



Courses 2019-2020





## Cork Institute of Technology Institiúid Teicneolaíochta Chorcaí

#### incorporating

CIT Cork School of Music CIT Crawford College of Art & Design National Maritime College of Ireland

## CIT Continuing Education Handbook

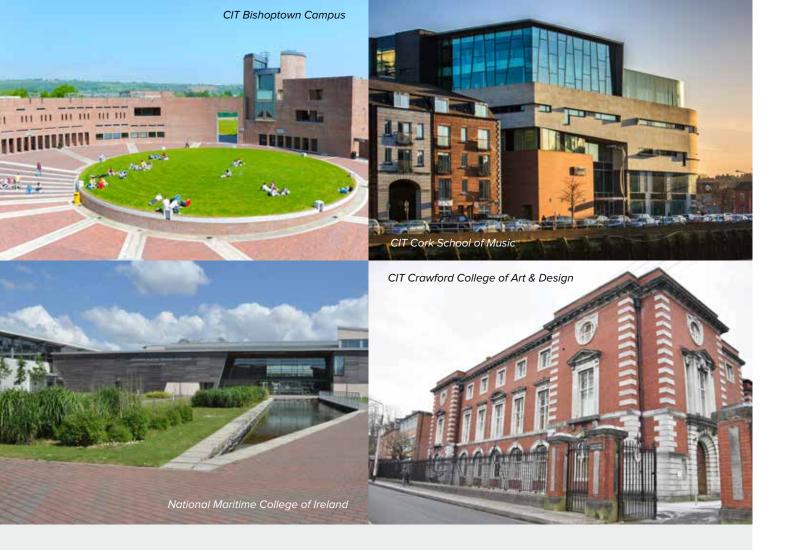
Courses 2019-2020

Please note that a telephone line is available for queries after normal business hours

T: 021 432 6100 E: info@cit.ie W: www.cit.ie

Twitter: @CIT\_ie

Facebook: www.facebook.com/myCIT



# CIT's Mission

To provide student-centred education with a career focus for the benefit of the personal, intellectual and professional development of the student and for the benefit of the whole of society.



Anseo istigh gheobhaidh tú eolas ar a bhfuil ar fáil anseo i CIT don bhliain acadúil 2019/2020 maidir le h'Oideachas Leanúnach. Réimse leathan de chúrsaí atá ann ar gach leibhéal d'ár soláthar oideachais is traenála, iad ar fad fréamhaithe san acmhainn iontach de cháilíochtaí proifisiúnta a chuirimid ar fáil don bpobal.

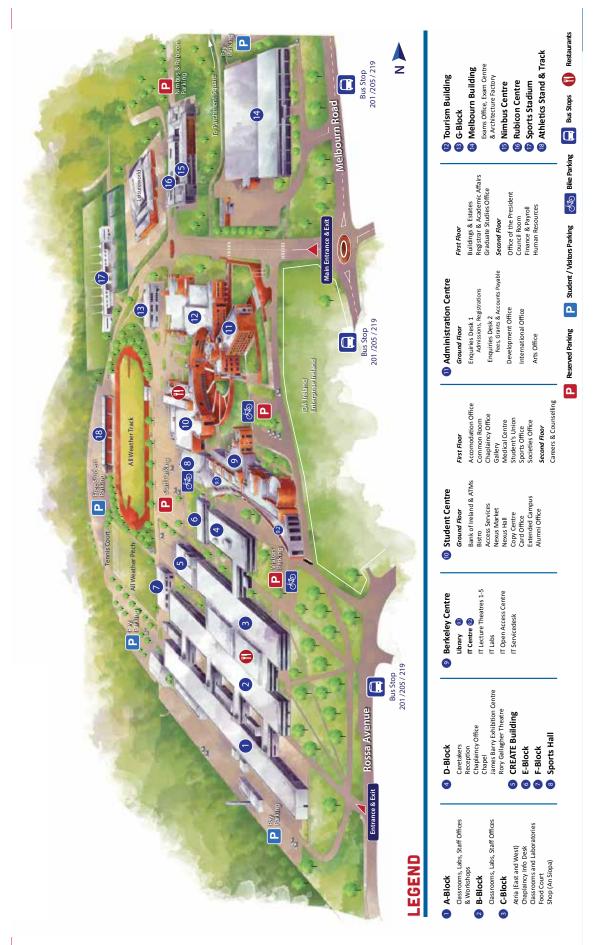
This informative catalogue provides all the necessary information to help you select a programme of study in CIT from the broad spectrum of Continuing Education options on offer. A key feature of our CIT programmes, be they part-time or full-time programmes, is the clear profession-based focus of and relevance of the course design and delivery. This focus is attested to by fact that currently in excess of 40 professional bodies accredit respective degree programmes here in CIT.

Whether you are returning to education, seeking to advance your qualifications or career via Continuous Professional Development, or simply honing your skills in a specific area of interest, there are many options to choose from here in CIT. This catalogue also outlines the supports available to prospective students considering CIT as an option, and also the resources available to students availing of our Continuing Education courses.

We look forward to welcoming many of you into one of our CIT campuses (Bishopstown, Crawford College of Art & Design, Cork School of Music or the National Maritime College of Ireland) in academic year 2019/2020.

Dr Barry O'Connor Uachtarán

# Bishopstown Campus Map



# Contents

## Cork Institute of Technology

Information Evening	2
Student Email System	2
CIT Smart Cards	2
Money Matters	3
Refund Policy	3
Examinations	4
Access Service	4
Disability Support Service	4
National Framework of Qualifications	5
Modularisation & Semesterisaton	6
National Vetting Bureau (NVB)	6
Customised Courses and in-Company Training	7
Recognition of Prior Learning	7
Springboard+	8
Facilities at CIT	9
Chaplaincy/Student Support Team	10
Alumni Association	10



1

School of Business	
School of Business	

Organisation & Professional Development  Bachelor of Arts in Human Resource Management (Level 7)  Bachelor of Arts (Honours) in Human Resource Management (Level 8)  Master of Arts in Human Resource Management (Taught) (Level 9)  Master of Business Administration in Strategy (Level 9)  Professional Accountancy Programmes  Accounting Technicians Ireland  Institute of Certified Public Accountants Ireland (CPA)  Master of Science in Applied Accounting  CIMA Certificate in Business Accounting  ACCA Diploma in Accounting & Business  Short Courses  Certificate in Leadership Development (Level 8)  Certificate in Supervisory Management (Level 6)	12 13 14 15 16 17 17 18 19 21 22 23 23 24
Introductory Book-Keeping and Accounting	25
Management & Enterprise Higher Certificate in Business (Level 6) Bachelor of Business in Management (Level 7) Bachelor of Business (Honours) (Level 8)  Accounting & Information Systems Bachelor of Business (Honours) in Accounting (Level 8) Certificate in Designing Innovative Services (Level 8)  Marketing & International Business Master of Science in Digital Marketing Strategy (Level 9) Master of Science in International Business (Level 9) BA (Honours) in International Business with Aviation Studies (Level 8) Higher Diploma in Business in Sales Management (Level 8) Certificate in Sales Strategy & Techniques (Level 8) Certificate in Digital Marketing (Level 8)	26 27 28 29 30 31 32 33 34 35 36 37 38 39
School of Humanities	40
Applied Social Studies  One Year Certificate in Counselling Skills (Level 6)  Higher Certificate in Arts in Counselling Skills (Level 6)  Bachelor of Arts (Honours) in Counselling & Psychotherapy (Level 8)  Master of Arts in Integrative Psychotherapy (Level 9)  Master of Arts in Play Therapy (Level 9)	41 42 43 44 46 47

Bachelor of Arts in Culinary Arts (Level 7) – National Chef de Partie Apprenticeship Bachelor of Arts (Honours) in Culinary Arts (Level 8) – National Sous Chef Apprenticeship Certificate in Culinary Skills (Level 6) Bakery, Breads & Pastry (Level 6) Pastry, Tarts & Gateaux (Level 6) Gourmet Culinary Techniques (Level 6) Professional Bar Operations (Level 6) The Art of Mixology (Level 6) Food Photography (Level 7) Management Principles for Services (Level 6) Revenue Management & Distribution (Level 8)	49 50 51 53 54 55 56 57 58 59 60
School of Building & Civil Engineering	61
Civil, Structural & Environmental Engineering Higher Certificate in Engineering in Civil Engineering (Level 6) Bachelor of Engineering in Civil Engineering (Level 7) Bachelor of Engineering in Environmental Engineering (Level 7) Certificate in Building Information Modelling (BIM) Technologies (Level 7) Postgraduate Diploma in Structural Engineering (Level 9) Postgraduate Diploma in Civil Engineering (Environment & Energy) (Level 9) Master of Engineering in Structural Engineering (Level 9) Master of Engineering in Civil Engineering (Environment and Energy) (Level 9) Short CPD Courses Building Regulatory Engineering Fire Safety Certification Fire Safety Engineering Practical Land Surveying Digital Land Surveying and GPS	62 63 64 64 65 66 67 67 68 68 69 71 72 73
Construction  Master of Science in Construction Project Management (Level 9)  Certificate in Mechanical & Electrical Quantity Surveying (Level 8)  Higher Certificate in Science in Construction (Level 6)  Bachelor of Science in Construction Management (Level 7)  Bachelor of Science in Quantity Surveying (Level 7)	74 75 76 77 78 79

48

Tourism & Hospitality

## School of Mechanical, Electrical & Process Engineering

Mechanical, Biomedical and Manufacturing Engineering	82
Master of Engineering in Mechanical Engineering (Level 9)	83
Bachelor of Engineering in Mechanical Engineering (Level 7)	84
Mechanical Engineering Science (Level 6)	85
Certificate in 3D CAD and Solid Modelling (Level 6)	87
Centre for Advanced Manufacturing and Management Systems (CAMMS)	88
1.0 Mechanical, Electrical and Plumbing – BIM Applications	90
2.0 Lean & Six Sigma Programmes	9
2.1 Introduction to Lean & Six Sigma	9
2.2 Lean Sigma Yellow Belt	92
2.3 Lean Sigma Green Belt	93
2.4 Lean Sigma Black Belt	94
2.5 Lean Sigma Master Black Belt	95
2.6 Continuous Improvement for Production Teams	96
3.0 Project Management Programmes	97
3.1 Diploma in Project Management	97
3.2 Project Management Techniques	98
4.0 Automation & Control Systems Programmes (Level 7)	100
4.1 Certificate in Automation & Control Systems	100
- 4.1.1 Mechatronics	100
- 4.1.2 SCADA and Automation Systems	10 <sup>4</sup>
- 4.1.3 Robotics	102
4.2 Certificate in Advanced Mechatronics (Level 8)	103
- 4.2.1 Advanced Mechatronics Part 1	103
- 4.2.2 Advanced Mechatronics Part 2	104
5.0 Manufacturing Engineering	105
5.1 Certified Manufacturing Engineer (CMfgE)	105
5.2 Metrology Training (AUKOM Level 1)	106
5.3 Certificate in Intelligent Manufacturing Systems	107
5.4 Certificate in Biomedical Device Manufacture	108
6.0 Bachelor of Engineering Degrees	109
6.1 Bachelor of Engineering (Honours) in Process Plant Technology	109
6.2 Bachelor of Engineering (Honours) in Advanced Manufacturing Technology	110
Craft Studies	111
Welding Courses	112
Welding (Basic)	113
Coded Welding Course – Mags Welding	114
Coded Welding Course – Tags Welding	115
Coded Welding Course – Arc Welding	116
Automotive Courses	117
Certificate in Automotive Technology (Level 6)	117
Certificate in Automotive Powertrain Technology (Level 7)	118
Certificate in Engine Management Diagnostics (Level 7)	119

Process, Energy & Transport Engineering  Master of Engineering in Chemical & Biopharmaceutical Engineering (Level 9)  Certificate in Biopharmaceutical Processing (Level 7)  Certificate in Biopharmaceutical Supply Chain Management (Level 8)  Certificate in Validation Science (Level 7)  Bachelor of Science in Good Manufacturing Practice & Technology (Level 7)  Short Courses – Special Purpose Awards  Science of Biotechnological Manufacturing Operations (Level 6)  Certificate in Cleanroom Manufacturing Practices (Level 6)  Certificate in Brewing & Distilling Operations (Level 7)	120 121 122 123 124 125 127 127 128 129
School of Science & Informatics	130
Physical Sciences	131
Higher Certificate in Science in Industrial Measurement & Control (Level 6)	132
Bachelor of Science in Applied Physics & Instrumentation (Level 7)	134
Bachelor of Science (Honours) in Instrument Engineering (Level 8)	135 136
Certificate in Advanced Industrial Automation (Level 8)  Certificate in Quality Assurance (Level 6)	138
Diploma in Quality Management Part 1 (Level 7)	139
Diploma in Quality Management Part 2 (Level 7)	140
Mathematics	141
Higher Diploma in Science in Data Science & Analytics	142
Computer Science	143
Master of Science in Artificial Intelligence (Level 9)	144
Master of Science in Cloud Computing (Level 9)	145
Master of Science in Software Architecture & Design (Level 9)	146
Master of Science in Cybersecurity (Level 9)  Master of Science in Information Design & Development (Level 9)	148 149
Certificate in Information Design & Development (Level 9)	150
Higher Diploma in Science in Cloud Computing (Level 9)	152
Higher Certificate in Science in Software Development (Level 6)	154
Bachelor of Science in Software Development (Level 7)	155
National Maritimo Collogo of Iroland	156
National Maritime College of Ireland	156
Maritime Studies	156
Bachelor of Business in Supply Chain and Transport Management (Level 7)	157

CIT Cork School of Music	158
Choral Group Fleischmann Choir Union Instrumental Groups Symphonic Wind Band Jazz Big Band Symphony Orchestra Musicianship Skills for Adults Sight-Singing Classes Course for Teachers Concerts, Performances and Productions Individual Tuition	160 160 160 160 160 160 160 161 161 161
CIT Crawford College of Art & Design	163
Arts in Health & Education Practice Master of Arts in Art Therapy (Level 9) Weekend Courses Certificate in Principles of Art Therapy (Level 8) Certificate in Arts in Group Facilitation (Level 8) Certificate in Creativity & Change (Level 9) Art Therapy Summer School Introductory Days – Art Therapy & Participatory Arts	164 165 166 166 167 168 169 170
Fine Art & Applied Art Certificate in Art Textile (Level 8) Portfolio Preparation Summer Art Courses Evening Classes	171 172 173 175 176
Media Communications  Master of Arts in Public Relations with New Media (Level 9)  Master of Arts in E-Learning Design and Development (Level 9)  Certificate in Digital Media Design and Development (Level 8)  Certificate in TV Production (Level 8)	178 179 180 181 182



## **About Cork Institute of Technology**

Whatever your plans and talents CIT has a course to study for you. We offer the full range of Higher Education qualifications, including Bachelor Degrees and Honours Bachelor Degrees, as well as Masters and PhD degrees.

There is a flexible "ladder" system in place which in many cases allows you to progress from one award to the next.

For those returning to education from employment or for those with other commitments, CIT has a varied part-time and evening programme, one of the largest at third level in the country.

CIT is the largest institute outside Dublin. It has four principal campuses:

#### **Bishopstown Campus**

Bishopstown, Cork (www.cit.ie)

CIT Crawford College of Art & Design (CIT CCAD)

Cork City (https://crawford.cit.ie)

#### CIT Cork School of Music (CIT CSM)

Cork City (https://csm.cit.ie)

#### National Maritime College of Ireland (NMCI)

Ringaskiddy, Co. Cork (www.nmci.ie)

The main campus of some eighty acres is situated in the western suburbs of Cork city. It is comprehensively equipped with lecture rooms, laboratories, theatres, drawing studios, library, computer suites, open-access computing centre, and research units. The student centre includes a common room, café, shop, Students' Union, sport clubs, and societies. Recreational facilities include a championship standard running track, tennis courts, all-weather pitch, an excellently appointed gymnasium, and grass playing pitches. A heated indoor public swimming pool and fitness centre (Leisureworld) is located alongside the Institute.

The student population comprises approximately 11,500 between full-time and part-time courses. Courses are offered in Engineering, Science, Business, Humanities, Fine Art, Applied Art, Photography, Multimedia, Informatics, Music, Musical Theatre, and Theatre & Drama at Higher Certificate, Degree and Honours Degree level. There is also an extensive range of postgraduate research and taught programmes at Masters and Doctoral level.

# Quality and Qualifications Ireland (QQI)

The third-level courses offered by CIT are nationally and internationally recognised by the Quality & Qualifications Ireland (QQI). QQI is the integrated agency that has replaced the Further Education & Training Awards Council (FETAC), the Higher Education & Training Awards Council (HETAC) and the National Qualifications Authority of Ireland (NQAI), and it incorporates the functions of the Irish Universities Quality Board). FETAC, HETAC, and NQAI are now dissolved.

QQI is responsible for the external quality assurance of further and higher education and training (including English language provision), and validates programmes and makes awards for certain providers in these sectors. QQI is also responsible for the maintenance, development and review of the National Framework of Qualifications (NFQ).

Awards and qualifications formerly made by HETAC and FETAC continue to be recognised, because they are on the NFQ. Current programmes leading to a HETAC or FETAC award are now awarded by QQI.

The Institute has always sought the widest possible recognition for its courses and has established relationships with a wide variety of professional bodies for that purpose. For example, CIT's engineering courses are accredited by Engineers Ireland and consequently have world-wide recognition. CIT's business courses gain exemption and recognition from a variety of accounting, marketing, and management professional bodies.

Effective contact with industry has been a key objective of the Institute since its inception. The benefits of the links which have been established with industry in the region are reflected in the high levels of student placement, and in the R&D contracts won by the Institute.

CIT offers students an opportunity to pursue courses of proven merit in a progressive and caring environment where students' needs are treated as paramount.

For further information, visit our website: www.cit.ie

www.cit.ie

## Information Evening

Institute staff will be in attendance during each session to offer career guidance and assistance.

All part-time programmes at CIT will run subject to sufficient student numbers. Where a programme cannot proceed, applicants will be contacted and advised on alternative study options.

The Information Evening for the academic year beginning September 2019 will take place from 5.30pm to 7.00pm on the following dates:

#### **Tuesday 3rd September 2019**

CIT Bishopstown Campus

**Business:** Business Studies, Accounting, Management, Designing Innovative Services, Marketing, Human Resource Management, International Business with Aviation Studies, and Sales Strategy.

**Humanities:** Cookery, Hospitality Management, Bar Operations, Counselling & Psychotherapy, and Play Therapy.

**Media:** TV Production, PR with New Media, E-learning Design and Development, and Digital Media Design and Development.

#### Wednesday 4th September 2019

CIT Bishopstown Campus

Engineering: Biopharmaceutical, Civil, Structural & Environmental, Good Manufacturing Practice, Construction, Mechanical, Biomedical, Advanced Manufacturing & Manufacturing Systems, Supply Chain & Transport Management, Transport & Automobile, Brewing & Distilling, Lean Six Sigma, Project Management, and Automation & Control Systems.

**Science & Informatics:** Applied Physics & Instrumentation, Quality Assurance/Management, Computing, and Mathematics.

## Student Email System

www.mycit.ie/howtostart

All students will be issued with a CIT email address on registration. Please ensure that you refer to this email address regularly as all communication from the Institute will be sent to your CIT email address.

This includes information concerning examination timetables, examination results, class cancellation, projects, placements, job opportunities, etc.

If you have any difficulty setting up or accessing your email account, please email servicedesk@cit.ie

### **CIT Smart Card**

www.mycit.ie/smartcard

The CIT Smart Card is your primary form of campus **identification** and all students are expected to have a card. An identity card, but a lot more... your card will provide you with access to the following:

- Campus copiers (debit account)
- Campus print services
- Campus reprographics services (this is a cash free facility, payment by card only)
- Library access
- Library book checkout
- Access to laboratories (limited based on student/course requirements)
- Food service/shop purchases (debit account)
- Campus car parking facilities

**N.B.** Students will need to produce a current CIT Smart Card if they wish to sit examinations.

You can obtain your card from the Reprographics & Card Services Office, Room S102, Ground Floor, outside of the Nexus Student Centre, CIT Bishopstown Campus.

E: citcard@cit.ie

#### **Opening Hours**

Monday to Thursday 8.30am - 1.00pm & 1.30pm - 4.30pmFriday 8.30am - 1.00pm & 2.00pm - 4.30pm

For the first semester, the Office is also open to 7.30pm Monday to Thursday for the first 3 weeks. For the second semester, the Office is also open to 7.00pm Monday to Thursday for the first 2 weeks.

## Money Matters

www.cit.ie/fees

#### Tax Relief

Tax Relief on Tuition Fees - Third Level Education Courses must be at least 2 academic years duration for under—graduates and 1 year for postgraduate course. Tax relief is available for one course per individual in a tax year and is at the standard rate of tax. www.revenue.ie/en/tax/it/leaflets/it31. html

#### Fees

Details of course fees are included with the course information in this handbook. Students should note that Fees quoted relate to the academic year 2019/2020 only and are subject to change on an annual basis. Except where stated, course fees cover the cost of tuition only. Registration fees for professional bodies etc. are payable separately to these institutions.

Students will be notified of their fees by email to their CIT email account and in all cases, course fees must be paid before attending lectures.

Students can check their account balance and pay their fees online at www.cit.ie/pay

Failure to pay fees on time will result in a late payment fee of 10% being applied and students will no longer have access to the following IT facilities:

- Student Email
- PCs on Campus
- Blackboard
- Library Search
- Card Topup
- Password Reset
- Wifi Registration
- · Get Microsoft Office
- · Access Student Drive
- Where course fees are being funded by an employer, you are asked to seek payment or reimbursement from your employer. Where an employer requires an invoice in their Company name the employer must e-mail fees@cit.ie with the relevant details and the amount of Fees they will be funding.
- For semesterised courses, students pay for the relevant modules at the beginning of each semester. Payment of fees by laser, debit or credit card can be made online at www.cit.ie/pay or by phoning 021 433 5440.

Students should familiarise themselves with the relevant section of the Student Regulations.

**Please note** that the Fees Office will use your CIT email account for important communications.

#### Withdrawing from a course

Students who wish to withdraw from their course must complete the Online Withdrawal Form (see link below) and submit it to the CIT Admissions Office as soon as possible. Where students fail to inform admissions of their withdrawal they will remain liable for any unpaid fees on their accounts.

E-mail admissions@cit.ie www.cit.ie/fees/students/parttime

## **Refund Policy**

All courses at CIT will run subject to sufficient student numbers. Where a course cannot proceed, applicants will be contacted and advised on alternative study options.

The following refund policy applies to all courses detailed in this handbook for the 2019/2020 academic year:

- A full refund will be given to all applicants for courses which do not proceed.
- A full refund will be given to students who withdraw before 5th September.
- Where students pay the online application fee to accept an offer they have 14 days in which to withdraw and claim a full refund provided the course has not commenced.
- A full refund (less 15% administration fee) will be given to applicants for short courses, if requested up to one week after course commencement. No refunds will be given thereafter. A short Course is less than 12 weeks duration.
- A full refund (less 15% administration fee) will be given to applicants for semesterised and full year courses if requested up to one month after the commencement of Semester 1 and before the end of February for Semester 2. No refunds will be given thereafter.
- All applications for refunds must be made on the appropriate Refund Form which can be requested from the CIT Fees Office (email fees@cit.ie).

**NB:** Students are reminded to ensure that they have clearly understood all the terms of their enrolment with CIT, in particular clauses concerning refunds, deferments, waivers, course transfers, and visa applications (when applicable).

www.cit.ie 3

## **Examinations**

www.mycit.ie/examinations

**N.B.** Students will need to produce a **current** CIT ID Card if they wish to sit examinations. You can obtain your card from the Reprographics & Card Services Office, Room S102, Ground Floor outside of the Nexus Student Centre, CIT Bishopstown Campus.

Entering for examinations is the responsibility of the registered student.

#### Semester examinations

For semester 1, 2 and 3 examinations, students should ensure they are correctly registered for all required modules by the deadlines indicated – see www.cit.ie/admissions

#### Repeat examinations

Modules failed in semester 1 or 2 may be repeated at the autumn (August) session. To register, students should register online as per the email sent in June to all students needing to repeat. If you wish to register to repeat a module from a previous academic year in the current autumn session, then you will need to contact exams@cit.ie in early June — see also www.mycit.ie/examinations

#### **Examination timetables and regulations**

Information re student examination timetables and examination regulations will be emailed to students' myCIT email accounts normally three weeks before the examination session. Please note that examinations are scheduled at 10.00am, 2.00pm and 5.30pm, Monday to Friday inclusive, and at 10.00am and 2.00pm on Saturdays. All students (both full-time and part-time) sitting endof-semester or repeat exams should expect to have exams timetabled at any of these sessions. Students should familiarise themselves with the important documents which relate to examinations at CIT, available online at www. mycit.ie/ examinations/regulations/

**Fees**: Only students who have completed their registration processes

(i.e. paid their fees in full) are entitled to sit examinations. To make an online payment please go to www.cit.ie/pay

Employer paying fees: If the student's employer or any outside agency is paying his/her fees, the onus is on the student to ensure that the correct fees are paid in full, visit www.cit.ie/admissions

## Students with disabilities requesting examination supports

Students with disabilities, specific learning differences or health/medical conditions who may be entitled to examination supports, such as extra time, reading software, use of computer to type, or smaller exam room for their exams, need to first register (including submitting relevant documentation) at least 7 weeks before the start of exams with the Disability Support Service (part of the Access Service), T: 021 433 5107 / 5137, E: dss@cit.ie, W: www.cit.ie/dss

## **Access Service**

www.cit.ie/access

CIT Access Service is committed to widening participation, increasing access and supporting positive educational outcomes for underrepresented groups. The Access Service is strongly committed to providing a high quality, professional and student-centred service. This is achieved by a strong commitment to the principles of social inclusion and by working locally, regionally and nationally in partnership with key stakeholders. The Access Service provides a range of supports for student groups who are underrepresented at third level. We support

- students with disabilities
- mature students
- Further Education award holders
- students who experience socioeconomic disadvantage
- members of minority ethnic groups

The Access Service provides a wide range of pre-entry, entry and post-entry supports that enhance the academic

experience and learning outcomes of the students who engage with the Service. Supports include: personal; academic; and financial supports.

#### Contact

Deirdre Creedon Access Officer T: 021 433 5140

E: deirdre.creedon@cit.ie

## Disability Support Service (DSS)

www.mycit.ie/dss

The aim of the Disability Support Service (DSS) is to widen participation and increase access to third level for students with learning differences, health conditions, and disabilities. We can guide and support you to access your course, achieve your academic goals and become more independent learners. Once a student has registered with the DSS, a needs assessment is carried out and supports are put in place in accordance with the assessment. The DSS offers a range of supports including learning support, assistive technology, confirmation of exam supports, physical access to campus, sign language interpreters/stereotyping etc., (availability of supports may be dependent on funding available). Students are recommended to register with the DSS as early as possible in the academic year.

You can register for the DSS by filling out the online registration form - www.mycit. ie/dss

You will need to provide the DSS with evidence of your disability/medical condition/learning difference also.

The DSS is a confidential service.

#### Contact

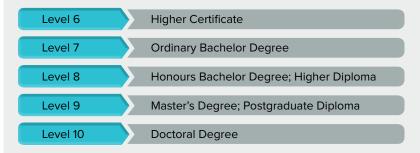
Laura Coleman
Disability Support Officer
T: 021 433 5107 / 5137
F: dss@cit.ie

## The National Framework of Qualifications

The National Framework of Qualifications (NFQ) provides a way to compare qualifications, and to ensure that they are quality assured and recognised at home and abroad. The Framework of Qualifications is an official national system for describing and linking all educational qualifications.

The Framework has been established by the National Qualifications Authority of Ireland (NQAI), a State body established under the Qualifications Act 1999.

All educational awards have been assigned "levels" in the National Framework of Qualifications. For example: The benefit for you, the continuing education student, is a clearer progression to further study, as well as national and international recognition of the awards you achieve.



For more information please visit www.nfq.ie and www.qqi.ie as well as www.cit.ie



www.cit.ie www.cit.ie

# Modularisation & Semesterisation

CIT operates a Credit Based Modular System. This is compliant with the European Credit Transfer System (ECTS). The academic year is divided into two equal halves, and each semester will normally consist of six modules each worth five credits.

#### What is a Semester?

A semester is half of an academic year. Each semester is of 15 weeks duration for which learners can earn 30 credits. Typically Semester 1 begins in September and ends in January while Semester 2 starts in January and ends in May.

#### What is a Module?

A module is a standalone unit of learning and assessment and is completed within one semester. A full-time student will normally study six modules in each semester; part-time and ACCS students will have flexibility as to the number of modules taken.

#### What are Credits?

Credits are a measure of the amount of learning within a module. They are awarded to learners who successfully complete the assessments in a module. A full-time year of study is worth 60 credits; this is the European norm under the ECTS system. In CIT, one credit is equivalent to approximately 20-25 hours of student learning of all types, including lectures, practicals, tutorials, assignments, and independent study.

#### **ACCS Scheme**

ACCS is an acronym for "Accumulation of Credits and Certification of Subjects". This scheme allows students (for specified courses) – instead of studying an entire course – to study one or more modules of that course. Modules passed, are certified individually, and can be accumulated, leading to an award of Higher Certificate, Degree or Honours Degree.

# National Vetting Bureau (NVB)

The National Vetting Bureau (Children and Vulnerable Persons) Acts 2012 to 2016 provide a statutory basis for mandatory vetting of persons who wish to undertake a work placement and/or activities that bring them into contact with children and/or vulnerable adults.

Some programmes at CIT require students to undertake mandatory placements with external agencies, which will bring them into contact with children and/or vulnerable adults and in which they will assume positions of public trust. The Institute is committed to ensuring that only suitable candidates are allowed to undertake these programmes.

CIT uses the NVB to help assess the suitability of all applicants on such programmes. It is important to note that participation in or completion of these programmes may be affected by subsequent disclosure/discovery.

For more information, visit www.cit.ie/gardavetting

## CIT Extended Campus

https://extendedcampus.cit.ie

CIT Extended Campus is a single point of contact to support external organisations in their interactions with the many academic departments and research units within CIT.

## Customised Courses and In-Company Training

The programmes presented in this Handbook represent only a part of the range of potential learning opportunities on offer within CIT. If you have a particular training and development need we would be very happy to talk to you about a customised learning pathway. We recognise that knowledge exchange and partnership between higher education institutions and enterprises provides the optimum environment for relevant and up-to-date education and development opportunities.

#### Learning Clinic Service

In order to support employers and employees in identifying suitable learning and development pathways CIT offers a Learning Clinic Service. Experienced staff can be available at your premises at a time that suits you to discuss education and

training needs to explore the development of tailored courses and the recognition of prior learning.

GE Healthcare Cork is a company that is committed to Continuing Professional Development for its employees and has engaged with CIT to develop and up-skill our workforce to meet ongoing customer demands and changes in the marketplace. GE Healthcare

#### Recognition of Prior Learning

"learning from life counts too" www.cit.ie/rpl

CIT knows that learning takes place throughout life and in many settings, such as work or voluntary activities, sporting and participation in community events. We also know that learners may dip in and out of formal education throughout a lifetime depending on their needs. Relevant learning may allow the individual to gain entry to a course, gain exemption for a module or a full academic award based on their prior learning.

CIT has a Recognition of Prior Learning (RPL) Service where support is available through the CIT Extended Campus to develop an application for recognition.



## Collaborate with CIT

**ENGAGE** with us to explore collaboration opportunities:

- Find Talent
- Move Ideas To Market
- Develop Your Workforce
- Share Capabilities & State of the Art Facilities

Partner with CIT to Make a Real Impact for your Organisation







https://extendedcampus.cit.ie • 021 4335302 • extendedcampus@cit.ie

www.cit.ie

## Springboard+ Courses

#### Free\* part-time and conversion courses

From May 2019, Springboard+ offers over 350 free places on 13 courses at CIT which lead to awards at certificate, degree and postgraduate level. The majority of courses are part-time for a maximum of 12 months and are open to all eligible applicants regardless of their employment status.

The following are eligible to apply for courses in 2019/2020 academic year (subject to the applicant meeting all requirements, e.g. academic requirements):

#### Returners (Formerly known as Homemakers)

May apply to all courses if they meet the nationality/visa requirement and residency criteria.

#### ■ People in employment

May apply to all courses if they meet the nationality/visa requirement and residency criteria.

\*Please note that a 10% course fee contribution for Level 7, 8, and 9 courses is applicable for employed participants. This is payable directly to the provider. Level 6 courses are free.

#### The unemployed or formerly self-employed

All courses are open to these category of applicants, with the exception of the two year part-time ICT conversion courses. Unemployed applicants will also be required to meet additional DEASP related criteria. They must have been in receipt of a recognised DEASP payment for 9 of the previous 12 months if they wish to participate on one-year full-time ICT Skills Conversion courses.

#### Graduate with skills in growing sectors

All courses lead to qualifications in enterprise sectors which are growing and need skilled personnel, including information and communications technology (ICT) and manufacturing. All have been developed in close cooperation with regional and local employers ensuring that the content is relevant and current, meeting existing and predicted skills requirements.

#### Application and Eligibility Information

The majority of courses are part-time for a maximum of 12 months and are open to all applicants; Employed, Unemployed, and Returners who meet the eligibility criteria at the time of course commencement. Documentation supporting applicant's status will be required as part of the application process. Further proof confirming an applicant's continued eligibility will also be required at the time of course commencement. Visit: Am I Eligible For a Springboard+ Course? at https://springboardcourses.ie/eligibility

The dedicated Springboard freephone helpline is available for further advice and information – 1800 303 523.

Springboard+ is managed by The Higher Education Authority on behalf of The Department of Education and Skills.

For full course information and eligibility criteria please see https://springboardcourses.ie

## CIT Springboard+ Courses 2019

Course Title	NFQ Level	Page
Certificate in Leadership Development	8	23
Certificate in Designing Innovative Services	8	32
Certificate in Digital Marketing	8	39
Certificate in Culinary Skills	6	51
Certificate in Building Information Modelling (BIM) Technologies	7	65
Lean Sigma Yellow Belt	6	92
Certificate in Automation & Contro	1 7	100
Certificate in Intelligent Manufacturing Systems	9	107
Certificate in Biopharmaceutical Processing	7	122
Certificate in Validation Science	7	124
Certificate in Cleanroom Manufacturing Practices	6	128
Certificate in Information Design & Development	9	150
Higher Diploma in Science in Cloud Computing	8	152

## **General Information**

www.mycit.ie/academic

#### **Institute Regulations**

All students are required to make themselves aware of CIT Regulations. A copy of the booklet is available from the Admissions Office.

#### **Parking Facilities**

Parking facilities are provided at the Institute. Parking is prohibited along the main entrance and on all double yellow lines. Vehicles parked in non-designated areas will risk being towed away or clamped. There is a charge for vehicle recovery (from the service provider's compound in Togher) or for unclamping vehicles. Please refrain from blocking access to private residences near the Institute.

#### Library

Part-time registered students are permitted to use the Library. An official CIT ID card must be produced to gain entry to the Library, and also to borrow books.

## Bishopstown Campus Opening hours during term

Monday – Thursday 8.30am – 9.45pm Friday 8.30am – 5.30pm Saturday 9.15am – 5.00pm

#### Opening hours outside of term

Monday - Friday 9.15am - 5.30pm

CCAD, CSM, and NMCI library opening hours vary. Please visit http://library.cit.ie/screens/opening2.html

#### Banking

Banking services are provided at CIT through the Bank of Ireland. Full ranges of banking services including ATM facilities are available.

#### **Catering Facilities**

Bishopstown Campus

#### **Food Court**

Monday – Thursday: 8.15am to 8.45pm

(Note: Hot food is available until 7.00pm each night)

Friday: 8.15am to 2.30pm

**Grumpy Mule** 

Monday – Thursday: 8.00am to 2.45pm

Friday: 8.00am to 4.00pm

The Snack Bar

Monday - Friday: 9.30am to 2.30pm

The Bistro

Monday - Friday: 8.00am to 2.30pm

#### An Siopa

Monday – Thursday: 8.00am to 6.30pm Friday: 8.00am to 1.45pm

#### **Nexus Market**

Monday – Thursday: 8.00am to 4.00pm Friday: 8.00am to 3.00pm

#### Admissions/Registrations

T: 021 433 5040 E: admissions@cit.ie

#### **Opening hours**

First Three Weeks of Semester 1:

#### Monday – Thursday

9.30am - 7.00pm

#### Friday

9.30am - 12.30pm; 2.00pm - 4.00pm

#### During term:

#### Monday - Thursday

9.30am - 4.00pm

#### Friday

9.30am - 12.30pm; 2.00pm - 4.00pm

#### Outside of term:

#### Monday - Friday

9.30am - 12.30pm; 2.00pm - 4.00pm

#### **Examinations**

www.mycit.ie/examinations

#### **Opening hours**

#### Monday - Thursday

8.30am - 12.30pm; 2.00pm - 4.30pm

#### Friday

8.30am - 12.30pm; 2.00pm - 4.00pm

#### Accounts/Course Fees

T: 021 433 5440 E: fees@cit.ie

#### **Opening hours**

#### Monday – Thursday

9.30am - 4.00pm

#### Friday

9.30am - 1.00pm; 2.00pm - 4.00pm

#### Reception

CIT Bishopstown T: 021 432 6100

CIT Crawford College of Art & Design T: 021 433 5200

CIT Cork School of Music T: 021 480 7300

National Maritime College of Ireland T: 021 433 5600

www.cit.ie

## Chaplaincy/ Student Support Team

www.mycit.ie/chaplaincy

#### Chaplain:

Fr Dave McAuliffe
T: 021 433 5754
E: dave.mcauliffe@cit.ie

#### **Coordinator of Pastoral Care:**

Edel Kelly T: 021 433 5756 /087 205 5595 E: edel.kelly@cit.ie

Chaplaincy is a dynamic presence at CIT, accompanying both students and staff on their life journey. We are open to people of all faiths and cultures and none. The chaplaincy extends a warm welcome to both students and staff and assure you of our presence and support, especially in times of bereavement, illness and during the anxious moments that we all experience from time to time.

We look forward to meeting you throughout your time in CIT.

## CIT Alumni Office

www.cit.ie/alumni

The CIT Alumni Office develops and supports alumni relations activities through various initiatives and communications to advance the mission of the Institute.

To hear all the latest news and events from CIT please update your email address at www.cit.ie/alumni

## Ten Ways for Alumni to Stay Connected to Cork Institute of Technology

- 1. Visit the Website. Gain access to many resources.
- Update Your Details. Log onto www.cit.ie/alumni to update your contact details or contact the CIT Alumni Office on 021 4326589 or by email alumni@cit.ie
- **3. Stay Connected Online.** Join the CIT Alumni on Facebook, Twitter and LinkedIn. Post available job opportunities from your employer on the CIT Alumni LinkedIn network.
- **4. Reminisce.** View, post or share photos from the CIT Alumni Facebook and Twitter pages.
- Advocate. Tell the CIT story near and far by submitting a Graduate Profile.
- 6. Stay Updated. Read and share the latest campus and alumni news from the Alumni E-newsletter. Subscribe by e-mailing alumni@cit.ie
- Network. Build CIT connections across the globe through setting up or becoming involved in a CIT Branch near you.
- **8.** Advance Your Career. Tap into professional resources and career services through the CIT Careers Office.
- Give Back. Pay it forward by giving to the area of CIT that means the most to you, or seek other ways to support CIT as a volunteer or mentor.
- 10. Return to CIT. Attend CIT events on campus such as seminars, special events or sporting events. Visit the CIT events page and news page for frequent updates.

To find out about all the latest developments at CIT we encourage you to join our social and professional networking sites:



"CIT Alumni Association" Facebook or http://www.facebook.com/CITalumni



"CIT Alumni LinkedIn" http://linkd.in/ZWJhBT



"CIT Alumni Twitter" or https://twitter.com/CITAlumni

Please contact us by emailing alumni@cit.ie if you have any comments, suggestions, or queries.



## **Head of School**

## Dr Breda Kenny

The School consists of the following Departments:

- Organisation & Professional Development
- Management & Enterprise
- Accounting & Information Systems
- Marketing & International Business

Information evening for continuing education courses for the School of Business will take place at the CIT Bishopstown Campus on Tuesday, 3rd September 2019, 5.30pm to 7.00pm. School of Business staff will be in attendance to offer career guidance and assistance.

# School of Business

Department of Organisation & Professional Development

## Courses

- Bachelor of Arts in Human Resource Management (Level 7)
- Bachelor of Arts (Honours) in Human Resource Management (Level 8)
- Master of Arts in Human Resource Management (Taught) (Level 9)
- Master of Business Administration in Strategy (Level 9)

# Professional Accountancy Programmes

- Accounting Technicians Ireland
- Institute of Certified Public Accountants Ireland (CPA)
- Master of Science in Applied Accounting
- CIMA Certificate in Business Accounting
- ACCA Diploma in Accounting & Business

#### **Short Courses**

- Certificate in Leadership Development (Level 8 )
- Certificate in Supervisory Management (Level 6)
- Introductory Book-Keeping and Accounting



# Head of Department

**Don Crowley** 

## Department Secretaries

Eileen O'Mahony Location: Room D143 T: 021 433 5900 E: opd@cit.ie

Kathryn Carey Location: Room D143 T: 021 433 5902 E: kathryn.carey@cit.ie

If you have any queries, please contact the Department Secretary, details above.

Each programme has its own unique web address from which you can apply online.

All programmes offered are subject to demand and places may be limited. All online applicants will receive an email confirmation. Details about eligibility, programme orientation, and timetable arrangements will be sent to all applicants via email update.



## Bachelor of Arts in Human Resource Management

(Level 7)

#### Course Fee

€185 per 5 credit module (inc.exam fee)

#### **Enquiries**

Olive Murphy O'Dwyer T: 021 433 5928 E: olive.murphyodwyer@cit.ie Course Code
CR\_BHRMN 7

Course & Module Information, and to apply online, visit www.cit.ie/course/CRBHRMN7



#### **Duration & Delivery**

Course commences Monday 9th September 2019.

Year 1

Semester One – Mondays & Wednesdays, 6pm – 10pm Semester Two – Mondays, Wednesdays & Thursdays, 6pm – 10pm Year 2

Semester One – Tuesdays & Thursdays 6pm – 10pm Semester Two – Mondays & Wednesdays 6pm – 10pm Year 3

Tuesdays & Thursdays 6pm - 10pm

Please note that students in Year 2 & 3 are required to attend lectures and workshops on some Saturdays during the Semester. Dates will be advised in advance. This degree has an embedded award at Level 6 whereby all students who successfully complete Year 1 of the programme will be awarded a Certificate in HR Management and Development.

#### Aim

The course is designed to meet the needs of those working in human resources/training and development or for someone aspiring to a career in the discipline. The course also attracts line managers, supervisors and team leaders who wish to gain people management skills.

#### **Progression**

Graduates of this degree are eligible for membership of the Chartered Institute of Personnel and Development (CDP).

Graduates from the BA in Human Resource Management can progress to BA (Honours) in Human Resource Management or to the Honours Bachelor of Business via one semester of Bridging Studies.

#### **Admission Requirements**

The minimum requirements are Grade D3 (ordinary level) in five subjects in the Leaving Certificate, to include Mathematics and either English or Irish. Mature students will be considered on an individual basis. This course is offered on a modularised basis and requires participants to attain 60 credits in each year.

#### **Award**

Bachelor of Arts in Human Resource Management (Level 7 on the National Framework of Qualifications)

#### Content

#### Year 1 - Modules

Introduction to Human Resource Management
Training and Development (2 X 5 credit modules)
Employment Law
Employee Relations
Employee Behaviour & Motivation
Recruitment and Selection
Performance Management
Human Resource IT

Creativity, Innovation & Teamwork

#### Year 2 – Modules

Organisational Behaviour

Communications for Business

Statistics & Accounting
People Resourcing Skills
Law (2 x 5 credit modules)
Industrial Relations (2 x 5 credit modules)
Current Issues in People Management
Management Practices
Diversity Management
Integrated Case Study (10 credits)
Economic Data and Principles

#### Year 3 - Modules

Learning & Training
Employee Rewards (2 x 5 credit modules)
Corporate Strategy Development,
Human Resource Strategy (2 x 5 credit modules)
Training and Testing
Health and Safety (2 x 5 credit modules)
HRM Profession Project
Research Methods for HRM
Project Management Framework

## Bachelor of Arts (Honours) in Human Resource Management

(Level 8)

# Course Code CR BHRMN\_8

#### Course Fee

€215 per 5 credit module (inc. exam fee)

#### **Enquiries**

Caroline Conlon T: 021 433 5900 E: caroline.conlon@cit.ie



Course & Module Information, and to apply online, visit www.cit.ie/course/CRBHRMN8

The BA (Honours) in Human Resource Management is a one year Level 8 add-on programme. This Level 8 Honours Degree will allow graduates to apply for Level 9 Masters programmes and will aid them as their career progresses to strategic roles in organisations.

#### **Delivery**

Semester 1 & 2 – Tuesdays & Thursdays 6pm – 10pm. Please note that students are required to attend lectures and workshops on some Saturdays during the Semester. Dates will be advised in advance.

#### **Aim**

The programme is designed to expose students to topical issues in the Human Resource Management discipline. This degree has been designed in consultation with industry to respond to changes that have taken place in the HR area. This consultation has informed the suite of modules and their content.

#### **Admission Requirements**

Bachelor of Arts in Human Resource Management (Level 7) at grade H2.2 or higher. Graduates of cognate programmes may also be eligible. The programme is offered on a modular basis and requires learners to attain 60 credits.

#### **Commencement Date**

Tuesday 10th September 2019.

#### **Award**

Bachelor of Arts (Honours) in Human Resource Management (Level 8 on the National Framework of Qualifications).

#### Content

All modules are worth 5 credits (ECTS) unless otherwise noted.

#### Semester 1

Consultancy and Research Organisational Development Business Finance eHRM Occupational Psychology

#### Semester 2

Managing an International Workforce Negotiation Emerging Markets & Trends Corporate Strategy Implementation Concept Acquisition

Consultancy Project (completed over the full academic year) (10 credits)



# Master of Arts in Human Resource Management

(Level 9)

Course Fee €5,900

**Enquiries** 

Dr Deirdre O'Donovan T: 021 433 5907

E: deirdre.odonovan@cit.ie

Course Code
CR BHRMN 9

Course & Module Information, and to apply online, visit www.cit.ie/course/CRBHRMN9



#### **Duration & Delivery**

Stage 1/Semester 1 & 2, and Stage 2/Semester 1 – Mondays & Wednesdays, 6pm – 10pm, with occasional Saturdays. Stage 2/Semester 2 – Dissertation (supervision dates to be advised).

Master of Arts in Human Resource Programme is also delivered full-time over the course of one academic year.

Places are limited. Applications are assessed on a first come, first served basis.

#### **Admission Requirements**

Bachelor of Arts (Honours) in Human Resource Management (Level 8) at grade H2.2 or higher. Graduates of cognate Honours programmes who have attained HR experience may also be eligible. The programme is offered on a modular basis and requires learners to attain 90 credits.

#### **Overview**

This programme allows graduates to apply for advanced level membership of Chartered Institute of Personnel and Development, CIPD, and will aid them as their career progresses to strategic roles in organisations.

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 Human Resource discipline who wish to further their career and enhance their skillset.

#### **Award**

Master of Arts in Human Resource Management (Level 9 on the National Framework of Qualifications).

#### **Commencement Date**

Monday 9th September 2019.

#### Content

All modules are worth 5 credits (ECTS) unless otherwise noted.

#### Stage 1/Semester 1

International Corporate Strategy Professional Employment Law HRM in Context Coaching and Mentoring (4 Saturdays)

#### Stage 1/Semester 2

Applied Corporate Strategy Employee Engagement Leading, Managing & Developing Training & Knowledge Management

#### Stage 2/Semester 1

Research Methods Reward & Incentive Management Performance Management Sourcing & Testing

#### Stage 2/Semester 2

HRM Dissertation (30 credits)

# Master of Business Administration in Strategy

(Level 9)

Course Code CR\_BSTRA\_9

Course Fee €12,500

#### **Enquiries**

John Meyler T: 021 433 5335 E: john.meyler@cit.ie



Course & Module Information, and to apply online, visit www.cit.ie/course/CRBSTRA9

#### Aim

The aim of the MBA in Strategy is to enable learners to develop their leadership and strategic management skills, thus raising their individual performance and assisting their organisations achieve success. The MBA enables the learner, as a professional, to review their leadership and management style and identify how they can improve upon same to increase their effectiveness at a senior level in the workplace. The programme allows learners to develop an appreciation of the interconnectedness of all aspects of the organisation, and an appreciation of the role each function must play in delivering on organisational goals. For most learners, moving to a strategic role in their organisation requires an understanding of functions outside of their existing professional competence together with an expert command of the strategic management.

#### **Admission Requirements**

Applicants who have a minimum of an Honours Bachelor of Business or cognate degree (Level 8) or cognate discipline (H2.2) or an approved equivalent qualification are eligible to apply for entry to the programme.

Places are limited. Applications are assessed on a first come, first served basis.

#### Content

#### Stage 1/Semester 1

- Research Methods
- Exploring Corporate Strategy
- International Performance Management
- · Leadership & Organisational Behaviour

#### Stage 1/Semester 2

- Economics of Global Markets
- International Business Strategy
- · Contemporary Issues in Marketing
- IT & Data Analytics

#### Stage 2/Semester 1

(One Mandatory and One Elective – 10 ECTS)

- International Business Field Trip
- Operations Strategy
- Innovation & Creativity
- Organisational Change Management
- Corporate Finance
- · Services Marketing Management

#### Stage 2/Semester 2

· Research Dissertation

#### **Duration & Delivery**

- Two part-time academic years (4 semesters)
- Each semester is of 15 week duration (including examinations).
- Semester 1 commences on Wednesday 4th September 2019 at 6pm.
- Presentation of course consists of lectures, tutorials, case studies, visiting lectures, and site visits.

Stage 1/Semester 1 – Wednesday & Friday

Stage 1/Semester 2 - Wednesday & Friday

Stage 2/Semester 1 - Wednesday & Friday

Stage 2/Semester 2 – Research Thesis

Time: Wed 6pm – 10pm; and Fri 3.30pm – 9.30pm.

#### **Award**

Master of Business Administration (MBA) in Strategy (Level 9 on the National Framework of Qualifications).



## Accounting Technicians Ireland

(Level 6)

Course Fee

Year 1: €900 Year 2: €990

(excl. exam fees payable to Accounting

Technicians Ireland)

**Enquiries** 

Ann Marie Twomey T: 021 433 5904

E: annmarie.twomey@cit.ie

Course Code CR\_BIATI\_6

Advanced Financial Accounting

Integrated Accounting Systems

Management Accounting

Advanced Taxation

Course & Module Information, and to apply online, visit www.cit.ie/course/CRBIATI6



**Note:** Registration fees, annual subscription, examination fees etc. are payable to Professional Bodies for each of the accountancy courses. These are not included in the course fees quoted. Please take note of the closing dates for examination registration. Before accepting a place on this course, students are reminded to ensure that they have clearly understood all the terms of their enrolment with CIT, in particular clauses concerning refunds, deferments, waivers, course transfers, and visa applications (when applicable). Please refer to the 'Refund Policy information' at the beginning of this Handbook.

Accounting Technicians are qualified accounting professionals that work at all levels of finance. They can work in all types of organisations and are widely employed throughout the public sector, industry and commerce, and in private accountancy practices. They are involved in the day-to-day practical work of accountancy and play a key operational role in producing reliable financial information. Accounting Technicians can perform a wide range of finance roles, from accounts staff to financial controller and beyond.

#### **Delivery & Commencement Date**

Tuesday & Thursday, 6.30pm – 9.30pm / 7.00pm – 10.00pm, commencing Tuesday 10th September 2019.

#### **Aim**

To provide a qualification in Accounting and Information Skills for persons working at support levels in accounting firms and public practice, in industry and commerce, and in the public sector.

#### **Admission Requirements**

Leaving Certificate Grade O6/H7 (pre. 2017, Grade D3 Ordinary Level) in five subjects. Subjects passed must include English, and either Mathematics or Accounting. Mature students without a Leaving Certificate may be admitted at the discretion of Accounting Technicians Ireland.

#### **Awarding Body**

Accounting Technicians Ireland

#### Content

#### Year 1

Financial Accounting Law & Ethics Business Management Taxation

#### **Work Experience**

Essential Accounting Skills
Advanced Accounting Skills
Personal Development for Accounting Technicians
Using Information Technology
Maintaining Accounting Systems
Maintaining Statutory Compliance

#### **Institute Information**

Accounting Technicians Ireland (ATI) 47/49 Pearse Street, Dublin 2 T: 01 649 8100 www.accountingtechniciansireland.ie

#### **Important Dates**

**Exemption Deadline:** Monday 30th September 2019. Please note that applications for exemptions must be made directly to the Accounting Technicians Ireland.

Year 2

**Exam registration Closing Date IAS:** 22nd November 2019. All other subjects: 7th February 2020 (May sitting) and 17th July 2020 for August sitting.

**Registration Closing Date for 1st year with ATI:** 25th October 2019.

Registration Closing date for 2nd year/continuing students:

No deadline but deadline for Stepped Payments is 25th October 2019.

**New Student:** ATI contact Vincent Judge at the Institute: T: 01 6498128 E: vjudge@accountingtechniciansireland.ie.

Second year/continuing Student contact ATI:

Student Services at the Institute

T: 01 6498180 E: students@accountingtechniciansireland.ie.

# Institute of Certified Public Accountants Ireland (CPA)



(Level 8)

# Course Code CR\_BCPAC\_8

#### Course Fee

€395 per subject (Includes notes & revision)

#### **Enquiries**

Ann Marie Twomey T: 021 433 5904

E: annmarie.twomey@cit.ie



## Course & Module Information, and to apply online, visit www.cit.ie/course/CRBCPAC8

**Note:** Registration fees, annual subscription, examination fees etc. are payable to Professional Bodies for each of the accountancy courses. These are not included in the course fees quoted. Please take note of the closing dates for examination registration. Before accepting a place on this course, students are reminded to ensure that they have clearly understood all the terms of their enrolment with CIT, in particular clauses concerning refunds, deferments, waivers, course transfers, and visa applications (when applicable). Please refer to the 'Refund Policy information' at the beginning of this Handbook.

#### Content

#### Formation 2 - Monday & Tuesday

Management Accounting Financial Accounting Taxation Information Systems

#### **Professional Level**

#### Professional 1 - Tuesday & Thursday

Managerial Finance Corporate Reporting Corporate Laws and Governance Auditing

#### Professional 2 – Monday & Thursday

Strategy & Leadership (M)
Audit Practice & Assurance Services (E)
Advanced Corporate Reporting (M)
Advanced Taxation (E)

#### Choice

CPA students will at Professional 2 Stage, tailor their qualification to their chosen career path. Those wishing to pursue a career in industry will, in most instances, elect for the Strategic Performance Management and Strategic Corporate Finance electives in addition to the two mandatory modules.

However, students intending to qualify and apply for a practice certificate must sit and pass the Auditing and Taxation elective modules.

#### **Institute Information**

The Institute of Certified Public Accountants in Ireland 17 Harcourt Street Dublin 2 T: 01 425 1000 www.cpaireland.ie

#### **Registration with CPA**

1st December 2019 for April 2020 Exams 1st June 2020 for August 2020 Exams

#### **Exam Registration Closing Date(s)**

1st March 2020 for April 2020 Exams 1st August 2020 for August 2020 Exams

#### **Awarding Body**

Institute of Certified Public Accountants in Ireland

#### **Commencement Date**

September 2019

The running of this programme will be dependent on a sufficient number of students enrolling on the course. The programme may be withdrawn if this requirement is not fulfilled.

#### **CPA** Institute contact details

Exams: Arran Feery T: 01 4251021 E: afeery@cpaireland.ie Registration for new students: Sinéad O'Donovan T: 01 4251016 E: sodonovan@cpaireland.ie

Exemptions: Lisa Kelly T: 01 4251024 E: LKelly@cpaireland.ie



# Master of Science in Applied Accounting

#### (Level 9)

#### Course Fee

€5,000 per year. Programme duration is two years.

#### **Enquiries**

Ann Marie Twomey T: 021 433 5904 E: annmarie.twomey@cit.ie Course Code

CR\_BAACC\_9

NB: For students pursuing the CPA qualification and Masters programme, an annual payment of €500 to CPA Ireland will apply. This fee will cover, exemptions, student membership of CPA Ireland and all associated exams.

The MSc in Applied Accounting takes students through a combination of taught modules, self-directed learning and work based learning, achieving a level of advanced understanding and practical application in accounting. It will be offered over a two year period, with students attending CIT on two evenings per week, 6pm – 10pm, during each academic year. Upon successful completion of the programme, graduates will be eligible for the award of MSc in Applied Accounting. The students will have one further year of training with their employer, after which they will be eligible to apply for membership of CPA Ireland.

#### Content

Year One			
Modules - Full Academic Year	Credits	Semester One Modules Strategic Corporate Finance	Credits 5
Advanced Corporate Reporting (P2	2) 10	Communications & Professional Development	5
Strategy & Leadership (P2)	10		
		Semester Two Modules Research Methods	Credits 5
Year Two			
Modules - Full Academic Year	Credits	Semester One Modules Data Analytics & Strategy	5
Audit Practice & Assurance (P2)	10		
Advanced Taxation (P2)	10	Semester Two Modules Accounting Inquiry (Research	) 20
Work-Based Learning – year one a	nd year t	wo	10

#### **Professional Level**

#### Professional 1 - Tuesday & Thursday

Managerial Finance Corporate Reporting Corporate Laws and Governance Auditing

#### Professional 2 - Monday & Thursday

Strategy & Leadership (M)
Audit Practice & Assurance Services (E)
Advanced Corporate Reporting (M)
Advanced Taxation (E)

#### Course & Module Information, and to apply online, visit www.cit.ie/course/CRBAACC9

#### **Entry Criteria**

The typical candidate will have a Level 8 Honours Degree in Accounting at grade H2.2 or above, along with exemptions up to and including Professional 1 from CPA Ireland. An international student must also have an IELTS of 6.5 or above to be considered for entry to this Masters. Candidates that do not have the appropriate undergraduate degree may still be considered for admission to this Masters under exceptional circumstances if, for example, they have secured the Professional 1 CPA Ireland suite of exams and have appropriate work experience.

#### **Institute Information**

The Institute of Certified Public Accountants in Ireland 17 Harcourt Street, Dublin 2 T: 01 425 1000 www.cpaireland.ie

#### Registration with CPA

1st December 2019 for April 2020 Exams 1st June 2020 for August 2020 Exams

#### **Exam Registration Closing Date(s)**

1st March 2020 for April 2020 Exams 1st August 2020 for August 2020 Exams

#### **Awarding Body**

Institute of Certified Public Accountants in Ireland Cork Institute of Technology

#### **Commencement Date**

September 2019

The running of this programme will be dependent on a sufficient number of students enrolling on the course. The programme may be withdrawn if this requirement is not fulfilled.

#### **CPA Institute contact details**

**Exams:** Arran Feery T: 01 425 1021 E: afeery@cpaireland.ie **Registration for new students:** Sinéad O'Donovan

T: 01 425 1016 E: sodonovan@cpaireland.ie

Exemptions: Lisa Kelly T: 01 4251024 E: LKelly@cpaireland.ie



## CIT in Partnership with CIMA

CIT has built a strong reputation in terms of empowering students with the necessary skills to succeed in business. CIMA's qualification is driven by the needs of business to produce financially qualified business leaders. There are currently 7,800 CIMA members and students in Ireland working in industry, commerce and non-profit organisations.

In partnership with CIMA, CIT offers the CIMA Certificate in Business and Accounting.



# CIMA Certificate in Business Accounting

#### Course Fee

€1,500 (includes recommended CIMA textbooks), plus €300 for CIMA examinations

#### **Enquiries**

Ruth Vance T: 021 433 5808 E: ruth.vance@cit.ie E: cima@cit.ie Course Code CR\_BBUAC\_X

Course & Module Information, and to apply online, visit www.cit.ie/course/CRBBUACX



The Certificate in Business Accounting is CIMA's entry level accounting qualification for students with little or no accounting background. The Certificate level gives the student business experience beyond just financial accounting and you will gain insight into how the different areas of accounting relate to the business world. It can be seen as a knowledge refresher course or a foundation to a career in business and finance. The Certificate in Business Accounting forms the basis of the CIMA Professional Qualification and is a valuable qualification on its own.

Graduate with the CIMA Certificate in Business Accounting

- Study one subject per month for four months
- Successfully complete the relevant examination at the end of each month

#### **Award**

Candidates are eligible for the award of CIMA Certificate in Business Accounting having successfully completed all four examinations.

#### **Delivery**

Complete one subject at a time:
Fundamentals of Management Accounting
Fundamentals of Financial Accounting
Fundamentals of Business Economics
Fundamentals of Ethics, Corporate Governance & Business Law

#### **Subject Delivery**

 $1 \times 2$ hr introductory session (Wednesday 6pm - 8pm)

2 x 8hr full day sessions (2 x Saturdays 9am – 4pm))

1 x 2hr revision and QBR session (Wednesday)

To register with CIMA, visit www.cimaglobal.com/irelandregister

To find out more about steps to join CIMA (entry routes, exemptions, study options, etc.) check out www.cimaglobal.com/findoutmore

# ACCA Diploma in Accounting & Business



Course Code CR\_BACCB\_6

#### Course Fee

€1,500 (excludes examination fees)

#### Enquiries

Martin O'Sullivan T: 021 433 5904 E: martin.osullivan@cit.ie



Course & Module Information, and to apply online, visit www.cit.ie/course/CRBACCB6

**Note:** Registration fees, annual subscription, examination fees etc. are payable to Professional Bodies for each of the accountancy courses. These are not included in the course fees quoted. Please take note of the closing dates for examination registration. Before accepting a place on this course, students are reminded to ensure that they have clearly understood all the terms of their enrolment with CIT, in particular clauses concerning refunds, deferments, waivers, course transfers, and visa applications (when applicable). Please refer to the 'Refund Policy information' at the beginning of this Handbook.

CIT has been awarded Gold Status as part ACCA Approved Learning Partners. Gold status is awarded to tuition providers who have demonstrated that they can meet a range of challenging performance targets set by ACCA.

#### **Delivery**

Tuesday 6pm - 10.00pm & Wednesday 6.30pm - 9.00pm

The Diploma is suitable for those aspiring to work or already working in the following types of roles e.g. basic bookkeeping, trainee accountant in a commercial organisation or accounting practice, accounts clerk in public or private sector.

The Diploma in Accounting and Business is broadly equivalent to HND level/equivalent to the first year of a degree.

#### **Subjects**

F3 Financial Accounting (FFA); F2 Management Accounting (FMA); F1 Accounting in Business (FAB); Foundations in Professionalism (offered entirely online via ACCA).

#### **Progression**

Students who successfully complete the Diploma in Accounting and Business via Foundations in Accountancy can either:

transfer to the ACCA Qualification and commence their studies at F4 onwards of the ACCA Qualification OR

continue to study for the Certified Accounting Technician (CAT) Qualification. However, please note students who continue with the CAT Qualification will have to complete a further 6 CAT exams and gain one year's relevant work experience. The CAT qualification involves completing 9 exams, three of which you will have completed as part of the Diploma in Accounting in Business, and one year's relevant work experience.

#### Content

Subjects FFA, FMA and FAB will be taught from October to May with examinations taking place in early June.

#### **Award**

Diploma in Accounting & Business Awarding Body: Association of Chartered Certified Accountants (ACCA).

#### **Exemptions**

Candidates may be eligible to apply for Exemptions. These may be viewed at www.accaglobal.com/exemptions

#### **Registration Details**

Students must register online with ACCA by December at W: www.accaglobal.com/applynow and also register directly with ACCA for paper based exams.

**Note:** ACCA registration, exam and exemption (if applicable) fees are payable directly to ACCA. CIT fee to be paid on registration.

#### Institute Information

ACCA Ireland, 9 Leeson Park, Dublin 6 T: 01 447 5678 E: info@ie.accaglobal.com www.accaglobal.com



# Certificate in Leadership Development

(Level 8)

Course Fee €2,300

Enquiries
Don Crowley
T: 021 433 5909
E: don.crowley@cit.ie

Course Code CR\_BLEAD\_8

Course & Module Information, and to apply online, visit www.cit.ie/course/CRBLEAD8



#### **Duration**

One semester (six months) part-time programme

Participants will attend classes for two full days per month (totalling 12 days). Some classes will be delivered in CIT, while others will be delivered on-site.

#### **Admission Requirements**

Applicants will be expected to have a Level 8 degree in a technical, non-business discipline.

#### **Overview**

This is a one semester (six months) part-time programme that is designed to provide the knowledge, skills and confidence required to successfully manage teams in a manufacturing environment. The programme uses an innovative blend of real-world situations and problems to assist participants in exploring the opportunities of the manufacturing environment. The industry-focus of the programme coupled with the applied nature of teaching provides a practical bedrock of knowledge and experience which can be used to immediate effect in a multitude of business contexts. Participants will explore various theories and concepts that will develop their skills and competencies, in an applied context, developing a toolbox of skills that is valuable and readily usable and which will lead to improved team performance in a working environment.

The programme is structured to ensure that participant's time is used wisely and entails a wide variety of leadership development tools. A phased approach, consisting of a series of lectures, facilitated workshops and work-related projects will be used to ensure that the programme is relevant, engaging and enjoyable.

The teaching methods that will be employed on the course will be intensively interactive, with an action-learning focus and use of live case studies and workplace problems. Rather than an exclusively lecture-style approach, the emphasis in class will be on lecturer-led group discussion and class debate, which will

draw upon the experiences of learners to illustrate key learning points and to bring concepts, theories and frameworks to life.

The live case study method will be a consistent feature throughout the programme. This practical, applied approach to teaching methodology will be underpinned by assessment instruments, and the practical application of best-practice theory to analyse the environment in which the learners work.

#### Content

Three modules (each at 5 ECTS, Level 8)

**Effective Leadership** – This module explores leadership styles, motivation, change management, communication and impact.

**Driving Team Performance** – This module considers project management, problem solving and performance management. The module will include the use of live case studies from the employer sponsor.

**Leadership Development** – leadership principles, developing high-performance teams, coaching and mentoring, and employee legislation will be considered in the context of this module.

#### Assessment Strategy

The programme will make extensive use of reflective logs, together with a cross-modular project, report and presentation, in teams. Students will build on their experience and learning gained on the programme, to develop their leadership style and hone techniques and skills that will inform their best-practice application.

#### **Award**

On successful completion of the three modules, graduates will receive a Special Purpose Award – Certificate in Leadership Development (Level 8, 15 ECTs).

# Certificate in Supervisory Management

(Level 6)

## Course Code CR\_BSUMA\_6

Course Fee €2,500\*

#### Enquiries

Don Crowley T: 021 433 5909 E: don.crowley@cit.ie



Course & Module Information, and to apply online, visit www.cit.ie/course/CRBSUMA6

\*The fee quoted above is inclusive of all programme materials, exam fees and refreshments. Cost may be reduced to €1,995 per person, if eligible for funding from Cork Chamber or Bio Pharma Chem Skillnet.

#### **Duration**

6 month programme, flexibly-delivered utilising a block-release mode (1 day per week) for the delivery of four modules over a semester.

#### Who should apply?

Organisations who wish to provide continuous support and professional development upskilling for existing or potential supervisors/managers or aspiring supervisors. This programme covers all key areas relevant to supervisory management roles and is suitable to an extensive range of industry sectors from manufacturing to services organisations.

#### **Overview**

A phased approach, consisting of a series of lectures, facilitated workshops and work-related projects will be used to ensure the programme is relevant, engaging and enjoyable. The teaching methods on the programme will be intensively interactive, with an action learning focus and use of live case studies to build solutions to work place challenges.

Rather than an exclusively lecture-style approach, the emphasis in class will be on lecturer-led group discussion and class debate, which will draw upon the experiences of students to illustrate key learning points and to bring concepts, theories and frameworks to life. This practical, applied approach to teaching methodology, will be underpinned by assessment instruments, and the practical application of best-practice theory to analyse the environment in which the learners work.

#### **Modules**

Four modules (each at 5 ECTS, Level 6)

#### **People Management**

Considers leadership skills in-house for supervisory management, motivating people, conflict management & mediation, coaching & mentoring, project management from project initiation to close-out, technical report writing, presentation & effective meeting skills.

#### Lean Sigma Practitioner

Delves into operational excellence and lean practice for process efficiency in a supervisory management position. Analyses operational process capability & performance through an operational excellence mind-set.

#### **Management Practice**

Explores organisation, enterprise, operations management & quality control, leadership & motivation, team & time management.

#### **Performance Management**

Explores performance management strategies & techniques, influencing behaviour & behaviour-oriented approaches, performance appraisal, staff turnover & retention, explaining & reducing turnover, legal & ethical issues.

#### **Award**

On successful completion of the four modules, graduates will receive a Special Purpose Award – Certificate in Supervisory Management (Level 6, 20 ECTs).

### Introductory Book-Keeping and Accounting

Course Fee €500

**Enquiries** 

Noreen Murphy T: 021 433 5900

E: noreen.murphy@cit.ie

Course Code CR\_BBACC\_6

Course Information, and to apply online, visit www.cit.ie/course/CRBBACC6



#### **Duration**

10 weeks. This course will be offered twice during the 2019/2020 academic year, subject to demand.

Tuesday 6.30pm – 9.30pm. Class size is limited to 20 students.

#### Content

This course is intended to introduce participants to:

- · Books of original entry
- Value added Tax (VAT)
- Receivables (debtors) and Payables (creditors) ledgers
- · Treatment of PAYE, PRSI, and other deductions

The course is dedicated to instructing students on manual processing, and computerised accounting using the Sage Accounting Software Package.

This course is a good 'stepping stone' to the Institute of Accounting Technicians (IATI) and Higher Certificate in Business.

#### **Commencement Dates**

Course 1: Tuesday 24th September 2019 Course 2: Tuesday 4th February 2020



https://business.cit.ie 25

# School of Business

Department of Management & Enterprise

### Courses

- Higher Certificate in Business (Level 6)
- Bachelor of Business in Management (Level 7)
- Bachelor of Business (Honours) (Level 8)



### Head of Department

Caroline O'Reilly

### Department Secretary

Emma Clifford Location: Room E1A T: 021 433 5806 E: Business@cit.ie

If you have any queries, please contact the Department Secretary, details above.

Each programme has its own unique web address from which you can apply online.

All programmes offered are subject to demand and places may be limited. All online applicants will receive an email confirmation. Details about eligibility, programme orientation, and timetable arrangements will be sent to all applicants via email update.

All part-time courses at CIT will run subject to sufficient student numbers. Where a course cannot proceed, applicants will be contacted and advised on alternative study options.

# Higher Certificate in Business (ACCS)

#### (Level 6)

#### Course Fee

€185 per 5 credit module (inc. exam fee)

#### **Enquiries**

Sheila Butler T: 021 433 5806 E: sheila.butler@cit.ie Course Code CR\_BBUSA\_6

Course & Module Information, and to apply online, visit www.cit.ie/course/CRBBUSA6



#### **Duration & Delivery**

#### Year 1 and 2

Trimester 1:

Four modules over two evenings per week, 6pm – 10pm Trimester 2:

Six modules over three evenings per week, 6pm – 10pm Trimester 3:

Two modules over two evenings per week, 6pm – 10pm

#### Aim

To give participants a firm foundation in Business studies in order to give them a better opportunity to gain employment, or to enable them make an immediate contribution in their place of employment. Successful completion of the course will afford students the opportunity of progressing to a Bachelor Degree or other courses.

Are you eligible for Recognition of Prior Learning (RPL)? For details, see the information section at the beginning of this Handbook

#### **Admission Requirements**

The minimum requirements are Grade D3 (ordinary level) in five subjects in the Leaving Certificate, to include Mathematics and either English or Irish. Mature students will be considered on an individual basis.

#### **Award**

Higher Certificate in Business (Level 6 on the National Framework of Qualifications).

#### **Progression**

Successful graduates can progress to the Level 7 Bachelor of Business in Management, and then to the Level 8 Bachelor of Business (Honours) or the Level 8 Bachelor of Business (Honours) in Accounting.

#### **Commencement Date**

Year 1 & Year 2: Monday 9th September 2019 at 6.00pm.

#### Content

#### Year 1 - Modules, all mandatory

Organisational Behaviour
Introduction to Supply Chain
Business Mathematics & Statistics 1 & 2
Introduction to Microeconomics
Fundamentals of Financial Accounting
Cost Accounting
Introduction to Marketing
Communications
Creativity, Innovation & Teamwork
Business IT Skills
Introduction to Management

#### Year 2 - Modules all mandatory

Economic Data & Analysis
Cost & Management Accounting
Financial Accounting
Company & Partnership Accounting
Contemporary Management Issues
HRM in Contemporary Business
Professional HR Practice
Introduction to Macroeconomics
Irish Legal Systems
Irish Civil Law
IT Communications

The complete course will extend over two years. Modules will be taught on a trimesterised basis. Official examinations will be held at the end of each term. Certification for the course is through the ACCS Scheme.

#### **ACCS**

ACCS is an acronym for "Accumulation of Credits and Certification of Subjects". This scheme allows students (for specified courses) – instead of studying an entire course – to study one or more modules of that course. Credits and Certificates are awarded for each module passed. Students who accumulate the appropriate number of modules qualify for the award of Higher Certificate.

# Bachelor of Business in Management (ACCS)

(Level 7)

## Course Code CR\_BMNGT\_7

#### Course Fee

€185 per 5 credit module (inc. exam fee)

#### **Enquiries**

Bernard Vallely T: 021 433 5904 / 5806 E: bernard.vallely@cit.ie



#### **Duration & Delivery**

**Year 1:** Two/Three evenings per week, 6pm – 10pm **Year 2:** Two/Three evenings per week, 6pm – 10pm (Extra workshops and tutorials will be provided).

#### **Commencement Dates**

Year 1 – Monday 9th September 2019 at 6pm. Year 2 – Tuesday 10th September 2019 at 6pm.

#### Aim

This Degree is for persons who intend to make careers in professional management. The qualification will enable them to contribute more fully to the growth of their organisations and will give them access to further educational opportunities i.e. Bachelor of Business (Honours).

Are you eligible for Recognition of Prior Learning (RPL)? For details, see the information section at the beginning of this Handbook.

#### **Admission Requirements**

Year one entry: BMNGT\_Y2 Bridging: A minimum of a two year Higher Certificate (Level 6) is required in a discipline other than business studies.

**Note:** Students in Bridging Year must account for 60 credits, either by RPL and/or course work. The module selection for each student will be carried out in conjunction with the course coordinator.

On successful completion of the Bridging Year, students can progress to a Bachelor of Business in Management.

Year two entry: BMNGT\_Y3: Higher Certificate in Business, with minimum of Pass result or successful completion of the Bridging Year of the Bachelor of Business in Management (Level 7).

#### **Progression**

Graduates with a Bachelor of Business in Management can progress to a Bachelor of Business (Honours) Level 8.

#### Course

The principle areas of study are:

#### Year one entry (Bridging Year)

Economics (10 credits)

Management (5 credits)
Information Systems (5 credits)
Financial Accounting (5 credits)
Marketing (10 credits)
Organisational Behaviour (10 credits)
Contemporary Business (5 credits)
Business Law (5 credits)
Business Mathematics & Statistics (5 credits)

#### Year two entry (Award Year)

Economics International Trade (5 credits)
Human Resource Management (5 credits)
Organisational Processes & Systems (5 credits)
Marketing Management (5 credits)
Project Management Framework (5 credits)
Supply Chain Management (5 credits)
Management Information Systems (5 credits)
Managerial Finance (5 credits)
Integrated Case Study (10 credits)
Business Strategy Simulation (5 credits)

#### **Award**

Bachelor of Business in Management (Level 7 on the National Framework of Qualifications).

#### ACCS

ACCS is an acronym for "Accumulation of Credits and Certification of Subjects". This scheme allows students (for specified courses) – instead of studying an entire course – to study one or more modules of that course. Modules passed, are certified individually, and can be accumulated, leading to an award of Higher Certificate, Degree or Honours Degree.

# Bachelor of Business (Honours) (ACCS)

(Level 8)

#### Course Fee

€215 per 5 credit module (inc. exam fee)

#### **Enquiries**

John Meyler T: 021 433 5335 / 5806 E: john.meyler@cit.ie Course Code CR BBUSN 8

Course & Module Information, and to apply online, visit www.cit.ie/course/CRBBUSN8



#### **Duration & Delivery**

One academic year and one semester

**Year 1:** Monday night (mandatory) & one other evening per week, 6pm - 10pm

**Year 2:** (One semester only): Monday night (mandatory) & one other evening per week, 6pm – 10pm

#### Aim

This programme has been designed to provide a balanced education through a critical study of the current dynamic and challenging business environment. It provides students with a broad-based business education helping students to develop personal and professional skills which will give graduates the confidence to pursue a successful business career, in Ireland or overseas. You will have the opportunity to study a variety of business subjects as indicated below. Case studies and practical business projects are used to develop students' analysis, communication and professional business skills. This programme prepares students for employment in a wide range of business areas and management functions of industrial, commercial and public enterprises, or as a self-employed individual.

#### **Admission Requirements**

- (a) Ordinary Bachelor Degree in Business (with a minimum average mark of 50%); or
- (b) Equivalent qualification.

**N.B.** This programme is designed to be undertaken over one academic year and one semester. A total of 60 credits (12 modules) is required to complete the programme. A maximum of 40 credits (8 modules) can normally be undertaken in the first academic year.

#### Content

The principle areas of study are:

Mandatory - each module carries 5 credits

Strategic Analysis Strategic Selection Financial Management Corporate Finance

Business Ethics

Enterprise & Innovation

Electives (choose 6) – each module carries 5 credits

Business to Business Marketing Sales Strategy Management Workforce Diversity International HRM Business Metrics IS Strategy and Planning

#### **ACCS**

ACCS is an acronym for "Accumulation of Credits and Certification of Subjects". This scheme allows students (for specified courses) – instead of studying an entire course – to study one or more modules of that course. Modules passed, are certified individually, and can be accumulated, leading to an award of Higher Certificate, Degree or Honours Degree.

#### **Award**

Bachelor of Business (Honours) (Level 8 on the National Framework of Qualifications)

#### **Progression**

Graduates with an Honours Bachelor of Business with a H2.2 award or higher can apply for CIT's MBA.

#### **Commencement Dates**

Year 1 & Year 2: Monday 9th September 2019 at 6.00pm.

# School of Business

Department of Accounting & Information Systems

### Courses

- Bachelor of Business (Honours) in Accounting (Level 8)
- Certificate in Designing Innovative Services (Level 8)



### Head of Department (Acting)

Frank O'Donovan

### Department Secretary

Christine Boyle Location: Room C163 T: 021 433 5920 E: christine.boyle@cit.ie

If you have any queries, please contact the Department Secretary, details above.

Each programme has its own unique web address from which you can apply online.

All programmes offered are subject to demand and places may be limited. All online applicants will receive an email confirmation. Details about eligibility, programme orientation, and timetable arrangements will be sent to all applicants via email update.

All part-time courses at CIT will run subject to sufficient student numbers. Where a course cannot proceed, applicants will be contacted and advised on alternative study options.

# Bachelor of Business (Honours) in Accounting (ACCS)

(Level 8)

#### Course Fee

€215 per 5 credit module (inc. exam fee)

#### **Enquiries**

Noreen Murphy (Stage 1) T: 021 433 5920 E: noreen.murphy@cit.ie AnnMarie O'Donoghue (Stage 2)

T: 021 432 6170 E: annmarie.odonoghue@cit.ie

Course Code CR\_BACCE\_8

Course & Module Information, and to apply online, visit www.cit.ie/course/CRBACCE8



#### **Duration & Delivery**

This is two year programme.

Stage 1 is delivered 3 nights per week from 6pm - 10pm for two semesters.

Stage 2 is delivered over two semesters and two summers. Each semester in Stage 2 involves 2 nights per week 6pm – 10pm. Each summer requires one night per week plus two Saturdays over a ten week period.

The programme will be delivered over 4 semesters and 2 summers commencing in September 2019 and finishing in August 2021.

The overall aim of the programme is to produce graduates with the specialist education and training necessary to enable them to gain employment in an Accounting/Financial capacity in any business sector.

#### **Admission Requirements**

A Higher Certificate in Business with sufficient credits in Financial Accounting, Economics, Management Accounting, Business Law and Business Mathematics & Statistics. Graduates of Accounting Technicians Ireland will require bridging studies in the areas of Economics, Marketing, Maths and Business.

#### **Award**

Bachelor of Business (Honours) in Accounting (Level 8 on the National Framework of Qualifications).

#### **Progression**

Graduates with a Bachelor of Business in Accounting (Honours), with a H2.2 award or higher, may apply for CIT's Taught Master of Business Administration (MBA) in Strategy. Graduates may also use their Exemptions to progress to the Professional Accountancy Bodies.

#### **Commencement Date**

Wednesday 11th September 2019 at 6pm.

#### Content

Advanced Management Accounting Financial Management Concepts Income Tax Single Entity and Group Accounting Integrated Accounting Systems Auditing – Regulation& Control Financial Management for Accountants Managing Human Capital **BIS Management and Applications** Management Accounting **Business And IT** Aspects of Employment Law The principal areas of study are: Strategic Management Advanced Financial Management Strategic Management Accounting **Financial Reporting** Auditing **Taxation** Corporate Governance

#### **ACCS**

ACCS is an acronym for "Accumulation of Credits and Certification of Subjects". This scheme allows students (for specified courses) – instead of studying an entire course – to study one or more modules of that course. Modules passed, are certified individually, and can be accumulated, leading to an award of Higher Certificate, Degree or Honours Degree.

### Certificate in Designing Innovative Services



(Level 8)

Course Code CR\_BDEIS\_8

Programme Fee €1.250

**Enquiries** 

Dr Fred Creedon T: 021 432 6166 E: fred.creedon@cit.ie



Course & Module Information, and to apply online, visit www.cit.ie/course/CRBDEIS8

#### **Duration & Delivery**

4 Full Saturdays on campus 13 Tuesday evenings online Course commences in September 2019 with another intake likely in February 2020.

#### **Admission Requirements**

A H2.2 (or equivalent) in an Ordinary Degree in any discipline. Candidates without a Level 7 qualification must be able to demonstrate sufficient relevant experience to be considered for entry. A Personal Statement must be provided by the candidate demonstrating interest or competence in design thinking and or service design. Where required, candidates may be shortlisted and required to attend for interview.

#### **Overview**

The Certificate in Designing Innovative Services is a one semester (three months) part-time programme that is designed to provide the knowledge, skills and confidence required to work in the area of service design. The course will introduce the student to design thinking skills and to the key tools and methodologies for development of services.

The industry-focus of the programme coupled with the applied nature of teaching provides a practical bedrock of knowledge and experience which can be used to immediate effect in designing services in any type of organisation. Participants will develop their analysis and design skills. On completion of this programme they will be attractive as potential designers of services across a range of industries. In particular these skills would be useful for those working within the local government arena where there is established demand.

The programme is structured to support those in full time employment. The first module Seminar Series in Design Thinking will be delivered online weekly. The second module Design Thinking for Services will have lectures with the theory content delivered online and the workshops will be delivered over 4 Saturdays. The workshops will be the more practical element of the course requiring students to use the tools and

methodologies. The students will be able to use real world cases from their workplace for the applications of the tools and methodologies.

The programme will balance real world experience from experienced practitioners in the field who will present on the seminar series with supported learning on practical skills during the workshop sessions.

The seminar series module will use reflective journals for assessment. The other module will require students complete a project in service design incorporating information gathering, analysis and prototype development. This project can be from the student's own workplace.

#### Module Information

#### **Design Thinking for Services**

This module aims to provide students with the necessary theoretical knowledge and practical skills to support the execution of a design thinking approach for the design of services. The modules addresses the role of team members, approaches for understanding users, research methods, prototyping, and presentation of findings.

#### **Design Thinking Seminar Series**

This module uses an innovative approach to explore the state of the art relating to design thinking from a variety of perspectives. Speakers from diverse organisations will present a series of guest lectures on overarching challenges and students will be tasked with reflecting on integrated problems across societal, environmental and business areas. The module provides students with critical insight into implementing service innovation strategies across a range of service and organisational contexts.

#### **Award**

On successful completion of both modules, graduates will receive a Certificate in Designing Innovative Services (Level 8, 20 ECTs, on the National Framework of Qualifactions).

# School of Business

Department of Marketing & International Business

### Courses

- Master of Science in Digital Marketing Strategy (Level 9)
- Master of Science in International Business (Level 9)
- BA (Honours) in International Business with Aviation Studies (Level 8)
- Higher Diploma in Business in Sales Management (Level 8)
- Certificate in Sales Strategy & Techniques (Level 8)
- Certificate in Digital Marketing (Level 8)



### Head of Department

Dr Pio Fenton

### Department Secretary

Shirley O'Driscoll Location: Room E11 T: 021 433 5939

E: shirley.odriscoll@cit.ie

If you have any queries, please contact the Department Secretary, details above.

Each programme has its own unique web address from which you can apply online.

All programmes offered are subject to demand and places may be limited. All online applicants will receive an email confirmation. Details about eligibility, programme orientation, and timetable arrangements will be sent to all applicants via email update.

All part-time courses at CIT will run subject to sufficient student numbers. Where a course cannot proceed, applicants will be contacted and advised on alternative study options.

https://business.cit.ie 33

# Master of Science in Digital Marketing Strategy

(Level 9)

## Course Code CR BDMAS 9

#### Course Fee

€7,500 payable over 2 years

#### Enquiries

Vivienne Griffin T: 021 432 6210

E: vivienne.griffin@cit.ie

W: www.cit.ie/mscdigmarketing



Course & Module Information, and to apply online, visit www.cit.ie/course/CRBDMAS9

#### Overview

Digital Marketing allows companies to connect with and understand their customers in the newest and most exciting of ways. It can be thought of as a set of strategies and tools that, due to their reach and measurability, offers a vibrant complement to traditional marketing. Over the last few years, more and more companies have shifted their Marketing budgets towards Digital Marketing. Now in its third year the programme has received very positive feedback from those that have completed it. CIT has developed a strong track record in providing short Digital Marketing programmes over the last few years and has found the level of expertise and insight developed through such programmes to be unparalleled.

#### **Structure**

The Masters in Digital Marketing Strategy is a part-time, two year Level 9 course (90 ECTS) aimed at those working in traditional and digital marketing or those aspiring towards a senior position that require a solid foundation in multiple aspects of digital marketing.

The course will be delivered from CIT's Bishopstown campus during Saturdays and weekday evenings, or online.

All assessment is by project work, reports and similar mechanisms: there are no final terminal exams.

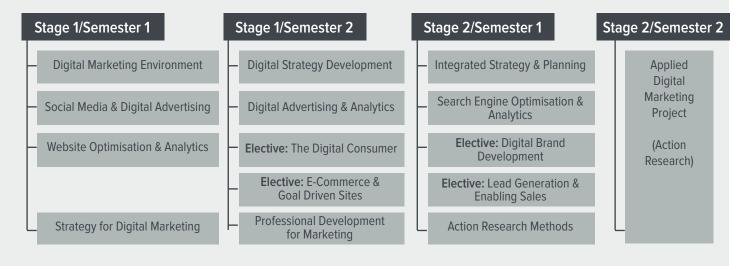
#### **Indicative Timetable**

- Stage 1/ Semester 1: 4 Saturdays and 15 Tuesday evenings (those that have completed the Certificate in Digital Marketing have completed Semester 1 already)
- Stage 1/Semester 2: 6 Saturdays and 15 Wednesday evenings
- Stage 2/Semester 1: 6 Saturdays and 15 Wednesday evenings
- Stage 2/Semester 2: Independent Research activity with Supervision support from CIT.
- Candidates ideally should have attained at least a H2.2 degree in a cognate area (an area related to business, media or visual communications).
- Degree-holders from non-cognate areas will be considered provided that these candidates can demonstrate significant relevant industrial experience.

#### **Duration**

Part-time: 4 semesters.

Also available as an online programme.



# Master of Science in International Business

(Level 9)

#### Course Fee

€5,500 payable over 2 years

#### **Enquiries**

Dr Anne Marie Ivers T: 021 433 5898 E: annemarie.ivers@cit.ie Course Code CR\_BINTB\_9

Course & Module Information, and to apply online, visit www.cit.ie/msc-international-business



#### Overview

This two-year part-time programme (4 semesters) 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.

#### Aim

This programme is ideal for anyone with a technical or scientific background who is looking to develop their understanding of business:

- Career advancement Graduates with complementary skillsets (e.g. Business and Computing) find employment opportunities more easily.
- Internationalisation The world marketplace is increasingly global – having an understanding of and an appreciation for that is very useful.
- Industry Engagement This programme exposes students to industry in a very integrated way that corresponds with the student's development over the year.

#### **Interesting Features**

#### Field Trip

The international Business Field Trip is an opportunity for immersion in non-Irish culture which serves to enhance and deepen the learning experience for students involved. The five day field trip will entail preparation work, learner activity while on the trip, and subsequent submissions following the trip. The trip focuses on the skills required to develop business opportunities in new markets.

#### **Seminar Series**

The Seminar Series module allows students the opportunity to draw upon their learning throughout the programme and to synthesise that in the context of some direct exposure to industry leaders. Speakers, drawn from the private, public and voluntary sectors, will be invited to speak on a weekly basis and to explore concepts relating to leadership, growth, change, people management, the macro environment, and personal & professional development.

#### **Applied Business Project**

The Applied Business Project is a capstone module which brings together the learning from the programme which is applied to a business-set project. Students will undertake a significant piece of work tacking a project for a linked company on a consultancy basis. The project will help to develop analysis and research skills but also further a student's understanding of the international environment.

#### **Admission Requirements**

This programme is geared at non-business students. As applicants will emanate from non-business areas the following entry criteria need to be met:

- A H2.1 in an Honours Degree in a non-cognate area. All areas where the specialism is not business, Marketing, Accounting/Finance or Business Information Systems will be considered
- 2. A Personal Statement must be provided by the applicant.
- 3. An interview may be held with applicants.
- 4. An IELTS of 6.5 (or equivalent) will be requested of non-EU students where deemed appropriate by the Head of Department.

#### Award

Master of Science in International Business (Level 9 on the National Framework of Qualifications).

# Bachelor of Arts (Honours) in International Business with Aviation Studies

(Level 8)

Course Code CR\_BIBAV\_8

Course Fee €7,000 in six instalments

Enquiries
Dr Pio Fenton
T: 021 433 5922
E: pio.fenton@cit.ie



Course & Module Information, and to apply online, visit www.cit.ie/course/CRBIBAV8

#### **Duration**

Two years. All classes are delivered fully online and all interactions with CIT are online. Classes are delivered at times during the day and evening given the nature of a pilot's work, there is no set time that suits all. All material is recorded and available for review immediately after a class has occurred.

#### **Admission Requirements**

- Successful completion of a frozen ATPL and associated Training.
- Submission of an appropriate Entry Learning Portfolio\*.
- Applicants will be expected to have an IELTS of 6.0 for English language proficiency (or equivalent) where deemed necessary by the Head of Department.

\*The Entry Learning Portfolio will capture the formal and informal learning of the applicant in a short portfolio that will be focused on assessing each student's ability to cope with the type of learning associated with a level 8 programme. The Entry Learning Portfolio will therefore include:

- Documentary evidence of qualifications
- Extended CV
- Reflective log on learning to date
- Short essay contrasting various business models within the aviation industry

#### **Overview**

The two-year programme recognises the learning involved in becoming a pilot and builds upon it with two years of study of business topics that may be valuable in career progression and mobility. The programme content is focused on broad business principles and issues with a slant on international business. The modules on the programme are very structured and are delivered by experienced lecturers who are conscious that a pilot's working life is challenging.

#### **Delivery**

Two modules per week for 15 week blocks (approx. 6 hours of lectures/content/contact in total per week)

Semester 1 & 4: September – January (break for Christmas)

Semester 2 & 5: January – May (break for Easter)

Semester 3 & 6: June – August

#### **Career Opportunities**

Beyond the roles within the aviation industry graduates of this programme would find employment in other industries given the skillset developed in this programme. Given the significant level of advanced business learning that the students will have undertaken the programme prepares students for a variety of roles. Coupled with their life skills and competences, graduates of this programme will be attractive in the jobs market.

The following roles within various sectors would be well within grasp:

- Supply Chain and Logistics Operational Staff
- Purchasers/Buyers
- Business Development Representatives
- Project Managers
- New Product Development
- Marketing
- Operations Team Supervision and Management
- Service Managers
- Business Planning
- International Selling
- Recruitment
- Business Analyst

#### **Award**

Bachelor of Arts (Honours) in International Business with Aviation Studies (Level 8 on the National Framework of Qualifications).

# Higher Diploma in Business in Sales Management

(Level 8)

Course Fee €3,950

Enquiries
Michael Falahee
E: michael falahee@cit.ie

Course Code CR\_BSMGT\_8

Course & Module Information, and to apply online, visit www.cit.ie/course/CRBSMGT8



#### **Overview**

The Higher Diploma in Business in Sales Management is a part-time one-year Level 8 degree 60 credit programme aimed at those working in or aspiring to sales management roles that have a foundation of experience in a sales environment.

Using innovative delivery teaching approaches the programme is a flexible undertaking for those with busy lifestyles. Incorporating online delivery that is supported by traditional residential classroom delivery, participants will have the opportunity to mix with their peers while also developing their knowledge in their own time. An innovative industry based Applied Project is undertaken which adds real value to the practitioner and their work environment while a flexible Seminar Series provides substantial networking exposure.

The programme has a constant practical real-world focus and lecturers will have extensive experience in a sales environment.

#### Aim

This programme serves two purposes; to enhance the critical thinking abilities, understanding of business and personal development avenues for the candidate, and also contributing value to the organisation of the participant through an injection of new ideas and more strategic thinking. The programme is focused on facilitating the development of the individual and the organisation.

#### Content

#### Mandatory

Effective Sales Techniques (10 Credits) Organisational Sales Strategy (10 Credits) Sales Seminar Series (5 Credits) Sales & Marketing Finance (5 Credits) Applied Sales Project (20 Credits)

#### **Electives**

Sales Force Management (5 Credits) The Digital Environment (5 Credits) Sales Ethics and Law (5 Credits) International Selling (5 Credits)

#### **Duration & Delivery**

#### Semester 1

15 Wednesday evenings and 5 Saturdays

#### Semester 2

Two nights per week for 15 weeks.

#### Summe

In-work activity with supervision focused on the Applied Project

#### **Admission Requirements**

- Candidates ideally should hold a Level 8 qualification in any discipline. Participants with such a qualification require 2 years' experience in a role cognate to sales.
- Candidates without a Level 8 qualification must be able to demonstrate sufficient relevant experience. Are you eligible for Recognition of Prior Learning (RPL)? For details, see the information section at the beginning of this Handbook.
- 3. Candidates will be required to undertake an interview at CIT before admission to the course.

#### **Award**

Higher Diploma in Business in Sales Management (Level 8 on the National Framework of Qualifications).

#### **Commencement Date**

9th September 2019.

# Certificate in Sales Strategy and Techniques

(Level 8)

Course Code CR\_BSSTE\_8

Course Fee €1.300

### Enquiries Michael Falahee

E: michael.falahee@cit.ie



Course & Module Information, and to apply online, visit www.cit.ie/course/CRBSSTE8

#### **Duration**

15 weeks, i.e. 12 Wednesday evenings and 5 Saturdays between September and December.

#### **Admission Requirements**

All candidates need to be working in a sales related role.

#### **Overview**

This programme aims to fortify the Sales Professional's understanding of sales strategy and techniques integrating their experience with best academic knowledge. This short course is ideal for anyone in the sales industry who is looking to gain some insight on how they can improve their own and their organisation's sales strategies. Delivered by experts with exceptional industry experience the programme looks at how to improve sales strategies across various industries. The classroom environment is designed for those in sales roles and endeavours to ensure peer and expert learning.

#### **Module Information**

#### Organisational Sales Strategy (10 credits)

This module aims to impart to the student the importance of understanding how consumers and organisations purchase in order for sales people to successfully develop strategies to positively influence the purchase decision. Leading from this, students gain an understanding of the wider organisational perspectives on sales strategy and sales management issues. On successful completion of this module, the student will be able to

- demonstrate individual factors central to the consumer decision making process and analyse how the social context of consumer behaviour is central to this process.
- develop an effective marketing and sales strategy in the context of a thorough knowledge of consumer and organisational buying behaviour.
- examine the role of sales in the context of the wider organisation.

- develop a strategic and results driven approach to organisational selling and sales channel management.
- integrate the ethical aspects of sales into organisational policy.

#### Effective Sales Techniques (10 credits)

In this module, students develop an understanding of the role and functions of the salesperson and the key skills needed to be a professional sales person. How to take a strategic and planned approach and how to develop long term consultative relationships with customers.

On successful completion of this module, the student will be able to

- critically assess the functions of a professional sales person.
- evaluate effective sales strategies in a range of organisations
- develop a strategic and goals driven approach to selling sales prospecting and planning.
- assess the management of sales relationships within the framework of medium/long term sales strategy.
- develop a strategy to integrate sales and marketing activities
- conduct a consultative sales presentation.
- explore the preparation required for a move from sales representative to sales management.

#### **Award**

On successful completion of both modules, students will be awarded a Certificate in Sales Strategy and Techniques (20 ECTS, Level 8 on the National Framework of Qualifications)



(Level 8)

# Certificate in Digital Marketing

Course Fee €1.500

Enquiries
Zahid Aslam

E: zahid.aslam@cit.ie

Course Code CR BDMRK 8

Course & Module Information, and to apply online, visit www.cit.ie/course/CRBDMRK8



#### **Duration & Delivery**

4 full Saturdays and 12 Tuesday evenings over a 15 week period. Course commences on 9th September (with likely second intake in February 2020). This programme can be taken as an online programme or by attending classes at CIT's Bishopstown Campus.

#### **Admission Requirements**

Level 7 or Level 8 degree or relevant experience in an industry role. Candidates may be required to undertake an interview at CIT before admission to the course.

#### **Overview**

This short programme consists of four modules (5 credits each) which will run over one semester. The Certificate in Digital Marketing is a 15 week part-time programme entailing lab work, seminars, and live-case work that is designed to provide the knowledge, skills and confidence required to successfully market business in a digital environment. The programme uses an innovative blend of real-world situations and problems to assist participants in exploring the opportunities of the digital environment.

The industry focus of the programme coupled with the applied nature of teaching provides a practical bedrock of knowledge and experience which can be used to immediate effect in a multitude of business contexts. Participants will explore various social media platforms, website technologies (including mobile), analysis tools and much more in developing a toolbox of skills that is valuable and readily usable in a B2C and B2B environment. The programme is structured to ensure that participant's time is used wisely and entails a wide variety of speakers drawn from the business world. An innovative blend of lectures, seminars, workshops and labs is used to ensure that the programme is relevant, engaging and enjoyable.

#### Aim

The programme has been developed to ensure that participants are developing sustainable skills and knowledge that underpin

digital marketing. Specifically, the programme aims:

- To develop knowledge of digital marketing tools and technologies in the context of the strategic direction of a business.
- 2. To integrate traditional marketing principles into marketing activity in online and mobile environments.
- To apply practical skills to web design to ensure optimised web/mobile platforms using SEO and content management strategies.

#### Content

- Digital Marketing Environment This module explores the current marketing landscape with emphasis on the challenges posed by the digital context in which many businesses are now operating. This module is delivered using workshops and seminars.
- Digital Advertising and Social Media This practical lab based module will enable students to formulate an integrated digital marketing communications campaign. Students will also learn how to leverage a company's presence on social media platforms to generate more connections and build relationships with customers.
- Website Optimisation and Analytics Many businesses are using inefficient and outdated websites that perform poorly in terms of search engine optimisation. This module will focus on the development of websites using existing technologies such as Wordpress and similar content management systems.
- Applied Digital Marketing Strategy This module acts as a capstone on the certificate and draws together learning from the above areas with a particular focus on developing a strategic context for content, technology and alternative platforms.

#### **Progression Opportunities**

The Certificate in Digital Marketing is part of the Master of Science in Digital Marketing Strategy. Completion of this programme may allow entry to Semester 2 of that Masters programme.



### **Head of School**

### **Professor Margaret Linehan**

The School consists of the following Departments:

- Applied Social Studies
- Tourism & Hospitality
- Sport, Leisure, and Childhood Studies

Information evening for continuing education courses for the School of Humanities will take place at the CIT Bishopstown Campus on Tuesday, 3rd September 2019, 5.30pm to 7.00pm. School of Humanities staff will be in attendance to offer career guidance and assistance.

# School of Humanities

Department of Applied Social Studies

### Courses

- One Year Certificate in Counselling Skills (Level 6)
- Higher Certificate in Arts in Counselling Skills (Level 6)
- Bachelor of Arts (Honours) in Counselling & Psychotherapy (Level 8)
- Master of Arts in Integrative Psychotherapy (Level 9)
- Master of Arts in Play Therapy (Level 9)



# Head of Department

Dr Catherine Molyneaux

### Department Secretary

Helen Dillon Location: Room G2.13 T: 021 433 5310 E: helen.dillon@cit.ie

If you have any queries, please contact the Department Secretary, details above.

Each programme has its own unique web address from which you can apply online.

All programmes offered are subject to demand and places may be limited. All online applicants will receive an email confirmation. Details about eligibility, programme orientation, and timetable arrangements will be sent to all applicants via email update.

All part-time courses at CIT will run subject to sufficient student numbers. Where a course cannot proceed, applicants will be contacted and advised on alternative study options.

www.cit.ie www.cit.ie

# One Year Certificate in Counselling Skills

(Level 6)

Course Code
CR HCOUI 6

Course Fee €2,000

#### **Enquiries**

Úna Coakley T: 021 433 5315 E: una.coakley@cit.ie Dr Maria Bowens T: 021 432 6214 E: maria.bowens@cit.ie



Course & Module Information, and to apply online, visit www.cit.ie/course/CRHCOUI6

#### Aim

This course aims to meet the needs of people who require an introductory training in Counselling for use in their existing work or life situations. Additionally, the course aims to provide a foundational introduction for those students who wish to pursue further training in Counselling.

#### **Dual Relationships**

Due to the personal and experiential nature of the course, it is generally not possible to have staff or students with significant existing personal or professional relationships in the same course group. Where possible, every effort is made to overcome this difficulty by placing them in separate groups. Oftentimes this solution is not possible and in these instances, the dual relationship may prevent the applicant from being offered a place on the course at that time.

#### **Personal Therapy**

Students are required to undertake a minimum of 20 sessions of personal therapy during the One Year Certificate Course. The cost of this is separate to the course and is arranged directly between the student and the therapist. To fulfil this requirement, students may be offered the option to avail of low cost Counselling, if desired.

#### **Duration & Delivery**

The course is offered over two semesters from September to May. Each semester has 5 modules. Dates are arranged when the course begins. Attendance at all sessions is a requirement. The course is offered on a part-time basis for the duration of the academic year as follows:

- Theory and Application Programme one evening per week
   Mondays 6.30pm 9.30pm.
- Counselling Skills Workshops one additional evening every four to five weeks 6.30pm – 9.30pm.
- Experiential Group Process: Either 10 Saturdays (10am to 5pm) or a combination of Saturdays and evenings (6.30pm to 9.30pm) spread throughout the year. Dates for these are arranged when the course begins.

#### **Admission Requirements**

Applicants must:

- 1. Be over 25 years of age at the date of registration;
- 2. Be assessed through interview;
- 3. Submit two written references (see application form for details).

#### **Application**

Visit website www.cit.ie/course/HCOUI6 to apply online. References should be returned confidentially by the referees by Friday 3rd May 2019. It is the applicant's responsibility to ensure that the references have been submitted by the closing date. References should be submitted to Dr Maria Bowens, Block G, Department of Applied Social Studies, Cork Institute of Technology, Bishopstown, Cork.

#### **A**ward

The One Year Certificate in Counselling Skills is awarded by Cork Institute of Technology on the basis of satisfactory attendance as well as the submission of written work and the satisfactory completion of practical and experiential assignments. The Certificate recognises that the student has successfully completed an introductory training in Counselling Skills which should enable him/her to practice basic counselling skills within his/her existing role.

NB: It is not a professional qualification in Counselling and does not qualify the holder to practice as a professional counsellor.

(Level 6)

€2,300

# Higher Certificate in Arts in Counselling Skills

Course Fee

#### **Enquiries**

Úna Coakley T: 021 433 5315 E: una.coakley@cit.ie Dr Maria Bowens T: 021 432 6214 E: maria.bowens@cit.ie Course Code CR HCOUN 6

Course & Module Information, and to apply online, visit www.cit.ie/course/HCOUN6



#### Aim

This course is being offered to students who have successfully completed the One Year Certificate in Counselling Skills or its equivalent. It aims to consolidate and expand upon the One Year Certificate foundational training, thus providing students with an introduction to counselling for use in their existing work or voluntary settings. The course also aims to facilitate interested students to reach the level of training and development required to work with clients during the professional practitioner training programme in the BA in Counselling and Psychotherapy Years 3 and 4.

#### **Dual Relationships**

Due to the personal and experiential nature of the course, it is generally not possible to have staff or students with significant existing personal or professional relationships in the same course group. Where possible, every effort is made to overcome this difficulty by placing them in separate groups. Oftentimes this solution is not possible and in these instances, a dual relationship may prevent the applicant from being offered a place on the course at that time.

#### **Personal Therapy**

Students are required to undertake 30 personal therapy weekly sessions during the Higher Certificate course. The cost of this is separate to the course and is arranged directly between the student and the therapist.

#### **Duration & Delivery**

The course is offered on a part-time basis over two semesters from September to May. Each semester has 5 modules. Attendance at all sessions is a requirement. The regular sessions will be held on week evenings – 6.30pm to 9.30pm. Alternatively some of the sessions may be held on Saturday 10.00am to 5.00pm. When a Saturday is involved, it will replace two evening sessions. During Year 2, there will be two weekend workshops in addition to the regular weekly sessions. There will also be five evening skills workshops.

#### **Admission Requirements**

Applicants must

- 1. Be over 25 years of age at the date of registration;
- 2. Have successfully completed the One Year Certificate in Counselling Skills or its equivalent;
- 3. Be assessed through interview;
- Submit two written references (for applicants who have not already been on a prior stage of the course). See application form for details.

**National Vetting Bureau:** CIT uses the National Vetting Bureau (NVB) to help assess the suitability of all applicants on this programme. Visit www.cit.ie/gardavetting

#### **Application**

Visit website www.cit.ie/course/HCOUN6 to apply online. References should be returned confidentially by the referees by Friday 26th April 2019. It is the applicant's responsibility to ensure that the references have been submitted by the closing date. References should be submitted to Dr Maria Bowens, Block G, Department of Applied Social Studies, Cork Institute of Technology, Bishopstown, Cork.

#### **Award**

The Higher Certificate in Counselling Skills is awarded on the basis of satisfactory attendance as well as the submission of written work and the satisfactory completion of practical and experiential assignments. The Higher Certificate recognises that the student has undertaken a comprehensive training in Counselling Skills which should enable him/her to practice a full range of counselling skills within a pre-existing role. It is not a professional qualification in Counselling and does not qualify the holder to practice as a Professional Counsellor.

NB: To achieve a professional qualification, it is necessary to complete Bachelor of Arts (Honours) in Counselling and Psychotherapy, years 3 and 4.

www.cit.ie 43

# Bachelor of Arts (Honours) in Counselling & Psychotherapy (Years 3 & 4)

(Level 8)

Course Code CR\_HCOUN\_8

Course Fee

Year 3: €2,975 Year 4: €2,975

#### **Enquiries**

Úna Coakley T: 021 433 5315 E: una.coakley@cit.ie



Course & Module Information, and to apply online, visit www.cit.ie/course/CRHCOUN8

The Bachelor of Arts (Honours) in Counselling & Psychotherapy is a four year course comprising the following:

Year 1: The One Year Certificate in Counselling Skills Year 2: The Higher Certificate in Arts in Counselling Skills

Year 3: Bachelor of Arts (Honours) in Counselling &

Psychotherapy – Year 3

Year 4: Bachelor of Arts (Honours) in Counselling &

Psychotherapy - Year 4

#### Aim

This course is a professional practitioner training in Counselling and Psychotherapy. Its aim is to develop reflective and skilled practitioners who will have attained the requisite knowledge, personal development and competence to provide Counselling and Psychotherapy in a professional manner. The core theoretical orientation of the course is integrative. The core humanistic elements are Person Centred, Gestalt and Transactional Analysis. The course also draws substantially from the relational end of Psychoanalysis. Some elements from the Cognitive and Behavioural traditions are also included.

#### **Work with Clients**

Students will be required to carry out 100 hours of Counselling work with clients during the training. They will be required to obtain supervision for this work from a supervisor nominated by CIT. Payment for supervision will be made directly by students and is not included in the course fee.

#### **Personal Therapy**

Students will be required to have undertaken at least 100 sessions of personal therapy before the completion of their training. The cost of this is separate to the course and is arranged directly between the student and the therapist.

#### **Dual Relationships**

Due to the personal and experiential nature of the course, it is generally not possible to have staff or students with significant existing personal or professional relationships in the same course group. Where possible, every effort is made to overcome this difficulty by placing them in separate groups. Oftentimes this solution is not possible and in these instances, a dual relationship may prevent the applicant from being offered a place on the course at that time.

#### **Duration & Delivery**

The course is offered over two semesters from September to May each year. Each semester has 5 modules. The regular sessions will be held on two evenings per week 6.30pm to 9.30pm. Alternatively, some of the evening sessions could be transferred to Saturday. When a Saturday is involved it would replace two evening sessions. During Year 3, there will be two weekend workshops in addition to the regular weekly sessions.

The course has five key elements which are integrated in the training, using a strong experiential and practical focus. These are

- 1. Counselling and Psychotherapy Theory and Application
- 2. Practitioner Development
- 3. Experiential Group Process/personal process integration
- 4. Supervised Counselling and Psychotherapy Practice
- 5. Counselling and Psychotherapy integration



#### **Admission Requirements**

Applicants must

- 1. Be over 25 years of age at the date of registration;
- Have successfully completed the Higher Certificate in Arts in Counselling Skills or its equivalent through alternative prior learning;
- 3. Be assessed through interview or progression assessment for internal students;
- Submit two written references (for applicants who have not already been on a prior stage of the course). See application form for details.

**National Vetting Bureau:** CIT uses the National Vetting Bureau (NVB) to help assess the suitability of all applicants on this programme. It is important to note that participation in or completion of this programme may be affected by subsequent disclosure/discovery. Visit www.cit.ie/gardavetting

#### **Application**

Visit website www.cit.ie/course/HCOUN8 to apply online. References should be returned confidentially by the referees by Friday 26th April 2019. It is the applicant's responsibility to ensure that the references have been submitted by the closing

date. References should be submitted to Úna Coakley, Block G, Department of Applied Social Studies, Cork Institute of Technology, Bishopstown, Cork.

#### **Award**

On successful completion of the full programme, students will be awarded a Bachelor of Arts (Honours) in Counselling and Psychotherapy. On achieving the honours degree, graduates will be equipped to carry out Counselling and Psychotherapy in a structured setting with the support of supervision. The BA honours degree is a fully validated professional Counselling and Psychotherapy training programme which satisfies the accreditation requirements of the Irish Association for Counselling and Psychotherapy.

www.cit.ie 4.

# Master of Arts in Integrative Psychotherapy

(Level 9)

## Course Code CR\_HINTP\_9

#### Course Fee

€3,500 Fee for dissertation and Mental Health placement year: €1,200

#### **Enquiries**

Helen Moylan E: helen.moylan@cit.ie



Course & Module Information, and to apply online, visit www.cit.ie/course/CRHINTP9

Students should note that Fees quoted relate to the academic year 2019 and are subject to change on an annual basis.

Closing date for applicants is 3rd May 2019.

#### **Aim**

The programme aims to equip practitioners with advanced knowledge and increased clinical capability.

Client work and supervision: Students will be required to carry out 100 hours of Counselling work with clients during each year of the course. They will be required to obtain supervision for this work from their own Supervisor. Additionally, during Year 1 they will participate in monthly group supervision arranged by the course coordinator. Payment for individual and group supervision will be made directly by students and is not included in the course fee.

**Personal Therapy:** Students will be in weekly personal therapy throughout the course. The cost of this is separate to the course and is arranged directly between the student and the therapist.

#### **Duration & Delivery**

The programme has 90 credits and will be offered as follows:

**Year 1** (60 Credits) is a taught year where students will attend at College and supervision, thus completing the taught modules of the course. The regular sessions will be held on a combination of weekday evenings (generally 6.30pm to 9.30pm) and on Saturdays and Sundays.

**Year 2** (30 Credits) will involve a programme of directed/ supervised learning where students will research and write the Reflective Practitioning dissertation. During this year they will also carry out their Mental Health Placement.

#### **Admission Requirements**

Applicants must

Have successfully completed the Bachelor of Art (Honours)

in Counselling or Psychotherapy (minimum H2.2) or an equivalent\* professional training in Counselling and Psychotherapy that satisfies the training requirements for professional accreditation.

- Have competed two years post-qualifying supervised clinical practice with a minimum of 150 hours of clinical practice which is verified by an accredited supervisor.
- · Be assessed through interview.
- Submit two written references (for applicants who have not already been on a prior stage of the course).

\*Where an applicant has not completed the Bachelor of Arts (Honours) in Counselling or Psychotherapy, equivalence is assessed through the formal Recognition of Prior Learning (RPL) process used in CIT (www.cit.ie/rpl). This involves applicants preparing a portfolio in which they would demonstrate how they have achieved the learning outcome of the modules in the BA (Honours) in Counselling and Psychotherapy as well as the two years post-qualifying supervised clinical practice.

**National Vetting Bureau:** CIT uses the National Vetting Bureau (NVB) to help assess the suitability of all applicants on this programme. It is important to note that participation in or completion of this programme may be affected by subsequent disclosure/discovery. Visit www.cit.ie/gardavetting

#### Accreditation

The process of establishing training standards to prepare for the statutory registration of Psychotherapists in Ireland is continuing.

The present overall training programme at CIT combining the Bachelor of Arts (Honours) in Counselling and Psychotherapy, two years post-qualifying supervised clinical practice, and the MA in Integrative Psychotherapy, represents the best interpretation of the requirements as they currently prevail.

#### **Award**

Master of Arts in Integrative Psychotherapy (Level 9 on the National Framework of Qualifications).

# Master of Arts in Play Therapy

#### (Level 9)

#### Course Fee

€2,300 per year or €6,900 in total for three year MA

#### **Enquiries**

Myriam Clancy T: 021 432 6155

E: myriam.clancy@cit.ie

Course Code CR\_HPLTH\_9

Course & Module Information, and to apply online, visit www.cit.ie/course/CRHPLTH9



Students should note that Fees quoted relate to the academic year 2019 and are subject to change on an annual basis.

Next intake into this course will be for course commencing in September 2020.

#### Aim

This programme is a postgraduate clinical training in Play Therapy. It aims to equip practitioners with the advanced knowledge, skills, and competences to practice as Play Therapists. It aims to equip practitioners with the clinical capability that would match international standards of best practice within the Play Therapy profession. Ongoing Personal Therapy is a key requirement in this training and is not included in the course fee.

On successful completion of the programme students may be eligible for membership of the Irish representative organisations for Play Therapists. These include the Irish Play Therapy Association, the Irish Association for Play Therapy and Psychotherapy, and Play Therapy Ireland.

#### **Duration & Delivery**

The programme is offered on a part-time basis over three years (class attendance is on Saturdays at present). However, it is a demanding course both academically and practically in conducting Child Observations and Play Therapy sessions.

**Years 1 and 2** (60 credits) will include a clinical training in Play Therapy. Students will study modules which will be experiential and theoretical. They will undertake placements in both years and will require external supervision from CIT approved supervisors. This supervision is not included in course fees and is outside class times.

On successful completion of the taught elements, students will be awarded a Postgraduate Diploma in Play Therapy, unless they proceed to Year 3. **Year 3 (30 credits)** The MA in Play Therapy is awarded to candidates who successfully complete a module in research skills and a dissertation.

#### Content

www.cit.ie/course/CRHPLTH9

The website gives information on modules, recommended textbooks, average weekly workload, assessments and exams.

#### **Admission Requirements**

Applicants must hold a Level 8 Honours degree (H2.2) or higher, in one of the following areas: Counselling/ Psychotherapy, Early Years Education, Occupational Therapy, Primary Education, Psychiatry, Psychology, Psychiatric Nursing, Social Care, Social Work, Special Needs Education or a cognate discipline.

Applicants must be 23 years old at the time of entry to the programme and have at least two years post qualifying experience of working with children. Applicants will be shortlisted to attend for interview based on their online applications.

**National Vetting Bureau:** CIT uses the National Vetting Bureau (NVB) to help assess the suitability of all applicants on this programme. It is important to note that participation in or completion of this programme may be affected by subsequent disclosure/discovery. Visit www.cit.ie/gardavetting

#### **Award**

Master of Arts in Play Therapy (Level 9 on the National Framework of Qualifications).

www.cit.ie 47

# School of Humanities

Department of Tourism & Hospitality

### Courses

- Bachelor of Arts in Culinary Arts (Level 7)
  - National Chef de Partie Apprenticeship
- Bachelor of Arts (Honours) in Culinary Arts (Level 8)
  - National Sous Chef Apprenticeship
- Certificate in Culinary Skills (Level 6)
- Gourmet Culinary Techniques (Level 6)
- Bakery, Breads & Pastry (Level 6)
- Pastry, Tarts & Gateaux (Level 6)
- Professional Bar Operations (Level 6)
- The Art of Mixology (Level 6)
- Food Photography (Level 7)
- Management Principles for Services (Level 6)
- Revenue Management & Distribution (Level 8)

# Head of Department

Dr Noel Murray

### Department Secretary

Roisín Clancy Location: Room T200 T: 021 433 5820 E: hospitality@cit.ie

If you have any queries, please contact the Department Secretary, details above.

Each programme has its own unique web address from which you can apply online.

All programmes offered are subject to demand and places may be limited. All online applicants will receive an email confirmation. Details about eligibility, programme orientation, and timetable arrangements will be sent to all applicants via email update.

www.cit.ie/th



### National Chef de Partie Apprenticeship Bachelor of Arts in Culinary Arts

#### (Level 7)

#### Course Fee

Year 1 & 2 €1,500 each and Year 3 & 4 €750 each. In addition, a €60 fee for the necessary work uniform is required (a fee will also apply if knives are required).

#### **Enquiries**

Roisín Clancy T: 021 433 5820 E: hospitality@cit.ie Course code
CR OCUAR 7

Course & Module Information, visit www.cit.ie/course/CROCUAR7



#### Aim

The Chef de Partie Apprenticeship is an 'earn and learn' degree programme that combines on-the-job training with academic study. The Chef de Partie is trained to deliver advanced culinary skills in a professional kitchen, to supervise a particular area or station within the kitchen and to work on their own as well as training Commis Chefs. The programme is designed by industry and academic professionals so that students learn the skills, knowledge and behaviours necessary for a successful career that can take them anywhere in the world. The programme combines classroom training with hands-on practical skills development in the workplace, linking college based learning with the everyday work environment.

#### Content

#### Year 1 Semester 1

Fundamental Culinary Skills Fundamentals of Patisserie Introduction to Food Safety and Culinary Science Information Technology Learning at Third Level

#### Year 1 Semester 2

Refining Culinary Skills Developing Patisserie Skills Introduction to Food and Beverage Skills Workplace Communication Nutrition and Diet

#### Year 2 Semester 1

Planning a Culinary event Classical Cuisine Plated Desserts Applied Food and Beverage Costing Exploring Food

#### Year 2 Semester 2

Apprentice led Culinary Event Creative Plated Desserts Principles of Garde Manger Contemporary Cuisine Applied Food Safety Management

#### Year 3 Semester 1

Classical Culinary Practice Applied Culinary Management

#### Year 3 Semester 2

Advanced Pastry Arts Food Photography and Social Media Food Product Design and Innovation

#### Year 4 Semester 1

Advanced Pastry Arts and Design Food Product Development with Enterprise

#### Year 4 Semester 2

Contemporary Garde Manger Food Studies and Applied Research for Industry

#### **Duration and Delivery**

4 Years – 8 Semesters – Delivery is based on a 13 week semester with 2 days in college in Years 1 & 2 and 1 day in college in Years 3 & 4.

#### **Apply**

To become an apprentice you must obtain employment in an approved hotel or restaurant kitchen. The employer must be approved by SOLAS to train apprentices and must register you as an apprentice within two weeks of recruitment. For more information, visit www.apprenticeship.ie or contact the CIT Department Secretary (details above).

#### **Award**

Bachelor of Arts in Culinary Arts (Level 7 on the National Framework of Qualifications).

#### **Progression**

Graduates may progress to the Bachelor of Arts (Honours) in Culinary Arts (Sous Chef Apprenticeship) – Level 8 on the National Framework of Qualifications.

www.cit.ie/th

### National Sous Chef Apprenticeship Bachelor of Arts (Honours) in Culinary Arts

(Level 8)

### Course Code CR\_OCUAR\_8

#### Course Fee

Year 1: €750 and Year 2: €750 In addition, a €60 fee for the necessary work uniform is required (a fee will also apply if knives are required).

#### Enquiries

Roisín Clancy T: 021 433 5820 E: hospitality@cit.ie



Course & Module Information, and to apply online, visit www.cit.ie/course/CROCUAR8

#### **Duration**

2 Years over 4 semesters based on a 12 week semester.

#### **Admission requirements**

Applicants must be currently employed in, or obtain employment in a SOLAS approved establishment. Applicants must hold a Level 7 ordinary degree in Culinary Arts or equivalent or have relevant industry experience.

Applicants who do not have a Level 7 qualification will be reviewed through Recognition of Prior Learning (www.cit.ie/rpl), on a case by case basis.

#### Content

#### Year 1 Semester 1

Contemporary Culinary Practice Strategic Culinary Management

#### Year 1 Semester 2

Food Tourism Food Blogging & E-Profile

#### Year 2 Semester 1

**Food Futures** 

#### Year 2 Semester 2

Independent Research Project

#### Award

Bachelor of Arts (Honours) in Culinary Arts (Level 8 on the National Framework of Qualifications).

#### **Overview**

This honours degree programme combines on-the-job training with academic study as outlined below.

Year 1	<b>Sept - Dec</b> 5 days in a block in CIT	<b>Dec - Jan</b> On the job	<b>Jan - May</b> 5 days in a block in CIT	<b>June - Aug</b> On the job (work-based learning captured)
	11 weeks of 1 day in CIT & 4 days at work	On the job	11 weeks of 1 day in CIT & 4 days at work	On the job (work-based learning captured)
Year 2	12 weeks of 1 day in CIT & 4 days at work	On the job	12 weeks of 1 day in CIT & 4 days at work	On the job (work-based learning captured)

### Certificate in Culinary Skills



(Level 6)

#### **Enquiries**

Roisín Clancy T: 021 433 5820 E: hospitality@cit.ie Course Code CR OCUSK 6 Y1

### Course Information, and to apply online, visit https://springboardcourses.ie/details/7042



#### **Admission Requirements**

Leaving Certificate with 5 passes or QQI Level 5. Mature learners will be invited for interview.

#### How to apply

All applications must be made through https://springboardcourses.ie. Applications will be accepted without delay but some applicants will be asked to attend an interview. Offers must be accepted online through the Springboard website.

#### **Duration & Delivery**

This programme runs on Wednesday & Thursday, 9am to 6pm (September to December & February to May). Students are required to do 400 hours of work experience. Students will be assisted in finding work experience by an academic member of staff.

#### **Overview**

The aim of this programme is to provide learners with the knowledge, skills and competence necessary for a career in a professional cookery environment. This will be achieved by providing learners with the essential practical skills and knowledge required of modern day professionals working in kitchen environments.

#### **Key Features**

This one year part-time programme combines college based education in culinary operations with work based learning in industry. The primary focus of the programme is to prepare graduates for a variety of roles in food preparation in food retail outlets including delicatessens, gastro pubs, catering outlets and restaurants.

On successful completion of this programme students will have the ability to

- Describe the organisation, marketing, costing and control elements of running a professional kitchen
- Apply scientific principles, technologies and systems to operating a professional kitchen
- Manage the implementation of food control, food cost, portion and quality control in a professional kitchen
- Demonstrate a wide range of precision technical culinary skills to produce a variety of classical and contemporary dishes
- Apply and adapt nutritional knowledge to creative food production and menu planning
- Analyse appropriate styles of food and beverage service
- Explain the role of gastronomy in the development of culinary arts
- Operate computer software and systems relevant to the culinary arts
- Evaluate a range of knowledge, skills and competence to design, organise, serve and evaluate a meal experience.
- Apply relevant provisions of legislation and regulation relevant to the hospitality business, including health and safety at work legislation, food safety legislation, and the principles of Hazard Analysis and Critical Control Points (HACCP).
- Identify key academic and independent learning skills appropriate to the hospitality industry.

Closing date for application is 30th August 2019 for course commencing 11th September 2019.

#### **Award**

Certificate in Culinary Arts (Level 6 on the National Framework of Qualifications).



#### (Level 6)

#### Course Fee

€550 (includes exam fee). In addition, a €60 fee for the necessary work uniform is required.

#### Enquiries

Roisín Clancy T: 021 433 5820 E: hospitality@cit.ie Course Code CR FTCXXB 6

Course & Module Information, and to apply online, visit www.cit.ie/course/CRFTCXXB6



#### **Module Code**

HOSP6084

#### Aim

This course provides skills and knowledge in the areas associated with modern pastries and breads. It is suitable as a foundation course or to build on existing skills. This is a handson course where the student will gain practical experience in class.

#### Content

- Yeast Breads
- Bagels
- Soda Bread Extensions
- Bun Doughs
- Croissants
- Danish Pastries
- Puff Pastry
- Brioche

#### **Duration & Delivery**

This course commences in September and will operate one evening per week per semester, consisting of a 4 hour practical class each evening from 6pm to 10pm.

#### **Apply**

Apply online or by application form (available by email hospitality@cit.ie). Online application for this programme opens annually in February for commencement in September. Closing date for applications is in August. Places are limited on this course and interviews may be held for participation.

#### **Award**

CIT: Single Module Certification (5 ECTS credits at Level 6 on the National Framework of Qualifications).



### Pastry, Tarts and Gateaux

(Level 6)

# Course Code CR\_FTCXXE 6

#### Course Fee

€550 (includes exam fee). In addition, a €60 fee for the necessary work uniform is required.

#### Enquiries

Roisín Clancy T: 021 433 5820 E: hospitality@cit.ie



Course & Module Information, and to apply online, visit www.cit.ie/course/CRFTCXXE6

#### **Module Code**

HOSP6085

#### Aim

This course provides skills and knowledge in the areas of modern pastries. This is a hands-on course where the student will gain practical experience in class.

#### Content

Modern Gateaux and small pastries made using the following:

- Macaroons
- Choux Pastry
- Sweet Pastry
- Puff Pastry
- Chocolate Techniques
- Fillings glacage, mousse, frangipane, caramel, pastry cream, praline, etc.

**Note:** Modifications to the configuration of the course may take place in accordance with changing requirements.

#### **Duration & Delivery**

The course commences in January and will operate one evening per week each Thursday over the semester, consisting of a 4 hour practical class each evening from 6pm to 10pm.

#### **Apply**

Apply online or by application form (available by email hospitality@cit.ie). Online application opens in September and closes in December. Places are limited on this course and interviews may be held for places.

#### **Award**

CIT: Single Module Certification (5 ECTS credits at Level 6 on the National Framework of Qualifications).



# Gourmet Culinary Techniques

#### (Level 6)

#### Course Fee

€550, In addition, a €60 fee for the necessary work uniform is required

#### **Enquires**

Roisín Clancy T: 021 433 5820 E: hospitality@cit.ie Course Code CR FTCXXF 6

Course & Module Information, and to apply online, visit www.cit.ie/course/CRFTCXXF6



#### **Module Code**

HOSP6125

#### **Aim**

This hands-on course provides skills and knowledge in the areas of cooking, enabling them to produce safe, nutritious and wholesome foods. The student will learn different techniques and processes associated with culinary hot and cold dishes from both traditional Irish and International Cuisines.

#### Content

Knife skills
Buying / storage Techniques
Salads and Dressings
Vegetarian Cooking
Meat and Fish Preparation and Cooking
Ethnic
Canapes
Casseroles,
Soups
French cuisine
Traditional Irish
Plating Techniques

#### **Duration and Delivery**

This course commences in September and will take place on one evening per week per semester, consisting of a 4 hour practical class each evening from 6pm to 10pm.

#### **Apply**

Apply online. Online applications for this programme open annually in February for commencement in September. The closing date for applications is August 30th. Places are limited on this course and interviews may be held for participation.

#### **Award**

CIT: Single Module Certification (5 ECTS credits at Level 6 on the National Framework of Qualifications).



### **Professional Bar Operations**

(Level 6)

## Course Code CR\_FTCXXC\_6

Course Fee €400

#### **Enquiries**

Roisín Clancy T: 021 433 5820 E: hospitality@cit.ie



Course & Module Information, and to apply online, visit www.cit.ie/course/FTCXXC6

#### **Module Code**

HOSP6012

#### Aim

This course aims to give participants an introduction to the knowledge, skills and aptitude necessary to become competent bartenders.

This is a hands-on course where the student will gain practical experience in class.

#### Content

- Responsible Service of Alcohol
- Attributes of the Professional Bartender
- Customer Care
- Basic Bar Legislation
- Service of Beverages: both alcoholic and non-alcoholic
- Product Knowledge
- Cellar and Cold Room Equipment
- Cocktails and Wines and Wine Service

- Use of Specialised Equipment
- Hygiene and Safety Procedures
- Beer: Types, Service and Sales

#### **Duration & Delivery**

The course commences in September and is operated on one evening per week over the semester and consists of a 3 hour class each Tuesday evening from 6.30pm to 9.30pm.

#### **Apply**

Apply online or by application form (available by email hospitality@cit.ie). Places are limited on this course.

#### **Award**

CIT: Single Module Certification (5 ECTS credits at Level 6 on the National Framework of Qualifications).



#### (Level 6)

Course Fee

€450

Enquiries

Roisín Clancy T: 021 433 5820

E: hospitality@cit.ie

Course Code CR FTCXXD 6

Course & Module Information, and to apply online, visit www.cit.ie/course/FTCXXD6



#### **Module Code**

HOSP6044

#### Aim

An introduction to the world of cocktails, establishing a practical base in the methods of cocktail preparation and service. This is a hands-on course where the student will gain practical experience in class.

#### Content

- Product knowledge
- History of Cocktails
- The structure of the Cocktail
- Methods of Cocktail making
- Use of equipment
- Production of Traditional and Contemporary Cocktails
- Use of garnishes
- · Developing Cocktail and mixed drink menus
- Introduction to Molecular Mixology

#### **Duration & Delivery**

The course commences in February and is operated on one evening per week over the semester and consists of a 3 hour class each Tuesday evening from 6.30pm to 9.30pm.

#### **Apply**

Apply online or by application form (available by email hospitality@cit.ie). Places are limited on this course.

#### **Award**

CIT: Single Module Certification (5 ECTS credits at Level 6 on the National Framework of Qualifications).



(Level 7)

### Course Code **TBC**

Course Fee €450

#### **Enquiries**

Roisín Clancy T: 021 433 5820 E: hospitality@cit.ie



Course & Module Information, and to apply online, visit www.cit.ie/th

#### **Module Code**

TBC

#### Aim

An introduction into the field of food photography and styling to enhance culinary artistic skills.

This course is suitable for those with a knowledge of food, and basic camera skills. Students are required to bring their own digital camera to class and will need access to a camera tripod.

Students will have access to photoshop, and a photographic studio with a studio lighting session during their studies. Students will be expected to develop their projects outside of class-time for analysis and discussion within contact hours. Final assessment is by way of a portfolio of images with accompanying evidence of learning.

#### Content

- Basic Photographic Techniques of the Trade
- Choosing and Treating Ingredients
- Required Tools of the Trade
- Product Presentation
- Advertising, Marketing and the Promotion of Food within a Media Context
- Public Relations and writing styles for PR (subject to change)

#### **Duration & Delivery**

This course operates one evening per week on Monday evenings over a semester and consists of 3 hour classes.

#### **Apply**

Apply online or by application form (available by email hospitality@cit.ie). Places are limited on this course.

Delivery of this course is subject to sufficient number of applicants.

#### **Award**

CIT: Single Module Certification (5 ECTS credits at Level 7 on the National Framework of Qualifications).



### **Management Principles for Services**

#### (Level 6)

€450

Course Fee

**Enquiries** 

Roisín Clancy T: 021 433 5820

E: hospitality@cit.ie

Course Code CR FTCXXA 6

Course & Module Information, and to apply online, visit www.cit.ie/course/CRFTCXXA6



#### **Module Code**

HOSP6013

Many organisations are in a position where their supervisors have excellent technical skills, but they often lack management skills which are essential to be an effective supervisor. There is increasing evidence that people management is positively related to superior organisational performance.

#### **Admission Requirements**

This course is suitable to learners who have previously undertaken courses in culinary, tourism or hospitality operations. Applicants with sufficient industry experience may be considered.

#### Aim

This course is designed specifically with the needs of the hospitality and tourism sector in mind. It is ideally suited to existing Supervisors who have not previously had the opportunity to formally develop their supervisory and management skills. Equally, the course will meet the needs of persons who have ambitions to become supervisors.

#### Content

- · Management Roles, Skills and Functions
- Business Ethics and Corporate Responsibility
- Law and Technology as drivers of change
- · Planning and Decision Making
- Organisation Structure and Design
- · Motivation and Leadership Theory and Practice
- Human Resources Management
- · Marketing and Customer Care
- Production Planning, Styles and Control

#### **Duration & Delivery**

This course commences in September and will operate one evening per week over the semester.

#### **Apply**

Apply online or by application form (available by email hospitality@cit.ie). Places are limited on this course.

#### **Award**

CIT: Single Module Certification (5 ECTS credits at Level 6 on the National Framework of Qualifications).



## Revenue Management & Distribution

(Level 8)

Course Code
CR FTCXXA 8

Course Fee €450

#### **Enquiries**

Roisín Clancy T: 021 433 5820 E: hospitality@cit.ie



Course & Module Information, and to apply online, visit www.cit.ie/course/CRFTCXXA8

#### **Module Code**

**TOUR8009** 

The area of Revenue Management in the hospitality industry is of increasing importance in the overall strategic direction of the organisation. This course explores the rationale, theory and practice of Revenue Management and Distribution, which seeks to maximise the revenue and profit generated by the limited capacity associated with hospitality businesses. The module will explore the hotel rooms division, along with other applications to tourist attractions, airlines, golf clubs and restaurants, along with conference and event management.

#### **Admission Requirements**

This course is suitable for learners who have previously undertaken courses in tourism or hospitality operations, along with those who have sufficient industry experience in the area.

#### **Aim**

This course is designed specifically for those in the hospitality and tourism industries. It is ideally suited to those who are moving into management positions and who need to gain an appreciation for revenue management and its application to the organisation. The course is an ideal form of professional development for new or aspiring managers.

#### Content

- Introduction to Revenue Management
- Segmentation and Revenue Management
- Revenue Management Implementation
- Pricing
- Distribution and Channel Management
- Forecasting Demand and Overbooking
- Revenue Management Strategies and Tactics
- Revenue Management in Tourism/Service Industries

#### **Duration and Delivery**

This course commences in February on one evening per week over the semester, from 6.30pm to 9.30pm.

#### **Apply**

Apply online. Online applications for this programme open annually in October for commencement in the following February. The closing date for applications is 15th January. Places are limited on this course and subject to availability.

#### **Award**

CIT: Single Module Certification (5 ECTS credits at Level 8 on the National Framework of Qualifications).

**Note:** Modifications to the configuration of the course may take place in accordance with changing requirements.





## **Head of School**

## **Dr Joseph Harrington**

The School consists of the following Departments:

- Architecture
- Civil, Structural & Environmental Engineering
- Construction

Information evening for continuing education courses for the School of Building & Civil Engineering will take place at the CIT Bishopstown Campus on Wednesday 4th September 2019, 5.30pm to 7.00pm. Staff will be in attendance to offer career guidance and assistance.

# School of Building & Civil Engineering

Department of Civil, Structural & Environmental Engineering

## Courses

- Higher Certificate in Engineering in Civil Engineering (Level 6)
- Bachelor of Engineering in Civil Engineering (Level 7)
- Bachelor of Engineering in Environmental Engineering (Level 7)
- Certificate in Building Information Modelling (BIM) Technologies (Level 7)
- Postgraduate Diploma in Structural Engineering (Level 9)
- Postgraduate Diploma in Civil Engineering (Environment & Energy) (Level 9)
- Master of Engineering in Structural Engineering (Level 9)
- Master of Engineering in Civil Engineering (Environment and Energy) (Level 9)

### **Short CPD Courses**

- Building Regulatory Engineering
- Fire Safety Certification
- Fire Safety Engineering
- Practical Land Surveying
- Digital Land Surveying and GPS



Des Walsh

## Department Secretary

Carmel Collins Location: Room A223aL T: 021 433 5950 E: carmel.collins@cit.ie

If you have any queries, please contact the Department Secretary, details above.

Each programme has its own unique web address from which you can apply online.

All programmes offered are subject to demand and places may be limited. All online applicants will receive an email confirmation. Details about eligibility, programme orientation and timetable arrangements will be sent to all applicants via email update.

For further information on entry standards to the Civil Engineering profession please refer to the Engineers Ireland website at www.engineersireland.ie

www.cit.ie/cse

# Higher Certificate in Engineering in Civil Engineering

#### (Level 6)

#### Course Fee

€300 per 5 credit module (inc. exam fee)

#### Enquiries

Des Walsh E: des.walsh@cit.ie Course Code CR CCIVE 6

Course & Module Information, and to apply online, visit www.cit.ie/course/CRCCIVE6



Part-time students who are in a position to attend by day may take modules on the programme at any time.

#### **Delivery**

Part-time by day attendance – shared delivery with full-time students, timetabled within the usual 9am – 6pm working day.

#### **Admission Requirements**

Leaving Certificate Grade O6/H7 (pre. 2017, D3 Ordinary Level) in five subjects to include Mathematics and either English or Irish. Special category students (e.g. mature students) will be considered on an individual basis.

#### **Content**

#### Stage 1

Module topic areas include Mathematics, Applied Mechanics, Engineering Science, Linear Surveying & Levelling, CAD, Construction, Health & Safety.

#### Stage 2

Module topic areas include Mathematics, Civil Engineering Materials, Structural Design, Structural Engineering, Land Surveying, Hydraulics and Hydrology, Planning & Development, Civil & Structural Engineering Construction, and Professional Studies.

#### **Structure**

The course is offered under the ACCS scheme. The accumulation of sufficient credits for the award of the Higher Certificate is expected to involve an average of three years part-time study and the course modules are offered on that basis as follows:

#### CCIVE\_6 Year 1

Modules from Stage 1:

Topics typically include Mathematics, Engineering Science, Engineering Communication, Land Surveying, and Construction.

#### CCIVE\_6 Year 2

Modules from Stage 1 and modules from Stage 2: Topics typically include Applied Mechanics, Health & Safety (Stage 1), Mathematics, Civil Engineering Materials, Land Surveying Control, Structural Design, Civil & Structural Engineering Construction, Professional Studies (Stage 2).

#### CCIVE\_6 Year 3

Modules from Stage 2:

Topics typically include Practical Land Surveying, Structural Engineering, Structural Design, and Hydraulics and Hydrology.

#### **Award**

Higher Certificate in Engineering in Civil Engineering (Level 6 on the National Framework of Qualifications).

#### **Further Studies at CIT**

Higher Certificate graduates are eligible to apply for the BEng in Civil Engineering (Level 7 on the National Framework of Qualifications).

www.cit.ie/cse 63

# Bachelor of Engineering in Civil Engineering

(Level 7)

Course Code CR CCIVE 7

#### **Application**

Apply online at www.cit.ie/course/CRCCIVE\_7

#### Course Fee

€300 per 5 credit module (inc. exam fee)

#### **Enquiries**

Des Walsh E: des.walsh@cit.ie

# Bachelor of Engineering in Environmental Engineering

(Level 7)

Course Code
CR CENVI 7

#### **Application**

Apply online at www.cit.ie/course/CRCENVI\_7

#### Course Fee

€300 per 5 credit module (inc. exam fee)

#### **Enquiries**

Des Walsh E: des.walsh@cit.ie

Part-time students who are in a position to attend by day may take modules on the programme at any time.

#### **Delivery**

Part-time by day attendance – shared delivery with full-time students, timetabled within the usual 9am – 6pm working day.

The below websites have information on recommended textbooks, average weekly workload, assessments, and exams.

- 1) Civil Engineering: www.cit.ie/course/CRCCIVE7
- 2) Environmental Engineering: www.cit.ie/course/CRCENVI7

#### **Admission Requirements**

Higher Certificate in Engineering in Civil Engineering (NFQ Level 6). Holders of other relevant qualifications will be considered for admission on an individual basis.

#### Structure

This course is offered under the ACCS scheme. ACCS is an acronym for "Accumulation of Credits and Certification of Modules". This scheme allows students instead of studying an entire course – to study one or more modules of that course. Modules passed, are certified individually, and can be accumulated, leading to an award of a Degree. The accumulation of sufficient credits for the award of the BEng is expected to involve a minimum of two years part-time study and the course modules are offered on that basis.

#### **Further Studies**

BEng (Ord.) graduates may be eligible to apply for Honours Civil and Structural Engineering Degree courses (NFQ Level 8). The Engineers Ireland Graduate Diploma is also a possible route of progression to full membership of Engineers Ireland for those holding the appropriate minimum entry requirements.

#### **Award**

- Bachelor of Engineering in Civil Engineering (Level 7 on the National Framework of Qualifications) or
- Bachelor of Engineering in Environmental Engineering (Level 7 on the National Framework of Qualifications).



# Certificate in Building Information Modelling (BIM) Technologies

(Level 7)

#### Course Fee

€1,500 (Multiple applications from the same companywill be eligible for a 10% discount for 2 attendees, 15% for 3 attendees or more)

#### **Enquiries**

Ted McKenna T: 021 433 5950 E: ted.mckenna@cit.ie Course Code CR CBIMG 7

Course & Module Information, and to apply online, visit www.cit.ie/course/CRCBIMG7



#### **Duration & Delivery**

September – December Provisional timetable: Tuesdays 5.30pm – 9.30pm and Fridays 2.30pm – 8.30pm

#### **Admission Requirements**

Applicants should have a minimum of a Level 6 architectural technology or engineering or construction related qualification. Equivalent recognition may be given through the Recognition of Prior Learning (RPL) process on an individual case-by-case basis to candidates who have not achieved this academic standard but who can demonstrate significant relevant professional experience in the Built Environment discipline, visit www.cit.ie/rpl.

#### Aim

The undergraduate/postgraduate Certificate in Building Information Modelling Technologies (BIM) is a three module 15 credit part-time programme. This programme provides an opportunity for architectural, engineering and construction degree graduates, or qualifying students, to acquire effective skills and knowledge in the application of Building Information Modelling (BIM) methodologies and technologies within a multidisciplinary and collaborative approach to building design and construction.

Participants will gain experience in using industry standard technology such as Autodesk Revit, Navisworks, Recap 360, BIM 360 Glue and BIM 360 Field or other equivalent software. The option of an insight into GIS, which is an effective BIM tool, is also provided by this programme if selected as the preferred elective. The programme is delivered by academic staff involved in BIM research combined with industry professionals charged with the delivery of BIM projects in Ireland and abroad.

Overall, this award will enhance employment prospects where there is an ever increasing identified skills need both nationally and internationally. The programme will build on participants existing experience of the Architecture, Engineering and Construction (AEC) sector and introduce experience in working within a collaborative environment and enabled by the latest technological advances which support industry.

#### Content

The programme comprises two mandatory modules and one elective module, all modules are taken over a single semester.

#### **Mandatory Modules**

INTR7018 Collaborative BIM 1 INTR7019 Collaborative BIM 2

#### Elective Modules (choose one)

INTR6016 Introduction to Geographic Information Science INTR6021 3D Built Environment Modelling

#### What the course students say:

"The certificate course on BIM at CIT is an excellent course. It is very intensive and covers every aspect of BIM, from design, software, process and standards. Anyone who is in the process of heading down the road of BIM would definitely benefit from doing this course. Having outside lecturers who are currently involved in delivering BIM projects was a huge bonus. An excellent course, well organised and extremely well delivered." John O'Connell, Architectural & Metal Systems (AMS) Ltd.

#### **Award**

Special Purpose Award – Certificate in Building Information Modelling Technologies (Level 7 on the National Framework of Qualifications).

www.cit.ie/cse 6

# Postgraduate Diploma in Structural Engineering

(Level 9)

Course Code
CR CSTRE 9-Y5

Course Fee €5,400

#### **Enquiries**

John Justin Murphy T: 021 432 6741 E: johnjustin.murphy@cit.ie

# Postgraduate Diploma in Civil Engineering (Environment & Energy)

(Level 9)

Course Code CR\_CENVE\_9

Course Fee €5.400

#### **Enquiries**

Leonard O'Driscoll T: 021 432 6563

E: leonard.odriscoll@cit.ie

The Department offers two taught Postgraduate Diploma in Engineering programmes specialising in the fields of

- 1) Structural or
- 2) Civil Engineering (Environment and Energy).

#### **Duration & Delivery**

The next opportunity for part-time students to enrol on these programmes will be for the academic year 2020/21.

These programmes are delivered on a part-time basis, i.e. two academic years, requiring attendance on two evenings, and a Friday afternoon per week, in each semester.

Please refer to the webpage below for the latest information in relation to next course delivery.

- 1) Structural: www.cit.ie/course/CRCENEN9
- Civil Engineering (Environment and Energy): www.cit.ie/ course/CRCENEN9

#### **Admission Requirements**

Applicants should hold a minimum of a Second Class Honours Grade 2 in a professionally accredited Level 8 Honours Degree programme in Civil or Structural Engineering. Equivalent recognition may be given through the Recognition of Prior Learning (RPL) process on an individual case-by-case basis to candidates who have not achieved this academic standard but who can demonstrate significant relevant professional experience in the discipline of Structural Engineering or

Civil/Environmental/Energy Engineering for the respective programmes, visit www.cit.ie/rpl.

#### **Aim**

The taught Postgraduate in Engineering programmes are designed to:

- deepen the postgraduate student's technical knowledge, skillsand competences in the field of specialisation
- broaden knowledge in other areas such as Sustainability, Management, and Business

Additionally, the MEng in Structural Engineering programme will provide preparation for the Institute of Structural Engineers Professional Practice Examinations by developing structural analysis and design skills.

#### **Structure**

The programmes are offered to part-time students under the ACCS scheme. The accumulation of sufficient credits for the award of the Postgraduate Diploma requires the accumulation of 60 credits.

On successful completion of the relevant 60 credits a student may opt to transfer to the taught MEng in Structural Engineering/MEng in Civil Engineering (Environment and Energy) programme – the successful completion of an additional 30 credit thesis module will qualify the student for the MEng award.

# Master of Engineering in Structural Engineering

#### (Level 9)

Course Fee

€7,000

**Enquiries** 

John Justin Murphy T: 021 432 6741

E: johnjustin.murphy@cit.ie

Course Code CR\_CSTRU\_9

# Master of Engineering in Civil Engineering (Environment & Energy)

(Level 9)

Course Fee €7,000

**Enquiries** 

Leonard O'Driscoll T: 021 432 6563

E: leonard.odriscoll@cit.ie

Course Code CR\_CENEN\_9

The Department offers two taught MEng programmes specialising in the fields of

- 1) Structural and
- 2) Civil Engineering (Environment and Energy).

The programmes are fully accredited by Engineers Ireland as satisfying the new educational standard for the title Chartered Engineer.

#### **Duration & Delivery**

These programmes are delivered on a part-time basis, i.e. two academic years, requiring attendance on two evenings, and a Friday afternoon per week, in each semester.

Please refer to the webpage below for the latest information in relation to next course delivery.

- 1) Structural: www.cit.ie/course/CRCENEN9
- Civil Engineering (Environment and Energy): www.cit.ie/ course/CRCENEN9

#### **Admission Requirements**

Applicants should hold a minimum of a Second Class Honours Grade 2 in a professionally accredited Level 8 Honours Degree programme in Civil or Structural Engineering. Equivalent recognition may be given through the Recognition of Prior Learning (RPL) process on an individual case-by-case basis to candidates who have not achieved this academic standard but who can demonstrate significant relevant professional experience in the discipline of Structural Engineering or

Civil/Environmental/Energy Engineering for the respective programmes, visit www.cit.ie/rpl.

#### Aim

The taught Master of Engineering programmes are designed to:

- deepen the postgraduate student's technical knowledge, skills and competences in the field of specialisation
- develop an ability to carry out in depth research in a chosen field of Engineering, to draw conclusions from the research and present research findings
- broaden knowledge in other areas such as Sustainability, Management, and Business

Additionally, the MEng in Structural Engineering programme will provide preparation for the Institute of Structural Engineers Professional Practice Examinations by developing structural analysis and design skills.

#### **Structure**

The programmes are offered to part-time students under the ACCS scheme. The accumulation of sufficient credits for the award of the MEng requires the accumulation of 90 credits; 50 credits are associated with taught modules, 40 credits associated with the thesis work (2x5 credits preparatory modules and the 30 credit thesis). A student may opt to exit the course with a Postgraduate Diploma award should he/she accumulate 60 credits and not wish to complete the final 30 credit thesis module.

## **Building Regulatory Engineering**

(online delivery available)

(Level 8)

## Course Code CRCBREG8

#### Course Fee

€595 (includes course notes/exam and assessment fees)

#### **Enquiries**

Andrew Macilwriath T: 021 433 5950 E: andrew.macwriath@cit.ie



The course is based on the Module Descriptor CIVL8004 Building Regulatory Engineering.

This newly updated course, will cover the recently enacted Building Control Amendment Regulations 2014, together with its associated Code of Practice. This SI 9 has significantly changed the way buildings are inspected and certified, and will hopefully in turn bring more work to construction professionals. Part of the inspection procedure will include CE marking of materials in accordance with the Construction Products Regulations which came into effect July 2014. A third area that has been added to this short course is the Energy Performance of Buildings Regulations 2012. This course also addresses all key aspects of the building regulations, provides a brief introduction to the Eurocodes, and should be invaluable to both new users of the building regulation guidance documents, and those that may enjoy a refresher course.

All those involved in the construction industry will find this short course useful, particularly those involved in design, detailing, construction overseeing & inspection, and certification of building projects.

#### **Duration & Delivery**

#### **Delivery Mode A – On-Campus Attendance:**

Typically, the hours will be 6pm – 9pm Friday evenings and 9am – 4pm Saturdays for a total of four weekends, exact dates are published on the programme webpage. Information updates may be obtained by contacting the Department of Civil, Structural & Environmental Engineering; the Course Coordinator is Mr Andrew Macilwraith, contact details as above.

**Delivery Mode B – Online Delivery:** Subject to demand, the Department will also offer a web based distance learning delivery of this programme available for part-time students; the course can be completed in one semester (13 weeks). Attendance at CIT will be required for the final assessment.

#### **Admission Requirements**

Applicants should hold a minimum of a NFQ Level 7 qualification in Civil/Structural Engineering or Architecture or Architectural Technology or in a cognate discipline.

#### **Award**

Single Module Certification (5 ECTS credits at Level 8 on the National Framework of Qualifications).



## Fire Safety Certification

#### (Level 8)

Course Fee €595

#### **Enquiries**

Andrew Macilwriath
T: 021 433 5950
E: andrew.macwriath@cit.ie

Course Code
CR\_CCSXXC\_8 (Sem1)
CR\_CCSXXD\_8 (Sem2)

Course & Module Information, and to apply online, visit www.cit.ie/course/CCSXXD8Y0



The course is based on the Module Descriptor INTR8029 Fire Safety Certification.

This newly developed module addresses fire safety certification legislation and guidance documents for all of the main building types, it should be invaluable to both new users of the relevant fire safety codes, and those that may enjoy a refresher course. All building designers and many contractors will find this short course useful, particularly those involved in fire safety design, and certification of building projects.

#### **Duration & Delivery**

#### 1. Mode A: Attendance at CIT

Delivery – On-Campus Attendance. Typically, the hours will be 6pm – 10pm Friday evenings and 9am – 2pm Saturdays for a total of four weekends.

#### 2. Mode B: Online Delivery

The online delivery course will be offered over a 13 week period, one evening (provisionally Wednesdays 6pm – 9pm, including tutorials) per week.

Lectures may be viewed live, with interaction opportunities available via questions typed in at the keyboard by registered students, or may be viewed on the lecture recordings which will be made available for the duration of the semester. Attendance at CIT Bishopstown Campus in week 14 or 15 for a terminal examination assessment of 2 hours duration will be required.

#### **Admission Requirements**

Applicants should hold a minimum of a NFQ Level 7 qualification in Civil/Structural Engineering or Architecture or Architectural Technology or in a cognate discipline.

#### Content

- Key Fire Engineering Concepts
   Introduction, history of fire engineering design, key fire safety concepts, fire related legislation, fire related statistics.
- Fire Safety in Buildings
   Means of Escape (ASET-RSET), combustibility of linings,
   compartmentalization, and building separation design.
- Fire Safety Legislation Irish and International Fire Safety Legislation.
- Prescriptive Fire Safety Design
   Prescriptive Fire Safety Codes and Standards, both Irish and International, for each occupancy type and classification, including more complex buildings.
- Accessibility and Escape from Fire
   Accessibility relating to means of escape, relevant legislation, safety aspects and accessible design.

#### **Award**

Single Module Certification (5 ECTS credits at Level 8 on the National Framework of Qualifications).

www.cit.ie/cse 69



## Fire Safety Engineering

#### (Level 8)

#### Course Fee

€595 (includes all course notes and exam assessment fees)

#### Enquiries

Andrew Macilwraith
T: 021 433 5950
E: andrew.macilwraith@cit.ie

Course Code CR\_CCSXX\_8

Course & Module Information, and to apply online, visit

www.cit.ie/course/CRCCSXX8



The short course is based on the Module Descriptor CIVL8030.

#### **Overview**

This newly developed course, will cover design using fire safety engineering principles, together with prescriptive design of several building types, and should be invaluable to both new users of the relevant fire safety codes and standards, and those that may enjoy a refresher course. All building designers and many contractors will find this short course useful, particularly those involved in fire safety design, and certification of building projects.

#### Content

- Fire development within an enclosure
   Analyses of time to flashover, fire growth rates, effects of suppression, heat release rates, and calorific values.
- Fire & smoke spread outside initial fire enclosure
   Analyses of smoke containment, plume shape, stratification of smoke, optical density of smoke, and mechanisms of fire spread.
- Fire safety of residential and industrial buildings
   Fire safety engineering comparisons with prescriptive standards for residential and industrial buildings.
- Probabilistic fire safety risk assessments
   Analyses of fire safety risks using, probabilistic risk assessment, comparative and absolute analysis, event tree and fault tree analysis, survivor probability distributions and damage areas after flashover.

#### **Duration & Delivery**

#### 1. Mode A: Attendance at CIT

Delivery – On-Campus Attendance. Typically, the hours will be 6pm-10pm Friday evenings and 9am-2pm Saturdays for a total of four weekends.

#### 2. Mode B: Online Delivery

The online delivery course will be offered over a 13 week period, one evening (provisionally Wednesdays 6pm – 9pm, including tutorials) per week.

Lectures may be viewed live, with interaction opportunities available via questions typed in at the keyboard by registered students, or may be viewed on the lecture recordings which will be made available for the duration of the semester.

Attendance at CIT Bishopstown Campus in week 14 or 15 for a terminal examination assessment of 2 hours duration will be required.

#### **Admission Requirements**

Applicants should hold a minimum of a NFQ Level 7 qualification in Civil/Structural Engineering or Architecture or Architectural Technology or in a cognate discipline. Further information in relation to the CIT mode of online delivery may be found at http://tel.cit.ie/studyingonline

#### **Award**

Single Module Certification (5 ECTS credits at Level 8 on the National Framework of Qualifications).

www.cit.ie/cse 71

(Level 7)

## Course Code CR\_CPLSU\_7

Course Fee €600

#### **Enquiries**

Jim O'Byrne T: 021 432 6761 E: jim.obyrne@cit.ie



The course is based on the Module Descriptor CIVL7025 Practical Land Surveying.

This is a short CPD course for those who have certified competence in Land surveying, linear surveying and levelling. It is particularly suited to construction personnel who are involved with the organisation of surveying and setting out on construction sites. Please note that a delivery of this programme occurs when sufficient demand exists. Applications are held on file and contact is made with interested applicants when the minimum number of students required to deliver the course has been attained.

Having completed this module, an individual would expect to be able to:

- Organise resources, record and process survey data using specialised equipment (e.g. Total Station, GPS, Digital Level)
- Use computer applications to process and manipulate survey
- Use specialised equipment (e.g. Total Station, GPS, Digital Level) to set out construction works
- Process and present in an appropriate format the outcomes of survey or setting out exercises
- · Work as the leader in a team carrying out surveying exercises

#### Content

#### **Electromagnetic Distance Measurement**

Construction and use of equipment. Sources of error and accuracy. Checking adjustment. Field procedures.

#### **Total Stations**

Data capture. Setup data. Feature codes, strings and digital ground modelling. Coordinate systems. Software and hardware requirements.

#### Setting out

Accuracy specification. Stages in setting out. Generation of setting out data. Methods of marking and referencing.

#### **Data Processing**

Data formats. Software systems. Digital Terrain Modelling. Data presentation, plans, sections and models. Calculation of volumes.

#### **Global Positioning Systems**

Introduction to practical Applications of Global Positioning Systems. Principles of operation. Space, control and user segments. Differential GPS.

#### **Duration & Delivery**

The course is typically offered over a number of days, including Saturdays. Exact dates and timetable arrangements are available on the programme webpage. Typically, the hours may be 6pm – 9pm Friday evenings and 9am – 4pm Saturdays for a total of four weekends. Information updates may be obtained by contacting the Department of Civil, Structural & Environmental Engineering. The Course Coordinator is Mr Jim O'Byrne, contact details as above.

#### **Award**

CIT Single Module Certification in Practical Land Surveying (5 ECTS credits at Level 7 on the National Framework of Qualifications).

## Digital Land Surveying and GPS

(Level 7)

Course Fee €600 **Enquiries** 

Jim O'Byrne T: 021 432 6761 E: jim.obyrne@cit.ie Course Code CR\_CDLSU\_7

Course & Module Information, and to apply online, visit www.cit.ie/course/CRCDLSU7



The course is based on the Module Descriptor CIVL7005 Digital Land Surveying and GPS.

This is a short CPD course for those who have certified competence in Practical Land Surveying. It is particularly suited to construction personnel who are involved with the organisation of surveying and setting out on construction sites. Please note that a delivery of this programme occurs when sufficient demand exists. Applications are held on file and contact is made with interested applicants when the minimum number of students required to deliver the course has been attained.

Having completed this module, an individual would expect to be able to:

- establish survey control of determined accuracy using GPS equipment and OSI reference
- $\bullet$  compute setting out data from survey and design information
- manipulate field survey data and incorporate design data using specialised software
- critically evaluate the use of advanced positioning instrumentation for setting out

#### Content

#### **Ordnance Survey**

Coordinate systems: Irish National Grid, Irish Transverse Mercator. Heights & Elevations, Geoid Models, Site Adjustments. OSI services.

#### **Global Positioning Systems**

Fundamentals of operation for surveying. Correction and sources of error. Radio regulations. Real time kinematic (RTK), Static and Faststatic operation. Field techniques, RTK and Setting Out.

#### **Data Processing**

Data capture. Setup data. Feature codes, strings and digital ground modelling. Software and hardware requirements. Data formats. Software systems. Data transfer, Real time and Post processing systems. Adjustments, data export and reports.

#### **Setting Out**

Principles of setting out. Coordinate positioning, total stations and GPS. Controlling verticality. Laser instruments. Machine Control. Quality assurance and accuracy.

#### **Duration & Delivery**

The course is typically offered over a number of days, including Saturdays. Exact dates and timetable arrangements are available on the programme webpage. Typically, the hours may be 6pm – 9pm Friday evenings and 9am – 4pm Saturdays for a total of four weekends. Information updates may be obtained by contacting the Department of Civil, Structural & Environmental Engineering. The Course Coordinator is Mr Jim O'Byrne, contact details as above.

#### **Award**

CIT Single Module Certification in Digital Land Surveying and GPS (5 ECTS credits at Level 7 on the National Framework of Qualifications).

www.cit.ie/cse 73

# School of Building & Civil Engineering

Department of Construction

## Courses

- Master of Science in Construction Project Management (Level 9)
- Certificate in Mechanical & Electrical Quantity Surveying (Level 8)
- Higher Certificate in Science in Construction (Level 6)
- Bachelor of Science in Construction Management (Level 7)
- Bachelor of Science in Quantity Surveying (Level 7)



Dr Daniel Cahill

## Department Secretary

Carmel Collins Location: Room A223aL T: 021 433 5950 E: carmel.collins@cit.ie

If you have any queries, please contact the Department Secretary, details above.

Each programme has its own unique web address from which you can apply online.

All programmes offered are subject to demand and places may be limited. All online applicants will receive an email confirmation. Details about eligibility, programme orientation and timetable arrangements will be sent to all applicants via email update.

## Master of Science in Construction Project Management

#### (Level 9)

Course Fee

€5,000

Enquiries

Colin Donoghue T: 021 433 5412 E: cpmenquiries@cit.ie Course Code CR\_CCOPM\_9

Course & Module Information, and to apply online, visit www.cit.ie/course/CRCCOPM9



#### **Duration & Delivery**

Part-time students may take modules on a phased basis and achieve the programme qualification over a number of academic years, typically 2 years.

#### **Admission requirements**

Applicants must have successfully completed a Level 8 Built Environment Programme or equivalent\* with a minimum Second Class Honours Grade 2.

\*Equivalence: Where an applicant has not completed a relevant Level 8 programme equivalence is assessed through the formal Recognition of Prior Learning (RPL) process used in CIT (www.cit.ie/rpl).

#### **Aim**

A unique programme, developed following Industry demand and Government calls for upskilling, which will provide students with advanced managerial skills in Construction Project Management.

Graduates will be equipped to meet the challenges of managing the design and construction of modern complex developments in a diverse business environment.

The comprehensive module range offers the student extensive choice, facilitating individual areas of expertise.

The learning experience involves a variety of modes, including classroom based lectures, individual and group project work, tutorials, seminars and presentations by visiting experts.

A research dissertation is completed by each student during Stage 2/Semester 1.

#### **Career Opportunities**

The programme has been designed to suit the distinctive needs of the construction industry and offers excellent career opportunities for graduates as project managers or contract managers with design and construction companies, project management consultants, and government agencies.

#### **Content**

#### Stage 1/Semester 1

Contract Administration/Dispute Resolve
Sustainability in Engineering
Research Skills and Practice
Construction Project Management
Org Management & Knowledge Management

#### Electives (choose 1)

Corporate Construction Finance
Mechanical & Electrical Services Cost Planning
Strategic Construction
Development Appraisal
Advanced Measurement
Entrepreneurship
New Venture Management & Growth
Strategic Business Management

#### Stage 1/Semester 2

Eng. Project Management Global Project Management Research Project Development Construction Value & Risk Management

#### Electives (choose 2)

M&E Measurement
Site Management and Technology
Construction Psychology
Construction Project Controls
Commercial Management
Infrastructure Asset Management
Adaptation and Reuse 2
Environmental Management
Intl Strategies & Organisation
Leadership & Change Management
Managing Innovation

#### Stage 2/Semester 1

Research Project Realisation (30 ECTS)

**Note:** Delivery of this programme is subject to sufficient number of applicants.

www.cit.ie 75

# Certificate in Mechanical & Electrical Quantity Surveying

(Level 8)

Course Code CR CMEOS 8

#### Course Fee

Overall Fee:  $\le$ 1,500 (only applicable when ALL three modules are taken in Semester 1) Individual module fee:  $\le$ 600

Mark Higgins T: 021 433 6198

**Enquiries** 

E: megs@cit.ie



#### **Duration & Delivery**

The course is delivered in one semester. All three modules are undertaken in Semester 1 between September and January.

#### **Admission Requirements**

Applicants must have achieved a minimum Level 7 Quantity Surveying qualification or equivalent. Where an applicant has not completed a relevant Level 7 programme, equivalence is assessed through the formal Recognition of Prior Learning (RPL) process used in CIT (www.cit.ie/rpl).

#### Aim

This Certificate programme will provide academically qualified Quantity Surveying graduates with the technical skills and capability in the area of Mechanical and Electrical Quantity Surveying. It enhances their abilities as highly effective practitioners in this specialised area once they have a number of years of practical work experience. It develops the core technical skills of a Mechanical and Electrical Quantity Surveyor in the specific areas of services technology, cost planning and measurement of mechanical and electrical services.

#### **Career Opportunities**

It is anticipated that undertaking this programme will enable practitioners, both in Quantity Surveying and Services, to develop their careers in this specialised area of Mechanical and Electrical Quantity Surveying.

#### **Content**

#### **Building Services Technology Evaluation**

Identification of, characteristics and selection criteria for cost-effective and sustainable environmental, public health, power supply, security and operational services in residential, commercial and industrial buildings.

#### **M&E Cost Planning**

This module will enable the student to understand and use cost data and resource information for the purpose of cost planning and control of Mechanical and Electrical Services.

#### **M&E Measurement**

This module will enable the student to measure Mechanical and Electrical Services and build up corresponding rates.

**Note:** Delivery of this programme is subject to sufficient number of applicants.

#### **Award**

Certificate in Mechanical and Electrical Quantity Surveying (Level 8 on the National Framework of Qualifications).

#### (Level 6)

# Higher Certificate in Science in Construction

#### Course Fee

€220 per 5 credit module (inc. exam fee)

#### **Enquiries**

Carmel Collins T: 021 433 5950 E: carmel.collins@cit.ie Course Code CR CCONE 6

Course & Module Information, and to apply online, visit www.cit.ie/course/CRCCONE6



#### **Delivery**

2 evenings per week 6pm – 10pm, depending on modules.

#### **Admission requirements**

Leaving Certificate Grade D3 (Ordinary level) in five subjects to include Mathematics and either English or Irish. Special category applicants (e.g. mature students) will be considered on an individual basis.

#### Structure

This course is offered under the ACCS Scheme. ACCS is an acronym for "Accumulation of Credits and Certification of Modules". This scheme allows students instead of studying the entire course – to study one or more modules of the course.

Modules passed, are certified individually, and can be accumulated, leading to an award of the Higher Certificate in Science in Construction. The modules to be offered in any year will be decided in consultation with the students. The accumulation of sufficient credits for the award currently involves an average of three years study for the Higher Certificate in Construction.

#### **Module Information**

www.cit.ie/course/CRCCONE6

CIT has developed a website which gives full details of all modules for all courses. The website also has information on recommended textbooks, average weekly workload, assessments and exams.

#### Content

Among the areas you would be required to study are:

#### Stage 1

Construction Technology, Building & Environmental, Measurement and Procedures, Organisation and Management, Construction Mathematics, Construction Graphics and Communications, Construction Industry and Procedures, and Materials and Structures.

#### Stage 2

Construction Technology, Building and Environmental, Measurement and Estimating, Management, Construction Economics, Construction Law, Cost Planning, and Land Surveying.

#### **Award**

Higher Certificate in Construction (Level 6 on the National Framework of Qualifications).

#### **Further Studies at CIT**

Qualified students are eligible to apply for the BSc in Quantity Surveying and the BSc in Construction Management.

**Note:** Delivery of this programme is subject to sufficient number of applicants.

www.cit.ie 77

# Bachelor of Science in Construction Management

(Level 7)

## Course Code CR CCMNE 7

#### Course Fee

€220 per 5 credit module (inc. exam fee)

#### **Enquiries**

Carmel Collins T: 021 433 5950 E: carmel.collins@cit.ie



#### **Delivery**

2 evenings per week 6pm – 10pm, depending on modules

#### **Admission Requirements**

Higher Certificate in Construction. Holders of other relevant qualifications will be considered for admission on an individual basis.

#### **Course Structure**

This course is offered under the ACCS Scheme. ACCS is an acronym for "Accumulation of Credits and Certification of Modules". This scheme allows students instead of studying the entire course – to study one or more modules of the course.

Modules passed, are certified individually, and can be accumulated, leading to an award of the Bachelor of Science in Construction Management. The modules to be offered in any year will be decided in consultation with the students. The accumulation of sufficient credits for the award currently involves an average of two years study for the Bachelor of Science in Construction Management.

#### **Module Information**

www.cit.ie/course/CRCCMNE7

CIT has developed a website which gives full details of all modules for all courses. The website also has information on recommended textbooks, average weekly workload, assessments, and exams.

#### Content

Among the areas you would be required to study are:

#### Stage 3

Construction Technology
Management
Development Economics
Construction Finance
Construction Procurement
Construction Contracts
Building and Land Surveying
Construction Resource

#### **Award**

Bachelor of Science in Construction Management (Level 7 on the National Framework of Qualifications).

**Note:** Delivery of this programme is subject to sufficient number of applicants.

#### (Level 7)

# Bachelor of Science in Quantity Surveying

#### Course Fee

€220 per 5 credit module (inc. exam fee)

#### **Enquiries**

Carmel Collins T: 021 433 5950 E: carmel.collins@cit.ie Course Code CR CCECE 7

Course & Module Information, and to apply online, visit www.cit.ie/course/CECCECE7



#### **Delivery**

2 evenings per week 6pm – 10pm, depending on modules

#### **Admission requirements**

Higher Certificate in Construction. Holders of other relevant qualifications will be considered for admission on an individual basis.

#### **Structure**

This course is offered under the ACCS Scheme. ACCS is an acronym for "Accumulation of Credits and Certification of Modules". This scheme allows students instead of studying the entire course – to study one or more modules of the course.

Modules passed, are certified individually, and can be accumulated, leading to an award of the Bachelor of Science in Quantity Surveying. The modules to be offered in any year will be decided in consultation with the students. The accumulation of sufficient credits for the award currently involves an average of two years study for the Bachelor of Science in Quantity Surveying.

#### **Module Information**

www.cit.ie/course/CRCCECE7

CIT has developed a website which gives full details of all modules for all courses. The website also has information on recommended textbooks, average weekly workload, assessments, and exams.

#### **Content**

Among the areas you would be required to study are:

#### Stage 3

Construction Technology
Measurement
Cost Planning
Development Economics
Construction Procurement
Construction Contracts
Construction Finance
Project

#### **Award**

Bachelor of Science in Quantity Surveying (Level 7 on the National Framework of Qualifications).

**Note:** Delivery of this programme is subject to sufficient number of applicants.

www.cit.ie 79





## **Head of School**

#### **Matt Cotterell**

The School consists of the following Departments & Centres:

- Mechanical, Biomedical and Manufacturing Engineering
- Centre for Advanced Manufacturing and Management Systems (CAMMS)
- Electrical and Electronic Engineering
- Process, Energy and Transport Engineering
- Centre of Craft Studies

Information evening for continuing education courses for the School of Mechanical, Electrical & Process Engineering will take place at the CIT Bishopstown Campus on Wednesday 4th September 2019, 5.30pm to 7.00pm. Staff will be in attendance to offer career guidance and assistance.

School of Mechanical, Electrical & Process Engineering

Department of Mechanical, Biomedical & Manufacturing Engineering

# Head of Department

Professor Gerard Kelly

## Department Secretary

Deirdre Burke Location: Room A285L T: 021 432 6505 E: deirdre.burke@cit.ie

## Courses

- Master of Engineering in Mechanical Engineering (Level 9)
- Bachelor of Engineering in Mechanical Engineering (Level 7)
- Mechanical Engineering Science (Level 6)
- Certificate in 3D CAD and Solid Modelling (Level 6)
- Centre for Advanced Manufacturing and Management Systems (CAMMS) See Page 88

If you have any queries, please contact the Department Secretary, details above.

Each programme has its own unique web address from which you can apply online.

All programmes offered are subject to demand and places may be limited. All online applicants will receive an email confirmation. Details about eligibility, programme orientation and timetable arrangements will be sent to all applicants via email update.

# Master of Engineering in Mechanical Engineering

(Level 9)

Course Fee €7,000

Enquiries

Prof. Gerard Kelly T: 021 433 5438 E: ger.kelly@cit.ie Course Code CR\_EMENG\_9

Course & Module Information, and to apply online, visit www.cit.ie/course/CREMENG9



#### Aim

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 in the following ways:

- Deepen your technical knowledge, skills and competencies in the core field of Mechanical Engineering through modules in computational methods in solids and fluids, control engineering, and industrial heat and power.
- Deliver specialist knowledge in areas such as integrated design and process modelling and lean sigma.
- Enhance your knowledge and entrepreneurship through strategic business management and managing innovation.
- Enable you to carry out in depth research in an industrially focused sector of Mechanical Engineering through specialist modules in research skills, project realisation, and thesis preparation.

#### **Duration**

It is envisaged that students could complete the programme over 3 years on a part-time basis.

#### **Admission Requirements**

Applicants must have achieved a minimum of Second Class Honours in a Level 8 Honours Bachelor Degree programme in Mechanical Engineering or equivalent.

#### Content

#### Stage 1/Semester 1

Computational Solid Modelling Engineering Research Skills Lean Sigma - Advanced Stats Industrial Heat and Power Integrated Design & Manufacture

#### **Electives**

Sustainability in Engineering Strategic Business Management

#### Stage 1/Semester 2

Computational Fluid Dynamics Modelling of Manufacturing Processes Research Project Preparation

#### **Group Elective 1**

Automatic Process Control Industrial Control Systems

#### **Electives**

Control System Design Engineering Project Management Managing Innovation Free Choice Module

**Stage 1/Semester 3** (over the summer months) Project Realisation (30 ECTS)

#### **Award**

Master of Engineering in Mechanical Engineering (Level 9 on the National Framework of Qualifications).

www.cit.ie 83

# Bachelor of Engineering in Mechanical Engineering (Stage 3)

(Level 7)

## Course Code CR EMECN 7

#### Course Fee

€540 per 5 credit module (inc exam fee)

#### **Enquiries**

Tony Kelly T: 021 433 5436 E: tony.kelly@cit.ie



Course & Module Information, and to apply online, visit www.cit.ie/course/CREMECN7

This is 60 credits of the Level 7 degree course, equating to Stage 3 in the full-time programme. It comprises 8 mandatory modules, one free choice 5 credit module, and two project modules (totalling 15 credits) It is envisaged that students could complete the programme over 3 years on a part-time basis.

#### **Admission Requirements**

Higher Certificate in Mechanical Engineering (NFQ Level 6) or equivalent.

#### Content

The following four modules are likely to be offered in the 2019/2020 academic year:

#### Semester 1

Modules (September to December 2019)

Materials/Structures Mechanics – MECH7009 (5 Credits)

On successful completion of this module the learner will be able to

- Determine the fundamental transformation relations of two dimensional linear elastic analysis.
- 2. Analyse 2D determinate mechanical structures for critical elastic strength of materials parameters.
- Solve for two dimensional linear/limited three dimensional non-linear governing equations to design rotating/static machine and structural elements including: curved bars, springs, pressure vessels, rotating discs, shafts and cylinders.
- Conduct laboratory experiments in two dimensional mechanics of materials and structures as part of a team in a safe and appropriate manner and produce individual professional reports detailing results, analysis and conclusions.
- Engineering Management MANU7009 (5 Credits)

On successful completion of this module the learner will be able to

 Recognise the interests of all functional areas and the benefits of multi-functional teams in the activities of an organisation.

- 2. Discuss the nature of operations and the importance they have on long-term business success.
- Relate aspects of manufacturing method to process inefficiencies.
- 4. Recognise the importance of ethical and safety issues in the engineering profession.

#### Semester 2

Modules (January to May 2020)

• Thermofluids 3 - INTR7009 (5 Credits)

On successful completion of this module the learner will be able to

- Calculate the heat transfer rates from heat exchangers and other engineering applications. Examine by way of a written report the key factors affecting the selection of energy conversion mechanisms.
- Evaluate the operation and performance indicators of equipment associated with heating, cooling, ventilation and air conditioning thermofluid processes.
- 3. Conduct lab experiments in thermofluids as part of a team in a safe and appropriate manner.
- 4. Produce individual professional reports detailing the results, analysis and conclusions which arise.
- Manufacturing Technology MECH7007 (5 Credits)

On successful completion of this module the learner will be able to

- Calculate the forces involved in machining and forming processes.
- Select an appropriate process to produce required surface finishes.
- Determine methods to inspect precision machined engineering components.
- Identify suitable plastic materials and processing methods for parts made from plastic.

## Mechanical Engineering Science

#### (Level 6)

#### Course Fee

€1,200 for the academic year (incl. exam fee)

#### **Enquiries**

Dan O'Brien T: 021 433 5425 E: dan.obrien@cit.ie Course Code CR\_EMSCI\_6

## Course & Module Information, and to apply online, visit www.cit.ie/course/CREMSCI6



This course provides candidates with the necessary mechanical engineering science knowledge to progress to degree level studies in mechanical engineering on a part time or full time basis. It is offered on a part-time basis and requires attendance of two evenings per week for the academic year.

#### **Admission Requirements**

Applicants should have a recognised craft/technician qualification in Mechanical Engineering (or cognate discipline).

#### Content

#### Semester 1

 Mechanical Science (Statics, Stress and Strain) – MECH 6035

On successful completion of this module the learner will be able to

- Determine resultants and apply conditions of static equilibrium to plane force systems.
- Identify and quantify all forces associated with a static framework using either the method of joints or the method of sections.
- 3. Construct shear force and bending moment diagrams for beams under various loading conditions.
- 4. Determine the stresses and strains in prismatic structures due to direct/shear and thermal loads.
- Manipulate the Simple Bending and Simple Torsion equations to solve basic problems in beams and shafts having symmetrical cross sections.

#### • Technological Mathematics101 - MATH6012

On successful completion of this module the learner will be able to

- 1. Formulate and solve various equations including those involving the laws of indices and logs.
- 2. Reduce equations to linear form and interpret constants from graphs.

- 3. Use trigonometry to solve triangles, graph periodic functions and solve trigonometric equations.
- Apply differentiation to various functions, rates of change, and optimisation.
- Evaluate definite integrals, apply integration techniques to problems in Science & Engineering, and formulate differential equations.

#### Semester 2

Mechanical Science (Dynamics and Fluids) – MECH 6036

On successful completion of this module the learner will be able to

- 1. Manipulate equations of linear and angular motion.
- Apply momentum, work and energy to linear and angular systems.
- 3. Apply the laws of friction to objects on the flat and inclined planes.
- 4. Determine the forces associated with circular motion.
- 5. Use Bernoulli's equation and the continuity equation to solve problems in fluid dynamic systems.

#### Technological Mathematics201 – MATH6040

On successful completion of this module the learner will be able to

- Differentiate parametrically, implicitly, partially and solve related rates of change problems.
- 2. Apply vector algebra methods to problems involving forces and moments of forces.
- Integrate by parts and by inverse trigonometric substitution; and apply integration methods to various applied problems.
- 4. Solve and analyse simultaneous equations using matrix algebra methods.

#### **Award**

Certificate in Mechanical Engineering Science (Level 6 on the National Framework of Qualifications).

www.cit.ie 8



# Certificate in 3D CAD and Solid Modelling

#### (Level 6)

Course Fee

€840 for the academic year (incl. exam fee)

**Enquiries** 

Prof. Gerard Kelly T: 021 4326505 E: ger.kelly@cit.ie Course Code CR ECADM 6

Course & Module Information, and to apply online, visit

www.cit.ie/course/CRECADM6



This is a general course suited to those with a background in engineering. It is offered on a part-time basis and requires attendance of one evening per week for the academic year.

#### **Admission Requirements**

The applicant should be competent in two-dimensional CAD.

#### Content

This programme consists of two modules:

#### Semester 1

• Three Dimensional Design using AutoCAD - MECH6041

On successful completion of this module the learner will be able to

- 1. Use the World and User systems and define 3D co-ordinates in the construction of 3D drawings.
- 2. Use multiple viewports and views to construct 3D drawings.
- 3. Create and edit polygon meshes for surface modelling.
- 4. Construct and render 3D models in the solid model state and generate 2D views from same.
- 5. Plot multiple views from finished drawings.

#### Semester 2

• Introductory 3D Parametric Modelling - MECH6040

On successful completion of this module the learner will be able to

- 1. Use industry specific 3-D parametric modelling software.
- 2. Develop 3-D models/assemblies.
- 3. Produce 2-D working drawings from 3-D models.
- 4. Illustrate the benefits of parametric modelling for design intent.

#### **Award**

Certificate in 3D CAD and Solid Modelling (Level 6 on the National Framework of Qualifications).

www.cit.ie 87

School of Mechanical, Electrical & Process Engineering

Centre for Advanced Manufacturing and Management Systems (CAMMS)



CAMMS Head

Daithí Fallon

CAMMS Manager

E: camms@cit.ie | www.camms.ie

Mike McGrath

The Centre for Advanced Manufacturing & Management Systems (CAMMS) is attached to the Department of Mechanical, Biomedical and Manufacturing Engineering at CIT. CAMMS is a Continuing Professional Development Centre (CPD) within CIT dedicated to providing opportunities for workforce development anad personal upskilling. The centre capitalises on the extensive expertise within CIT together with external professionals to deliver up to date education and training programmes in Automation and Control, Lean Sigma, Project Management, and Manufacturing Engineering. CAMMS aims to provide careerfocused education for the benefit of the personal, intellectual and professional development of students and to solve problems directly related to skills required by industry.

Many CAMMS programmes are validated awards by CIT under delegated authority of Quality Qualifications Ireland (QQI) leading to European Credit Transfer and Accumulation System (ECTS) credits on the National Framework of Qualifications (NFQ). The Centre offers preparatory courses for the Society of Manufacturing Engineers (SME) professional exams and also serves as an offical exam site.

CAMMS is currently delivering thematic knowledge areas that reflect the strengths of the Faculty.

### Course themes include:

- Quality, Lean Sigma
- Project Management
- Automation & Control (Level 7)
- Advanced Mechatronics (Level 8)
- Manufacturing Engineering
- Biomedical Device Manufacture
- Process Plant Technology

Please refer to www.camms.ie for further details.

The Centre is a recognised training provider for Continuing Professional Development (CPD) to Engineers Ireland. Tailored courses can be delivered at your place of work or at CIT across a wide range of disciplines through consultation with the Centre's multidisciplined staff.

# School of Mechanical, Electrical & Process Engineering



## Courses

- 1.0 Mechanical, Electrical and Plumbing BIM Applications
- 2.0 Lean & Six Sigma Programmes
  - 2.1 Introduction to Lean & Six Sigma
  - 2.2 Lean Sigma Yellow Belt
  - 2.3 Lean Sigma Green Belt
  - 2.4 Lean Sigma Black Belt
  - 2.5 Lean Sigma Master Black Belt
  - 2.6 Continuous Improvement for Production Teams
- 3.0 Project Management Programmes
   3.1 Project Management Techniques
   3.2 Diploma in Project Management
- 4.0 Automation & Control Systems Programmes (Level 7)
  - 4.1 Certificate in Automation & Control Systems
    - 4.1.1 Mechatronics
    - 4.1.2 SCADA and Automation Systems
    - 4.1.3 Robotics

- 4.2 Certificate in Advanced Mechatronics (Level 8)
  - 4.2.1 Advanced Mechatronics Part 1
    4.2.2 Advanced Mechatronics Part 2
- 5.0 Manufacturing Engineering
  - 5.1 Certified Manufacturing Engineer (CMfgE)
  - 5.2 Metrology Training (AUKOM Level 1)
  - 5.3 Certificate in Intelligent Manufacturing Systems
  - 5.4 Certificate in Biomedical Device Manufacture
- 6.0 Bachelor of Engineering Degrees
  - 6.1 Bachelor of Engineering (Honours) in Process Plant Technology
  - 6.2 Bachelor of Engineering (Honours) in Advanced Manufacturing Technology

www.camms.ie 89

# 1.0 Certificate in Mechanical, Electrical and Plumbing – BIM Applications

(Level 7)

Course Code CR EMEPB 7

Course Fee €1,950

E: camms@cit.ie

W: www.camms.ie





Course & Module Information, and to apply online, visit www.cit.ie/CREMEPB7

This programme aimed at those who wish to enhance their 3D drawing and design skills in order to operate within a Building Information Management (BIM) regulated environment. It is suitable for those employed or seeking employment with design consultants or engineering/facilities departments within the pharmaceutical, biopharmaceutical, medical device, food manufacturing and water treatment sectors.

The programme has been specifically designed in response to industry needs for upskilling as identified by the South West Regional Skills Forum (SWRSF). The SWRSF (made up of manufacturing, mechanical and MEP consultancy companies) has identified BIM and Revit as two of their top three priority areas for upskilling.

#### Content

Participants will be provided with the skills necessary to contribute effectively through the use of BIM related software applications, specifically Autodesk Revit for Mechanical, Electrical and Plumbing (MEP), in conjunction with a specialised module dedicated to piping design.

Students will develop the ability to use modern computerbased engineering tools to solve well defined building services design problems and communicate effectively with the engineering community. They will learn to create and place equipment, route and coordinate pipework, add electrical components and use P&ID data all within a multidiscipline 3D environment. The programme will also incorporate the use of Piping Standards (BS, DIN, ANSI, etc.) and engineering symbols standards.

#### **Modules**

Revit Introduction – introduction to the BIM environment Revit-MEP – multidisciplinary services design 3D Piping Design – detailed piping design in a virtual environment

#### Specific content includes

- Intelligent P&ID generation linked to 3D Piping Packages
- 3D Piping and Equipment Modelling
- Estimating pipe sizes and duct sizes using Revit software
- 3D Isometrics and BOM generation
- Utilising Project Browser to generate and manage useful views
- Generating reports and schedules using Revit software

#### **Admission Requirements**

Applicants should have a minimum of a Level 6 qualification (or equivalent) in an engineering discipline such as mechanical, electrical or building services engineering. Equivalent recognition may be given through the Recognition of Prior Learning (RPL) process on an individual case-by-case basis to candidates who have not achieved this academic standard but who can demonstrate significant relevant professional experience in the Built Environment discipline, visit www.cit.ie/rpl.

#### **Duration**

September – May, one evening per week.

#### **Awarding Body**

Special Purpose Award - 15 ECTS Credits at Level 7 on the National Framework of Qualifications, awarded by Cork Institute of Technology.

# 2.0 Lean & Six Sigma Programmes2.1 Introduction to Lean & Six Sigma



**Enquiries** 

T: 021 432 6264 E: camms@cit.ie W: www.camms.ie Course Code
CR EILSS X

Course Information, and to apply online, visit www.cit.ie/course/CREILSSX



Lean is a generic process management term referring to the identification and steady elimination of waste. It is closely linked with Six Sigma because of the methodology's emphasis on reduction of process variation. Lean Sigma introduces the methods and tools used in both techniques.

**Note:** Introduction to Lean/Lean Sigma is not a pre-requisite to attending the Lean Sigma Yellow Belt, Lean Sigma Green Belt.

#### Content

- Day 1: Introduction to Lean: Introduce the participants to the background to Lean and the concepts behind reducing waste.
- **Day 2:** Introduction to Six Sigma: Explains how Six Sigma targets variation and introduces the concepts.

#### **Admission Requirements**

This programme requires no prior knowledge or experience of Lean or Lean Sigma. The programme is suitable for all personnel working within the design, manufacturing, transactional, sales or support environment. It is suitable for management and team leaders through to shop floor personnel and employees directly involved in the process.

#### **Duration**

Two full-time days.

#### Certification

CAMMS, CIT. Please contact CAMMS directly for more details.

**Note:** Places are limited for this course. Eligible candidates will be considered on a first come first served basis.

**Note:** Delivery of this programme is subject to sufficient number of applicants.

Lean Sigma Black Belt CR\_ESSBB\_8

Lean Sigma Green Belt CR\_ESSGS\_7

Lean Sigma Yellow Belt CR ELEAP 6

**Lean Sigma Introduction** CR\_EILSS\_X

www.camms.ie 9

## 2.2 Lean Sigma Yellow Belt



## Course Code CR ELEAP 6

#### Course Fee

€995\* (includes course notes and exam fees)

#### **Enquiries**

T: 021 432 6264 E: camms@cit.ie W: www.camms.ie





Course Information, and to apply online, visit www.cit.ie/course/CRELEAP6

Lean Sigma is a very successful methodology for Service Design and Operational Productivity Improvement. Lean Sigma is based on the elimination of waste and the reduction of variability in processing through engagement and respect for all staff. The Lean Sigma Yellow Belt course introduces the methods and tools for interpretation of customer requirements for service design and operations in all industry sectors. These include Public Service, Healthcare, Biopharma, Insurance, Hospitality, Charities, Software, Call Centre Service, and Manufacturing.

A certified *Lean Sigma Yellow Belt* is a professional who will be capable of applying Lean and basic Six Sigma principles and tools as part of a team to drive improvements and show measurable results. The programme consists of assessment of theory by examination, as well as assessment of practice by portfolio. The portfolio is based on the achievement of class project assignments by candidates. The course draws on both the basic problem solving tools and waste identification in processes.

#### Content

- · Introduction to Lean Sigma principles
- Lean Sigma Concepts
- Improve service processes
- · Understand Voice of the customer
- DMAIC Methodology
- Continuous Improvement Tools
- Tools for eliminating waste
- In class project work
- Workplace identification of improvement opportunites

#### **Admission Requirements**

Candidates must have a total of at least four years combined academic and industrial experience in a suitable working environment with proven ability. It is suitable for all staff.

#### Duration

Five days over three months.

#### **Awarding Body**

Single Module Award

5 ECTS Credits at Level 6 on the National Framework of Qualifications, awarded by Cork Institute of Technology.

**Note:** Places are limited for this course. Eligible candidates will be considered on a first come first served basis.

\* Discounts for groups of three or more and Corporate discounts are available. Please contact CAMMS to enquire. External support funding may also be available for this course.



#### (Level 7)



#### Course Fee

€2,250\* (includes course notes and CIT exam fees)

#### Enquiries

T: 021 432 6264 E: camms@cit.ie W: www.camms.ie Course Code CR ELSGB 7

Course Information, and to apply online, visit www.cit.ie/course/CRELSGB7



The course is aimed at all personnel working within the design, manufacturing, transactional, sales or support environment.

Lean Sigma is a very successful methodology for Service Design and Operational Productivity Improvement. Lean Sigma is based on the elimination of waste and the reduction of variability in processing through engagement and respect for all staff.

A certified *Lean Sigma Green Belt* is a professional who has expertise in Lean Sigma principles, including supporting systems and tools. A Green Belt will demonstrate project team leadership ability. Green Belts understand the application of DMAIC/DMADV models for Service Design and Operational Management in accordance with Lean Sigma principles. They are able to identify non-value added elements and activities and are able to use specific tools. The course draws on both the basic problem-solving tools and basic statistical principles.

#### Content

- Introduction to Lean and Lean Sigma, DMAIC Methodology
- · Coordinating Project Teams
- Defining the Project and setting goals
- Variation and Measurement Techniques
- Analysis of Process Data, Introduction to Statistical Tools
- Cause and Effect, FMEA (Failure Mode & Effect Analysis)
- Process Capability using SPC
- Lean Concepts and Tools
- Project Control, Measuring Success Factors

#### **Admission Requirements**

Level 6 qualification preferred. At least three years' experience in a suitable working environment with proven ability. It is suitable for management and team leaders, shop floor personnel and employees directly involved in the office or service process.

#### **Duration & Delivery**

Nine full days over three months. CIT Awarded Lean Sigma Green Belt (includes course notes and CIT exam fees).

#### **Awarding Body**

15 ECTS Credits at Level 7 on the National Framework of Qualifications, awarded by Cork Institute of Technology.

**Note:** Places are limited for this course. Eligible candidates will be considered on a first come first served basis.

\* Discounts for groups of three or more and Corporate discounts are available. Please contact CAMMS to enquire. External support funding may also be available for this course.

"SR Technics Airfoil Services in Cork repair commercial jet engine airfoils for some of the world's most prestigious airlines and overhaul shops. The work carried out at the facility is exacting, critical and highly skilled. When we began our lean journey we were fortunate to team up with CIT CAMMS. They have provided our staff with training and education on their courses including Yellow Belt, Green Belt and Black Belt in the past ten years."

Damien Carroll, Human Resources Manager, SR Technics Airfoil Services

www.camms.ie 93

(Level 8)

## Course Code CR ESSBB 8

#### Course Fee

€4,750\* (includes course notes and exam fees)

#### **Enquiries**

T: 021 432 6264 E: camms@cit.ie W: www.camms.ie





Lean Sigma is a very successful methodology for Service Design and Operational Productivity Improvement. Lean Sigma is based on the elimination of waste and the reduction of variability in processing through engagement and respect for all staff.

A certified *Lean Sigma Black Belt* is a professional who is an expert in Lean Sigma philosophies and principles, including supporting systems and tools. A Black Belt will demonstrate team leadership, understand team dynamics, and assign team member roles and responsibilities. Black Belts have a thorough understanding of all aspects of the DMAIC/DMADV models for Service Design and Operational Management in accordance with Lean Sigma principles. They have a thorough knowledge of Lean enterprise concepts, are able to identify non-value added elements and activities and are able to use specific tools. The course draws on both the basic problem-solving tools and advanced statistical principles.

#### Content

- Introduction to Lean and Lean Sigma, DMAIC Methodology
- Change Management, Team Building, Facilitation, Conflict Resolution
- Project Control, Return on Investment, Critical Success Factors
- Statistical Techniques
- Measurement System Analysis
- Hypothesis Testing, Regression, Control Charts, Process Capability
- · Design of Experiments
- Lean Sigma Supply Chain

#### Mentoring

A work-based project is undertaken as part of the course. Students will receive project support and mentoring from their tutors. Student projects can deliver savings of more than €100,000 per project. As part of the course online support data is provided for all students.

#### **Admission Requirements**

Level 6/7 qualification preferred. Green Belt qualified or a demonstration of several years of work experience in a supervision role in service or manufacturing industry is required. Experience in Lean or Six Sigma principles is desirable.

#### **Duration & Delivery**

21 full days over six months.

#### **Awarding Body**

30 ECTS Credits at Level 8 on the National Framework of Qualifications, awarded by Cork Institute of Technology.

**Note:** Places are limited for this course. Eligible candidates will be considered on a first come first served basis.

\* Discounts for groups of three or more and corporate discounts are available. Please contact CAMMS to enquire. External Support funding may also be available for this course.

## 2.5 Lean Sigma Master Black Belt

(Level 9)



Course Fee €5,750

Enquiries

Mark Stockil

E: mark.stockil@camms.ie

Course Code CR ELSMB 9

Course Information, and to apply online, visit www.cit.ie/course/CRELSMB9



Lean Sigma is a very successful methodology for continuous improvement in all organisations. Lean Sigma is based on the elimination of waste and the reduction of variability in processing through engagement and respect for all staff.

A certified Lean Sigma Master Black Belt is the go to person for deployment of Lean Sigma systems in the organisation. They hold a key role within or in support of the management team for business achievement of goals utilising improvement and problem-solving techniques. They may mentor and educate others in the organisation and determine best practice adaptation within the organisation for Operational and Design success. MBBs provide everyday leadership to the Lean Sigma effort. MBB's establishing and maintaining the long term Lean Sigma Environment.

#### Content

The course is delivered by industry practitioners with active case studies and hands on experience. It includes live case study review and will include discussions with the case study experts.

The main module topics are

#### **Semester One**

- Creating and Measuring the Lean Sigma Environment (Site visit)
- Lean Sigma MBB Deployment Research Project

#### **Semester Two**

- · Lean Sigma Analytics (Site visit)
- Lean Sigma MBB Deployment Application Project

#### **Project mentoring and support**

A work-based project and a Research project are undertaken as part of the course. Students will receive project support and mentoring from their tutors.

#### **Online support**

Online resources are provided for students to support classroom learning.

#### **Admission Requirements**

Black Belt or equivalent required. Demonstrated experience in leading Lean Sigma Projects is required.

#### **Duration & Delivery**

12 Days

#### **Awarding Body**

Special Purpose Award - 30 ECTS Credits at Level 9 on the National Framework of Qualifications, awarded by Cork Institute of Technology.

#### **Discount**

Funding is available through some Skillnet groups

www.camms.ie 95

# 2.6 Continuous Improvement for Production Teams

Company Based Group Training

# Course Code CR ECIPT X

### **Application**

Please email camms@cit.ie for further information.

### Course Fee

Price will vary on specific company needs.

### Enquiries

T: 021 432 6264 E: camms@cit.ie W: www.camms.ie





Continuous improvement is an on-going effort to improve products, services or processes. These efforts can seek "incremental" improvement over time or "breakthrough" improvement all at once. Continuous improvement for production teams involves company based training, concentrating on the forming and development of teams, selecting projects, and then mentoring the operators and facilitators to the completion of these projects.

### Content

In general, the course content and delivery is tailored to suit the company's needs. The course content is a combination of delivered lecture material and actual project focused work. Participants will be introduced to continuous improvement practice using basic quality analysis tools and how to apply them in a team environment on company targeted improvement areas. The sessions will include:

### **Team members and Facilitators**

- Quality concepts and basic quality tools
- Small team project management process
- Project focused work

### **Facilitators Only**

• Mentoring and Facilitation techniques for Facilitators

Having completed the course, candidates will be able to apply quality tools and to interpret information and data. In addition, they should be able to apply team concepts both as a member and leader. The Facilitators should be able to understand their role in the process and experience being a Facilitator on a given project.

### **Duration & Delivery**

Two or four days delivery, four or six weeks mentoring.

### Certification

CAMMS, CIT. Please contact CAMMS directly for more details.

# 3.0 Project Management Programmes 3.1 Project Management Techniques

(Level 7)



Course Fee €925\*

Enquiries

T: 021 432 6264 E: camms@cit.ie W: www.camms.ie Course Code CR EMBXX 7

Course Information, and to apply online, visit www.cit.ie/course/CREMBXX7

This course is a comprehensive and practical introduction to Project Management. The content and delivery is applicable to all industrial sectors (not just technical projects). The content is based on the Project Management Body of Knowledge (PMBOK©) which is administered by the Project

Management Institute (PMI) in the USA. The PMBOK is a worldwide recognised professional standard for the practice of Project Management.

The course is aimed at those involved in a wide range of projects. Participants come from a broad range of sectors and backgrounds and are typically involved in the planning, control and execution of project work in the broadest sense. Lectures are combined with case studies, workshops, simulations and practical projects. Course delegates complete various assignments in the class, as project teams and individual assignments. There are also hands-on computer practical sessions which will be used to instruct participants in the key areas of project planning and control. Candidates should have basic computer skills.

The course focuses on two main areas, primarily learning new tools and techniques to manage projects more effectively. Secondly, to gain increased awareness and learning in the area of 'soft skills' (e.g. leadership, team management, motivation, communication, negotiation, etc.) that are essential to effective project management.

### Content

Participants are expected to work on a project of their own choosing. Some short course assignments to be submitted to achieve certification.

- Introduction to Project Management and the fundamentals
- Project selection & initiation. Defining the Project Charter and Project Scope
- Project Planning and defining the Work Breakdown Structure (WBS)
- Managing Project Scope and Change in projects

- Project Time Management Activity Definition, Activity Duration Estimating, Activity Sequencing, Schedule Development, Schedule Control
- Project Scheduling Software MS Project version to 2016
- Progress measurement and reporting
- Managing Project Quality and Risk management
- Managing Project Finance and Resources
- Managing People Team development and the Project Managers Role
- Improving personal effectiveness as a project manager
- · Leadership Styles, Communication, Negotiating
- Project Closeout and Evaluation

### **Duration & Delivery**

One evening per week for 12 weeks, Thursday, 6.30pm – 9.30pm.

### **Awarding Body**

5 ECTS Credits at Level 7 on the National Framework of Qualifications, awarded by Cork Institute of Technology.

**Note:** Successful participants from the evening class will be eligible to two days exemption from the Diploma in Project Management and a reduced price from  $\leq$ 3,850 to  $\leq$ 3,250.

**Note:** Places are limited for this course. Eligible candidates will be considered on a first come first served basis.

\* A discount structure is available for groups: 5% for 2 people, 10% for 3 or more.

www.camms.ie 97

### 3.2 Diploma in Project Management

(Level 8)

# Course Code CR EPMAN 8

### Course Fee

€3,850\* (includes CIT exam fees and PMI exam preparation)

### **Enquiries**

T: 021 432 6264 E: camms@cit.ie W: www.camms.ie





Course Information, and to apply online, visit www.cit.ie/course/CREPMAN8

With the emergence of Project Management as a standalone profession, international accreditation that is accepted across industries is becoming increasingly important. The course is suitable for individuals who may have practical experience of either being involved in projects or managing and leading projects but need to supplement this with the necessary education. This course is aimed at those who seek to employ professional project management methodologies in the Initiation, Planning, Execution, Control and Close-Out of their Projects.

This CIT accredited Special Purpose Award in Project Management uses a combination of external experts and in-house lecturers to provide a broad scope of industrial and academic expertise. Our panel of lecturers and experts includes those with PMI® (Project Management Institute), 'Registered Education Provider' (REP®) Approval. The content and delivery is applicable to all industrial sectors (not just technical projects).

The Program covers all knowledge areas of the internationally recognised professional standard for the practice of Project Management, the PMBOK© (Project Management Body of Knowledge) which is administered by the PMI (Project Management Institute). CIT's Award includes a detailed 2-day preparatory 'boot-camp' course for those candidates who intend to sit for the PMI credentials, the PMP® or CAPM®.

The Special Purpose Award combines advanced Project Management techniques and methodologies with the real-life experiences of an expert panel of leading project management lecturers from a wide range of industrial sectors. The course consists of a combination of lectures, seminars, case studies, guest speakers, simulations and practical projects. Course delegates complete various assignments in the class, as project teams and individual assignments.

The course is designed for those involved in a wide range of projects. Participants come from a broad range of sectors and backgrounds and are typically involved in the planning, control and execution of project work in the broadest sense.

### **Duration & Delivery**

Attendance is 15 full-time days, consisting of one weekend per month (Friday and Saturday), delivered over 8 months. The Award also contains a 2 day 'boot camp' preparation course for the Project Management Institute (PMI) credentials (PMP Project Management Professional or CAPM – Certified Associate of Project Management).

### Certification

Students who complete all three modules, will be entitled to an accredited Diploma in Project Management (Special Purpose Award–15 ECTS Credits at Level 8 on the National Framework of Qualifications, awarded by Cork Institute of Technology.

**Project Management Institute (PMI):** Candidates who complete the SPA in Project Management will be encouraged to sit the Project Management Institute (PMI) exams. PMI exam fees are not included.

To maintain your PMI credential, you must earn 60 PDUs (Professional Development Units) over 3 years. If a student successfully passes their PMI exam prior to the last 2 sessions on the Diploma, that student will earn 36PDUs whilst simultaneously completing their Diploma qualification.

\*€3,850, includes CIT exam fees, and PMI exam preparation (PMI exam fee **not** included). Course price includes manuals, soft copies of PMBOK® Compliant Templates and lunch each day. A discount structure is available for groups: 5% for 2 people, 10% for 3 or more.

Places are limited for this course. Eligible candidates will be considered on a first come first served basis.

**Please note**: Delivery of this programme is subject to sufficient number of applicants.

### **MODULE 1**

### **Project Management Principles**



**PMBOK Introduction** 

### DAY 2

PMBOK Introduction

### DAY 3

PMBOK Introduction

### DAY 4

Scope, Time

### DAY 5

**Cost Communications** 

## Project Management Principles 5 ECTS Credits, Level 8

### MODULE 2

**Project Management Context** 

### DAY 6

Quality

### DAY 7

Risk, HR

### **DAY 8**

Procurement, Integration, Ethics

### DAY 9

**PMP** Preparation

### **DAY 10**

**PMP** Preparation

### MODULE 3

**PM Advanced Concepts** 

### **DAY 11**

Presentation Skills, PM/EPM

### **DAY 12**

Project Governance, SCM

### **DAY 13**

Legal, Appraising Performance

### **DAY 14**

Strategic PM



Diploma in Project
Management
15 ECTS Credits, Level 8

Project Management Context 5 ECTS Credits, Level 8

Project Management Advanced Concepts 5 ECTS Credits, Level 9







# 4.0 Automation and Control Systems Programme

# 4.1 Certificate in Automation & Control Systems Special Purpose Award – 20 ECTS Credits at Level 7



Course Code CR EACSY 7

Students who successfully complete the modules Mechatronics; SCADA & Automation Systems; and Robotics will be entitled to a Certificate in Automation & Control Systems (Special Purpose Award) Level 7 on the National Framework of Qualifications, awarded by Cork Institute of Technology.

### **Course Fee**

Overall Fee: €3,100 (Only applicable when ALL three modules are taken in one academic year)

### **Enquiries**

T: 021 432 6264 E: camms@cit.ie W: www.camms.ie



Course Information, and to apply online, visit www.cit.ie/course/CREACSY7

These modules can also be taken and certified individually. Please see course code, fee, and online application for each module.

### 4.1.1 Mechatronics

Course Code CR\_EACSY\_7

Course Fee €1.950\*

**Enquiries** 

T: 021 432 6264 E: camms@cit.ie W: www.camms.ie





Course Information, and to apply online, visit www.cit.ie/course/CREACSY7

### Content

### **Practical**

- Pneumatic design and implementation
- Electro-pneumatic design and implementation
- PLC design and implementation
- · Mechatronic design and implementation

### Theory

- Principles of the "Total Engineering Approach" to production systems
- Principles of typical sensors
- Principles of pneumatic, mechanical and electrical actuation systems
- Principles of embedded control (PLCs, controllers)
- Design, build and fault find on mechatronic systems

This course covers the practical and theoretical requirements for certification by CIT. Certification requires that a candidate provides evidence of competence in the construction, operation and maintenance of pneumatic and electropneumatic systems through practical tasks and by meeting knowledge criteria.

The course also covers PLC programming to a high standard of achievement allowing students to programme training rigs and develop knowledge of industrial Mechatronic installations.

### **Admission Requirements**

Candidates must have at least two years relevant industrial experience and should have obtained their Leaving Certificate or an appropriate craft/technician qualification.

### **Duration & Delivery**

One evening per week for one academic year, one module per semester.

### **Awarding Body**

10 ECTS Credits at Level 7 on the National Framework of Qualifications, awarded by Cork Institute of Technology.

**Note:** Places are limited for this course. Eligible candidates will be considered on a first come first served basis.

\* Discounts available for groups of three or more.

### 4.1.2 Scada & Automation Systems

(Level 7)



Course Fee €925\*

Enquiries

T: 021 432 6264 E: camms@cit.ie W: www.camms.ie Course Code CR\_EACSY\_7

Course Information, and to apply online, visit www.cit.ie/course/CREACSY7



Automation has been an essential tool in enhancing productivity and competitiveness for manufacturing industries. Automation is used to improve manufacturing performance, reduce operational costs and improve quality. Most industrial plants now have some form of automation, which is controlled and monitored by SCADA systems. This course enables participants to adjust, service, maintain, and design modern equipment, and to design and develop SCADA control systems.

During the course, real data from a process control rig and flexible assembly line will be utilised in the design of applications.

### Content

- Computer based automation systems
- · Control systems
- Connection and circuit technology for transducers
- PLC configuration and control
- Safety systems
- SCADA (Supervisory Control and Data Acquisition)

### **Admission Requirements**

Candidates must have at least two years relevant industrial experience and should have obtained their Leaving Certificate or an appropriate craft/technician qualification.

### **Duration & Delivery**

One evening per week for 12 weeks in Semester 1. Additional programme may run in Semester 2, subject to demand.

### **Awarding Body**

5 ECTS Credits at Level 7 on the National Framework of Qualifications, awarded by Cork Institute of Technology.

**Note:** Places are limited for this course. Eligible candidates will be considered on a first come first served basis.

\* Discounts available for groups of three or more.



(Level 7)

Course Code CR\_EACSY\_7

Course Fee €925\* **Enquiries** 

T: 021 432 6264 E: camms@cit.ie W: www.camms.ie





Course Information, and to apply online, visit www.cit.ie/course/CREACSY7

An industrial robot is defined as "an automatically controlled, reprogrammable, multipurpose device, for use in industrial automation applications".

This course gives participants an understanding in Industrial Robotics programming and design, and an indepth knowledge of Robotic Sensors.

### Content

- · Robotic cell design
- End effectors
- · Robotics programming
- External sensors

### **Admission Requirements**

Candidates must have at least two years relevant industrial experience and should have obtained their Leaving Certificate or an appropriate craft/technician qualification.

### **Duration & Delivery**

One evening per week for 12 weeks in Semester 2. Additional programme may run in Semester 1, subject to demand.

### **Awarding Body**

5 ECTS Credits at Level 7 on the National Framework of Qualifications, awarded by Cork Institute of Technology.

**Note:** Places are limited for this course. Eligible candidates will be considered on a first come first served basis.

\* Discounts available for groups of three or more.



### 4.2 Certificate in Advanced Mechatronics Special Purpose Award – 10 ECTS Credits at Level 8





Course Code CR EAMEC 8

Students who successfully complete the modules Advanced Mechatronics Part 1; and Advanced Mechatronics Part 2 will be entitled to a Certificate in Advanced Mechatronics (Special Purpose Award).

### **Course Fee**

Overall Fee: €1,850 (Only applicable when BOTH modules are taken in one academic year).

### **Enquiries**

T: 021 432 6264 E: camms@cit.ie W: www.camms.ie

These modules can also be taken and certified individually. Please see course code, fee, and online application for each module.

We have seen a dramatic change in the complexity of programming and control of modern day machines, where for example controllers use languages like C++ now instead of Ladder Diagram and Soft Motion for more complex machine movements and faster changeovers.

With the integration of Mechanical, Electrical and Electronic equipment in modern day industry, there is a need for an integrated approach to the training requirements for personnel to be able to adjust, service, maintain, programme and design modern equipment. This would include the advanced programming of PLCs, servo drives, machine safety systems, networking, mechanical setup and adjustment of sensors.

The aim of this Special Purpose Award is to address the short fall in the needs of training at this level of automation.

4.2.1 Advanced Mechatronics Part 1

### (Level 8)

# CAMS

### Course Fee

€980\* (Includes course notes and exam fees)

### **Enquiries**

T: 021 432 6264 E: camms@cit.ie W: www.camms.ie Course Code CR EAMEC 8

Course Information, and to apply online, visit www.cit.ie/course/CREAMEC8



### **Module Content**

- Principles of the five IEC languages, Ladder, Instruction List,
   Sequential Function Chart, Function Block & Structured Text.
- Principles surrounding BUS systems, including CAN, Profibus, ProfiNet, Ethernet, describing addressing, PLC settings, Tag names etc.
- Principles of Analogue sensors, showing resolution, scaling, wiring, types of input 0-10V 4-20MA etc.
- Principles of safety systems up to category 4 machine safety, Safety Relays, Safety PLC's, interlocking devices.
- Principles of Servo Drive systems, Homing methods, signaling methods i.e. Digital or Bus signalling. Speeds, acceleration etc.

### **Admission Requirements**

Candidates must have successfully completed the CIT Level 7

Mechatronics Module or equivalent and some relevant work experience working in in the area of Mechatronics.

### **Duration & Delivery**

One evening per week for 12 weeks in Semester 1.

### **Awarding Body**

5 ECTS Credits at Level 8 on the National Framework of Qualifications, awarded by Cork Institute of Technology.

**Note:** Places are limited for this course. Eligible candidates will be considered on a first come first served basis.

\* Discounts available for groups of two or more.

www.camms.ie 103

# 4.2.2 Advanced Mechatronics Part 2

(Level 8)

# Course Code CR\_EAMEC\_8

### Course Fee

€980\* (Includes course notes and exam fees)

### **Enquiries**

T: 021 432 6264 E: camms@cit.ie W: www.camms.ie





Course Information, and to apply online, visit www.cit.ie/course/CREAMEC8

### **Module Content**

### · Industrial Networking

Programme PLCs to control Servo Drives, Vision systems & Robotic interaction with mechatronic systems across CAN Open, ProfiBus, ProfiNet and Ethernet.

### Integration of PLCs and Servo Drive systems

Programme Servo Drive Controllers to communicate with a PLC in a discrete manner. Programme the PLC to give positional control data to the Servo Drive controller.

### Vision systems

Programme Vision Systems to determine location, shape and orientation of objects. Programme PLCs and Robotic systems to use the information from the vision system.

### Soft Motion Control

Introduce Soft Motion Control for the control of Servo Drive positioning, demonstrating the use of CNC code embedded within a PLC function block.

### **Admission Requirements**

Candidates must have successfully completed the CIT Level 7 Mechatronics Module or equivalent and some relevant work experience working in in the area of Mechatronics.

### **Duration & Delivery**

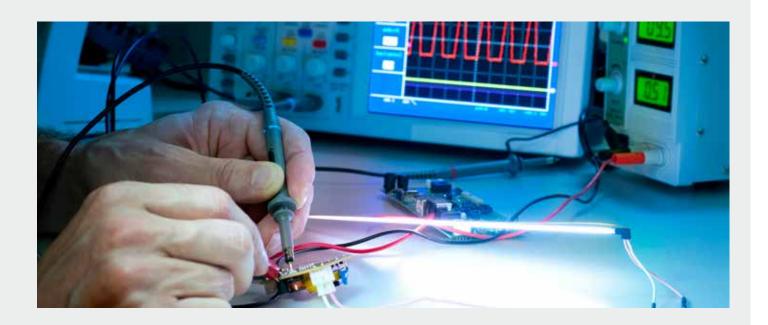
One evening per week for 12 weeks in Semester 2.

### **Awarding Body**

5 ECTS Credits at Level 8 on the National Framework of Qualifications, awarded by Cork Institute of Technology.

**Note:** Places are limited for this course. Eligible candidates will be considered on a first come first served basis.

\* Discounts available for groups of two or more.



# 5.0 Manufacturing Engineering 5.1 Certified Manufacturing Engineer (CMfgE)

(Level 6)



### Course Fee

€975 includes course textbook. (Course Fee does not include exam fee, payable to the SME).

### **Enquiries**

T: 021 432 6264 E: camms@cit.ie W: www.camms.ie Course Code CR ECMEN 6

Course Information, and to apply online, visit www.cit.ie/course/CRECMEN6



The course is based on a body of knowledge specified for certification by the Society of Manufacturing Engineers (SME) which is based in the USA. Its prime aim is to provide recognition for candidates who have several years manufacturing experience but no qualification to show for their work-based expertise.

### Content

- · Manufacturing Planning and Control
- Quality Management and Quality Tools
- Analysis of Manufacturing Processes
- Facility Layout and Planning
- Computer Integrated Manufacturing
- · Occupational Health and Safety

### **Admission Requirements**

Candidates must have a minimum of eight years manufacturing-related work experience and/or education (a maximum of five years of education may be applied toward the eight years experience/education requirement).

### **Duration & Delivery**

One evening per week for the academic year.

### **Awarding Body**

Society of Manufacturing Engineers (SME).

**Note:** CIT is not the examining body for this programme but acts as an official exam site.

Delivery of this programme is subject to sufficient numbers of applicants.



www.camms.ie 105

# 5.2 Metrology Training (AUKOM Level 1)



# Course Code **TBC**

### Course Fee

€1,950 (covers tuition, AUKOM Level 1 Handbook and exam fees)

### **Enquiries**

T: 021 432 6264 E: camms@cit.ie W: www.camms.ie



### **Duration**

One evening per week over one semester

### **Admission Requirements**

No specific entry requirements but applicants should have a background in CNC/CMM operations. The programme is aimed at production metrologists and consolidates fundamental principles and knowledge catering from beginners through to those with more experience.

### **Overview**

AUKOM is an acronym for the German phrase ausbildung koordinatenmesstechnik, which translates to "coordinate metrology training." AUKOM was developed in Germany to establish a global training standard for production coordinate measurement practice. Its methodology is vendor-neutral, meaning the skills gained and procedures learnt during certified training are applicable to any brand of measuring equipment and software.

AUKOM training is currently offered in 19 countries and CIT is the only approved training centre in Ireland. Three levels of certification are available; this Level 1 programme concentrates on fundamental concepts, such as dimensional tolerancing, basic programming, and common measuring equipment. Full course details are available at

https://www.aukom.info/en/aukom-training-courses/content-level-1.html.

Topics covered in AUKOM Level 1 are

- Principles of coordinate metrology
- Basic definitions, tolerancing, and geometric elements
- Measuring preparation, including stylus selection, part cleaning, and temperature control
- Documentation & quality management

Candidates will be prepared to take the AUKOM Level 1 test which will be administered by CIT personnel at the end of the programme; AUKOM certificates will be issued to those who successfully complete the programme and the test.

### **Delivery**

The programme is largely classroom-based but will involve practical demonstrations of Coordinate Measuring Machine (CMM) equipment and software.

### **Award**

Metrology Training: AUKOM Level 1 Certificate





### 5.3 Certificate in Intelligent Manufacturing Systems



Course Fee €4,200 **Enquiries** 

T: 021 432 6264 E: camms@cit.ie W: www.camms.ie Course Code TRC

Course Information, and to apply online, visit <a href="https://springboardcourses.ie/details/7041">https://springboardcourses.ie/details/7041</a>



### **Duration & Delivery**

2 semesters. At least two evenings per week, partly class room based, partly blended (online).

### **Admission Requirements**

Candidates will require a Level 8 qualification in one of the following: Mechanical, Electrical, Electronic, Chemical Engineering, Applied Physics and Instrumentation, Mechatronics or cognate discipline. Candidates with sufficient experience which in the judgement of CIT may be deemed equivalent to this qualification will be considered following the principles/procedures set out the Institute's Recognition of Prior Learning service in CIT (see www.cit.ie/rpl).

### Overview

The Certificate in Intelligent Manufacturing Systems is a Level 9 programme which aspires to bridge the gap between the engineering operations and information technology paradigms in the manufacturing sector. Smart Manufacturing has been

described as the synthesis of advanced manufacturing capabilities and digital technologies to produce highly customisable products faster, cheaper, better, and greener. A smart factory will integrate data from system-wide physical, operational, and human assets to drive manufacturing, maintenance, inventory tracking and the digitisation of operations in order to achieve this goal.

Participants will acquire the skills necessary to contribute effectively to operate in the factory of the future, bringing manufacturing through to the next level envisaged by Industry 4.0. They will acquire specific knowledge of the new and emerging areas and how to integrate IT with Manufacturing Technology. Specific topics include Machine Learning, Data Science and Information Analytics, Robotics and Autonomous systems, Maintenance and machine Prognostics.

### **Award**

Certificate in Intelligent Manufacturing Systems (Level 9 on the National Framework of Qualifications).



# 5.4 Certificate in Biomedical Device Manufacture

(Level 7)

# Course Code CR\_EBMDM\_7

### Course Fee

€1,450\* (includes course notes and exam fees)

### **Enquiries**

T: 021 432 6264 E: camms@cit.ie W: www.camms.ie





Course & Module Information, and to apply online, visit www.cit.ie/course/CREBMDM7

This programme was developed for anyone seeking employment in or transferring into the Biomedical Devices Sector as well as anyone wishing to enhance their general knowledge of the industry. The programme is structured around common medical disorders which are treated by biomedical devices manufactured in Ireland. On completion, participants will be familiar with a range of disorders, the anatomy and physiology associated with these disorders, the devices used in their treatment, and the processes involved in the manufacture of these devices.

The programme also familiarises participants with the engineering requirements and standards that apply to cleanrooms employed in the manufacture of medical devices. The programme looks at the specification of appropriate cleaning, packaging and sterilisation operations for medical devices, the assessment of the safety risks associated with manufacturing operations and the requirements for guaranteeing a safe working environment.

The programme also examines the detailed requirements of a Good Manufacturing Practice (GMP) system and the operation of regulatory bodies such as FDA/IMB.

### Content

### Anatomy

General anatomy, Neuro Anatomy, Cariovascular anatomy, Orthopaedics.

### Medical Devices

Devices used in the treatment of neurovascular, cardiovascular, orthopaedic disorders and product development history.

### · Manufacturing Processes

Introduction to manufacturing processes; injection moulding, extrusion, wiredrawing; catheter coating process, embolic coil manufacturing.

### Cleanroom Technology

Cleanroom classification; particle size and counting; filter design and performance, cleanroom layout, materials & standards, cleanroom commissioning and qualification.

### Cleaning and Sterilisation Technology

Requirements for cleaning, soil types, cleaning systems organic/aqueous/semiaqueous), cleaning equipment. Ethylene oxide. Gamma sterilisation, electron beam. Saturated steam – gravity displacement, porous load, ballasted cycles. Dry heat sterilisation/depyrogenation. Microbial inactivation/endotoxin inactivation.

### Packaging

Functions of packaging, packaging requirements for sterilisation, physical & chemical properties of packaging, labelling and packaging control, distribution hazards, production of packages, forming materials and methods, lidding, sealing.

### GMP

Introduction to GMP, GMP documentation – SOPs/regulatory documentation/submissions, Role and requirements of the FDA/IMB/Notified Bodies, introduction to 21 CFR820/Medical Devices Directive, planning for audits. Classification of devices. FDA/IMB submissions – 510k/PMA applications.

### Validation

Validation protocols – Installation, operational and performance qualification. Process validation, design qualification, validation of sterilisation system, design verification, design validation. URS/FDS/FAT/SAT master validation plans. Change control.

### **Admission Requirements**

This course is open to anyone with a minimum of two years industrial experience.

### **Duration & Delivery**

One evening per week for 13 weeks.

### **Awarding Body**

CIT: Certificate in Biomedical Device Manufacture, Special Purpose Award 10 ECTS credits at Level 7 on the National Framework of Qualifications.

**Note:** Places are limited for this course. Eligible candidates will be considered on a first come first served basis.

<sup>\*</sup> Discounts available for groups of three or more.

(Level 8)

### 6.0 Bachelor of Engineering Degrees 6.1 Bachelor of Engineering (Honours) in Process Plant Technology



Course Fee
See module listing

### **Enquiries**

T: 021 432 6264 E: camms@cit.ie W: www.camms.ie Course Code CR EPPTN 8

Course & Module Information, and to apply online, visit www.cit.ie/course/CREPPTN8



This course aims to produce graduates who can make a significant contribution to the design, operation, maintenance and management of process plant. The course concentrates on the mechanical aspects of process engineering design and selection, plant construction, condition monitoring, productive maintenance, plant safety, automation and control systems, project management and investment appraisal. This honours degree programme will help participants to develop the skills and knowledge to implement change and to undertake key operational management roles.

### **Admission Requirements**

Merit or better in a relevant Diploma course or equivalent. Are you eligible for Recognition of Prior Learning (RPL)? For details, see the information section at the beginning of this Handbook.

### **Duration & Delivery**

Three evenings per week, 7pm – 10pm, and one Saturday per month, 10am – 5pm. The course can be completed in two academic years.

### **Award**

Bachelor of Engineering (Honours) in Process Plant Technology (Level 8 on the National Framework of Qualifications).

### **Modules Annual Fee per Module** Mandatory Project €1350 **Quality Engineering** €510 **Engineering Project Management** €510 **Process Automation & Control** €510 Mathematics and Statistics €510 **Process Plant Services** €510 €510 **Process Plant Equipment** €510 Maintenance & Reliability **Facilities** €510 Electives (choose 1) €510 **Automation Systems** Advanced Materials and Processes €510

www.camms.ie 109

# 6.2 Bachelor of Engineering (Honours) in Advanced Manufacturing Technology

(Level 8)

Course Code
CR EAMTN 8

Course Fee
See module listing

### Enquiries

T: 021 432 6264 E: camms@cit.ie W: www.camms.ie





Course & Module Information, and to apply online, visit www.cit.ie/course/CREAMTN8

All industries involved in the production of goods, whether biomedical, pharmaceutical, chemical, process, electronic or aeronautical require manufacturing engineers. These industries invest heavily in the most up to date automation, software and process control equipment as well as utilising the most modern of training and management techniques.

This honours degree programme aims to produce graduates who can make a significant contribution to the design, operation, and management of manufacturing systems, as well as to the quality and reliability of manufactured products, parts and equipment.

### **Admission Requirements**

Merit or better in a relevant Diploma course or equivalent. Are you eligible for Recognition of Prior Learning (RPL)? For details, see the information section at the beginning of this Handbook.

### **Duration & Delivery**

Three evenings per week, 7pm – 10pm, and one Saturday per month, 10am – 5pm. The course can be completed in two academic years.

### **Award**

Bachelor of Engineering (Honours) in Advanced Manufacturing Technology (Level 8 on the National Framework of Qualifications).

Modules	Annual Fee per Module
Mandatory	
Project	€1350
Quality Engineering	€510
Engineering Project Manageme	ent €510
Automation Systems	€510
Mathematics and Statistics	€510
Product Development	€510
Manufacturing Systems	€510
Maintenance & Reliability	€510
Facilities	€510
Electives (choose 1)	
Process Automation & Control	€510
Advanced Materials and Proce	sses €510



Centre of Craft Studies

### Courses

### Welding Courses

- Welding (Basic)
- Coded Welding Course Mags Welding
- Coded Welding Course Tags Welding
- Coded Welding Course Arc Welding

### **Automotive Courses**

- Certificate in Automotive Technology (Level 6)
- Certificate in Automotive Powertrain Technology (Level 7)
- Engine Management Diagnostics (Level 7)

### **Head of Centre**

Michael Hourihan T: 021 433 5912 E: michael.hourihan@cit.ie

### Department Secretary

Geraldine Mahon Location: Room B160L T: 021 433 5910 E: geraldine.mahon@cit.ie

If you have any queries, please contact the Department Secretary, details above.

Each programme has its own unique web address from which you can apply online.

All courses offered are subject to demand and places may be limited. All online applicants will receive an email confirmation. Details about eligibility, programme orientation, and timetable arrangements will be sent to all applicants via email update.

www.cit.ie www.cit.ie



Course Fee €450 Enquiries Geraldine Mahon T: 021 433 5910

E: geraldine.mahon@cit.ie

Course Code CR\_BASIC\_4\_1

Course Information, and to apply online, visit www.cit.ie/course/CRBASIC4



This course provides a practical introduction to three common welding processes which are used in industry.

### **Duration & Delivery**

7 x 3.5 hour evenings, practical training classes

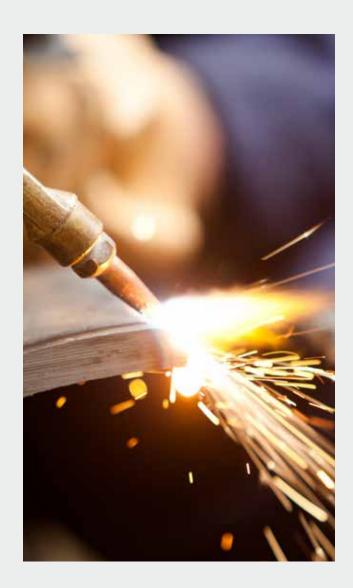
### Content

Candidates may take any or all of the following Welding Processes:

- Manual Metal-Arc Welding (MMA) rutile electrodes;
- Metal-Arc Gas Shielded welding (MAGS) solid wire;
- Tungsten Arc Gas Shielded welding (TAGS) carbon steel/ stainless steel.

### **Award**

A Certificate of attendance for candidates on successful completion of the course.



### Coded Welding Course – Mags Welding

(Level 6)

Course Code
CR MAGS 6 1

### Course Fee

€450 (excl. test fee €65 per specimen sent for NDT)

### Enquiries

Geraldine Mahon T: 021 433 5910 E: geraldine.mahon@cit.ie



Course Information, and to apply online, visit www.cit.ie/course/CRMAGS6

This course is geared towards Craft persons/welders and other suitable candidates working in general steel fabrication plate/pipe and construction industry who wish to gain a coded welding qualification in the MAGS Welding process to EN ISO 9606 (EN 287) & ASME IX, standard.

### **Duration & Delivery**

 $7\,x\,3.5$  hour evenings, practical training classes and one night for testing.

### **Admission Requirements**

A good working knowledge of the appropriate welding process is necessary.

### Content

Candidates may take any or all of the following Welder Qualification tests:

- Metal-Arc Gas Shielded welding (MAGS) solid wire, butt and fillet welds in plate, horizontal/vertical position;
- Metal-Arc Gas Shielded welding (MAGS) flux cored wire, fillet welds in plate horizontal/vertical position.
- Metal-Arc Gas Shielded welding (MAGS) solid wire, butt and fillet welds in plate, vertical up position.

### **Award**

A Welder Qualification Certificate to EN ISO 9606 (EN 287) & ASME IX will be awarded to candidates on successful completion of any of the listed tests to the required standard.



### Coded Welding Course – Tags Welding

(Level 6)

### Course Fee

€450 (excl. test fee €65 per specimen sent for NDT)

### **Enquiries**

Geraldine Mahon T: 021 433 5910 E: geraldine.mahon@cit.ie Course Code CR\_TAGS\_6\_1

Course Information, and to apply online, visit www.cit.ie/course/CRTAGS6



This course is geared towards Craft persons/welders and other suitable candidates working in general steel fabrication plate/pipe and construction industry who wish to gain a coded welding qualification in the TAGS Welding process to EN ISO 9606 (EN 287) & ASME IX, standard.

### **Duration & Delivery**

 $7 \times 3.5$  hour evenings, practical training classes and one night for testing.

### **Admission Requirements**

A good working knowledge of the TAGS welding process is necessary.

### Content

Candidates may take any or all of the following Welder Qualification tests:

- Tungsten Arc Gas Shielded welding (TAGS) stainless steel pipe Ø 48 mm x 2.77 mm wall thickness in Positions PA, PF, PC & H-L045;
- Tungsten Arc Gas Shielded welding (TAGS) carbon steel pipe Ø 89 mm x 5.5 mm wall thickness in Positions PA, PF, PC & H-L045.

### **Award**

A Welder Qualification Certificate to ISO 9606 (EN 287) & ASME IX will be awarded to candidates on successful completion of any of the listed tests to the required standard.



www.cit.ie 115

# Coded Welding Course – Arc Welding

(Level 6)

Course Code CR\_ARC\_6\_1

### Course Fee

€450 (excl. test fee €65 per specimen sent for NDT)

### Enquiries

Geraldine Mahon T: 021 433 5910 E: geraldine.mahon@cit.ie



Course Information, and to apply online, visit www.cit.ie/course/CRARC6

This course is geared towards Craft persons/welders and other suitable candidates working in general steel fabrication plate/pipe and construction industry who wish to gain a coded welding qualification in the MMA Welding process to ISO 9606 (EN 287) & ASME IX, standard.

### **Duration & Delivery**

 $7 \times 3.5$  hour evenings, practical training classes and one night for testing.

### **Admission Requirements**

A good working knowledge of the appropriate welding process is necessary.

### Content

Candidates may take any or all of the following Welder Qualification tests:

- Manual Metal-Arc Welding (MMA) rutile electrodes, butt and fillet welds in plate, vertical up position
- Manual Metal-Arc Welding (MMA) basic electrodes, butt and fillet welds in plate, vertical up position

### **Award**

A Welder Qualification Certificate to ISO 9606 (EN 287) & ASME IX will be awarded to candidates on successful completion of any of the listed tests to the required standard.



### Certificate in Automotive Technology

### (Level 6)

Course Fee

€650 (incl. exam fee)

**Enquiries** 

Nick Cashin T: 021 432 6711

E: nick.cashin@cit.ie

Course Code CR\_EAUTE\_6

Course & Module Information, and to apply online, visit www.cit.ie/course/CREAUTE6



### **Duration**

One night per week for one academic year.

### **Admission Requirements**

Leaving Certificate or relevant craft qualification.

### Content

The course will consist of two modules:

- Mechanical Automotive Technology AUTO6028
- Electrical Automotive Technology AUTO6029

The course covers the fundamentals of automotive technology and automotive electricity. The areas covered will include engines, transmissions, brakes, suspension, steering and automobile electrical components, circuits and systems. This is a classroom-based course.

### **Mechanical Automotive Technology**

On successful completion of this module the learner will be able to

- List primary engine components and associated subsystems.
- Explain the operation of a spark and compression ignition internal combustion engine.
- Define the internal components of a transmission and final drive arrangements and explain their operating principles.
- Describe the layout and operating principles of the steering and suspension systems as fitted to light vehicles.
- Explain the fundamental operating principles of a vehicle's hydraulic braking system.

### **Electrical Automotive Technology**

On successful completion of this module the learner will be able to

- Explain the fundamental operating principles of electricity.
- Calculate automotive electrical circuit operations using Ohms
   law
- Discuss the operation of automotive electrical consumers and loads.
- Evaluate the operation of automotive electrical circuits and systems using automotive electrical test equipment.

### **Award**

Special Purpose Award (10 ECTS credits at Level 6 on the National Framework of Qualifications).

### **Awarding Body**

Cork Institute of Technology

www.cit.ie 1117

# Certificate in Automotive Powertrain Technology

(Level 7)

Course Code CR\_EAUPT\_7

Course Fee €650 (incl. exam fee)

Enquiries
Gary O'Neill
T: 021 432 6711
E: gary.oneill@cit.ie



### **Duration**

One night per week for one academic year.

### **Admission Requirements**

Automotive Technology 1 or equivalent.

### Content

The course will consist of two modules:

- Automotive Powertrain Electronics AUTO7015
- Automotive Mechanical and Electrical Systems AUTO7014

The course covers more advanced aspects of automotive electrical components and systems. The course will include coverage of engine construction, timing diagrams diesel and petrol systems, transmission systems, gearboxes, drive layouts, steering, suspension and brake systems. It will also cover electrical circuit principles, sensors, actuators displays, fault-finding ignition/injection systems, lighting and cooling systems, ABS Braking and SRS Systems. This is a classroom based course.

### 1. Automotive Powertrain Electronics

On successful completion of this module the learner will be able to

- Interpret technical information linked to automotive electrical schematics and diagrams.
- Describe low voltage automotive electrical circuits and vehicle sub-systems.
- Describe automotive heavy duty rotating electrical components and systems.
- Describe automotive electronic fuel injection systems and after treatment emission control devices.
- Explain how to repair automotive mechanical, hydraulic, electrical and electronic unit assemblies and systems.
- Make repair decisions based on economic factors.

### 2. Automotive Mechanical and Electrical Systems

On successful completion of this module the learner will be able to

- Explain and apply occupational health and safety in automotive settings.
- Solve problems using electrical quantities of voltage, electrical current, electrical resistance and power.
- Execute practical use of core automotive diagnostic test equipment.
- Diagnose electrical and electronic vehicle sub-system concerns, using vehicular network system live data transmission and diagnostic trouble codes.
- Explain the role of electricity in modern motor vehicles as it relates to engine, chassis, safety, and accessory systems.

### **Award**

Special Purpose Award (10 ECTS credits at Level 7 on the National Framework of Qualifications).

### **Awarding Body**

Cork Institute of Technology

### **Engine Management Diagnostics**

(Level 7)

Course Fee

€480 (incl. exam fee)

**Enquiries** 

Noel O'Halloran T: 021 432 6711

E: noel.ohalloran@cit.ie

Course Code CR ECRXX 7

Course Information, and to apply online, visit www.cit.ie/course/CRECRXX7





### **Duration**

One night per week for one semester.

### **Admission Requirements**

Qualified automotive mechanic or technician.

### Content

The course will review recent advances in automotive electronics and controls and the use of modern diagnostic and fault-finding equipment. The course will feature practical activities including diagnostic procedures on electrical circuits, sensors, actuators, displays, ignition/injection systems and engine management control systems.

### **Award**

Single Module Certification (5 ECTS credits at Level 7 on the National Framework of Qualifications).

www.cit.ie 119

# School of Mechanical, Electrical & Process Engineering

Department of Process, Energy & Transport Engineering

### Courses

- MEng in Chemical & Biopharmaceutical Engineering (Level 9)
- Certificate in Biopharmaceutical Processing (Level 7)
- Certificate in Biopharmaceutical Supply Chain Management (Level 8)
- Certificate in Validation Science (Level 7)
- Bachelor of Science in Good Manufacturing Practice & Technology (Level 7)

### Short Courses – Special Purpose Awards

- Science of Biotechnological Manufacturing Operations (Level 6)
- Cleanroom Manufacturing Practices (Level 6)
- Brewing & Distilling Operations (Level 7)

# Head of Department

Dr Michael J O'Mahony T: 021 433 5943 E: michael.jomahony@cit.ie

### Department Secretary

Elaine McCarthy/Tammy Browne Location: Room A283L T: 021 433 5150 E: PET.Dept@cit.ie

If you have any queries, please contact the Department Secretary, details above.

Each programme has its own unique web address from which you can apply online.

All programmes offered are subject to demand and places may be limited. All online applicants will receive an email confirmation. Details about eligibility, programme orientation and timetable arrangements will be sent to all applicants via email update.

# Master of Engineering in Chemical & Biopharmaceutical Engineering

(Level 9)

Course Fee €7,000

**Enquiries** 

Dr Roisín Foley T: 021 433 5150 E: roisin.foley@cit.ie Course Code CR\_ECHBI\_9

Course & Module Information, and to apply online, visit

www.cit.ie/course/CRECHBI9



This is a 90 credit Level 9 taught programme comprising eight mandatory modules, two free choice 5 credit modules and two project modules, totalling 40 credits.

### Aim

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 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.

### **Admission Requirements**

Applicants must have achieved a minimum of Second Class Honours in a Level 8 BEng (Honours) in Chemical and Biopharmaceutical Engineering or equivalent.

### Content

All modules are worth 5 credits (ECTS) unless otherwise noted. The elective modules afford the learner the opportunity to broaden his/her skills set in other disciplines or to deepen his/her skills set in a selected area or focus. The elective modules offered in any given year are delivered subject to demand and resource availability.

### Stage 1/Semester 1

Emerging Technologies
Engineering Research Skills
Environment, Health & Safety
Lean Sigma – Advanced Statistical Tools for Process
Optimisation
Industrial Heat and Power

### **Elective**

Sustainability in Engineering Strategic Business Management

### Stage 1/Semester 2

Computational Fluid Dynamics Process Technology Transfer Industrial Control Systems Research Project Preparation (10 ECTS)

### **Elective**

Engineering Project Management Environmental Management Managing Innovation

### Stage 2/Semester 1

Project Realisation (30 ECTS)

### **Duration**

It is envisaged that students should complete the programme over 3 years on a part-time basis.

### **Award**

Master of Engineering in Chemical & Biopharmaceutical Engineering (Level 9 on the National Framework of Qualifications).

www.cit.ie 121

# Certificate in Biopharmaceutical Processing



(Level 7)

Course Code CR\_EBIPR\_7

Course Fee €1,650

### **Enquiries**

Elaine McCarthy/Tammy Browne

T: 021 433 5150 E: PET.Dept@cit.ie



Course & Module Information, and to apply online, visit www.cit.ie/course/CREBIPR7

### **Duration and Delivery**

The programme is delivered in one year, a module per semester, 6.30pm – 9.30pm, one evening per week. Each module comprises of weekly lectures and biweekly practicals. Practicals are delivered both at CIT and at the National Institute for Bioprocessing Research & Training (NIBRT) in Dublin.

### **Overview**

This Certificate (Special Purpose Award) allows students to attain a knowledge and an understanding of the principles of Biopharmaceutical Processing and its underpinning science. The course predominately covers both cell culture and purification of biopharmaceuticals covering all unit operations, good manufacturing practices, validation and process analytical technology. The Certificate comprises of two modules namely, Biopharmaceutical Upstream and Downstream whereby the students gain significant theoretical knowledge through lectures and site visits. This Certificate upskills professionals from small to large molecule processing. It has an excellent reputation as a Continuing Professional Development (CPD) enabler.

### Aim

This Special Purpose Award is designed to meet the education and training needs of scientists and engineers, to equip them with the knowledge and skills to operate effectively in the biopharmaceutical industry.

On successful completion of the **Biopharmaceutical Upstream Processing** module you will be able to:

- Evaluate the significance of biotechnology as a method for the production of pharmaceutically active substances.
- Examine the key aspects of bioreactor design and contrast the various types of reactors including application, operation and limitations.
- Evaluate options for media design, control and feeding regimes of cell culture systems.
- Compare and contrast the key aspects of mammalian and microbial cell culture systems and their ability to express biopharmaceutical products.

 Conduct, write and critically evaluate biopharmaceutical upstream based practicals.

On successful completion of the Biopharmaceutical Downstream Processing module you will be able to:

- Explain the properties of proteins that are exploited in their separation and purification.
- Elaborate on the theoretical principles of a range of capture, concentration and purification unit operations, including any limitations in their use.
- Justify the key quality/purity requirements for Biopharmaceuticals products.
- Evaluate the issues associated with the scale up of downstream unit operations and apply appropriate problem solving approaches.
- Conduct and critically report on a range of practical experiments on downstream processing unit operations.

### **Admission Requirements**

Candidates are required to have a Higher Certificate Level 6 in Engineering or Science.

### **Course Content**

### To commence September 2019

**Biopharmaceutical Upstream** 

### To commence February 2020

Biopharmaceutical Downstream Processing

**Note:** All part-time courses at CIT will run subject to sufficient student numbers. Where a course cannot proceed, applicants will be contacted and advised on alternative study options.

### **Award**

Special Purposed Award - Certificate in Biopharmaceutical Processing (Level 7, 10 ECTs, on the National Framework of Qualifications).

# Certificate in Biopharmaceutical Supply Chain Management

(Level 8)

Course Fee €2,500

**Enquiries** 

Dr Jane O'Keeffe E: jane.okeeffe@cit.ie Course Code CR EBSCM 8

Course Information, and to apply online, visit

www.cit.ie/course/CREBSCM8



### **Duration and Delivery**

Blended delivery involving online delivery of two modules, continuing professional development (CPD), and a two-day training course.

### **Admission Requirements**

Applicants must have achieved a minimum of a Level 7 Bachelor degree in Supply Chain Management, or equivalent. (Examples of equivalence: a degree holder in business or engineering disciplines with substantial experience in logistics/supply chain management in the Biopharmaceutical and Pharmaceutical sector).

Suitably qualified applicants who have been out of the work environment for a number of years due to childcare or other caring obligations and have a previous history of employment but may require up-skilling, re-skilling or cross-skilling to transition back to the workforce are most welcome.

### Overview

This Special Purpose Award in Supply Chain Management is designed to broaden and deepen the knowledge and skill base of graduates of a Level 7 degree in Supply Chain Management or Business and Engineering disciplines who already have experience of Logistics and Supply Chain Management. Supply Chain graduates have shown particular interest in enhancing their knowledge of issues such as the strategic management of global logistics and supply chain management.

This one-year programme is an industrially focused Level 8 programme where students gain valuable knowledge and skills in key subject area, which are pertinent to working in highly regulated and automated manufacturing and distribution environments such as GMP, QA, QC, Lean Manufacturing, Operations Management, Lean Supply Chains.

### **Award**

Certificate in Biopharmaceutical Supply Chain Management, 20 ECTS (Level 8 on the National Framework of Qualifications).



# Certificate in Validation Science



# Course Code CR SVASC 7

Course Fee €1.250

### **Enquiries**

Dr Caroline O'Sullivan T: 021 433 5881 E: caroline.osullivan@cit.ie



Course Information, and to apply online, visit <a href="https://springboardcourses.ie/details/7039">https://springboardcourses.ie/details/7039</a>

### **Admission Requirements**

All qualified candidates are required to have a minimum of a Level 6 qualification (120 credits), or equivalent, in an engineering or science discipline. Candidates may also be interviewed for positions on the programme.

### **Duration & Delivery**

Online and CIT Bishopstown Campus.

The programme is delivered over two semesters of 13 weeks by online delivery and in the classroom followed by examinations.

### Semester 1

Industry Workshops 4 times over the semester, 6pm - 9pm on Wednesdays. You will be given more information on the specific Wednesdays once the programme commences in September. Online presentations and webinars to be taken at your own time throughout the semester.

### Semester 2

Lectures every Wednesday 6pm - 9pm.

### **Overview**

This Special Purpose Award in Validation Science provides an accredited level 7 qualification in Validation Science over one year for individuals who are seeking to up-skill or crossskill in order to gain suitable employment in sectors such as biopharmaceutical, pharmaceutical and medical device industries.

This Special Purpose Award has been developed in response to the requests from the industrial participants in the South Western Skills Forum.

The programme targets employment roles in production/ manufacturing, quality assurance, regulatory affairs, commissioning, qualification, validation and operation roles within pharmaceutical/biotechnology/medical device manufacturing companies.

Students gain valuable knowledge and key skills in subject areas pertinent to working in highly regulated manufacturing environments such as GMP, QA, QC and Validation.

Students will attain a knowledge and understanding of the principles of quality regulation as required by the principles of current Good Manufacturing Practice. The importance of validation of equipment, plant, utilities, processes and procedures in industry will be shown to be an essential approach to consistently producing products of the intended quality. The student will gain an understanding of the increasing regulatory requirements relevant to the biomedical, pharmaceutical and biopharmaceutical industry. The proposed modules are focused not only on the biotechnological industries but also find applications into other regulatory compliant environments such as the pharmaceutical and medical technology sectors.

The programme uses a mixture of continuous assessments (case studies project, practical and industrial visits) and formal exam assessments. The first introductory module is a blended module and will consist of a mixture of online teaching, lectures and workshops. Several industry champions will deliver workshops and webinars that will reinforce the fundamental content delivered by the academic lecture team. Industry generated case studies focusing on different aspects linked to different learning outcomes, online lectures/seminars, Industry Guest Lecturers for webinars.

The second module gives the student a broad understanding of the application of current Good Manufacturing Practices to the validation of equipment, plant, utilities, processes and procedures in the pharmaceutical and medical device industries. The principles of risk assessment techniques in validation are applied.

# Bachelor of Science in Good Manufacturing Practice & Technology

(Level 7)

Course Fee

€500 per module

**Enquiries** 

Elaine McCarthy/Tammy Browne

T: 021 433 5150 E: PET.Dept@cit.ie Course Code CR SGMPE 7

Course & Module Information, and to apply online, visit www.cit.ie/course/CRSGMPE7



### **Delivery**

One module per night from 6.30pm – 9.30pm

### **Admission Requirements**

Candidates are required to have a Higher Certificate or higher in an engineering or science discipline. It is required that all qualifying candidates have completed modules in basic chemistry and biology and have a knowledge of GMP, to undertake the complete programme. A Level 6 mathematics module must be part of the qualification.

### Content

### **To Commence September 2019**

Process Improvement (Mandatory)
People Management (Mandatory)
Biopharmaceutical Upstream (Elective)
Free Choice Elective

### To commence February 2020

Manufacturing Operations (Mandatory) Biopharmaceutical Downstream (Elective) Biomedical Device Manufacture (Elective) Free Choice Elective

Project (Mandatory)\*

A nationally accredited degree designed to meet the education and training needs of supervisors and higher technicians in the areas of Production, Quality Assurance and Validation in the Pharmaceutical, Biopharmaceutical, Chemical and Medical Device Industries. The programme comprises of 11 modules and a Project. To complete the programme, each student must take the 7 mandatory modules and 3 elective modules, as well as the project. A maximum of one free choice elective may be chosen.

The project is undertaken towards the end of the degree programme, when the student has successfully completed at least seven of the modules. The programme can be taken over 2 years or spread out over 3 or more years.

There is a considerable element of continuous assessment. Laboratory experiments are included in appropriate modules.

### Indicative Content Validation Science

Manufacturing Operations
Chemical Applications
Technology Transfer
Maintenance, Utilities and Facilities
People Management
Process Improvement
Biopharmaceutical Upstream
Biopharmaceutical Downstream
Energy Management
Formulation
Food Processing Technology
Biomedical Manufacture
Project

**Note:** The running of individual modules will be dependent on a sufficient number of students enrolling on the course.

The student acquires credits until 60 credits have been accumulated. Each module contributes 5 credits except for the Project (10 credits) and Biomedical Device Manufacture (10 credits).

### **Award**

Bachelor of Science in Good Manufacturing Practice & Technology (Level 7 on the National Framework of Qualifications).

Advanced Entry details to this programme overleaf.

www.cit.ie 125

# Advanced Entry to the BSc in Good Manufacturing Practice & Technology

The entry requirements for the BSc in GMP and Technology at Cork Institute of Technology are the Higher Certificate in Science in GMP & Technology or equivalent.

A combination of the following three requirements will be accepted by the Institute as the equivalent of the Higher Certificate in Science in GMP & Technology for advanced entry to the BSc in GMP & Technology

- 1. Leaving Certificate Grade O6/H7 (pre. 2017, D3 Ordinary Level) in five subjects to include Mathematics, and either English or Irish.
- 2. 5 years or more relevant work experience in the pharmaceutical, biopharmaceutical, medical device or food industry. To prove the relevance of their application the candidate will need to show that they are familiar with the topics covered in the following modules of the Higher Certificate:

a. MANU6011 Calibration Science b. STAT6008 Lean Manufacturing c. MANU6013 Manufacturing Technology d. BIOM6003 Cleanroom Management e. MGMT6021 GMP1/Quality Assurance f. INFO6017 Information Technology g. BIOM6004 Contamination Control Essential Maths Skills h. MATH6000

### Details of these modules can be found on the CIT website: www.cit.ie/course/CRSGMPE7Y1

3. The following modules of the Higher Cert in Science in GMP and Technology or their equivalent:

CHEM6002 Chemical Principles

BIOT6003 Introduction to Industrial Biotechnology

These modules will be offered at night this academic year ((Sept 2019 to June 2020) in CIT Bishopstown Campus.

**Note:** The running of individual modules will be dependent on a sufficient number of students enrolling on the course. The module may be withdrawn if this requirement is not fulfilled.



### Special Purpose Award Certificate Courses (Level 6)

The Special Purpose Award certificate courses (Level 6) are industry relevant short courses and includes a Certificate in Cleanroom Manufacturing Practices and a Certificate in Biotechnological Manufacturing Operations. These special purpose award certificates encompass one module per semester (13 weeks) for an evening a week over 1 academic year and start in September.

We will only offer students the courses in September, we will not take in students during the academic year.

€500 per 5 credit module, total cost of Special Purpose Award Certificate is €1,000 (2 modules).

One evening a week per module over 13 weeks in semester 1 and 2 (one academic year).

### (Level 6)

### Course Fee

€1,000 (€500 per 5 credit module x 2 modules)

### Science of Biotechnological Manufacturing Operations

### **Enquiries**

Elaine McCarthy/Tammy Browne T: 021 433 5150 E: PET.Dept@cit.ie Course Code CR ESBMO 6

Course & Module Information, and to apply online, visit www.cit.ie/course/CRESBMO6



### **Delivery**

The programme is delivered in one year, one module over 13 weeks in semester 1, and one module over 13 weeks in semester 2 with an end of semester exam.

Semester 1: Tuesday evenings 6.00pm – 10.0 pm and Wednesday evening ( x 4 ) in October 6.00pm – 10.00pm.

Semester 2: Tuesday evenings 6.00pm - 10.00pm

### **Aim**

This award aims to introduce the participants to basic concepts of chemistry such as structures, bonding and their relationship to chemical properties. The industrial biotechnology content includes environmental biotechnology, biopharmaceutical engineering, bioreactor design and bioprocess design considerations. The programme is designed for existing employees or potential new recruits in the Biopharmaceutical, Pharmaceutical, and Medical Devices, and Food industries who would like an accredited qualification and includes:

Certificate in Biotechnological Manufacturing Operations:

Chemical Principles (semester 1) and Introduction to Industrial Biotech (semester 2).

### **Admission Requirements**

Applications are welcome from persons over 23 years of age by 1 January of year of entry.

Leaving Certificate Grade O6/H7 (pre. 2017, D3 Ordinary Level) in five subjects to include Mathematics and English. Alternative Mathematics does not qualify applicants on this basis. Other examinations/qualifications taken such as GCE/GCSE, trade/craft exams are considered.

### **Further Studies**

Credits and Certificates are awarded for each module passed, allowing participants to gain credits at level 6. They may be used for advanced entry to the BSc in GMP and Technology, see http://www.cit.ie/course/CRSGMPE7Y1

### **Award**

Special Purposed Award - Certificate in Science of Biotechnological Manufacturing Operations (Level 6, 10 ECTs, on the National Framework of Qualifications)

www.cit.ie 127

# Certificate in Cleanroom Manufacturing Practices



(Level 6)

### Course Code CR\_ECLMP\_6

### Course Fee

€1,000 (€500 per 5 credit module x 2 modules)

### Enquiries

Elaine McCarthy/Tammy Browne

T: 021 433 5150 E: PET.Dept@cit.ie



Course & Module Information, and to apply online, visit www.cit.ie/course/CRECLMP6

### **Delivery**

The programme is delivered in one year, one module over 13 weeks in semester 1, and 13 weeks in semester 2. Monday evenings 6.00pm – 9.00pm.

### Aim

This is an industrial relevant course specifically designed for existing employees to upskill and build on their professional experience as well as for potential new recruits in the Biopharmaceutical, Pharmaceutical, Medical Devices and Food industries who would like an accredited qualification. This course aims to develop skills, knowledge and confidence to work within these highly regulated manufacturing environments.

### Contamination Control module's key topics include

- Understand the importance of contamination control
- Sources, detection and identification of contamination within the manufacturing environment
- Contamination control strategies used and cleaning validation
- Effective sterilisation methods and the emergence of singleuse-technology
- Facility design
- Practical skills using microbiological, sterilisation and detection methods
- · Completion of GMP check sheets

On successful completion of the module, **Cleanroom** 

Management, you will gain an understanding of the following

- Identify and measure sources of cleanroom contamination
- · Selection process and use of cleaning agents
- · Classification of cleanrooms according to ISO14644
- · Cleanroom design and construction
- · Cleanroom garbing and behaviour
- Cleanroom, control and monitoring and validation
- Practical skills in environmental monitoring, interpretation of psychrometric charts, gowning practices

### **Admission Requirements**

Leaving Certificate Grade O6/H7 (pre. 2017, D3 Ordinary Level) in five subjects to include Mathematics and English. Alternative Mathematics does not qualify applicants on this basis.

Applications are welcome from mature students over 23 years of age by 1st January of year of entry. Leaving Certificate is desirable but not essential. Relevant work experience; skills gained through experiential learning; and other qualifications, will be considered when assessing applications. Eligible candidates may be interviewed.

### **Further Studies**

Students may seek to gain another industrial relevant short course certificate in CIT's Science of Biotechnological Manufacturing Operations.

Completing this Special Purpose Award together with relevant industrial experience, students may have the opportunity to progress towards an Advanced Entry of CIT's Bachelor of Science in Good Manufacturing Practices and Technologies).

**Note:** The running of individual modules will be dependent on a sufficient number of students enrolling on the course.

### **Award**

Special Purposed Award - Certificate in Cleanroom Manufacturing Practices (Level 7, 10 ECTs, on the National Framework of Qualifications)

# Certificate in Brewing & Distilling Operations

(Level 7)

### Course Fee\*

€500 per module (includes course notes, and CIT exam fee)

### Enquiries

lan O'Sullivan T: 021 433 5888 E: brewing.distilling@cit.ie Course Code CR EBRDO 7

Course & Module Information, and to apply online, visit www.cit.ie/course/CREBRDO7



\*Applicants whose companies are eligible for support via the Taste4Success Skillnet may be eligible for a fee waiver or fee reduction. Please visit www.cit.ie/course/CREBRDO7 for more details.

This programme provides candidates with the scientific and engineering background required to work in craft and traditional breweries and distilleries. The modules on the programme are closely aligned with the Institute of Brewing and Distilling (IBD) syllabi for the Diploma in Brewing and Diploma in Distilling examinations.

### **Delivery**

One module per semester, 6.00 pm - 9.00 pm, one evening per week. The programme is delivered over two years.

Winter 2019 CHEP7018 Distillation Plant Design - Tuesday

CHEP7017 Spirit Production - Wednesday

Spring 2020 CHEP7016 Fluids & Heat - Tuesday

CHEP7014 Raw Materials & Wort - Wednesday

### **Admission Requirements**

Candidates are expected to have at least a Level 6 (NQF) qualification in Science or Engineering. Applications from students who have passed the IBD General Certificate in Brewing or the IBD General Certificate in Distilling and/or who have relevant industrial experience will be considered on an individual basis.

### **Award**

On successful completion of all five modules, graduates will be awarded a CIT Certificate in Brewing & Distilling (Level 7 on the National Framework of Qualifications)

Please note: it is expected that students on the programme would also take the IBD examinations. The IBD diploma examinations are recognised as a world standard in Brewing and Distilling. The IBD examination fee is not included in the course fee.

### Content

Candidates may choose to take any number of modules on a stand-alone basis and will receive individual certification for each module completed. Lectures will be supplemented by industry relevant laboratory practicals, guest lectures, and visits to breweries, distilleries and maltings.

- Yeast & Beer module covers fermentation, maturation and cold storage, yeast and beer properties, spoilage and quality. The module considers aspects of brewing from the conversion of wort to the storage of beer.
- Raw Material & Wort Processing module covers barley, malting, malt preparation on site, mashing, wort, hops, quality management, and laboratory testing. The module covers aspects of cereal science, malt processing and fermentable extract production relevant to the brewing and distilling industry.
- Spirit Production module covers yeast & fermentation, pot distillation, continuous distillation, maturation, quality & hygiene. The module considers aspects of the distillation process from the conversion of wort to the maturation of whiskey.
- Fluids & Heat module covers process gases, properties of moving fluids, frictional energy losses, pumps and valves, principles of heat transfer, heat exchanger design. This module considers aspects of fluid mechanics and heat transfer particular to brewing and distilling.
- Distillation Plant Design module covers steam systems, refrigeration, distillation, process control, sensors and actuators. This module considers distillation, refrigeration, steam generation as well as process control and instrumentation as they apply in brewing and distilling.



### **Head of School**

### **Professor Hugh McGlynn**

Information evening for continuing education courses for the School of Science & Informatics will take place at the CIT Bishopstown Campus on Wednesday 4th September 2019, 5.30pm to 7.00pm. Staff will be in attendance to offer career guidance and assistance.

### The School consists of the following Departments

- Physical Sciences
- Biological Sciences
- Mathematics
- Computer Science

# School of Science & Informatics



### Courses

- Higher Certificate in Science in Industrial Measurement & Control (Level 6)
- Bachelor of Science in Applied Physics & Instrumentation (Level 7)
- Bachelor of Science (Honours) in Instrument Engineering (Level 8)
- Certificate in Advanced Industrial Automation (Level 8)
- Certificate in Quality Assurance (Level 6)
- Diploma in Quality Management Part 1 (Level 7)
- Diploma in Quality Management Part 2 (Level 7)

### ■ Short Courses for Industry

Short courses in instrumentation, measurement and control, optics, sensors and cognate areas can be offered from the modules within our validated programmes. Costs, location of courses and scheduling are negotiable.

### **Enquiries**

Mary Phelan E: mary.phelan@cit.ie T: 021 433 5870

https://physicalsciences.cit.ie

### Head of Department

Dr Donagh O'Mahony T: 021 433 5595 E: donagh.omahony@cit.ie

### Department Secretary

Mary Phelan Location: Office No: C229A T: 021 433 5870 E: mary.phelan@cit.ie

If you have any queries, please contact the Department Secretary, details above.

Each programme has its own unique web address from which you can apply online

All programmes offered are subject to demand and places may be limited. All online applicants will receive an email confirmation. Details about eligibility, programme orientation, and timetable arrangements will be sent to all applicants via email update.

# Higher Certificate in Science in Industrial Measurement & Control

(Level 6)

Course Code CR\_SIMCT\_6

#### Course Fee

€250 per 5 credit module (inc. exam fee)

#### **Enquiries**

Conor O'Farrell T: 021 433 5592 E: conor.ofarrell@cit.ie



Course & Module Information, and to apply online, visit www.cit.ie/course/CRSIMCT6

#### **ACCS Mode**

Year 1, Year 2 and Year 3 will be offered 3 evenings a week/ semester subject to student numbers.

**Note:** This level 6 programme will be delivered over 3 academic years. All students holding a cognate craft qualification (Electrical, Instrumentation and Electrical & Instrumentation crafts) will gain advanced entry against Year 1 and therefore must only complete Year 2 and 3. All other students must complete Year 1, Year 2 and Year 3. Advanced entry may be gained against certain Year 1 modules.

#### Aim

This programme of 120 credits is designed to enable skilled craftspersons working in industry to upgrade their qualifications and skills. Applications are also invited from candidates who wish to take specific modules from the programme.

#### **Admission Requirements**

- Leaving Certificate Grade O6/H7 (pre. 2017, D3 Ordinary or Higher Level) in five subjects to include Mathematics, and either English or Irish.
- Mature and other special category applicants will be admitted according to CIT regulations for part-time enrolment;
- Applicants holding a relevant FETAC (now QQI) Advanced Certificate, National Craft Certificate or equivalent, other relevant Level 6 (or higher) qualifications or having relevant industrial experience will be eligible for exemptions from certain modules.

#### Content

All applicants who do not hold an Electrical, Instrument or Electrical instrumentation craft certificate must complete SIMCT Stage 1 before entering SIMCT stage 2.

SIMCT STAGE 1 TIMETABLE  Year 1				
	Semester 1	Semester 2		
Mon	Maths for Craftpersons	Signal Measurement		
Tues	Introduction to Instrumentation Technology	Signal Conditioning		
Wed	Technology	Fundamental Physics		
Thurs	Overflow Lab sessions	Overflow Lab sessions		

All applicants who hold an Electrical, Instrument or Electrical instrumentation craft certificate enter the programme at SIMCT Stage 2.

SIMCT STAGE 2 TIMETABLE Year 2				
	Semester 1	Semester 2		
Mon	Industrial Automation	Instrument Calibration		
Tues	Instrument Measurement	Process Control		
Wed	Practical Computer Technology	Maths for Physical Sciences		
Thurs	Overflow Lab Sessions	Overflow Lab Sessions		



SIMCT STAGE 3 TIMETABLE						
	Year 3					
	Semester 1	Semester 2				
Mon	Intro to Stats for Physical Sciences	Maths for Science 2.1				
Tues	Applications of Automation	Graphics & Engineering Design				
Wed	Introduction to Utilities	Process Instrumentation				
Thurs	Overflow Lab Sessions	Overflow Lab Sessions				

**Note:** Exemptions from certain modules on this programme are automatically granted to holders of FETAC (now QQI) Advanced Certificates or equivalent, in a relevant craft and are not listed above. Other applicants may have to take additional modules.

#### **Award**

Single module certification within the Higher Certificate in Science in Industrial Measurement & Control.

The major award of the Higher Certificate in Science in Industrial Measurement & Control (Level 6 on the National Framework of Qualifications) will be received by students who successfully complete the course programme.

#### **Further Studies at CIT**

Graduates of the Higher Certificate in Science in Industrial Measurement & Control may proceed onto the Level 7 Bachelor of Science in Applied Physics and Instrumentation, subject to availability of places.

# Bachelor of Science in Applied Physics & Instrumentation

(Level 7)

## Course Code CR\_SPHYS\_7

#### Course Fee

€250 per 5 credit module (inc. exam fee)

#### **Enquiries**

James Barrett T: 021 433 5596 E: james.barrett@cit.ie



Course & Module Information, and to apply online, visit www.cit.ie/course/CRSPHYS7

#### **ACCS Mode**

Modules will be offered on three evenings per week.

**Note:** This Level 7 programme is delivered over two academic years. Each year consists of two semesters: the first semester runs from September to January; and the second semester runs from February to June.

#### Aim

This programme of 60 credits provides advanced specialist education in measurement and control technology that broadens the perspective of the student and helps to develop design capabilities in instrumentation. The course also helps to consolidate the basic foundation in the discipline for students wishing to pursue the Bachelor of Science (Honours) in Instrument Engineering.

#### **Admission Requirements**

- Higher Certificate in Science in Applied Physics and Instrumentation or the Higher Certificate in Science in Industrial Measurement & Control:
- Holders of other relevant Level 6 qualifications, including City & Guilds Course No. 275, will also be considered on an individual case basis;
- Applicants holding relevant Level 7 (or higher) qualifications or having relevant industrial experience may be eligible for exemptions from certain modules.

#### Content

Cycle A Modules

Mathematics for Science 3.1 Thermo and Fluid Dynamics Process Control & Electrical Industrial Automation & SCADA Quality Systems

#### Cycle B Modules

Programming for Measurement Water Quality Instrumentation Industrial Communications & Networks Smart Sensors Project

#### **Award**

Bachelor of Science in Applied Physics and Instrumentation (Level 7 on the National Framework of Qualifications). Single module certification is possible.

#### **Validating Body**

Quality and Qualifications Ireland (QQI).

This degree is recognised by the Institute of Physics. Graduates of recognised degrees qualify for Associate Membership upon graduation and may apply for full Membership after appropriate work experience.

#### **Further Studies at CIT**

Suitably qualified graduates (minimum average mark of 50%) may apply to

 Bachelor of Science (Honours) in Applied Physics & Instrumentation

or

 Bachelor of Science (Honours) in Instrumentation Engineering

Progression to either honours degree programme is subject to the availability of places.

## Bachelor of Science (Honours) in Instrument Engineering

(Level 8)

Course Fee

€300 per 5 credit module (inc. exam fee)

Enquiries

Richard Peard T: 021 433 5964 E: richard.peard@ cit.ie Course Code CR\_SINEN\_8

Course & Module Information, and to apply online, visit www.cit.ie/course/CRSINEN8



#### **ACCS Mode**

Modules will be offered on three evenings per week.

**Note:** This Level 8 course is delivered over two academic years. Each year consists of two semesters: the first semester runs from September to January; and the second semester runs from February to June.

#### Aim

This programme of 60 credits aims to meet the requirements of industry for professionally qualified personnel in instrumentation and to satisfy the demands of students for a qualification in Instrument Engineering to the highest undergraduate level.

#### **Admission Requirements**

- Bachelor of Science in Applied Physics and Instrumentation with a minimum average mark of 50%;
- Holders of other Level 7 qualifications in a relevant Science or Engineering discipline with a minimum average mark of 50%:
- Applicants holding relevant Level 8 qualifications or having relevant industrial experience may be eligible for exemptions from certain modules.

#### Content

Cycle A Modules

Engineering Project Management
Networking and Computer Security
Process Analytical Technologies
System Modeling and Interfacing
Project (Research Phase or Implementation phase as appropriate) (10 credits

#### Cycle B Modules

Advanced Programming for Measurement
Advanced Signal Processing
Advanced Industrial Automation
Advanced Process Control
Statistics and Quality Methods
Project (Research Phase or Implementation phase as appropriate) (10 credits)

#### **Award**

Bachelor of Science (Honours) in Instrument Engineering (Level 8 on the National Framework of Qualifications). Single module certification is possible.

#### **Validating Body**

Quality and Qualifications Ireland (QQI).

This degree is recognised by the Institute of Physics. Graduates of recognised degrees qualify for Associate Membership upon graduation and may apply for full Membership after appropriate work experience.

#### **Further Studies at CIT**

Graduates are eligible to apply for a postgraduate degree at Masters (MSc) or Doctoral (PhD) levels.

# Certificate in Advanced Industrial Automation

(Level 8)

Course Code CR SINAU 8

Course Fee

Total: €1,650

Students may also pay per module

**Enquiries** 

Natalia Rebrova E: natalia.rebrova@cit.ie



Course & Module Information, and to apply online, visit www.cit.ie/course/CRSINAU8

#### Aim

The aim of this programme is to provide learners with the advanced skills and knowledge necessary to become specialists in the application of state-of-the-art automation techniques across a range of industries. This is a specialised hands-on course that deals with essential topics for today's automation engineers. The module has a heavy emphasis on practical programming of a range of automated processes using a range of software tools such as DeltaV and SCADA.

#### **Duration & Delivery**

The course delivery will be two evenings per week, along with a significant individual project in advanced industrial automation.

#### Content

#### Modules

**Introduction to Industrial Automation** (5 ECTs) module provides a first level module in Programmable Logic Control and associated automation including its applications in process industry. The student requires no prior knowledge in this area.

**Industrial Automation & SCADA** (5 ECTs) module provides an intermediate level module in automation. The module includes some of the more advanced aspects of PLC utilisation in industry, the use of SCADA in providing process automation, and the use of DeltaV in automated environments.

**Advanced Industrial Automation** (5 ECTs) module is an advanced course in process automation and deals with essential topics for today's automation engineers. The module has a heavy emphasis on practical lab based activity in programing and automation of processes using a range of software tools including SCADA and DeltaV. It also covers the use of robots in modern automation.

**Introduction – Process Control** (5 ECTs) module introduces the student to the fundamental concepts of control for process and automation industries.

Advanced Industrial Automation Project (10 ECTs) module develops within the student the knowledge, know-how and skills, and competences required to successfully complete a project in accordance with an approved plan. The module requires the student to develop, implement and critically assess a detailed methodology to address a defined problem within a prescribed timeframe. The student is expected to work autonomously under direction of a project supervisor and to communicate the process and outcomes of their work in a style and manner appropriate for professional practitioners in the discipline.

#### **Admission Requirements**

Ordinary degree or equivalent in Science/Technology/ Engineering. Equivalent recognition may be given through the Recognition of Prior Learning (RPL) process on an individual case-by-case basis to candidates who have not achieved this academic standard but who can demonstrate significant relevant professional experience. For more details, visit www. cit.ie/rpl.

#### **Award**

Certificate in Advanced Industrial Automation – Special Purpose Award (Level 8 on the National Framework of Qualification).



## Certificate in **Quality Assurance**

(Level 6)

## Course Code CR\_SQUAS\_6

#### Course Fee

€400 per module, i.e. €800 overall (inc. registration exam fee)

#### **Enauiries**

Dr Mary Lehane T: 021 433 5866 E: mary.lehane@cit.ie



Course & Module Information, and to apply online, visit www.cit.ie/course/CRSQUAS6

#### **Duration & Delivery**

Monday or Tuesday or Wednesday, 7pm – 10pm (Usually Monday).

One evening per week for one academic year. Module 1 is delivered and examined during semester 1, and module 2 is then completed during semester 2.

The course consists of two modules, each worth 5 credits.

#### **Admission Requirements**

Applicants should normally have a technician level qualification, or work experience in the quality area together with an appropriate educational background. Other applicants will be considered on an individual basis.

#### Overview

This is designed as a first course in quality assurance and control. Graduates will have the ability to apply and maintain quality assurance/quality control systems in an industrial environment to support delivery of a quality product or service. The course emphasises everyday practical aspects concerning the use of basic quality techniques in industry, and will be useful both to those who require some basic methodology of quality, and those who hope to progress within the world of quality management.

#### Content

Module 1: Fundamentals of Quality Assurance

The function of quality assurance in manufacturing and service The role of quality control

Human aspects of quality Regulatory requirements

Calibration concepts

Documentation for quality assurance

 Module 2: Introduction to Quality Management, Validation, and Statistical Quality Control

Quality costing methods Sampling inspection Design and use of quality control charts Understanding variability in processes Validation: theory, role, and application Managing quality assurance systems

#### **Award**

Certificate in Quality Assurance – Special Purpose Award (Level 6 on the National Framework of Qualifications).

#### **Awarding Body**

Cork Institute of Technology.

#### **Commencement Date**

Monday, 9th September 2019.

#### **Closing Date for Application**

Monday, 16th September 2019.

# Diploma in Quality Management

(Level 7) Part 1

#### Course Fee

€700 (payable to CIT). Exam fee: Currently €150 (payable to the external examining body EIQA)

#### **Enquiries**

Dr Ambrose Furey T: 021 433 5875 E: ambrose.furey@cit.ie Course Code CR\_SQMAN\_7\_Y1

Course & Module Information, and to apply online, visit www.cit.ie/course/CRSQMAN7Y1



#### **Duration & Delivery**

Monday or Tuesday or Wednesday, 7pm – 10pm (Usually Tuesday)

This course is not semesterised and runs for one evening per week for one academic year.

The course consists of one module, worth 10 credits.

#### **Admission Requirements**

Applicants are required to have the CIT Certificate in Quality Assurance Special Purpose Award or an equivalent qualification. Extensive experience in a wide variety of Quality Management, Quality Assurance and Statistical Techniques in lieu of formal qualifications may be taken into account when assessing suitability for entry onto the Diploma in Quality Management (Part 1). Each application will be considered on an individual basis.

As coursework on this programme involves a significant quantity of both oral and written reports, examinations, and presentations, applicants must be competent in spoken and written English.

#### Content

- · Setting up a Quality System
- The Elements of a Quality System
- Basic Management Theory
- Auditing
- Problem Solving and Quality Improvement
- Product and Service Quality
- Quality Costs
- Implementing TQM and Documentation Control

The format of this course is that typical of a management course i.e. it involves discussion and background reading; essay type answers are required in the written examination, and the course is partially examined by project work.

#### **Award**

Diploma in Quality Management – Part 1.

#### **Awarding Body**

Excellence Ireland Quality Association (EIQA).

#### **Commencement Date**

Tuesday, 10th September 2019.

#### **Closing Date for Application**

Monday, 16th September 2019.

## Diploma in Quality Management

Part 2 (Level 7)

Course Code

CR\_SQMAN\_7\_Y2

#### Course Fee

€800 (payable to CIT). Exam fee: Currently €150 (payable to the external examining body EIQA)

#### Enquiries

Dr Ambrose Furey T: 021 433 5875 E: ambrose.furey@cit.ie



Course & Module Information, and to apply online, visit www.cit.ie/course/CRSQMAN7Y2

#### **Duration & Delivery**

Monday or Tuesday or Wednesday, 7pm - 10pm (Usually Wednesday)

This course is not semesterised and runs for one evening per week for one academic year.

The course consists of one module, worth 10 credits.

#### **Admission Requirements**

Applicants are required to have the Diploma in Quality Management – Part 1 (or the Certificate in Quality Management, which was the previous title of the course).

As coursework on this programme involves a significant quantity of both oral and written reports, examinations, and presentations, applicants must be competent in spoken and written English.

#### Content

- Introduction to Total Quality
- Quality Management Philosophies
- Managing for Quality
- Review of Quality Standards
- Quality Awards
- Leadership
- Human Resource Development
- Teamwork
- Process Management
- Strategic Information Management
- Developments in Total Quality

The format of this course is typical of a management course involving participation, discussion and background reading. The project constitutes a very important part of the year's work and marks are awarded accordingly.

#### **Award**

Diploma in Quality Management – Part 2.

#### **Awarding Body**

Excellence Ireland Quality Association (EIQA).

#### **Commencement Date**

Wednesday, 11th September 2019.

#### **Closing Date for Application**

Monday, 16th September 2019.

School of Science & Informatics

Department of Mathematics

## Course

■ Higher Diploma in Science in Data Science & Analytics (Level 8)

Head of Department

Dr David Goulding

Location Room: C123A T: 021 433 5123 E: mathematics@cit.ie

The course offered is subject to demand and places may be limited. All online applicants will receive an email confirmation. Details about eligibility, programme orientation, and timetable arrangements will be sent to all applicants via email update.

https://mathematics.cit.ie/datascience

# Higher Diploma in Science in Data Science & Analytics

(Level 8)

# Course Code CR\_SDAAN\_8

#### Course Fee

Total: €4,200. €350 per 5 credit module, and €700 for the 10 credit project module (inc exam fees)

#### **Enquiries**

T: 021 433 5123 E: mathematics@cit.ie



Course & Module Information, and to apply online, visit www.cit.ie/course/CRSDAAN8

#### **Duration**

2 Years Part-time September 2019 – May 2021, depending on the start date of Semester 2 (subject to demand)

#### **Admission Requirements**

Applicants will already hold a Level 8 degree, and must be highly motivated and capable of independent learning. Preference will be given to applicants with a background in cognate and analytical disciplines, who would benefit from an opportunity to rapidly and successfully convert their qualifications to industry relevant ICT skills. All candidates with a Level 8 qualification or equivalent will be considered. Candidates with a Level 7 qualification and significant relevant experiential learning may be eligible through our recognition of prior learning processes. Please see www.cit.ie/rpl for further details.

#### **Aim**

Data Science has become a hugely important topic in recent years with a growing demand for practitioners in a variety of industries. With ever increasing growth in data generation and collection, the value of data to industries is highly dependent on appropriate analysis of the data. Consequently, data science and analytics has become a core component of both public and private sector companies wishing to maintain competitiveness.

The Higher Diploma in Science in Data Science & Analytics (NFQ Level 8) in CIT is a collaboration between the Department of Mathematics and the Department of Computer Science. The programme aims to develop highly skilled and competent graduates in the rapidly expanding field of Data Science. The programme has been designed and developed with industry experts to ensure that graduates develop core skills in programming, database management, statistical modelling, time series analysis, machine learning, data visualisation and interpretation and serves to address skills shortage in the area of Data Science and Analytics.

#### **Structure**

This is a 60 credit programme, in which three core strands: Statistics & Mathematics, Computer Science, and Data Science, are developed over two semesters, with an increasing specialisation to the "big data" context. There will be significant opportunity throughout to apply theoretical knowledge and develop problem solving skills through practical and laboratory sessions. The learner will also undertake a capstone project, which will be a key opportunity to demonstrate the ability to synthesise the learning acquired in the programme, and to apply it to the solution of an authentic problem in Data Science and Analytics.

The graduate will gain significant practical experience, in software packages and programming languages including R, Python, Excel, SQL, NoSQL, Tableau, Spark and Hadoop for example.

#### Content

#### Mandatory

Intro to R for Data Science
Data Science and Analytics
Scientific Programming in Python
Applied Statistics and Probability
Data Management Systems
Mathematical Methods and Modelling
Regression Analysis
Distributed Data Management
Data Visualisation and Analytics
Data Science Analytics Project

#### **Electives**

Time Series and PCA Machine Learning

#### **Award**

Higher Diploma in Science in Data Science & Analytics (Level 8 on the National Framework of Qualifications).

# School of Science & Informatics

# Department of Computer Science

## Courses

- Master of Science in Artificial Intelligence (Level 9)
- Master of Science in Cloud Computing (Level 9)
- Master of Science in Software Architecture & Design (Level 9)
- Master of Science in Cybersecurity (Level 9)
- Master of Science in Information Design & Development (Level 9)
- Certificate in Information Design & Development (Level 9)
- Higher Diploma in Science in Cloud Computing (Level 9)
- Higher Certificate in Science in Software Development (Level 6)
- Bachelor of Science in Software Development (Level 7)

http://cs.cit.ie



Tim Horgan

## Department Secretary

Noreen Lucey Location Room: B225L T: 021 433 5160 E: cs@cit.ie

W: http://cs.cit.ie

If you have any queries, please contact the Department Secretary, details above.

Each programme has its own unique web address from which you can apply online.

All programmes offered are subject to demand and places may be limited. All online applicants will receive an email confirmation. Details about eligibility, programme orientation and timetable arrangements will be sent to all applicants via email update.

http://cs.cit.ie 143

## Master of Science in Artificial Intelligence

(Level 9)

## Course Code CR\_KARIN\_9

#### Course Fee

€7,500 in total. Three instalment of €2,500 are possible

#### **Enquiries**

Dr Haithem Afli T: 021 433 5116 E: haithem.afli@cit.ie W: http://cs.cit.ie/ai-online



Course & Module Information, and to apply online, visit www.cit.ie/course/CRKARIN9

This programme is available part-time online and full-time on campus. In online mode, all classes are delivered over the Internet and all practical work is completed using CIT's cloud infrastructure.

Artificial intelligence (AI) is a field of computer science that enables computers and machines to perform tasks normally requiring human intelligence. Its many applications range from chess-playing robots and autonomous cars to speech, image, and language processing, robotic manufacturing, and surveillance systems. Al simulates human intelligence processes by combining large datasets, machine learning, and computational power with algorithms capable of solving problems.

In the 21st century, AI techniques have experienced a resurgence following concurrent advances in computer power, large amounts of data, and theoretical understanding. AI techniques have become an essential part of the technology industry, helping to solve many challenging problems in computer science.

This Master's degree programme provides a technical deep-dive into the area of Al. The programme will produce Al graduates with a highly relevant skillset in Al topics. You'll learn how to use and develop intelligent computer systems that can learn from experience, recognise patterns in vast amounts of data and reason strategically in complex decision making situations. The programme places significant emphasis on student learning by doing. It adopts a practical, hands-on, approach to learning, where all modules are fully assessed using continuous assessment methods.

#### **Duration & Online Delivery**

This is a two-year part-time programme taught over 24 months (4 semesters). The programme is delivered and accessed fully online using state of the art Cloud based technologies. Lectures are delivered online by night, streamed live over the Internet and recorded to facilitate easy playback to students. This offers great flexibility for students who can access lectures and labs anytime, anywhere on any device that has a web browser.

#### **Admission Requirements**

Entry to the MSc in Artificial Intelligence will require a minimum of a Level 8 honours degree in Computer Science, Engineering,

Computing or an honours degree in a cognate discipline. As this is an expert level programme, it is essential for applicants to have a strong proficiency in mathematics, including statistics, and an advanced level of coding competency in a modern highlevel computer programming language such as Python or Java. Applicants who do not meet the above criteria will be considered on a case by case basis. Please see the Recognition of Prior Learning (RPL) page or visit www.cit.ie/rpl for further details.

#### **Aim**

The aim of this programme is to produce expert Al developers. Successful completion of the programme will equip these graduates with the desired skills and provide them with the following benefits:

- Ability to deal with technically complex problems
- Support in making strategically important decisions within their profession
- Gain a qualification that is in high demand in the market place
- Attain expertise to carry out AI research in academic and R&D environments
- Provide intelligent solutions to IT problems in companies and organisations
- Pursue doctoral studies within the domain of AI and Machine Learning (ML) in CIT

#### **Structure**

The programme contains challenging and interesting modules delivered by lecturers who are experts in Al. Students will also be presented with opportunities to work on modern research case studies linked to the domain expertise of staff in the department. The programme places significant emphasis on student learning by doing. It adopts a practical, hands-on, approach to learning, where all modules are fully assessed using continuous assessment methods.

There are no formal end of semester written examinations and this ensures that students will learn by doing from the first module to the last. This 60 credit programme is delivered over two 30 credit semesters. Each semester has a number of mandatory modules and a choice of electives (all electives may not be offered).

# Master of Science in Cloud Computing

(Level 9)

#### Course Fee

€10,800 in total. Three instalment of €3,600 are possible

#### Enquiries

Dr Haithem Afli T: 021 433 5116 E: haithem.afli@cit.ie W: http://cs.cit.ie/cloud Course Code CR\_KCLDC\_9

Course & Module Information, and to apply online, visit www.cit.ie/course/CRKCLDC9



#### **Duration & Online Delivery**

24 months (4 semesters) is the minimum duration. This programme is available online only. All classes are delivered over the Internet and all practical work is completed using CIT's cloud infrastructure.

#### **Admission Requirements**

Entry to the MSc in Cloud Computing will require a minimum of a Level 8 Honours Degree in Computing or in a cognate discipline. As this programme is designed specifically for computing professionals working in the IT industry only graduates with experience will gain direct entry into this programme.

#### **Overview**

Cloud Computing is considered a relatively new field in Internet computing where novel perspectives in internetworking technologies have emerged. To successfully deal with issues relating to this new paradigm the MSc in Cloud Computing programme aims to equip the graduate with the advanced conceptual understanding, detailed factual knowledge, and specialist architectural and technical skills required to design and implement cloud based solutions and services.

More recently the convergence of the cloud with big data has created additional opportunities for IT professionals to gain valuable insights into their business data. Such insights are critical for companies to maintain their competitive edge, increase their revenues and deliver new innovative services and solutions. The programme also aims to address the skills gap in this area so the graduate is equipped with not only the skills to store the data in the cloud but also to derive meaningful analytics from it to deliver true business value.

The content seeks to reflect current and likely future practice in cloud planning and management, the design and management of virtual environments, data analytics, the consolidation of data centres, security techniques in multi-tenant virtualised environments and related areas that contribute to the building of both private and public cloud environments.

#### Content

The MSc in Cloud Computing is taught online using Cloud based technologies, so students can learn about the cloud in the cloud. Learning technologies such as Blackboard, Adobe Connect, and virtualised lab infrastructures are just some of the systems that are used to deliver this innovative programme. Lectures, which are delivered at night are streamed live over the Internet and recorded to facilitate easy playback for students. This offers great flexibility to students as they can access their lectures and labs anytime, anywhere on any device that has a Web browser. It is a testament to the online delivery platform in CIT that students can participate in the programme irrespective of their physical location or working status.

#### **Modules**

#### Mandatory

Cloud Strategy Planning & Management
Computing Research & Practice
Managing Virtual Environments
Data Centre Networking
Cloud Storage Infrastructures
Cloud Security
Research Project
Electives (choose 2)
Scripting for System Automation
Scalable Microservices
Data Analytics
Future Internet

#### **Award**

Master of Science in Cloud Computing (Level 9 on the National Framework of Qualifications).

#### **Closing Date for Application**

16th September 2019.

# Master of Science in Software Architecture & Design

(Level 9)

Course Code CR\_KSDEV\_9

Course Fee €6,500

Enquiries

Dr Haithem Afli T: 021 433 5116 E: haithem.afli@cit.ie W: http://cs.cit.ie/sad



Course & Module Information, and to apply online, visit www.cit.ie/course/CRKSDEV9

#### **Duration & Online Delivery**

24 months (4 semesters) is the minimum duration. This programme is available online only. All classes are delivered over the Internet and all practical work is completed using CIT's cloud infrastructure.

#### **Admission Requirements**

Entry to the MSc in Software Architecture & Design requires a minimum of a Level 8 Honours Degree in Computing or in a cognate discipline with a minimum of 3 years post qualification experience. Applicants may be interviewed by an admission panel. Particular attention will be paid to the applicant's software development experience and motivation, as well as their formal knowledge of object oriented technologies. Applicants may be directed to undertake bridging studies before commencing the programme. The interview will also be used to explore the applicant's CPD plan.

#### **Online Delivery**

The MSc in Software Architecture & Design is taught online using Cloud based technologies. Learning technologies such as Blackboard, Adobe Connect and virtualised lab infrastructures are just some of the systems that are used to deliver this innovative programme. Lectures, which are delivered at night are streamed live over the Internet and recorded to facilitate easy playback for students. This offers great fexibility to students as they can access their lectures and labs anytime, anywhere on any device using a Web browser. It is a testament to the online delivery platform in CIT that students can participate in the programme irrespective of their physical location or working status.

#### Aim

The aim of the Programme is to develop students' knowledge and skills in Software Architecture & Design, Software Development Processes, Analysis and Design of Algorithms, Programming Language Design, Decision Analytics, Software Vulnerabilities, Microservices, and Data Analytics.

Students will develop skills in analysing requirements and designing appropriate software solutions; designing and creating complex software systems to solve real-world problems, evaluating and using advanced software environments, design methods and programming languages, and evaluating and responding to recent trends in interoperability and software development. In addition to the taught modules, students will complete a research project that can be aligned to their own specific research interests.

#### Content

The MSc in Software Architecture & Design programme is an advanced industry-focused programme that addresses the skills gap of software developers and/or architect in the face of evolving software development practices. It aims to provide students the opportunity for in-depth study of the advanced design and architectural and software development and process skills required for the successful design and development of complex software distributed systems. It provides students with the theoretical and practical knowledge necessary to advance their career in software development as a senior member of the development team or as a software architect.

Delivered exclusively online, the programme offers working professionals flexible opportunities to learn more about technological advances in the industry. The programme places a major emphasis on developing higher level software development skills. Students are exposed to current state-of-the art principles, methods and research of software design and architecture.



#### **Mandatory Modules**

Software Design & Architecture Software Process Engineering Scalable Microservices Analysis & Design of Algorithms Computing Research & Practice Research Project

#### **Elective Modules**

Decision Analytics
Declarative & Concurrent Programming
Software Vulnerabilities
Programming Language Design
Data Analytics

#### **Further Studies**

On successful completion of the MSc in Software Architecture & Design programme, graduates will have acquired advanced knowledge and skills to enable them manage, design and create software and processes that are reliable, robust, secure and scalable. After completing this programme graduates may wish to continue to PhD level within the Department of Computer Science.

#### **Award**

Master of Science in Software Architecture & Design (Level 9 on the National Framework of Qualifications).

#### **Closing Date for Application**

16th September 2019.

http://cs.cit.ie 147

# Master of Science in Cybersecurity

(Level 9)

## Course Code CR\_KINSE\_9

#### Online Course Fee

€9,000

This is typically paid in 4 instalments:  $€2,000 \times 3$  and a final instalment of €3.000.

#### **Enquiries**

Vincent Ryan E: vincent.ryan@cit.ie T: 021 433 5112

W: http://cs.cit.ie/security-online



Course & Module Information, and to apply online, visit www.cit.ie/course/CRKINSE9

This programme is available part-time online and full-time on campus. In online mode, all classes are delivered over the Internet and all practical work is completed using CIT's cloud infrastructure.

#### **Duration & Online Delivery**

24 months (4 semesters) is the minimum duration. The MSc in Cybersecurity part-time offering is taught fully online and is designed specifically for computing professionals working in the IT industry. The modules are assessed by online continuous assessment. The programme is hands-on in nature and provides the learner with detailed working knowledge of the tools used in the field of Cybersecurity. Online lectures are delivered to students 2 evenings per week. Lectures are streamed live over the Internet and recorded to facilitate easy playback for learners.

The full-time offering is taught on campus over one academic year and some elective modules may be taken online.

#### **Overview**

Cybersecurity can be defined as the protection of information and information systems from unauthorised access, use, disclosure, disruption, modification, or destruction in order to provide confidentiality, integrity, and availability.

Today, Cybersecurity is becoming a function of increasing importance for the continued operation of commercial entities. The increasing level of interconnectedness of information networks and the reliance of business models on this interconnectedness has resulted in a network (currently the Internet) that has over a yottabyte of information stored, much of which is unsecured. This continuing trend is predicted to strongly increase the importance of Information Security within most multinational entities.

This programme aims to fill the ever increasing skills gap in this area and delivers material that follows the most current practise. 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.

#### **Admission Requirements**

Entry to the MSc in Cybersecurity 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.

#### Content

Incident Response and Digital Forensics
Security Management and Law
Applied Cryptography
Web Application and Network Penetration Testing
Networking Security & Forensics
Scripting for System Automation
Information Security Research Project

#### **Elective**

Cloud Security
Data Analytics
Malware Investigations
Malware Reverse Engineering
Threat Intelligence
Software Security
Free Choice Module

#### **Award**

Master of Science in Cybersecurity (Level 9 on the National Framework of Qualifications). (Single module certification is possible)

**Please note:** Students who have successfully completed the 60 credit taught element of the MSc programme and who do not wish to complete the Master's 30 ECTS research project may be awarded the Postgraduate Diploma in Cybersecurity.

## Master of Science in Information Design & Development

#### (Level 9)

#### Course Fee

€6,300

This is typically paid in 3 instalments of  $\leq 2,100$ .

#### **Enquiries**

Dr Haithem Afli T: 021 433 5116 E: haithem.afli@cit.ie W: http://cs.cit.ie/idd Course Code CR\_KINDD\_9

Course & Module Information, and to apply online, visit www.cit.ie/course/CRKINDD9



This programme is available online only. All classes are delivered over the Internet.

Students may study the MSc in Information Design & Development in three stages and on successful completion will be awarded the following:

Stage 1: Certificate in Information Design & Development (30 ECTS)

Stage 2: Postgraduate Diploma in Information Design & Development (60 ECTS)

On successful completion of Stage 1 and Stage 2, students may proceed to Stage 3: Master of Science in Information Design & Development (90 ECTS).

#### **Duration & Delivery**

24 months (4 semesters) is the minimum duration. The MSc in Information Design and Development is delivered and accessed fully online using state of the art Cloud based technologies. Lectures are delivered online by night and streamed live over the Internet and recorded to facilitate easy playback to students. The programme offers great flexibility to students as they can access their lectures and labs anytime, anywhere on any device that has a Web browser.

#### Overview

Information Developers are individuals who bridge the gap between subject matter experts and that of the end user. The role of information developers is becoming increasingly important given that society is being driven by technology and information developers provide the voice in communicating how issues incorporating technology are framed and developed. The Society of Technical Communication (STC) define information developers or technical communicators as individuals that communicate using an instruction based focus on technical or specialised topics using technology. In essence, information development and technical communications ensures that designs, products, systems and methodologies are documented and conveyed to their target audience to maximise its business value to the organisation.

#### **Admission Requirements**

Applicants who hold a Level 8 degree in any discipline are eligible to apply. Applicants who do not hold a Level 8 degree but have significant industrial experience will be considered on a case by case basis.

#### Content

All modules are worth 5 credits (ECTS) unless otherwise noted.

#### **Mandatory Modules**

XML in Technical Communications (10 ECTS)
Multimedia Production
Information Design & Development (10 ECTS)
Information Strategy
Information Experience (10 ECTS)
Emerging Technological Skills
Document Project Management (10 ECTS)
Thesis (30 ECTS)

#### **Elective**

Information Analytics Scripting for System Administrators

#### **Award**

Master of Science in Information Design & Development (Level 9 on the National Framework of Qualifications). (Single module certification is possible)

#### **Closing Date for Application**

16th September 2019.

# Certificate in Information Design & Development



(Level 9)

#### Enquiries

Dr Haithem Alfi T: 021 433 5116 E: haithem.alfi@cit.ie W: http://cs.cit.ie/idd



Course & Module Information, and to apply online, visit https://springboardcourses.ie/details/7040

The Society of Technical Communication (STC) define information developers, technical writers and technical communicators as individuals who communicate using an instruction based focus on technical and specialised topics using technology.

Their primary role is to communicate information to users of products or services in a clear concise manner for diverse audiences and stakeholder groups.

This programme will equip graduates with the knowledge, skills and competencies to design and developed technical documents using a structured methodological approach.

The programme was developed with key industry stakeholders; Johnson Controls, EMC, VCE, IBM and TWi to address the skills shortage in this area. Graduates of this level 9 Certificate programme may progress to the Postgraduate Diploma and the Master's stages.

#### **Duration & Online Delivery**

Two semesters in one academic year, delivered exclusively online.

#### Springboard+

This Springboard+ funded programme is open to all level 8 degree graduates irrespective of their employment status. For employed participants, the Higher Education Authority (HEA) will fund 90% of the course fee with CIT collecting the remaining 10% from participants at registration. All other participants will be funded 100% by the HEA.

The following Level 8 degree holders can apply

- Those in receipt of an eligible payment from the Department of Employment Affairs and Social Protection and the formerly self-employed.
- People not in receipt of a payment from the Department of Employment Affairs and Social Protection that have been out of the work environment for a number of years due to childcare or other caring obligations and have a previous history of

- employment but may require upskilling or reskilling to transition back to the workforce ("Returners").
- People in employment who wish to upskill or reskill to meet a specific emerging skills gap.

Returners and employed participants will be required to meet the residency requirements for Springboard+; that they must have been ordinarily resident in an EU/EEA/Swiss state for at least three of the five years preceding their entry to their programme.

#### Who Should Apply?

Are you interested in a career as an information developer, technical communicators or technical writer? Maybe you are interested in changing your career path or would like to take this excellent online course to enhance your curriculum vitae? Graduates of this Level 9 Certificate programme may progress to the Postgraduate Diploma and the MSc in Information Design & Development stages.

#### **Overview**

This Certificate in Information Design & Development has a strong applied emphasis which is supported by in-depth theoretical knowledge. The programme was developed with significant input from industry's leading Information Design and Development experts. Designed to address the widening practical and theoretical skills shortage in Information Design and Development, the programme delivers content that follows best practice in industry.

The programme places significant emphasis on student learning by doing. It adopts a practical, hands-on, approach to learning, where all modules are fully assessed using continuous assessment methods. There are no formal end of semester written examinations and this ensures that you will learn by doing from the first module to the last.

All modules are mandatory, Module descriptors can be viewed using the links above or at http://cs.cit.ie/cert-idd.

Recognition of Prior Learning information is available at www.cit. ie/rpl.



Semester 1 (Autumn)	Credits	Semester 2 (Spring)	Credits
XML in Technical Communications	10	Multimedia Production	5
Information Design & Development	10	Information Strategy	5

#### **Award**

Certificate in Information Design & Development (30 ECTS, Level 9 on the National Framework of Qualifications).

# Higher Diploma in Science in Cloud Computing



(Level 9)

#### **Enquiries**

Eoin O'Regan T: 021 433 5525 E: eoin.oregan@cit.ie W: http://cs.cit.ie/hdip



Course & Module Information, and to apply online, visit https://springboardcourses.ie/details/7030

The Higher Diploma in Cloud Computing programme is a graduate conversion course designed for Level 8 degree graduate from non-computing disciplines. This course was designed and developed in close collaboration with industry partners, providing a dynamic pipeline of job-ready graduates, with up-to-the-minute skills, and valuable qualifications, for sectors of the Irish economy that are expanding and recruiting. CIT hosts its own private cloud infrastructure to support the delivery of modules giving students 24/7 access to state-of-the-art cloud computing labs. All lectures are delivered online by academic and industry experts.

#### **Duration & Online Delivery**

Part-time, four semesters over two academic years, delivered exclusively online.

#### Springboard+

Are you interested in a career in Cloud Computing? Do you hold a Level 8 honours degree? Are you eligible to apply under the Springboard+ initiative? If so, this programme is the right choice for you. The Springboard+ initiative gives an opportunity to job seekers to access relevant courses in CIT free of charge while maintaining their benefits.

#### **Overview**

Cloud computing is a type of on demand sharing of Internetbased computer resources and data. It represents an era in computing where companies can outsource their IT functions enabling greater productivity, IT flexibility, performance and agility. This model of computing allows IT departments to focus on strategic initiatives and innovation rather than on infrastructure maintenance and support.

CIT offers this unique and innovative graduate conversion programme which is designed to address the skills shortage in the ICT industry. The Higher Diploma in Cloud Computing provides graduates from other disciplines with the opportunity to study the key principles and technologies that support the

deployment of cloud computing. Designed to address the widening practical and theoretical skills shortage in cloud computing, the programme delivers content that follows best practice in industry. It has a strong applied emphasis which is supported by in-depth theoretical knowledge. The continuing trend of skills shortage in this area is predicted to increase the global demand for cloud computing graduates. Graduates may also wish to continue to MSc level in this exciting field of study.

The programme places significant emphasis on student learning by doing. It adopts a practical, hands-on, approach to learning, where many modules are fully assessed using continuous assessment methods. This 60-credit part-time online programme is delivered exclusively online over 24-months. Each semester has a number of mandatory modules and a choice of electives modules.

Module descriptors can be viewed at http://cs.cit.ie/cert-idd. Recognition of Prior Learning information is available at www.cit.ie/rpl.

#### **Award**

Higher Diploma in Science in Cloud Computing (60 ECTS, Level 9 on the National Framework of Qualifications).



Year 1 Semester 1 (Autumn)	Credits	Year 1 Semester 2 (Spring)	Credits
Object Oriented Principles	5	Data Management Systems	5
Requirements Engineering	5	Operating Systems	5
Network Systems	5	Server-side Web Development (Elective)	5
		Free Choice Module (Various)	5
Year 2 Semester 1 (Autumn)	Credits	Year 2 Semester 2 (Spring)	Credits
Cloud Computing with Python	5	Cloud Architectures	5
Cloud Infrastructure	10	Computer Science Project	10

http://cs.cit.ie 153

# Higher Certificate in Science in Software Development

(Level 6)

## Course Code CR\_KCOME\_6

#### Course Fee €250 per 5 credit module

#### Enquiries

Gerard MacSweeney T: 021 433 5574

E: gerard.macsweeney@cit.ie W: http://cs.cit.ie/evhc



Course & Module Information, and to apply online, visit www.cit.ie/course/CRKCOME6

The programme provides students with the relevant skills and knowledge in the area of modern software development focusing on languages, techniques, tools and methodologies needed to pursue a career as a software or computer technician.

#### **Admission Requirements**

Non-Standard Applicants: Mature Students, FETAC (now QQI) Level 5 applicants are particularly welcome.

Standard Applicants: Leaving Certificate Grade O6/H7 (pre. 2017, D3 Ordinary Level) in five subjects to include Mathematics and either English or Irish.

#### **Duration**

At least six semesters, depending on the number of modules taken per semester.

#### Content

The Higher Certificate in Software Development is a part-time level 6 programme designed to provide students with the an introduction to computer science in stage one with modules in Programming Fundamentals, Web Development Fundamentals, Computer Architecture, Computer Security Principles, Mathematics for Computer Science, Modular Programming, Introduction to Databases, Operating Systems in Practice, Networking Fundamentals, Discrete Mathematics and Physical Computing.

The second stage of the Higher Certificate programme builds on the stage one foundation and has a deeper focus on software development with modules in Object-Oriented Programming, Requirements Engineering, Data Structures & Algorithms, OO Analysis & Design, Database Design, NoSQL Data Architectures, and many more.

#### **Progression**

Graduates of the Higher Certificate may progress to stage three of the Bachelor of Science in Software Development programme which is also offered part-time by night.

#### **Award**

Higher Certificate in Science in Software Development (Level 6 on the National Framework of Qualifications). (Single module certification possible)

#### **Career Opportunities**

Potential areas of employment include working as a Software Developer, Software Tester, Software Support Engineer or Database Developer, to name but a few career possibilities.

#### **Closing Date for Application**

16th September 2019.

# Bachelor of Science in Software Development

#### (Level 7)

#### Course Fee

€330 per 5 credit module

#### Enquiries

Gerard MacSweeney T: 021 433 5574 E: gerard.macsweeney@cit.ie

W: http://cs.cit.ie/evsd

Course Code CR\_KCOME\_7

Course & Module Information, and to apply online, visit www.cit.ie/course/CRKCOME7



This 60 credit programme is designed as a follow on programme from the Higher Certificate in Science in Software Development.

#### **Admission Requirements**

To be eligible to undertake the programme you must hold a Higher Certificate in Science in Software Development or equivalent. The Department operates a policy of recognising prior learning (RPL) in compliance with the overall Institute policy of RPL. For details, visit www.cit.ie/rpl

#### **Duration**

At least three semesters, depending on the number of modules taken per semester.

#### Overview

The BSc in Software Development is a level 7 degree programme designed to provide students with the theoretical and practical skills necessary to gain employment in the software development industry.

More specifically, the programme provides students with the relevant skills and knowledge in the area of modern software development focusing on languages, techniques, tools and methodologies, and their application to real-world problems.

#### Content

The first part of this 60 credit programme is comprised of 6 five credit modules. Two 30 credit elective groups are offered in the second part of this programme. The elective groups are:

- 1. Work Placement (RPL options)
- 2. Four taught modules.

The four taught modules are: Emerging Technological Trends (5 credits) Technical Communication Skills (5 credits) Open Source Projects (15 credits) Elective (5 credits)

Among the areas you would be required to study are: Distributed Sys. Programming Group Project Client-side Web Development Agile Processes Programming for Data Analytics

#### **Further Studies**

Graduates from the programme may apply for the BSc (Honours) in IT Management or the BSc (Honours) in Software Development.

#### **Career Opportunities**

Potential areas of employment include working as a Software Developer, Software Tester, Software Support Engineer or Database Developer, to name but a few career possibilities.

#### **Award**

Bachelor of Science in Software Development (Level 7 on the National Framework of Qualifications). (Single module certification possible)

#### **Closing Date for Application**

16th September 2019.

# National Maritime College of Ireland



The course offered is subject to demand and places may be limited. All online applicants will receive an email confirmation. Details about eligibility, programme orientation, and timetable arrangements will be sent to all applicants via email update.

#### **Enrolment**

Information evening will take place in Cork Institute of Technology, Bishopstown Campus on Wednesday 4th September 2019 from 5.30pm to 7.00pm.

#### **NMCI** also offers

- Full-time degree programmes Level 7 and Level 8
- Professional Maritime Short Courses
- GAC Training & Service Solutions (GTSS)
- Offshore courses

## Course

■ Bachelor of Business in Supply Chain and Transport Management (Level 7)



## Location

Ringaskiddy, Co. Cork.

## Head of College

Cormac Gebruers

# Head Of Department

Capt. Sinéad Reen

## **Enquiries**

T: 021 433 5607 E: admissions@nmci.ie W: www.nmci.ie







# Bachelor of Business in Supply Chain and Transport Management

(Level 7)

Course Fee €2,950

Enquiries

Dr Jane M. O'Keeffe T: 021 433 5627 E: jane.okeeffe@cit.ie Course Code CR BSCTM 7

Course & Module Information, and to apply online, visit www.cit.ie/course/CRBSCTM7



#### **Duration & Delivery**

1 Year. The lectures take place at the National Maritime College of Ireland in Ringaskiddy, Co. Cork, on Saturdays and one night a week (after discussion with group).

Supply Chain Management has matured from a compelling method of deriving competitive advantage, to now being a baseline expectation for any organisation, both in the private and public sector, wishing to compete in the 21st Century, and with that the professions and occupations comprising Supply Chain Management are now firmly entrenched in the armoury of essential business executives.

#### **Admission Requirements**

This qualification is a one year step up degree for participants holding the Chartered Institute of Logistics and Transport (CILT) or IIPMM (Procurement and Supply Chain Management) Diploma, Graduateship or degree in Supply Chain Management, or an equivalent Level 6 qualification in a relevant discipline.

Equivalent recognition may be given through the Recognition of Prior learning (RPL) process on an individual case-by-case basis to candidates who have not achieved this academic standard but who can demonstrate significant relevant professional experience in the discipline of Logistics and Supply Chain Management, visit www.cit.ie/rpl.

#### **Benefits**

You will be one of the elite few:

- who will possess a degree in Supply Chain and Transport Management;
- who, as a result, will secure challenging, better paid and more fulfilling positions in Logistics and Supply Chain;
- who will be empowered with the knowledge and skills to implement the latest best practices in Supply Chain Management in your organisation.

#### Content

- · Quality and Lean Operations
- Managing Performance Measurement
- Warehousing and Inventory Management
- Business and Supply Chain Strategy
- Transport Management in the International Supply Chain
- Management Accounting and Managerial Finance
- Procurement in Supply Networks
- Organisational Structure and Human Resource Management
- Leadership and Communications in the Supply Chain
- Information Technology & Supply Chain Management
- Global Trade and Customs Law
- Advanced Operations Management

#### Closing Date for Application

Completed applications must be made online (see link above) with CIT before 5pm on 12th September 2019. Classes will commence during the week of 16th September 2019.

#### **Award**

Bachelor of Business in Supply Chain and Transport Management (Level 7 on the National Framework of Qualifications).

www.nmci.ie 157



# The School consists of the following Departments:

- Keyboard Studies
- Orchestral Studies
- Pop, Jazz, Trad, Voice & Theatre Studies
- Musicianship & Academic Studies

## Head of School

Aiveen Kearney

## Location

Union Quay, Cork E: csm.info@cit.ie T: 021 480 7310

# CIT Cork School of Music



Head of the Department of Keyboard Studies

Dr Gabriela Mayer | E: gabriela.mayer@cit.ie

Head of the Department of Orchestral Studies

Joan Scannell | E: joan.scannell@cit.ie

Head of the Department of Pop, Jazz, Trad, Voice & Theatre Studies John O'Connor | E: john.oconnor@cit.ie

Head of the Department of Musicianship & Academic Studies

Maria Judge | E: maria.judge@cit.ie

**Choral Groups** 

Fleischmann Choir Union

**Instrumental Groups** 

Symphonic Wind Band Jazz Big Band Symphony Orchestra

Musicianship Skills for Adults Sight-Singing Classes Courses for Teachers Concerts, Performances & Productions Individual Tuition

https://csm.cit.ie

## **Choral Groups**

#### Fleischmann Choir

Rehearsals for this large, mixed-voice choir take place on Monday evenings 7.30pm - 10.00pm.

The conductor is Conor Palliser and the group specialises in singing large-scale works for choir and orchestra. It recent years, it has performed music by Beethoven, Brahms, Bruckner, Dvorák, Finzi, Fleischmann, Handel, Haydn, Jenkins, Mozart, Orff, Schubert, Saint-Saens, Stanford, Tchaikovsky, Vaughan Williams and Vivaldi to name but a few. The choir regularly works with internationally-renowned soloists and future concerts include a performance of music by Rheinberger and Fauré in Como Cathedral, Italy.

Membership is open to enthusiastic and committed choral singers; auditions are held when there are vacancies for certain sections in the choir. Applicants should complete the online application form which can be found at: https://csm.cit.ie/performing-groups-application

#### Union

Union is an adult choir open to all performers who are interested in developing their vocal skills and musicianship through legit and contemporary musical theatre repertoire. Membership is open to all (there's no need to be a current student or graduate of CIT) and all that's expected from our members is a love for musical theatre and singing!

## **Instrumental Groups**

#### **Symphonic Wind Band**

The Symphonic Wind Band rehearses on Wednesdays from 5.30pm to 7.30pm and is directed by Antony Neal and caters for students of senior and advanced standard.

Details of the programme for the 2019-2020 season will be available from the School's Public Office on or after 1 September 2019. Applications are welcome from external players who may be members of other bands, entry is subject to audition.

Applicants should complete the online application form which can be found at: https://csm.cit.ie/performing-groups-application

#### Jazz Big Band

Rehearsals for this 20-piece ensemble take place on Wednesday lunchtime from 1.15pm – 3.15pm under the direction of Cormac McCarthy.

The Big Band repertory ranges from the classic scores of Duke Ellington and Count Basie right up to the most revolutionary

contemporary works. The Band performs regularly and has toured England, France, Holland, Italy, and the USA. Musicians of a good standard between the ages of 16yrs and 25yrs are welcome to apply. The Jazz Big Band played at Jazz Standard Club in Mahattan, USA during Easter 2017, and has recently collaborated with Ariel Posen who is a world renowned singer/songwriter, internationally-renowned guitarist and producer.

#### **Symphony Orchestra**

Rehearsals take place on Tuesday nights from 7.30pm – 10.00pm.The conductor is Conor Palliser.

All the members are of at least Grade VIII standard and the orchestra performs the 19<sup>th</sup>- and 20<sup>th</sup>- century literature for large orchestra, regularly accompanies distinguished instrumental soloists, and performs the oratorio repertory with the School's Fleischmann Choir.

Details of the programme for the 2019-2020 season will be available from the CIT Cork School of Music's Public Office on or after 1 September 2019. In recent seasons, the orchestra has performed Tchaikovsky's *Symphony No. 6* and *Capriccio Italien Overture*, Sibelius' *Symphony No. 5*, Schumann's Cello and Piano Concertos, Violin Concertos by Bruch, Barber and Brahms, Shostakovich's Cello Concerto No. 1, Humperdinck's Prelude to *Hansel and Gretel*, and Bernstein's Overture to *Candide*.

Applications are welcome from external players who may be members of other orchestras; entry is subject to audition. Applicants should complete the online application form which can be found at: https://csm.cit.ie/performing-groups-application.

## Musicianship Skills for Adults

Adults who wish to become musically literate may enrol for this weekly 1 hour long class. Participants are introduced to the elements of pitch and rhythm through music-making. Learners also are afforded the opportunity to perform class material on Percussion Instruments, Recorder and Keyboard in addition to Singing. Participants are also introduced to the use of Music Notation Software.

There are currently three levels of Musicianship Skills for Adults. Beginners (no experience necessary) may progress from Level 1 to 2 and then 3 where more advanced concepts are introduced. Classes take place after 6pm on Monday or Wednesday (2019-2020 fee to be confirmed).

## Sight-Singing Class

This weekly class facilitates those who would like to develop their sight-singing skills in a group setting. This course is popular with those who are interested in choral singing and with parents wishing to support their children's musicianship studies.

### **Courses for Teachers**

We offer short courses aimed at pre-school, primary and post-primary teachers offering choral skills, musicianship and literacy development, music technology, classroom percussion, and curriculum support. Contact maria.judge@cit.ie for more information.

## Concerts, Performances and Productions

The CIT Cork School of Music hosts a wide-ranging series of productions, recitals and concerts throughout the year. The School also presents many performances by its own performing groups – most of which take place within the School's premises, others of which take place in venues throughout both

Cork city and the country as a whole. For detailed information about concerts and events, please visit https://csm.cit.ie/events If you wish to receive a weekly concert bulletin please email: noranne.elliott@cit.ie

Further information may be obtained from the CIT Cork School of Music, Union Quay, Cork T: 021 480 7310 and also on the events section of the CSM website – https://csm.cit.ie

## **Individual Tuition**

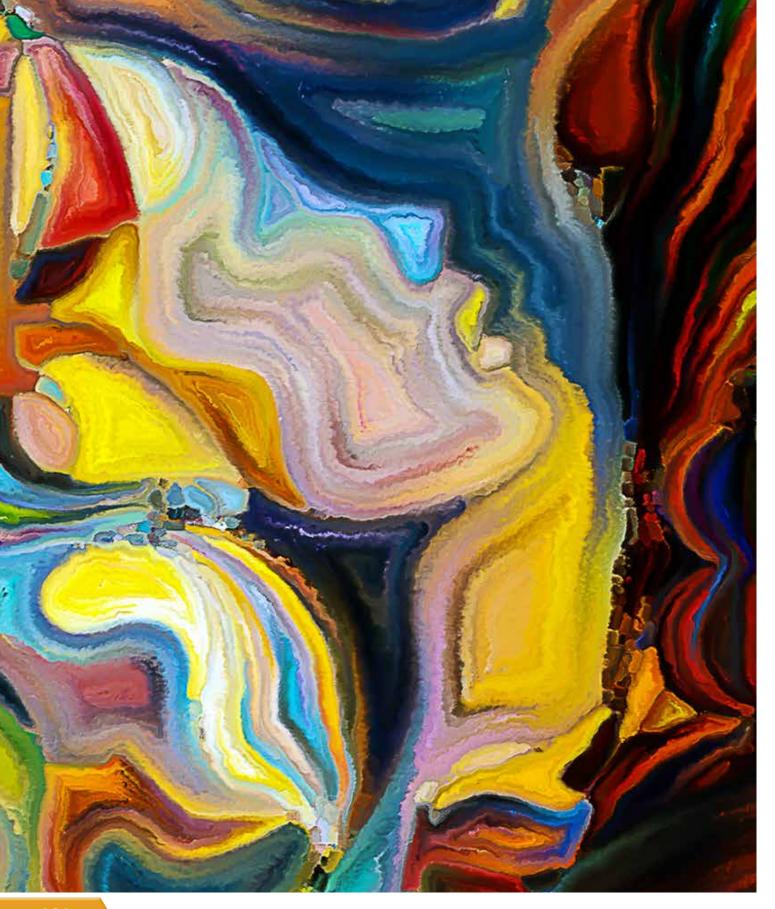
A limited number of vacancies may arise for individual tuition in singing, speech, theory of music including diploma preparation, and certain instruments. Whilst enrolments normally take place in April and are subject to audition/interview, enquiries about vacancies are welcome at any time. Where possible, late applications will be considered.

Applicants should consult the School's Enrolment Information Booklet and complete the relevant online application form.

Full details about the enrolment procedure is available from the General Office at Cork School of Music. Students should also refer to the Information for Students & Staff booklet available at https://csm.cit.ie and also available at the General Office, CSM.



https://csm.cit.ie 161



CIT Crawford College of Art & Design



## **Catherine Fehily**

## Location

Sharman Crawford Street, Cork T: 021 433 5220 E: ccad.enquiries@cit.ie

#### The College consists of the following Departments:

- Arts in Health & Education (based in 46 Grand Parade)
- Fine Art & Applied Art (based in Sharman Crawford Street)
- Media Communications (based in CIT Bishopstown Campus)

If you have any queries, please contact ccad.enquiries@cit.ie for programmes in the Department of Arts in Health & Education or the Department of Fine Art & Applied Art. Please contact veronique.osullivan@cit.ie for queries re programmes in the Department of Media Communications. Each programme can be found under "Courses" on the CCAD website – https://crawford.cit.ie.

All programmes offered are subject to demand and places may be limited. All online applicants will receive an email confirmation. Where appropriate, details about eligibility, programme orientation, and timetable arrangements will be sent to applicants via email update.

All part-time courses at CIT CCAD will run subject to sufficient student numbers. Where a course cannot proceed, applicants will be contacted and advised on alternative study options.

# CIT Crawford College of Art & Design

Department of Arts in Health & Education

## Courses

- Master of Arts in Art Therapy (Level 9)
- Certificate in Principles of Art Therapy (Level 8)
- Certificate in Arts in Group Facilitation (Level 8)
- Certificate in Creativity & Change (Level 9)
- Art Therapy Summer School
- Introductory Days Art Therapy & Participatory Arts

## Location

46 Grand Parade, Cork

# Head of Department

Louise Foott

## Enquiries to

E: ccad.enquiries@cit.ie T: 021 433 5220

All programmes offered are subject to demand and places may be limited. All online applicants will receive an email confirmation. Where appropriate, details about eligibility, programme orientation, and timetable arrangements will be sent to all applicants via email update.

All part-time courses at CIT CCAD will run subject to sufficient student numbers. Where a course cannot proceed, applicants will be contacted and advised on alternative study options.

https://crawford.cit.ie

# Master of Arts in Art Therapy

#### (Level 9)

#### Course Fee

Full-time: EU Applicants €7,950 + €7 USI Levy Full Time: Non EU Applicants €12,000

Part-time: EU Applicants €2,650 per annum over 3 years

#### Enquiries

Gráinne Young T: 021 433 5246

E: grainne.young@cit.ie

Course Code CR\_ATHYPY\_9

Course & Module Information, and to apply online, visit www.cit.ie/course/CRATHPY9



#### **Duration & Delivery**

#### **Location: 46 Grand Parade**

2 years full-time

3 years part-time/ACCS

The Master of Arts in Art Therapy is a 2 year taught Masters providing professional training in Art Therapy. Through theoretical studies, experiential learning and clinical placement, students develop an understanding of the theories and practices of art therapy necessary for safe therapeutic work. The MA in Art Therapy is a recognised qualification for Art Therapy practice which, on completion, allows individuals to register with the professional body, Irish Association of Creative Arts Therapists (IACAT).

The course is delivered on a full time basis over two years (2 college days and 2 clinical placement days) or part-time over 3 years (1 college day and 1 clinical placement day).

#### **Admission Requirements**

Applicants normally require

- An Honours degree, or equivalent, in Visual Art. Where graduate qualifications are not in the visual arts, for example, Psychiatric Nursing, Social Work or Teaching, evidence of a substantial and developing body of current and recent art work is essential
- Minimum of one year, or equivalent, full-time clinical/care work in an area relevant to art therapy, paid or voluntary. This work may be, for example, in Health or Social Services, Special Education, Community Care or Day Centres, with clients who have a mental illness, learning or physical disability
- Strong portfolio of personal artwork showing an understanding of an appropriate art form, the art-making process showing the applicants relationship and connection to their creative process
- Two satisfactory references from clinical and professional persons who have knowledge of the candidate's education, training and experience
- A good understanding of therapeutic and professional working of Art Therapy and the implications of working as a therapist

Pre-course experience in personal therapy or counselling is preferred

#### **Early Assessment**

Because of the clinical placement component of this course, it is a condition of entry that all successful applicants who gain a place on the course will be subject to the National Vetting Bureau (NVB) procedure carried out by the NVB facilitator at CIT. Offers of a place on this programme will be provisional and contingent on the applicant's satisfactory completion of CIT's NVB procedure. Visit www.cit.ie/gardavetting

#### **Overview**

The programme aims to equip Art Therapy practitioners with a range of therapeutic skills and interventions to work with both individual and group clients in a variety of health and community settings. It follows three strands of learning:

- Theoretical Studies (25 Credits)
- Experiential Art Therapy Training (20 Credits)
- Clinical Placement and Professional Studies (45 Credits)\*
- \* Students are encouraged to experience a number of differing placement situations over the course of their training. Please note that students must have their placements in a new setting and not at their workplace. Supervision of the clinical experience is central to the art therapy training and is provided in small groups at Crawford College and individually on placement.

#### **Career Opportunities**

Art therapists work in a wide variety of HSE and social care settings, including – adult and child psychiatry, education, palliative care, addiction services and community day centres. Many also work in private practice.

#### **Award**

Master of Arts in Art Therapy (Level 9 on the National Framework of Qualifications).

# Certificate in Principles of Art Therapy

(Level 8)

Course Code CR\_AATPY\_8\_Y1

Course Fee €1,400

#### **Enquiries**

Catherine Phillips T: 021 433 5249 E: catherine.phillips@cit.ie



#### **Duration & Delivery**

#### **Location: 46 Grand Parade**

One academic year. Part-time, once a month in 2-day blocks (Friday - Saturday) from October to April.

#### **Admission Requirements**

Applicants will be invited to attend an interview, with examples of their work, in order to ensure that there is a good match between their aspirations and the course.

#### **Overview**

The programme offers an introduction to the core principles of Art Therapy – boundaries, the image, self-inquiry, process and the triangular relationship. Through experiential workshops, lectures and seminars, the course aims to provide a deeper understanding of the art therapy process.

The course provides an opportunity to find out more about art therapy, exploring the history of Art Therapy and its theoretical underpinning through an extensive lecture programme. An opportunity is provided, through experiential workshops to experience and reflect on the process of Art Therapy within a group setting. Seminars, journaling and essay writing challenge participants to develop the practice of reflecting on their experiential learning and relating it to theory.

For many, this introduction may be a step towards training as a qualified Art Therapist, for others it may introduce them to a more sympathetic understanding of the role of art in rehabilitation and development work.

#### Aim

Upon successful completion of this programme the graduate will be able to demonstrate

- An understanding of the role of creativity as a therapeutic methodology
- An awareness of the core principles of the practice of art therapy
- Understanding and awareness of the variety of clinical areas where art therapy is practised
- Understanding of the theory of Art Therapy in practice through experiential workshops
- Ability to engage with and develop their own understanding of the creative process

#### **Award**

Certificate in Principles of Art Therapy, 10 ECTS credits (Level 8 on the National Framework of Qualifications).

# Certificate in Arts in Group Facilitation

(Level 8)

Course Fee €1.400

#### Enquiries

Jessica Carson T: 021 433 5249 E: jessica.carson@cit.ie Course Code CR\_AGRPA\_8

Course & Module Information, and to apply online, visit www.cit.ie/course/CRAGRPA8



#### **Duration & Delivery**

#### **Location: 46 Grand Parade**

This course runs once a month from October to May in three-day blocks (Thursday - Saturday), from 10.00am - 5.00pm.

#### **Admission Requirements**

Applicants will be invited to attend an interview, in order to ensure that there is a good match between their aspirations and the course.

#### Overview

The programme trains participants to facilitate workshops in a broader community context, working through the arts to empower group members. There is a strong emphasis on the value of diversity and the breadth of experience held within a group-learning environment.

This is a community arts training programme, involving training in visual arts, drama and movement, group facilitation skills and disability equality. It explores the potential of creativity in a group setting, within the context of disability equality and self-advocacy training. The course aims to facilitate the participation of people with and without disabilities who have an interest and commitment to the development of their creativity and group skills.

This course would suit

- · Graduates who want to work in a health or social context
- Educators in both formal and informal learning sector looking for fresh ways to inspire learners
- Social workers/community workers looking for arts based approaches to group work

#### Aim

Upon successful completion of this programme the graduate will be able to demonstrate

- Skills and understanding of the role of creative approaches within a range of social and health contexts
- Skills in delivering a range of experiential techniques to engage groups in creative development
- Ability to work and use a number of arts methodologies/ approaches as a facilitator related to the needs of the group in a variety of social contexts
- Ability to identify the needs/potential of the group and work creatively accordingly
- Ability to identify the needs and context of the group and to work with group dynamics
- Ability to identify and understand the role of the facilitator as a leader, advocate and a resource for the learner/service user
- Ability to identify one's own Continuing Professional Development needs
- Ability to reflect on group dynamics and evaluate both individual and group development

#### **Award**

Certificate in Arts in Group Facilitation, 10 ECTS credits (Level 8 on the National Framework of Qualifications).

## Certificate in Creativity & Change

(Level 9)

Course Code CR\_ACRCH\_9

Course Fee €680\*

#### **Enquiries**

Jessica Carson T: 021 433 5249 E: jessica.carson@cit.ie W: www.artincontext.eu



Course & Module Information, and to apply online, visit www.cit.ie/course/CRACRCH9

\*This course is supported by Irish Aid's Development Education funds and is therefore offered at this subsidised rate.

#### **Duration**

#### Location: 46 Grand Parade

The course runs over 8 weekends September to May.

#### **Admission Requirements**

Applicants for this course should note that it is a Level 9 (normally postgraduate) course, so there is an expectation that they will have a first degree or equivalent experience. Applicants will be invited to attend an interview, to ensure that there is a good match between their aspirations and the course.

#### **Overview**

This accredited Special Purpose Award programme targets educators, change-makers, activists, artists, community workers, adult educators, youth workers, volunteers, and anyone who is interested how creative engagement can nurture global citizenship and empathic action around local and global justice themes.

The programme is designed for people who can say 'YES' to the following questions

- · Are you passionate about change?
- Do you believe that you can make a difference in the world?
- Do you believe that we need creativity to think in new ways about the challenges that face the world?
- Are you curious about how creative processes and learning environments can transform how people engage with the world around them?
- Do you want to build skills to bring others on a journey of transformation and growth as global citizens?

#### What you can expect from the programme

- Participate in a transformative learning experience
- Explore your place in our interconnected, rapidly-changing and unequal world
- · Connect your passions for change
- Discover connections between the local to the Global
- Recognise that small actions can have big impacts
- Reflect on your values actions and behaviours of Global citizens
- · Boost your confidence in your own creativity
- Innovate as you put your learning and passion into practice to engage others on a journey of transformation and growth as global citizens.
- Develop skills in facilitating meaningful dialogue, collaborative and transformative learning
- Build a tool kit of exercises to design learning processes to nurture global citizenship
- Apply design thinking to creating imaginative learning environments and opportunities in wide range of contexts, from a workshop setting to a festival to the street
- Plug into a network of people passionate about creativity learning and change in the world

#### **Award**

Certificate in Creativity & Change, 20 ECTS credits (Level 9 on the National Framework of Qualifications).

## **Art Therapy Summer School**

#### (Level 8)

#### Course Fee

€490 (early bird and concession options available)

#### **Enquiries**

Marianne Adams M: 087 061 662

E: marianne.adams@cit.ie W: http://www.artincontext.eu

To apply online, visit http://www.artincontext.eu
To register for the accredited option, click on the 'apply' tab at www.cit.ie/course/ARTS9016



#### **Duration & Delivery**

Location: CIT Crawford College of Art & Design, Sharman Crawford Street, Cork

Saturday 22nd June - Wednesday 26th June 2019

#### **Overview**

The Cork Art Therapy Summer School welcomes up to sixty participants annually, providing them with a unique opportunity to learn about and experience the Art Therapy process. Visiting art therapists, from Ireland and further afield, facilitate an immersive experience of the Art Therapy process over the five days.

Participants are offered the chance to explore the therapeutic potential of art through a series of themed experiential workshops. A series of related lectures and seminars during the week provide a context for the current practice of art

therapy. Participants have the option (if they meet the academic requirements) to register and take this course as a Level 9, 5-credit module. For some, this summer school may be the first step on the road to a career in Art Therapy. For others, it may be an opportunity to re-engage with their creative identity. For trainee and qualified therapists, it may provide continuing professional development.

#### Aim

- Understand the role of creativity as a therapeutic methodology
- Learn about the history of art therapy and some of the clinical contexts where it is practiced
- Experience the theory of Art Therapy in practice through experiential workshops
- Engage with and develop your own understanding of the creative process



## Introductory Days – Art Therapy & Participatory Arts

#### Course Fee

€100 (€80 concession) All materials are provided, no artmaking experience necessary

#### Enquiries

T: 021 433 5220 E: ccad.enquiries@cit.ie



To apply online, visit <a href="https://crawford.cit.ie">https://crawford.cit.ie</a> and click on the courses tab

#### Location: 46 Grand Parade

The Introductory Days provide a taster opportunity to learn about and experience either the Art Therapy process or Participatory Arts Process.

Participants will explore the potential of art in different health or education contexts through an experiential workshop. This experience is grounded by some of the theory behind the practice of art therapy or participatory arts. Opportunity is provided to explore the role of art within health or learning through questions and discussion.

- The Art Therapy Introductory Day consists of an exploration of the theory and practice of Art Therapy, together with an opportunity to work experientially. It is intended as a way for individuals, new to Art Therapy, to gain an understanding and experience of the process. All materials are provided. Places are offered on first come first served basis.
- The Participatory Arts Introductory Day provides an opportunity to explore arts-based collaborative engagement. It is designed for those interested in incorporating the arts within formal/informal learning and community contexts to gain an understanding and experience of the process and its potential. The day is workshop based. All materials are provided. No previous art-making experience necessary.



# CIT Crawford College of Art & Design



# Department of Fine Art & Applied Art

### Courses

- Certificate in Art Textile (Level 8)
- Portfolio Preparation
- Summer Art Courses see Page 175
- Evening Classes see Page 176

### Location

Sharman Crawford Street, Cork

https://crawford.cit.ie

# Head of Department

Trish Brennan

## **Enquiries to**

E: ccad.enquiries@cit.ie T: 021 433 5220

If you have any queries, please contact the CIT CCAD office (T: 021 4335220 or E: ccad.enquiries@cit.ie).

All programmes offered are subject to demand and places may be limited. All online applicants will receive an email confirmation. Where appropriate, details about eligibility, programme orientation, and timetable arrangements will be sent to all applicants via email update.

All part-time courses at CIT CCAD will run subject to sufficient student numbers. Where a course cannot proceed, applicants will be contacted and advised on alternative study options.

https://crawford.cit.ie 171

### Certificate in Art Textile

(Level 8)

## Course Code CR\_ATEXT\_8

#### Course Fee

Year One: €1,500 (€300 of this fee to be paid as a deposit on acceptance of place)

Year Two: €800

#### Enquiries

Pamela Hardesty T: 021 433 5255

E: pamela.hardesty@cit.ie



Please note that the next intake for this course is autumn 2020. Online application will open in spring 2020.

\* Applicants should note that Fees quoted relate to 2019 only and are subject to change on an annual basis.

#### Location: Sharman Crawford Street

#### **Admission Requirements**

Applicants should have a Level 6 National Framework of Qualification in Textiles, or equivalent experience in textiles techniques. Equivalency will be determined by portfolio at the interview stage.

#### **Duration**

Two years (4 Semesters) in duration, culminating in a Level 8 Special Purpose Award, equal to 30 ECTs credits.

#### Overview

This unique course offers a chance to enter third level education as a part-time student to concentrate on textiles as an expressive medium within an Art College environment. The course offers an opportunity to study textiles in art encompassing technical skill development with critical academic contexts at undergraduate level.

This part-time course is comprised of 6 taught modules: 4 technical textiles workshop based modules, and 2 academic modules comprised of lectures and seminars, which allows students to engage with the technical skills, the history, and the contemporary discourse regarding textiles in art practice. This innovative course engages with the technical skills, history, and contemporary concerns relevant to textiles as a fine art medium.

The course provides the opportunity to explore an extensive range of textile processes: stitch, print, dye, felt-making, paper-making, weaving and basketry in a fresh experimental approach. Students are introduced to research methodologies

and approaches to concept development which inform the development of an individual approach to textiles in an art context.

The contextual academic modules provide an insight on the historical and contemporary influences that inform contemporary applied art. The lectures are undertaken with degree students followed by lecturer-led seminar discussion focusing on textile art for students on this course only.

**Year 1** integrates lectures and seminars (Mondays) with textiles studio (each Tuesday). Year 1 is a balance between essays, discussions, and presentations with the technical challenges of the broad range of textile techniques presented (stitch/print/weave/felt/paper/3d/basketry). In the second Semester, studio projects challenge creative investigation and research toward finished works around project themes.

In **Year 2** only the Tuesday studio course is held, and is grounded in weekly group research discussions and seminars presenting samples and works in progress for feedback and development. Individuality and innovation are encouraged as final works evolve toward exhibition presentation. As a bonus, additional textiles research challenges entered alongside full-time Applied Art students provide opportunities to exhibit both in the city and internationally.

### Portfolio Preparation

Course Fee

€480

Enquiries

T: 021 433 5200

E: ccad.enquiries@cit.ie

To apply online, visit <a href="https://crawford.cit.ie">https://crawford.cit.ie</a>

#### **Duration & Delivery**

#### **Location: Sharman Crawford Street**

Time: Saturday morning 10.00am - 1.00pm commencing early October 2019.

#### **Admission Requirements**

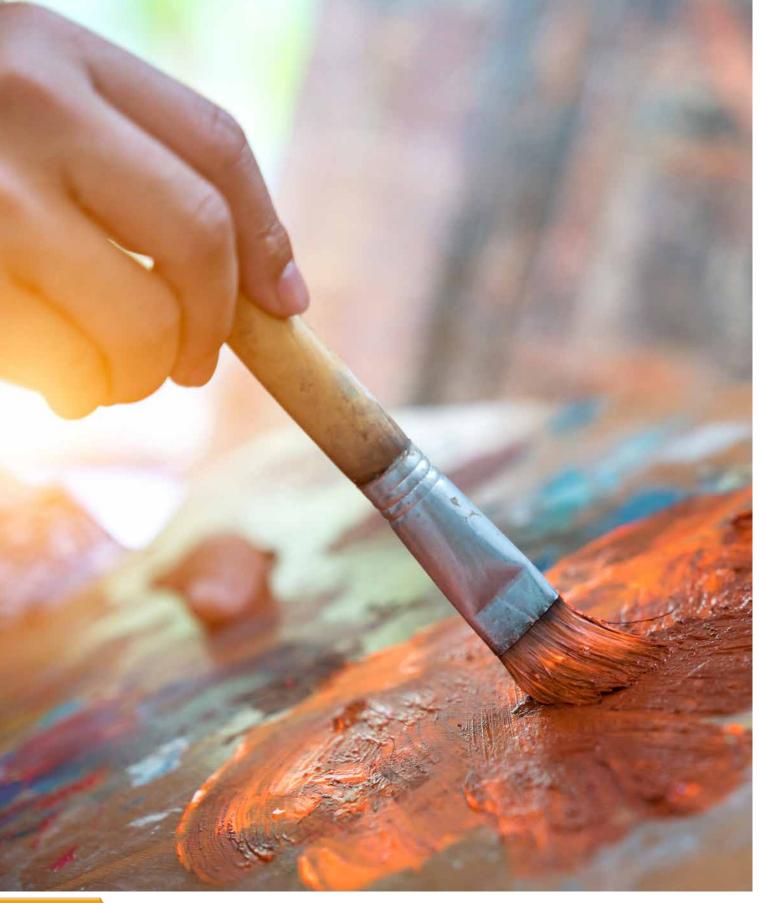
No prior qualifications necessary

Classes are held on Saturday mornings over fifteen weeks commencing in October.

This course suitable for those seeking art college entry. Participants will be tutored in composition, observational drawing, life drawing, painting, and developing a sketchbook. Specialist lecturers take the students through a number of set projects including creative disciplines such as: drawing, painting, printmaking, photography, 3D construction and life drawing. The students create a well-balanced and individual portfolio with their personal career path in mind.

Early application is advisable as places are limited.





### **Summer Art Courses**

#### Location: Sharman Crawford Street

For information and to apply online, visit <a href="https://crawford.cit.ie">https://crawford.cit.ie</a>



#### **Portfolio Preparation**

This course is designed to assist and advise those interested in pursuing a career in Art & Design at third level, where a portfolio of artwork is required as part of the application process. Suitable for both mature students and students in the Leaving Certificate stream, this course will inform students on how to create a well-balanced and individual portfolio. All materials will be provided.

Admission Requirements: No prior qualifications required

#### **Portrait and Life Drawing**

This short, intensive summer course is suitable for both beginners and those with some experience. It deals with improving visual concentration, composition, tone and technique. Using a variety of mediums, students explore the world of drawing and painting with a model as the subject. The course begins with portraiture and progresses onto gesture drawing and full figure compositions in charcoal, pencil and acrylic. Basic materials are provided. Students wanting to paint must provide their own medium.

Admission Requirements: No prior qualifications required

#### **Life Drawing Marathon**

The Life Drawing Marathon is an opportunity for a continuous period of study from a variety of models across 5 days. Poses suitable for fast gesture work will be included along with longer poses for more sustained drawings. Easels, drawing boards and newsprint will be provided – participants should bring their own paper and drawing materials (water based/non-toxic only).

**Admission Requirements:** No prior qualifications required but these sessions are designed for those with previous life drawing experience only and will be untutored but will be supervised and facilitated by CCAD tutors who will be available to give advice if requested.

#### **Drawing Classes for 14 – 18 Year olds**

This class is designed for 14 to 18 year olds who wish to develop their drawing skills in a fun way. Students will be introduced to the essential first principles of drawing to develop individual approach and skills.

Admission Requirements: No prior qualifications required



### **Evening Classes**

CIT Crawford College of Art & Design offers an exciting range of evening classes, beginning in September and January, in the following subjects:

- Photography
- Drawing
- Painting
- Ceramics
- Textiles

And new classes currently in development!

All of these are based in our Sharman Crawford Street building.

For up-to-date information on evening classes beginning in September 2019 and details of how to apply, please visit our website https://crawford.cit.ie, after 15th June 2019.







## **Evening Classes**













# CIT Crawford College of Art & Design

Department of Media Communications

### Courses

- Master of Arts in Public Relations with New Media (Level 9)
- Master of Arts in E-Learning Design and Development (Level 9)
- Certificate in Digital Media Design and Development (Level 8)
- Certificate in TV Production (Level 8)

### Location

CIT Bishopstown Campus, Cork

https://crawford.cit.ie

# Head of Department

Rose McGrath E: rose.mcgrath@cit.ie

## Department Secretary

Veronique O'Sullivan T: 021 433 5810 E: veronique.osullivan@cit.ie

If you have any queries, please contact the Department Secretary, details above.

All programmes offered are subject to demand and places may be limited. All online applicants will receive an email confirmation. Details about eligibility, programme orientation and timetable arrangements will be sent to all applicants via email update.

An information evening for the Department of Media Communications will be held at the CIT Bishopstown Campus on Tuesday 3rd September 2019, 5.30pm – 7.00pm.

**Please Note:** all courses run by the Department of Media Communications take place at CIT Bishopstown Campus.

## Master of Arts in Public Relations with New Media

(Level 9)

#### Course Fee

EU Applicants: €4,550 Non-EU Applicants: €12,000

#### Enquiries

Emmett Coffey T: 021 432 6118

E: emmett.coffey@cit.ie

Course Code CR BPRNM 9

Course & Module Information, and to apply online, visit

www.cit.ie/course/CRBPRNM9



#### **Duration**

This is a full-time programme which can be studied part-time. Part-time students take modules on a phased basis and achieve the programme qualification over a number of academic years.

#### **Admission Requirements**

Entrants will be expected to hold minimum of a 2.2 honours degree. Admission to the course will be on the basis of interview. Recognition of Prior Learning (RPL) will be applicable for candidates entering from the workplace or applying for admission from other institutes. Visit www.cit.ie/rpl.

#### **Overview**

This innovative MA programme offers the opportunity to gain a comprehensive understanding of public relations as a form of communication and pays particular attention to the growing importance of digital and interactive media on the practice of public relations and professional communications.

By developing student's research, planning, managerial and multimedia skills the course aims to produce graduates who can display leadership and show the capacity for innovation within the dynamic and fast evolving professional communications industry. Course content focuses strongly on PR tools and techniques, particularly within the growing new media environment, and on the increasing globalisation and convergence of the media industries.

Through liaison with PR professionals and by working on 'live' industry projects, the course aims to equip graduates with the knowledge, skills and competencies required to effectively function as a public relations professional in an era of high-speed and interactive digital communications.

#### **Mentorship Programme**

Students will participate in the Public Relations Mentorship Programme which aims to prepare students for a career in the communications industry through a series of presentations and one-to-one contact with industry professionals. Students will prepare a career development plan, liaise with the CIT Careers Service, participate in professional networking, both on and

offline, and develop important career oriented skillsets aimed at enhancing employability and career prospects.

#### **Module Information**

The elective modules afford the learner the opportunity to broaden his/her skills set in other disciplines or to deepen his/her skills set in the wider professional communications environment. The elective modules offered in any given year are delivered subject to demand and resource availability.

#### Stage 1/Semester 1

PR Theory & Application Ethics & Social Responsibility Multimedia Production Media Writing Research Methods and Practice

#### **Elective**

Brand Management Direct Marketing Environment Strategy Analysis

#### Stage 1/Semester 2

PR and New Media New Media Production Cybercultures Bus Communication & Online Writing Public Relations Campaigns

#### **Elective**

Media Law, Ethics & Professional Practice Event & Project Management The Business Environment Enterprise and Innovation

#### Stage 2/Semester 1

Public Relations MA Project

#### Award

Master of Arts in Public Relations with New Media (Level 9 on the National Framework of Qualifications).

Please note this course takes place at CIT Bishopstown Campus.

## Master of Arts in E-Learning Design and Development

(Level 9)

Course Code
CR HELDE 9

Course Fee €5,250

#### **Enquiries**

Dr Gearóid Ó Súilleabháin T: 021 433 5933

E: gearoid.osuilleabhain@cit.ie W: http://tel.cit.ie/ma-in-e-learning



Course & Module Information, and to apply online, visit www.cit.ie/course/CRHELDE9

#### **Overview**

E-learning as a field of study, as an approach to teaching and learning and as an industry, has evolved considerably over the last decade and a half. Governments and policy makers have made e-learning a central imperative of their political educational rhetoric and provide substantial funding initiatives to support its development and mainstreaming. Related policies, practices and requirements with regard to lifelong learning, and continuous education combine with the benefits and wider acceptance of e-learning as a delivery and support tool to make e-learning one of the most rapidly growing areas in both the worldwide education and training sector and the digital media sector today.

#### **Programme Aim and Orientation**

In the above context the programme seeks to produce developers of cutting edge, educationally effective e-learning solutions. Our graduates, subsequently, will go on to work as designers and developers either directly as part of the burgeoning e-learning sector or in support of in-house e-learning and learning technology departments which are becoming mainstream in a number of other areas and industries.

The programme is a Master of Arts and, as such, reflects a special orientation towards, variously, creativity, culture and design, rather than technology per se.

#### **Admission Requirements**

Direct entrants to this 60 credit award would typically require a Level 8 qualification in fields such as multimedia, digital media, media applications or a relevant area of design. Applicants without such qualifications will also be considered if they can show an equivalent level of learning gained through practice or any other means (see CIT's policy for Recognition of Prior Learning www.cit.ie/rpl).

Level 8 graduates with qualifications in other fields are invited to undertake an initial 30 credit *Certificate in Digital Media Design and Development*. Please see www.cit.ie/course/CRHDMTE8 for more information.

In all cases, final admission to the course will be on the basis of interview.

#### **Delivery**

The programme is delivered entirely online using many of the same e-learning tools and technologies which also form the course curriculum. This means the programme may appeal to those who, for whatever reasons, cannot commit to attending regular face-to face lectures and labs or who simply find the flexibility and convenience of studying at a distance attractive.

#### Semester 1

E-Learning Instructional Design Education Research & Proposal New Media Workplace Narrative & Games for Learning E-Learning Authoring

#### Semester 2

E-learning Thesis E-learning Project

#### **Award**

Master of Arts in E-learning Design and Development (Level 9 on the National Framework of Qualifications).

Closing date for applications is 8th February 2020.

#### (Level 8)

## Certificate in Digital Media Design and Development

#### Course Fee

€1,800 (€300 per module)

#### Enquiries

Dr Jessica Shine T: 021 433 5933 E: jessica.shine@cit.ie

W: http://tel.cit.ie/certificate-in-digital-media

Course Code CR HDMTE 8

Course & Module Information, and to apply online, visit www.cit.ie/course/CRHDMTE8



#### Aim

The programme will provide students with a broad and practical introduction to the world of digital media design and development. Graduates will leave equipped with fundamental skills and knowledge with regard to a wide range of modern digital media technologies and design solutions and will have a systematic understanding of the design and development process and of related job roles and industries.

As such, this single semester online programme may appeal to those lacking a background in the above but with an interest in either:

- enriching their own work practices with key digital media skills and a deeper understanding of this field.
- b) taking the first steps in beginning an actual career in the broad digital media industry. In this latter context the award is accepted as a bridging route for applicants who are interested in undertaking the Department's 60 credit Master of Arts in E-learning Design & Development but who do not possess the pre-requisite digital media experience or qualifications.

The programme will draw from extensive in-house expertise and facilities within the Department of Media Communications with regard to digital media production and post-production, programming and application development, user experience research, interaction design etc.

#### **Delivery**

The programme is delivered entirely online using many of the same tools and technologies which also form the course curriculum. This means the programme may appeal to those who, for whatever reasons, cannot commit to attending regular face-to-face lectures and labs or who simply find the flexibility and convenience of studying at a distance attractive.

#### **Admission Requirements**

Candidates are required to have already completed a Level 8 degree or equivalent. Basic computer, web and keyboard skills are essential. Familiarity with social media and media sharing platforms and services are desirable also, as well as an interest at the very least in video production, graphic design, and/or interactive media.

If there are high levels of interest, admission to the course may be on the basis of interview. Recognition of Prior Learning (RPL) will be applicable for candidates with existing skills or knowledge in any of the programme modules (see www.cit.ie/rpl for further information on this process).

#### Content

#### **Mandatory Modules**

Multimedia Production E-Learning Web Design Basics Moving Image & Sound Creative Strategies **Electives** (choose 1) Digital Culture Interpreting Sound & Music

#### **Award**

Certificate in Digital Media Design and Development (Level 8 on the National Framework of Qualifications).

#### **Further Studies**

MA in E-learning Design & Development (Level 9 on the National Framework of Qualifications).

Closing date for application is 12th October 2019.

(Level 8)

## Course Code CR\_HTVPR\_8

Course Fee €2,000

#### **Enquiries**

Anne-Marie Green T: 433 5810 E: annemarie.green@cit.ie



Course & Module Information, and to apply online, visit www.cit.ie/course/CRHTVPR8

#### Aim

The Certificate in Television Production is aimed at those wanting to launch a career in TV programme making, as well as those already in the industry wanting to upskill. It combines study of the media market, both domestic and international, with specialised training in craft and production. Lectures will introduce students to the current industry environment with in-depth knowledge of media ownership, funding models and programme formats. Students will develop the professional skills required to launch a career within the television production sector.

#### What will you be doing?

TV Production, audio visual production, researching, directing, camera operators, sound recording and video editing, live programming and documentary making.

#### Why do this course?

- All participants will get work experience in RTE and or an independent TV production company.
- Students will be introduced to experienced and senior speakers working in TV production both in Ireland and internationally.
- Annual seminar organised by students on current and emerging trends within programme production will provide further networking opportunities.
- The programme is delivered in a blended format, combining both online delivery and face-to-face placement activities.
   Blended learning will offer you the opportunity to study part of the programme within your own schedule and at your own location.

#### **Admission Requirements**

Admission to the Certificate in TV Production (Level 8) programme is based on a combination of an online application form and a short interview process. All candidates are required to have already completed a Level 7 degree or equivalent in the cognate area. Familiarity with digital media and media sharing platforms and services are necessary, as well TV/video production knowledge, some graphic design and/or sound production. Alternatively, a Level 7 qualification in Journalism

Recognition of Prior Learning (RPL)/advanced entry will be applicable for candidates with existing prior experiential learning (please visit www.cit.ie/rpl for more information).

Shortlisted candidates will be invited for interview. As part of the interview process they will be asked to present a selection of suitable TV production and or digital media project pieces.

#### **Duration & Content**

1 Year part-time

#### Semester 1

TV Production Careers
TV Industry Environment

#### Semester 2

TV Industry Placement\*

\*The TV Industry Placement module provides students with valuable experience of both initial on site industry practice as well as specialised training. During the first part of the placement period, participants will have the opportunity to observe live studio production, directing and camera operation, pre and post-production workflows including research and programme concept development experience. Industry partners will collaborate in identifying appropriate skillsets that students can develop and in which they will receive hands-on experience.

#### **Award**

Certificate in TV Production (Level 8 on the National Framework of Qualifications).

Closing date for applications is 5th October 2019.

**Please note** this course is delivered on Apple Mac computers and takes place at CIT Bishopstown Campus.



## Notes

-

PUBLISHED BY Cork Institute of Technology, Bishopstown, Cork, Ireland, T12 P928. © CIT 2019

CIT Marketing Unit | info@cit.ie

NOTE: Every effort has been made to ensure that the information herein is accurate. However, this Handbook does not infer or impose any legal obligations on Cork Institute of Technology to provide courses or other services to students. It does not constitute an offer to supply modules, courses or subjects. Syllabi, fees, regulations or other information may be altered, cancelled or otherwise amended at any time. This Handbook does not confer any rights on any student registered with the Institute.

N.B. Fees quoted relate to the academic year 2019/2020 only and may be subject to change.





#### E&OE

The development of Cork Institute of Technology has been supported by the European Union. This support has contributed to staffing, running costs, and student grants, allowing the Institute to play a major role in the social and economic development of the country.

Design and Layout: Blue Bamboo Design Studio Print: City Print





## Information Evening

3rd & 4th September 2019

See inside for details

www.cit.ie