategy in the Global Food Industry; Food Business Innovation; Economics of Food; Supply Chain Management in Global Food Systems; Leadership for Growth in the Food Industry; Group Food Strategy Project.

Admission Requirements: A minimum second-class honours degree (or equivalent) in any discipline or a primary degree with a minimum of three years' work experience

Course Webpage: [shortened as] <u>http://bit.ly/1jUoBj5</u>

Application: Apply online via course webpage.

UCDMS

F5 MSc in Management Consultancy

Study Location: University College Dublin

Course Duration: 1 year

Course Outline: Successful completion of the course will provide graduates with knowledge of four main areas of management consultancy - how it functions, the key operators, the factors for success, and the management issues driving the industry.

Course Suitability: This programme is suitable for graduates in business or economics keen to pursue a career in the highly competitive and increasingly global management consulting industry.

Indicative Content: Economic Foundations of Strategy; Management Consulting Principles; Organisational Behaviour; Diagnostic Techniques in Consulting; Managing Organisational Change; Project Management; MC Research Project; Cross Cultural Management; Organisational Renewal; Managing Leading & Coaching Change; Financial Management; Contemporary Issues in Strategy Research.

Admission Requirements: (i) Suitable for students with an undergraduate degree from any discipline, however, business subjects and/or related work experience are favourable; or (ii) A primary degree with a minimum of three years' relevant work experience.

Course Webpage: [shortened as] <u>http://bit.ly/2uJbThi</u>

Application: Apply online via course webpage.

F6 MSc in Digital Innovation

University College Dublin Study Location:

Course Duration: 1 year

Course Outline: This full time Masters has been designed to enable technologists and future business leaders to manage IT in business and to drive technology-based innovation in a digital society.

Course Suitability: It is suitable for graduates of any discipline, but particularly those from business and/or IT backgrounds, and for current professionals looking to enhance their prior qualifications with a business / IT specialisation.

Indicative Content: Core – Design, Development and Creativity; Skills for Business Enquiry; Managing Strategy and Innovation in a Digital Era; Cultural and Political Perspectives on Managing Technology and Change; Outsourcing and Offshoring; Implementing Digital Projects; Research Project. Options – Knowledge, ICT & Organisation; Global Information Systems; Game Thinking: Games and Play in a Digital World; Economics of IT & Digital Markets. Options from other streams may also be available.

Admission Requirements: A minimum second-class honours degree (or equivalent) in any discipline, or a primary degree with a minimum of three years' relevant work experience.

Course Webpage: [shortened as] <u>http://bit.ly/2kQXR9r</u>

UCDMS

UCDMS

Application: Apply online via course webpage.

F7 MSc in Aviation Finance

Study Location: University College Dublin

Course Duration: 1 year

Course Outline: The MSc in Aviation Finance aims to advance students understanding of all aspects of aviation finance, with specific focus on the practical features of global aviation markets. It encourages students to develop creative and analytical approaches to problem solving in the aviation finance and leasing sphere and to enhance interpersonal and leadership skills.

Course Suitability: It is suitable for graduates from a wide variety of disciplines including business, economics, finance, engineering and science who want to pursue a career in the highly dynamic sector of Aviation Finance & Leasing.

Indicative Content: <u>Core</u> – Accounting/FSA for Aviation; Aviation Tax; Aviation Finance 1 and 2; Quantitative Methods; Capital Markets & Instruments; Aviation Economics; Topics in Aviation Finance; Doing Business Globally; Law of Aviation Finance. <u>Options</u> – Aviation Finance Research Project *or* Aviation Industry Internship *or* (choose 2) Advanced Treasury Management; Management of Banking Institutions; Mergers and Acquisitions; Financial Modelling.

Admission Requirements: (i) A minimum second-class honours degree (or equivalent) in Business/Commerce (with quantitative subjects), Economics, Finance, Engineering, Mathematics, Physics or a Finance related area; or (ii) A primary degree with a minimum of three years' work experience in the aviation industry.

Course Webpage: [shortened as] <u>http://bit.ly/2mNENce</u>

Application: Apply online via course webpage.

F8 MSc in Finance

UCDMS

UCDMS

Study Location: University College Dublin

Course Duration: 1 year

Course Outline: This course is especially suitable for graduates with an educational track record in business, economics, finance or any degree with a significant quantitative element. A wide-ranging curriculum develops and tests graduates' comprehension of management principles, market operations and functions, and the risks inherent in investment management, enabling them to comprehend the entire management and strategic contexts in which financial decision-making is taken. Students learn about financial processes and procedures as well as the knowledge and skills (both professional and personal) necessary for a career in financial services, from investment and commercial banks through to insurance companies and trading houses. In the summer term, students can choose from some summer term modules, or a research project, or in a small number of cases, from a limited number of possible internships.

Indicative Content: <u>Core</u> – Financial Econometrics; Derivative Securities; Corporate Financial Management; Quantitative Methods; Capital Markets & Instruments; Financial Asset Valuation; Strategic Finance; Behavioural Finance; Empirical Finance; Portfolio & Risk Management. <u>Options</u> – Advanced Treasury Management; Management of Banking Institutions; Applied Investment Management; Research Project; Mergers & Acquisitions; Financial Modelling; Aircraft Finance.

Admission Requirements: Second class honours degree (2:2 grade) or higher in Business/Commerce (with quantitative subjects), Economics, Finance, Engineering, Mathematics, Physics or Finance-related area, or a primary degree with a minimum of three years' work experience in Finance.

Course Webpage: [shortened as] http://bit.ly/2hOIUZ4

Application: Apply online via the course webpage.

F9	MSc in Management (Business)	

Study Location: Dublin City University

Course Duration: 1 year

Course Outline: This course is designed for people who do not have an undergraduate degree in management or business, but who would like to have a thorough preparation for a career in managing a business. It focuses on four key themes: personal and career development; leadership, teamwork and corporate accountability; global and societal awareness; and research, media and communication. Particular emphasis is placed on reflective and critical thinking, collaborating with people, creating and sharing knowledge and dealing with complexity.

Course Suitability: Graduates with a degree unrelated to business who are looking to gain business acumen at master's level.

Indicative Content: Accounting for Business Decision Making; Economics; Marketing; Business Process Innovation; Consulting Skills; People Management and Development; Data Analytics and Visualisation; Next Generation Management; Technology Management; Finance; Business Strategy; Dissertation/Practicum.

Admission Requirements: Minimum 2:2 Honours degree in a discipline other than business. You may be invited for interview

Course Webpage: [shortened as] www.bit.ly/2cl4ewe

Application:

Apply online via The Postgraduate Applications Centre (PAC) – www.pac.ie – using the PAC application code shown above.

PAC Code: DC510

DCU

F10 MSc in Management (Strategy)

Study Location: Dublin City University

Course Duration: 1 year

Course Outline: This course is designed for people who do not have an undergraduate degree in management or business, but who would like to have a thorough preparation for a career in managing a business. It focuses on four key themes: personal and career development; leadership, teamwork and corporate accountability; global and societal awareness; and research, media and communication. Particular emphasis is placed on reflective and critical thinking, collaborating with people, creating and sharing knowledge and dealing with complexity.

Course Suitability: Graduates with a degree unrelated to business who are looking to gain business acumen at master's level.

Indicative Content: Accounting for Business Decision Making; Economics; Marketing; Business Process Innovation; Consulting Skills; People Management and Development; Data Analytics and Visualisation; Next Generation Management; Technology Management; Finance; Business Strategy; Dissertation/Practicum.

Admission Requirements: Minimum 2:2 Honours degree in a discipline other than business. You may be invited for interview

Course Webpage: [shortened as] www.bit.ly/2cl4ewe

Application:

Apply online via The Postgraduate Applications Centre (PAC) – www.pac.ie – using the PAC application code shown above.

Study Location: Dublin City University

Course Duration: 1 year

Course Outline: This course equips students to become leaders in the fast-changing world of Human Resources (including areas such as training and development, employee relations and consultancy) or in the area of international business where there are responsibilities for people management. Objectives include providing (i) an in-depth understanding of the theories and conceptual frameworks underpinning the broad area of people management; (ii) insights into the latest developments in HRM; (iii) an understanding of the strategic level of analysis at which business decisions are made and of the links between the management of human resources, business strategy finance and performance; and the skills to undertake and implement organisational level research

Course Suitability: Staff in the public sector, not-for-profit organisations, multinational companies and consultancy firms with roles in human resource management, training and development, employee relations, research, consultancy.

Indicative Content: Leadership & Career Development; People Management & Development; International Employee Relations; Managing Employee Performance & Reward; Organisational Analysis; International

DCU

PAC Code: DC510

HRM; Labour Law; Management Research Report/Dissertation; Researching HRM; Selection and Assessment; Managing Organisational Learning and Knowledge; Strategic Human Resource Management.

Admission Requirements: A second class honours grade 1 degree (or international equivalent) in a Business discipline or A second class honours grade 1 honours degree (or international equivalent) in a non-Business discipline or Professional qualifications in Human Resource Management coupled with significant relevant professional experience. Applicants with a second class honours grade 2 honours degree in a Business discipline with a significant specialism in Human Resource Management may be considered.,

Course Webpage: [shortened as] <u>www.bit.ly/qi3BFw</u>

Application Procedure

Apply online via The Postgraduate Applications Centre (PAC) – <u>www.pac.ie</u> – using the PAC application code shown above.

F12 MSc in Management (Aviation Leadership)

Study Location: Dublin City University

Course Duration: 1 year

Course Outline: The MSc in Management (Aviation Leadership) is a specialist postgraduate programme designed to provide participants with aviation knowledge in all key aviation sectors combined with an education in strategic management.

Indicative Content: Aviation Governance and Regulation; Aviation Leadership and Management; Airport Operations Management; Leadership and Change; Delivering Performance Excellence; Strategy Organisation and Innovation; Research Methods; Dissertation.

Admission Requirements: Candidates should hold an honours primary degree (H2.1) or an equivalent professional qualification; and a minimum of 3 years relevant experience.

Course Webpage: [shortened as] <u>http://bit.ly/2v5KabC</u>

Application:

Apply online via The Postgraduate Applications Centre (PAC) – www.pac.ie – using the PAC application code shown above.

F13 MSc in Business Economics

Study Location: University College Cork

Course Duration: 1 year

Course Outline: This course focuses on understanding firm performance and competitiveness in the global business environment with a theoretically grounded, evidence-based and application orientated approach. Team-working and the production of analyses, reports and presentations to a high professional standard are expected.

DCU

PAC Code DC632

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PAC Code: DC525

Course Suitability: Graduates with an Economics major seeking the key professional skills to work as business and strategic analysts.

Indicative Content: Economics of Business Strategy; Analysing General Business Conditions; Financial Economics and Business Strategy; Scenario Analysis and Forecasting for Business Development; Research Methods for Business Economics; Business Survey Methods; Research Workshops and Professional Development; Business Economics Report

Admission Requirements: Applicants must have a minimum 2.2 honours grade in a primary degree (or equivalent). Consideration will be given to applicants not meeting the above criteria (i.e. no primary degree) but with extensive relevant professional experience, as deemed appropriate by the Head of Economics in consultation with the Programme Director, subject to the approval of the School of Business.

Course Webpages: www.ucc.ie/en/ckl06

Application:

Apply online via The Postgraduate Applications Centre (PAC) – <u>www.pac.ie</u> – using the PAC application code shown above.

F14 MSc in Business Information and Analytics Systems

Study Location: University College Cork

Course Duration: 1 year

Course Outline: The MSc in Business Information and Analytics Systems provides students with a portfolio of business and analytical methods for solving problems and supporting decision making, and provides students with a specialism in Business Analytics as well as an extensive knowledge of business and IS concepts. Students will develop the skills necessary to gain business insights to improve decision-making.

Course Suitability: Typical students are from technical disciplines such as, Management Information Systems (MIS) or Business Information Systems (BIS), engineering, computer science and mathematics. It is also suitable for business and humanities graduates who have studied computer science and Business Information Systems (BIS) subjects with some computer programming content.

Indicative Content: Cloud Technology; Data Acquisition and Management; Project Management; IT and Organisational Performance; Enterprise Business Processes; Design thinking for the Business Analyst; Business Data Strategy; Data Visualisation; Business Analytics and Business Intelligence; Cognitive Decision Making and DSS.

Admission Requirements: A 2.2 primary degree or equivalent, with appropriate information systems or computing technology skills content. You may also be admitted to the course on the basis of extensive practical or professional experience, as deemed appropriate by the Professor of Business Information Systems and the School of Business.

Course Webpage: https://www.ucc.ie/en/ckl51/

Application:

PAC Code: CKL51

Apply online via The Postgraduate Applications Centre – (PAC) – <u>www.pac.ie</u> – using the PAC application code above.

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PAC Code: CKL06

F15 MSc in Food Marketing

Study Location: University College Cork

Course Duration: 1 year

Course Outline: This course will prepare you for a career in some of Ireland's most dynamic businesses. It will expand your knowledge of food, the food consumer, innovation in food and the decision-making processes in companies that develop, brand, distribute, and sell food products. Further opportunities will exist in market research and consultancy or in agencies supporting food companies both at home and abroad. Through practical applications, the course will improve your analytical, communication, and presentation skills which are required and valued by industry.

Indicative Content: Advanced Food Consumer Behaviour; Food Marketing Channel Theory; Food Marketing Channel Analysis; Food Research Management: Qualitative Research; Food Research Management: Quantitative Research; Strategic Food Marketing; Consumer Behaviour and Relationship Marketing; Quantitative Techniques and Analysis; Food Marketing Research Project.

Admission Requirements: Second class honours degree (2:2 grade) or higher in a business related area. Consideration may be given to applicants who do not meet this criteria but who have relevant professional experience.

Course Webpage: <u>https://www.ucc.ie/en/ckl09/</u>

Application:

Apply online via The Postgraduate Applications Centre – (PAC) – <u>www.pac.ie</u> – using the PAC application code above.

F16 MSc in Financial Economics

Study Location: University College Cork

Course Duration: 1 year

Course Outline: This programme involves advanced study of the practices of investment, banking and risk management. The course also involves an applied research project, using cutting-edge techniques and software. The MSc Financial Economics is at the top end of graduate study in business/finance in Ireland and is designed for high achievers who wish to pursue high-end careers in financial markets

Indicative Content: Fund Management and Evaluation; Fixed Income Securities; Asset Pricing; Securities Valuation and Selection; International Finance; Treasury Risk Management; Financial Institutions and Money Markets; Derivative Securities; Macroeconomics for Financial Markets; Regulation and Compliance in Capital Markets; Applied Econometrics; Applied Time Series Analysis; Research Methods; Applied Research Project.

Admission Requirements: Upper second class honours degree (2:1 grade) or higher in a business subject, or in a related subject with a quantitative element such as mathematics, statistics, engineering, science, etc.

Course Webpage: <u>https://www.ucc.ie/en/ckl19/</u>

Application:

PAC Code: CKL19

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PAC Code: CKL09

Apply online via The Postgraduate Applications Centre – (PAC) – <u>www.pac.ie</u> – using the PAC application code above.

Study Location: Waterford Institute of Technology

Course Duration: 1 year

Course Outline: This programme aims to deliver a well-rounded knowledge of theories, practices and skills of management and business. It emphasises skills of critical thinking, analysis, debate, dealing with high levels of ambiguity, decision making and the simultaneous treatment of interdependent decisions in a more complex environment.

Course Suitability: Graduates with a degree in management or a general business degree with a management major/specialization and pursuing a career in management.

Indicative Content: <u>Core</u> - Knowledge Management; Managing Corporate Creativity; Management Skills Development; Managing Change; Innovation Management and Design; Leadership and Coaching; Seminar Series; Applied Consultancy Business Simulation I and II; Research Methods; Dissertation. <u>Options</u> - Research Specialisation: Qualitative Research or Quantitative Research or In-Company Project.

Admission Requirements: Usually a 2:1 business management degree or a general business degree with a management major/specialism. Please note the English language requirements for admission given on the website (also see p3).

Course Webpage: [shortened as] <u>www.bit.ly/1F4uRmT</u>

Application:

Apply online via The Postgraduate Applications Centre (PAC) – <u>www.pac.ie</u> – using the PAC application code above.

F18 Master of Business

Study Location: Athlone Institute of Technology

Course Duration: 1 year

Course Outline: This masters in designed for students who have graduated from a broad spectrum of business and related degree programmes who wish to upgrade and enhance their knowledge and skills to avail of global business opportunities. Central to the course design is engagement with external businesses and organisations. You will also gain a deeper understanding of businesses and the environments they operate in, as well as skills such as marketing, strategic analysis and information systems.

Course Suitability: Graduates of business-related courses.

Indicative Content: International Corporate Strategy; Services Marketing Management; New Venture Creation and Growth; Business Model Development; Information Systems for Managers; Innovation & Creativity; Personal and Professional Development; Research Methods; Research Project.

AIT

PAC Code: WD510

Admission Requirements: Students are expected to have a minimum of a Bachelor Degree in business or a cognate discipline at 2.2 level or an approved equivalent qualification.

Course Webpage: <u>https://www.ait.ie/courses/master-of-business</u>

Application: Forms can be downloaded at: <u>www.ait.ie/international/non-eustudents</u> For enquiries, contact Mary Simpson, AIT International Office - international@ait.ie or +353 90 642 4562.

F19 MSc in Project Management

Study Location: University of Limerick

Course Duration: 1 year

Course Outline: This course aims develop knowledge and understanding of the theories and principles of modern approaches to managing projects. Learners will gain skills in critically analysing and engaging actively in the development and integration of project management as a way of work within organisations. Competencies to manage groups and teams and to interact effectively with project stakeholders will be developed and project management best practice in managing human, physical and financial resources throughout the project lifecycle will be studied. The concepts and theories of corporate and social responsibility will be introduced to provide a framework for planning and evaluating the actions and performance of a project in the context of sustainable and socially responsible activity.

Course Suitability: Professionals wishing to pursue a career in projects and wishing to develop skills and knowledge related to their chosen disciplinary field, such as engineering, science, health, public administration and education.

Indicative Content: Knowledge and Information Management in Project Environments; Project Management Science and Principles; Strategy Formulation and Implementation; Project Planning and Control; People and Behaviour in Projects; Decision Analysis and Judgement in Projects; Research in Projects and Organisations; Commercial Management of Projects; International Project Management; Project Leadership & Governance; Project Management Simulation; Research Project or Confirmation Paper.

Admission Requirements: Minimum of 2:2 honours primary degree or equivalent in a project management related field, such as engineering, science, business, information technology, public administration, health and education. Candidates may be selected for interview to determine suitability.

Course webpage: <u>www.ul.ie/graduateschool/course/project-management-msc</u>

Application: Apply online via course webpage

F20 MA in Business Management

Study Location: University of Limerick

Course Duration: 1 year

Course Outline: This course covers the fundamental business disciplines: accounting, business communications, economics, human resource management, information management, knowledge

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management, management principles, marketing management, organisational behaviour and strategic management.

Course Suitability: Non-business graduates who wish to develop an understanding of major business disciplines and pursue business careers.

Indicative Content: Economics for Business; Management Principles; Information Management; Organisational Behaviour; Marketing Management; Financial Management and Decision Making; Knowledge Management; Business Communication; Human Resource Management; Strategic Management; Business Simulation; MA Confirmation Paper.

Admission Requirements: Minimum of a 2:2 Honours primary degree in any field other than Business or Commerce related fields, or equivalent.

Course Webpage: [shortened as] <u>www.bit.ly/17TW06w</u>

Application: Apply online from the course webpage

F21 Master of Business in Marketing & Management Strategy

Study Location: Limerick Institute of Technology

Course Duration: 1 year

Course Outline: This programme will employ a learner-centred instructional philosophy, namely Problem Based Learning (PBL). The aim of PBL is to prepare learners for the demands of real life marketing and management positions in a rapidly changing, knowledge-based economy. In a PBL environment, learners are encouraged to solve problems, which are set in a real world framework.

Indicative Content: Integrated Marketing Communications (incl. New Media); Financial Analysis for Management Decisions; Business Research Methods; Planning, Strategy and Innovation; Consumer Behaviour and Relationship Management; Branding and Product Management & Commercialisation; Research Thesis

Admission Requirements: (i) An honours degree in business management and/or marketing with a minimum award of Second Class Honours Grade 2; or (ii) a degree in business management and/or marketing OR an appropriate professional business qualification AND at least 2 years relevant professional experience/responsibility. An interview may form part of the selection process.

Course Webpage: [shortened as] http://bit.ly/1ie36y1

Application: Forms can be downloaded at <u>www.lit.ie/International/Study/Application.aspx</u> For enquiries, contact <u>international@lit.ie</u>. LIT

F22 MSc in Accounting and Finance Management

Study Location: Griffith College Dublin

Course Duration: 1 year

Course Outline: Students will advance their functional management competencies in finance and accounting, and will develop and refine transferable interpersonal and leadership skills which they can bring to the workplace. Students will also gain the experience of working in culturally diverse teams across a multicultural environment promoting a greater understanding of different business settings and contexts.

Course Suitability: This programme is aimed at Accounting and Finance graduates, with or without relevant business experience.

Indicative Content: Management Accounting and Control; International Strategy; International Financial Management; International Financial Reporting and Analysis; Audit and Assurance; Legal Environment and Corporate Governance; Business Research Methods; Strategic Managerial Finance; Dissertation. <u>Options</u> – Taxation (IRL); International Tax Law; Business Planning and Entrepreneurship; Leadership and Management Development; eBusiness and eMarketing; Technology and Business Innovation.

Admission Requirements: Honours degree in the field of accounting and finance (minimum 2:2).

Course Webpage: [shortened as] <u>http://bit.ly/2v5sxHV</u>

Application: Apply online from the course webpage.

F23 MSc in Strategy and Innovation

Study Location: Maynooth University

Course Duration: 1 year

Course Outline: The MSc in Strategy & Innovation is focussed on advanced high level exploration of key areas in Strategy Management and Innovation Management and is supported by leading edge content in Leadership, Technology, and Finance. The programme will build your capacity to analyse and make decisions on complex issues facing senior leaders in organisations. It will also build your capacity to work in teams and lead important strategic projects.

Indicative Content: Strategy; Leadership; Technology and Finance; Business Research Methods; Business Research Project.

Admission Requirements: Candidates should have a minimum 2.2 grade honours (level 8) degree in a business discipline or equivalent. Applications from candidates who hold a non-business degree and have at least five years relevant work experience that includes a management role will be considered.

Course Webpage: [shortened as] <u>http://bit.ly/2xaNOlc</u>

Application:

Apply online via The Postgraduate Applications Centre (PAC) – <u>www.pac.ie</u> – using the PAC application code shown above.

PAC Code: MH54D

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PAC Code: GYC02

F24 MSc in Business Management

Study Location: Maynooth University

Course Duration: 1 year

Course Outline: This programme is focused on non-business graduates who wish to develop a career in business and management. The programme assumes no prior knowledge of business and management topics.

Indicative Content: People, Organisation and Society; International Business and Business Innovation; Applied Economics for Managers; Human Resources Management in Its Strategic Context; Global Operations and Supply Chain Management; Financial Management; Strategy and Marketing; Business Research Methods and Project Management; Business Research Project.

Admission Requirements: Candidates should have a minimum 2.2 grade, honours (level 8) degree in a nonbusiness discipline or equivalent.

Course Webpage: [shortened as] http://bit.ly/2wWRIhZ

Application:

Apply online via The Postgraduate Applications Centre (PAC) – <u>www.pac.ie</u> – using the PAC application code shown above.

F25 MSc in Human Resource Management

Study Location: NUI Galway

Course Duration: 1 year

Course Outline: The programme examines the nature of work and explores industrial relations and human resource management in changing national and international markets. The focus is on the people aspect of business and explores how the relationship between employers and employees can be managed to the best advantage of both parties.

Indicative Content: Leading Managing and Developing People; Employee Relations and Law, Global Business and Human Resource in Context; Business Ethics and Corporate Social Responsibility; Learning and Development; International Human Resource Management and Research Methods.

Admission Requirements: Normally a 2:1 Honours degree (or equivalent) in business, management or a related discipline. Experience is also considered.

Course Webpage: [shortened as] <u>http://bit.ly/1ihIIAV</u>

Application:

Apply online via The Postgraduate Applications Centre (PAC) – <u>www.pac.ie</u> – using the PAC application code shown above.

NUIG

PAC Code: MH52D

F26 MSc in International Business

Study Location: Cork Institute of Technology

Course Duration: 1 year

Course Outline: This programme is geared at providing non-business graduates with the skills required to develop and promote products and services in an international environment while furthering their business skills and knowledge. Students build upon their own discipline (science, engineering, computing etc.) to develop a solid understanding of Business Development, Internationalisation and Innovation in an interesting educational environment. Students will expand their business knowledge and skills through simulation, guest speakers, and an international trip. Students will also undertake an industry consultancy project which will prepare them for opportunities in the workplace. The programme is an excellent opportunity for students who want to complement their degree with business skills.

Indicative Content: <u>Core</u> – Strategic Thinking; Global Marketing Management; International Selling & Business Development; Innovation Management & Creativity; Financial Management & Systems; International Business Field Trip; Sustainable Marketing Practice; Economics of Global Markets; Business Environment Simulation; Applied Consultancy Project. <u>Options</u> – Customer Experience Design; Technology Management in Global Business; People Management Strategies; Digital Environment.

Admission Requirements: Upper second class honours degree (2:1 grade) or higher in a non-cognate area (i.e. where the specialism is not Business, Marketing, Accounting/Finance or Business information systems. A personal statement must be provided by the applicant.

Course Webpage: www.cit.ie/course/CRBIBUS9

Application: Apply online via the course webpage.

F27 MA in Global Business Practice (Traditional Platform only)

Study Location: Cork Institute of Technology

Course Duration: 1 year

Course Outline: The programme has three different strands and is geared at developing a graduate that will be ready to gain employment in roles where international business skills and knowledge can be put to immediate and practical usage. A graduate of this programme will have a deeper and broader understanding of the international business environment coupled with experience in that area, and they will have specific and deep knowledge around business development, importation, exportation, supply chain, operations, purchasing, account management, international selling and innovation. The final stage of the programme will provide students with the opportunity to apply their knowledge and skills to real world initiatives through placement in an international business or a business with a strong business orientation. This will be of significant duration and will be targeted at overseas partners though suitable placements may also be approved within Ireland.

Indicative Content: Global Competitive Strategies; Operations Strategy; Business Relationship Management; International Business Negotiation; Financial Interpretation; Innovation Practice; Purchasing and Logistics; International Study Trip; Business Simulation; Trade Regulation & Policy; Seminar Series. Admission Requirements: Second class honours degree (2:2 grade) or higher in a business area. A personal statement must be provided by all applicants.

Course Webpage: www.cit.ie/course/CRBGLBP9

Application: Apply online via the course webpage.

F28 MA in Human Resource Management

Study Location: Cork Institute of Technology

Course Duration: 1 year

Course Outline: The programme is designed to expose students to current issues in the Human Resource Management domain at a strategic level. This Masters programme has been designed in consultation with industry to respond to changes that have taken place in the HR area. It is aimed at professionals in the HR discipline who wish to further their career and enhance their skillset.

Indicative Content: Research Methods; International Corporate Strategy; Human Resource Management in Context; Coaching and Mentoring; Sourcing and Testing; Professional Employment Law; Applied Corporate Strategy; Employee Engagement; Leading, Managing, Developing; Training, Knowledge Management; Reward & Incentive Management; Performance Management; Dissertation.

Admission Requirements: Second class honours degree (2:2 grade) or higher in Human Resource Management.

Course Webpage: www.cit.ie/course/CRBHRMN9Y5

Application: Apply online via the course webpage.

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Other Courses

G1 MSc in Tourism Management

Study Location: Dublin Institute of Technology

Course Duration: 1 year

Course Outline: The programme is aimed at both professionals currently employed within the tourism industry and those from complementary backgrounds who wish to enter the tourism field. In this context it may be of particular interest to people coming from a heritage, languages, geography, marketing or business background. This programme aims to equip participants with the necessary expertise to manage, co-ordinate and develop tourism businesses and projects in Ireland and abroad. It is aimed at both professionals currently employed within the tourism industry and those from related fields. This dynamic programme encourages interaction between academics and industry practitioners from the national and international tourism sector.

Indicative Content: International Tourism Trends, Markets & Products; Tourism Destination Planning & Management; Managerial Finance & Entrepreneurialism; The Effective Manager; Emerging Industry Issues; Strategic Marketing & Digital Commerce; Dissertation (including Research Methods).

Admission Requirements: Second class honours degree (2:2 grade) or higher in any discipline.

Course Webpage: [shortened as] <u>http://bit.ly/2dgF8zW</u>

Application: Apply online via the course webpage.

G2 MSc in Hospitality Management

Study Location: Dublin Institute of Technology

Course Duration: 1 year

Course Outline: This globally recognised hospitality programme is one of DIT's most sought after programmes. It is the first and only programme of its kind in the Republic of Ireland and provides participants with a top-level educational package that is delivered by leading academics and experts from the national and international hospitality sector. The programme covers all aspects of the hospitality industry with a business based curriculum that is designed to equip participants with the management skills and analytic capabilities necessary to obtain careers in a wide range of organisational settings.

Indicative Content: International Hospitality Operations Management; Strategic Revenue Management Solutions; Managerial Finance & Entrepreneurialism; The Effective Manager; Emerging Industry Issues; Strategic Marketing & Digital Commerce; Dissertation (including Research Methods).

Admission Requirements: Second class honours degree (2:2 grade) or higher in any discipline.

Course Webpage: [shortened as] <u>http://bit.ly/2dMzHc7</u>

Application: Apply online via the course webpage.

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G3 MSc in Interactive Digital Media

Study Location: Trinity College Dublin

Course Duration: 1 year

Course Outline: The M.Sc. course concentrates on teaching the theory associated with developing and implementing digital media applications rather than teaching how to use off-the-shelf applications. Students are exposed to programming languages and platforms as well as methodologies for the creation, capture and presentation of text, graphics, audio and moving images. Students work collaboratively on course assignments and final projects which are exhibited publicly at the end of each year.

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

Admission Requirements: Applications will be accepted from good honours' graduates in any discipline. Literary, artistic and creative ability is taken into consideration along with mathematical and problem-solving ability. Knowledge of programming is not a pre-requisite for entry.

Course Webpage: [shortened as] <u>http://bit.ly/2fY2y3p</u>

Application: Apply online via course webpage

G4 MSc in Digital Humanities and Culture

Study Location: Trinity College Dublin

Course Duration: 1 year

Course Outline: Digital Humanities is a field of study, research, and invention at the intersection of humanities, computing, and information management. It is methodological by nature and multidisciplinary in scope involving the investigation, analysis, synthesis, and presentation of information in electronic form.

Indicative Content: <u>Core</u> – Theory and Practice of Digital Humanities; Web Technologies; Digital Humanities Internships and Project Management; Dissertation. <u>Options</u> – Digital Scholarly Editing; From Metadata to Linked Data; Cyberculture/Popular Culture; Digital History: Tools and Techniques; Programming for Digital Media; Strong Corpus Linguistics; Visualising the Past; Heritage Visualisation in Action.

Admission Requirements: Applicants should have a good honours degree (at least an upper second, GPA of at least 3.3) in any of the disciplines of the humanities.

Course Webpage: [shortened as] <u>http://bit.ly/2v7kVWr</u>

Application: Apply online via course webpage

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G5 MA/MSc in Interactive Media

Study Location: University of Limerick

Course Duration: 1 year

Course Outline: This programme offers unique opportunities for designers, computer scientists and artists to exploit their potential in new areas (experience, interaction and participatory design, internet of things, social media and virtual reality, mobile and physical computing), across a wide range of activities, such as digital multimedia, software development, interactive installation, human-centred research and education.

Course Suitability: Graduates who are interested in pursuing studies that combine technological competence with design/artistic endeavour.

Indicative Content: <u>Core</u> – Foundations of Interactive Media Design; Interactive Media Project/Workshop 1 and 2; Interactive Media Project. <u>Options</u> – Digital Media Software and Systems; Information Society; Realtime Audio & Video; Physical Computing; Mobile Application Design; Product Design & Modelling; Visual Coding; Applied Interaction Design; CS-Studio I.

Admission Requirements: A primary degree in any subject area, with first or second class honours. A portfolio of the applicant's own work that demonstrates the applicant's creative ability. This can be artwork, websites, software, writing, etc. Applicants may be called for an interview. The interview normally takes 20-30 minutes and includes a review of the applicant's portfolio.

Course Webpage: [shortened as] <u>http://bit.ly/2vZ5Nf1</u>

Application: Apply online via the course webpage.

G6 MA in International Tourism

Study Location: University of Limerick

Course Duration: 1 year

Course Outline: This programme is geared to provide students with an understanding of the international tourism industry and an appreciation of the key issues affecting its continued development. It also presents an opportunity to gain insights into the marketing and management issues impacting on the sector. Students are also presented with opportunities to update their language and IT skills, their communication and presentation skills, and to interact with tourism industry practitioners and visiting international faculty. Research skills are developed through dedicated methodology modules leading to the completion of a dissertation on a chosen topic in tourism. An innovative and integral part of this course is an international field trip which all students undertake.

Indicative Content: Tourism Principle and Practice; Economics of Tourism; Tourism Services Marketing; Tourism Enterprises; Research Methods; Economic Appraisal and Evaluation Techniques; Strategic Marketing for Tourism; International Tourism Trends; Tourism Planning and Development; Thesis.

Admission Requirements: Good honours (minimum 2.2) primary degree from a variety of disciplines including Economics, Geography, Sociology, Business Studies, Hotel Management, Languages, History, Anthropology, Marketing and others.

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Course Webpage: [shortened as] http://bit.ly/UJx6Gw

Application: Apply online via the course webpage.

G7 MA in Creative Practice

Study Location: Galway-Mayo Institute of Technology

Course Duration: 1 year

Course Outline: The course will support imaginative, experimental and interdisciplinary enquiry through a range of media and approaches. Students will choose one of four strands in which to base their study: Contemporary art studio practice; Digital cultures; Film and lens based media; Socially engaged practice. Students will be encouraged to work collaboratively as well as be independent, self-directed critical thinkers.

Indicative Content: <u>Core</u> – Themes and Issues in Creative Practice; Professional Development; Research and Innovation. <u>Options</u> – Research Project or Creative Practice Project and Minor Thesis.

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

Course Webpage: [shortened as] http://bit.ly/2x1dDXy

Application: Apply online via the course webpage under the "Essential Information" tab.

G8 MA in Public Relations with New Media

Study Location: Cork Institute of Technology

Course Duration: 1 year

Course Outline: This course aims to provide students with a strategic and systematic understanding of the theory and practice of public relations. It aims to equip graduates with the knowledge, skills and competencies required to effectively function as a public relations professional. The course pays particular attention to the growing importance of digital and interactive media on the practice of public relations and its manifold impacts on the mass media industry. By developing student's research, planning, managerial and multimedia skills the course aims to produce graduates who can display leadership and the capacity for innovation within the dynamic and fast-evolving professional communications industry.

Indicative Content: <u>Core</u> – PR Theory & Application; Ethics & Social Responsibility; Multimedia Production; Media Writing; Research Methods and Practice; PR and New Media; New Media Production; Cybercultures; Business Communications & Online Writing; Public Relations Campaigns; PR Master Project. <u>Options</u> – Strategic Digital Marketing; Strategy Analysis; Media Law, Ethics & Professional Practice; Event & Project Management; The Business Environment.

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Admission Requirements: Second class honours degree (2:2 grade) or higher in any discipline. Admissions will be on the basis of interview.

Course Webpage: http://www.cit.ie/course/CRBPRNM9

Application: Apply online via the course webpage.