CONTINUING EDUCATION COURSES
2010 - 2011

CIT Institiúid Teicneolaíochta Chorcaí
Cork Institute of Technology

NDP
National Development Plan 2007 - 2013

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.

CORK INSTITUTE OF TECHNOLOGY
Institiúid Teicneolaíochta Chorcaí

incorporating
CIT CORK SCHOOL OF MUSIC
CIT CRAWFORD COLLEGE OF ART & DESIGN
NATIONAL MARITIME COLLEGE OF IRELAND

Continuing Education
Courses 2010 - 2011

President Dr Brendan J. Murphy, MA, PhD, FSS, FICS, CEng, MIEI.

Registrar Dr Barry O'Connor, BE, MEngSc, PhD, BCL, CEng, MIEI.

Head of Continuing Education Mr Paul Mahony, FCA, FCPA, MBS.

Bishopstown,
Cork, Ireland.
Tel: (021) 432 6100
Fax: (021) 432 6578

Please note that special telephone lines are available after normal business hours for those people who may need to contact the Institute: (021) 4326 536 / 4326 785

CIT'S BISHOPSTOWN CAMPUS

NATIONAL MARITIME COLLEGE OF IRELAND

CIT CORK SCHOOL OF MUSIC

CIT CRAWFORD COLLEGE OF ART & DESIGN

A Message from the President

Dear Student,

It gives me great pleasure as the President of CIT to introduce the Continuing Education Handbook for 2010/2011.

For CIT, Continuing Education and Continuing Professional Development are vital and growing areas of our total education provision.

Continuing Education learners are an essential part of our Institution. We value their commitment to, and enthusiasm for their studies and we enjoy working with them.

With the rapid changes in society, the workplace and technology, continuing education and professional development are now more essential than ever.

Here in CIT we provide an extensive range of courses with flexible modes of delivery that will allow you to continue the process of lifelong learning. I hope you will join us in 2010/2011.

Dr Brendan J. Murphy
President

May 2010

CIT Institiúid Teicneolaíochta Chorcaí
Cork Institute of Technology

Bishopstown Campus

Cosáin
Bóithre

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CIT Cork School of Music

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.

Cork Institute of Technology is the largest Institute outside Dublin. It has four principal campuses:
Bishopstown Campus - Bishopstown, Cork
CIT Crawford College of Art & Design (CIT CCCAD) - Cork City
CIT Cork School of Music (CIT CSM) - Cork City
National Maritime College of Ireland (NMCI) – Ringaskiddy, Co. Cork

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. CIT has a new student centre, including common room, café, shops, students union, clubs and societies. Recreational facilities for students 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 6,200 full-time students, 7,600 part-time students and 3,000 catering and engineering craft students. Courses are offered in Engineering, Science, Business, Humanities, Art and Music at Certificate, Degree and Honours Degree level. There is also an extensive range of postgraduate research and taught programmes at Masters and Doctoral level. The third-level courses offered by CIT are nationally and internationally recognised through national bodies such as the Higher Education and Training Awards Council (HETAC) and the National Qualifications Authority of Ireland. 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. Our 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.

Cork Institute of Technology 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:
http://www.cit.ie

Modularisation & Semesterisation

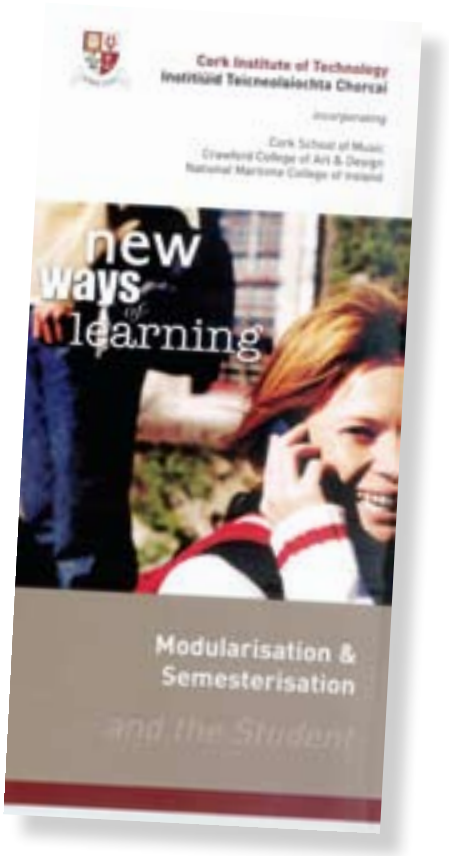
Cork Institute of Technology has moved to a Credit Based Modular System. This is compliant with the European Credit Transfer System (ECTS). The academic year is divided into two equal halves, and each semester will normally consist of six modules each worth five credits.

FAQs

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 February and ends in May.

What is a Module?
A module is a stand alone 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.



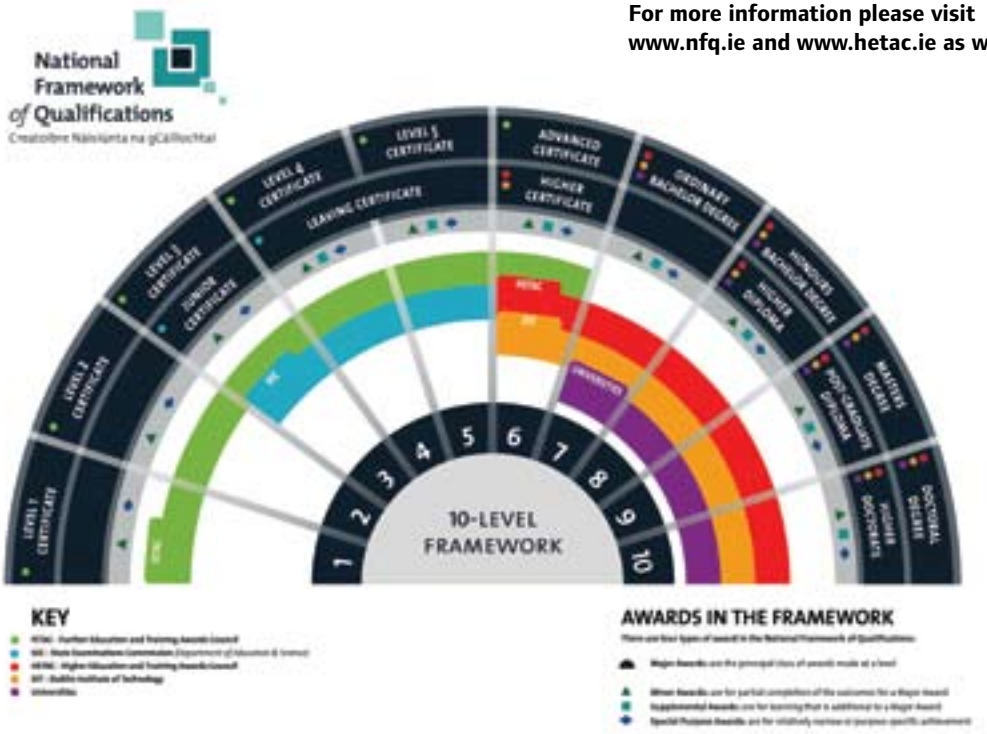
The Framework of Qualifications is an official national system for describing and linking all educational qualifications. The Framework has been established by the National Qualifications Authority of Ireland (NQAI), a State body established under the Qualifications Act 1999.

All educational awards have been assigned "levels" in the National Framework of Qualifications. For example:

Level 6 - Higher Certificate
Level 7 - Ordinary Bachelor Degree
Level 8 - Honours Bachelor Degree
Higher Diploma
Level 9 - Masters Degree
Postgraduate Diploma
Level 10 - Doctoral Degree

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.hetac.ie as well as www.cit.ie



Information/Registration for Adult Evening Courses

Information/Registration for Adult Evening Courses for the academic year beginning September 2010 will take place at the Institute from 6.30pm to 8.30pm on the following dates:

Thursday 2nd September 2010

Faculty of Business & Humanities: Business Studies & Accounting, Media Studies, Social & General Studies, Tourism & Hospitality.

Monday 6th September 2010

Faculty of Engineering: Chemical, Civil, Structural & Environmental, Construction, Electrical, Electronic, Mechanical & Manufacturing, Nautical, Transport & Automobile.

Faculty of Science: Applied Physics, Biological Science, Chemistry, Computing & Mathematics, Nautical.

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

Thursday 9th September 2010

CIT Crawford College of Art & Design
Enrolment will take place at the CIT Crawford College of Art & Design, Sharman Crawford Street, Cork, from 5.30pm to 8.30pm.

Registration forms must be completed in full. It is particularly important that each applicant clearly identifies the course and subjects for which he/she is registering. The onus is on each applicant to ensure that this information is accurate.

Early registration is advisable as numbers of places on courses are limited.

Tax Relief

Tax Relief on Tuition Fees - Third Level Education Courses must be at least 2 academic years duration for undergraduates and 1 year for post graduate course.

Tax relief is available for one course per individual in a tax year and is at standard rate of tax. See leaflet IT1 "Tax Credits, Rates & Reliefs" also available from Revenue Forms & Leaflets – Lo Call 1890 306706

Fees

Details of course fees are included with the course information in this handbook. Except where stated, course fees cover the cost of tuition only. Registration fees for professional bodies etc. are payable separately to these institutions.

In all cases, course fees must be paid before attending lectures.

- Where course fees are being funded by an employer, the student should complete a registration form, attach a letter of approval from the employer, and submit this to the Accounts Office.
- For semesterised courses, students pay for the relevant modules at the beginning of each semester. Payment of fees by credit card can be made by contacting the accounts office on (021) 432 6337.

A late payment fee of €100 will apply.

Refund Policy

The following refund policy applies to all courses detailed in this Handbook for the 2010/11 academic year:

- A full refund will be given to all applicants for courses which do not proceed.
- 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 full refund (less 15% administration fee) will be given to applicants for semesterised courses if requested up to one month after semester commencement. No refunds will be given thereafter.

- A full refund (less 15% administration fee) will be given to applicants for full year courses if requested before 31st October 2010. No refunds will be given thereafter.
- All applications for refunds must be made on the appropriate Refund Form, which can be requested from the Finance Office.

Please note refund policy will be strictly adhered to.

Identification Cards

All registered students of the Institute are required to have a current CIT ID card. ID cards will be issued on registration. A passport-sized photograph should be submitted with the completed registration form for this purpose. There is no charge for this service. CIT ID cards will be required to access various secure areas in the Institute such as the Library, Open Access, Gym, etc. Students will need to produce a current CIT ID Card if they wish to sit examinations.

Enquires concerning ID cards should be directed to
E: idcards@cit.ie, or T: 021 432 6082.

Examinations

Entering for examinations is the responsibility of the registered student. Students should make themselves aware of closing dates, exam fees, examinations dates, etc. Examination fees have been included in the course fee where stated. The onus is on the student to ensure that s/he is registered for the correct modules. Failure to register on the correct module will have consequential effects on your examinations.

Please note that the onus is on each student to enter for the correct examination. Your completed registration form will be used as an exam entry form and the modules that you have listed thereon are the only modules that you may attempt. Only students who have completed their registration processes (i.e. paid their fees in full) are entitled to sit examinations.

If your employer or any outside agency is paying your fees, the onus is on you to ensure that the correct fees are paid in full.

Students wishing to sit for Masters Degree, Honours Degree, Bachelor Degree or Higher Certificate examinations should note the following:

- The completed Registration form may be used as the examination entry form and the modules entered on your Registration form will be the examination modules for which you will be entered.
- If you do not enter any module on your form, you will not be allowed sit for any examination.
- Responsibility for entry to all other examinations lies with the student.

Student Email System

Please note that 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 exam timetables, exam results, class cancellation, projects, placements, job opportunities, etc.

Contact Information

Admissions/Registrations for Continuing Education Courses

T: 021 - 432 6769/6142
F: 021 - 432 6602
E: admissions@cit.ie

Examinations

T: 021 - 432 6513/6375
F: 021 - 432 6602
E: exams@cit.ie

Fees

T: 021 - 432 6822 / 6337 / 6187
F: 021 - 432 6710

Important Information

Administration

The following are the hours of business:

Reception

9.00am - 1.00pm
2.00pm - 5.00pm

Admissions & Examinations

9.30am - 12.30pm
2.00pm - 4.00pm

Accounts

10.15am - 12.00noon
2.15pm - 4.00pm

ACCS Scheme

ACCS is an acronym for "Accumulation of Credits and Certification of Modules". 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.

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.
The following are the hours of business:
Monday - Friday 9.15am - 9.45pm
Saturday 9.15am - 5.00pm

Banking

Banking services are provided at CIT through branches of AIB and Bank of Ireland. A full range of banking services including ATM facilities are available.

Catering Facilities

Snack bar facilities are available on Monday to Thursday (inclusive) until 9.00pm and on Saturday from 10.00am - 3.00pm. The Atria may be used as a social and amenity area for part-time students.

Shop

The following are the hours of business:
Monday - Thursday 8.30am - 9.00pm
Friday 8.30am - 3.30pm
Saturday 10.00am - 2.00pm

Chaplaincy - Student Support - Pastoral Care

Chaplain:
Fr Dave McAuliffe
T: 021 432 6778
E: dave.mcauliffe@cit.ie

Co-Ordinator of Pastoral Care:
Edel Dullea
T: 021 432 6225 / 087 205 5595
E: edel.dullea@cit.ie

Chaplaincy is a dynamic presence at CIT recognising and responding to the pastoral and spiritual needs of students and staff. An "Open Door" policy exists, enabling students to feel welcome and to seek support, especially in times of distress, illness and bereavement. Chaplaincy/Student Support team work in close co-operation with the student support services in the Institute. Our office is located on DCorridor (D151) and is open daily from 8.30am - 5.00pm.

You can be assured that if you are experiencing stress or pressure of any nature during your time in the Institute that we are here for you. Issues of concern can be discussed in complete confidence.

CIT Alumni Association (CITAA)

CIT alumni are an important part of our Institute community. There are CIT Alumni worldwide who have moved from studying at the Institute but who want to stay in contact with us and who value their continued connection with former classmates, academic staff and the Institute as a whole.

Our aim for 2010 is to strengthen and grow our alumni networks in Ireland and abroad through online social and professional networks.

Get Connected Online with FACEBOOK

Following numerous requests, CITAA has now set up a group on Facebook. Get connected and be introduced to a global CIT alumni network.

LinkedIn

You will find the CIT Alumni Association LinkedIn Group by searching for "CIT Alumni Association" on www.LinkedIn.com. Alternatively, please feel free to email alumni@cit.ie and we will be happy to organise for you to be added to the group.

Update your details

You can update your details by using the **Update Your Record** facility on the Alumni webpage or alternatively you can write to us at the below address.

Benefits and Services

The CIT Alumni Association provides members with a wide range of benefits and services including:

- A unique affinity credit card
- Assistance in organising reunions
- Discounts for services
- Learning City Magazine sent to all alumni on a mailing list (please ensure you keep us updated with contact details).
- General information about careers, interview skills and CV development for recent graduates (for 1st year out graduates)
- Access to CIT facilities (including library membership)
- Invitations to various events

Contact details

CIT Alumni Association
Cork Institute of Technology
Bishopstown
Cork
Ireland
T: + 353 21 432 6589
F: + 353 21 432 6685
E: alumni@cit.ie

CIT has a process which allows you to get recognition for what you already know relevant to a particular programme of study. Your 'prior learning' can be what you have learned in training programmes, in courses or through your work and life experiences. By having this learning recognised you may be able to reduce the amount of time you need to study to get your qualification.

In CIT, RPL can be used to gain:

1. An exemption or mark for a module or for a number of modules.
2. Entry to a programme in first year where the standard entry requirements have not been met.
3. Advanced entry to a programme at a stage other than first year.

What type of learning do you have?

Prior Formal Learning

This means that you are applying because you have already been successful in a similar or equivalent module at a third level college.

It is necessary to state what exam(s) form the basis of your case and present this information along with proof of learning on the RPL prior formal learning template which is available at http://www.cit.ie/rpl.

The application form will ask you to identify which module you are applying for and the following must be included with your application form:

- Original transcript of results
- Syllabus of previous subject(s)
- Past exam papers

Please note: where transcript of results are used as evidence of learning, then originals must be presented for verification purposes and a photocopy must be submitted with the application form. If the above are not available in English then they must be translated and stamped by a translation service. The onus is on each applicant to ensure that the information they submit is accurate.

Prior Experiential Learning

You may not have a prior qualification but you may have learning from life and work experience relevant to a programme in CIT. You may want to have this learning recognised and you believe that you can provide sufficient evidence.

If you feel you have a case, you must arrange to meet and discuss your case initially with either the Head of Department or the Course Co-ordinator.

As part of this process, you will be asked to develop a portfolio which details your learning relevant to a programme in CIT. Support and advice is available from the RPL co-ordinator on developing your portfolio.

Advanced Entry

CIT, where possible, does allow advanced entry to a programme on the basis of prior learning. If you feel you may have sufficient learning you should arrange to meet and discuss your case with the Head of Department or the Course Coordinator.

How do I apply for RPL?

You must first register as a student in CIT for a programme or module. It is recommended that you discuss your case with the course co-ordinator or module lecturer before beginning the application process as they will be able to advise and direct you. RPL application forms and further information are available at www.cit.ie/rpl

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Important Dates

For semester 1, you should register your RPL application by the 3rd September 2010 and your completed application must be received by the 22nd October 2010.

For semester 2, you should register your RPL application by the 4th February 2011 and complete your application by the 11th March 2011.

Any applications received outside of these dates, assessment can not be guaranteed in that semester.

Any Questions?

Contact Phil O'Leary, at E: phil.oleary@cit.ie or T: (021) 4335132 who will explain what is required and will assist you with your application and portfolio preparation.

Note on Fees

While the module fee is payable, in the case of a successful prior formal learning application, an examination fee is held and the difference is refunded.

Applied Physics & Instrumentation

Head of Department
Dr Liam McDonnell, PhD CPhys FInstP

Department Secretary
Mary Phelan
T: (021) 4326214
E: mary.phelan@cit.ie

Annual Courses

Higher Certificate in Science in Industrial Measurement & Control
Bachelor of Science in Applied Physics & Instrumentation
Honours Bachelor of Science in Applied Physics & Instrumentation
Post Graduate Research Degrees: MSc and PhD

Short Courses

Introductory Modules in Applied Physics & Instrumentation
Specialist Courses and Minor Awards in Industrial Automation
Short Courses for Industry

www.instrumentation.cit.ie

www.physics.cit.ie

Higher Certificate in Science in Industrial Measurement & Control

Course Code	Course Fee	Enquiries
CR_SIMCT_6	€200 per 5 credit module (incl. exam fees)	Conor O'Farrell T: (021) 4326214 E: conor.ofarrell@cit.ie

ACCS Mode

Cycle C: Modules will be offered on three evenings per week.
Note: This Level 6 programme is currently delivered over three academic years. Selected stage 1 and stage 2 modules are offered each year. 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 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.

Minimum Entry Requirements

1. Leaving Certificate with grade D3 at Ordinary or Higher level in five subjects, including Mathematics and English or Irish;
2. Mature and other special category applicants will be admitted according to CIT regulations for part-time enrolment.
3. Applicants holding the National Craft Certificate, other Level 6 (or higher) qualifications or having relevant industrial experience may be eligible for exemptions from certain modules.

Course Content

Cycle A Modules

- Introduction to Programming
- Process Instrumentation 1
- Graphics & Engineering Design
- Sensors & Systems
- Practical Computer Technology 1
- Mathematics for Science 2.1
- Technological Mathematics 2

Cycle B Modules

- Mathematics for Science 2.2
- Process Instrumentation 2
- Industrial Automation 1
- Instrument Calibration
- Introduction to Physics
- Digital Instrumentation
- Technological Mathematics 2

Cycle C Modules

- Mathematics for Science 2.1
- Technological Mathematics 1
- Practical Computer Technology 2
- Introduction to Process Control
- Communications & Safety
- Applications of Automation
- Instrument Measurement
- Physics

Note: Exemptions from certain modules on this programme are automatically granted to holders of the National Craft Certificate, or equivalent, in a relevant craft and are not listed above. Other applicants may have to take additional modules.

Awards

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 will be received by students who successfully complete the course programme.

Further Studies at CIT

Students who pass 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

Course Code	Course Fee	Enquiries
CR_SPHYE_7	€200 per 5 credit module (incl. exam fees)	Harvey Makin T: (021) 4326214 E: harvey.makin@cit.ie

ACCS Mode

Cycle A: Modules will be offered on three evenings per week.

Note: This Level 7 programme is delivered over two academic years. In the academic year 2010/2011 Cycle A modules are offered. 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 Honours Bachelor of Science in Applied Physics and Instrumentation.

Minimum Entry Requirements

1. Higher Certificate in Science in Applied Physics and Instrumentation or the Higher Certificate in Science in Industrial Measurement & Control.
2. Holders of other relevant Level 6 qualifications, including City & Guilds Course No. 275, will also be considered on an individual case basis.
3. Applicants holding relevant Level 7 (or higher) qualifications or having relevant industrial experience may be eligible for exemptions from certain modules.

Course Content

Cycle A Modules

- Mathematics for Science 3.1
- Digital Systems & Interfacing
- System Control & Electrical
- Process Automation & SCADA
- Validation Science
- Project Part A

Cycle B Modules

- Programming for Measurement Applications
- Process Engineering
- Atomic and Nuclear Physics
- Industrial Communications & Networks
- Signals and Communications
- Project Part B

Awards

Single module certification within the Bachelor of Science in Applied Physics & Instrumentation.

The major award of the Bachelor of Science in Applied Physics & Instrumentation will be received by students who successfully complete the course programme.

Validating Body

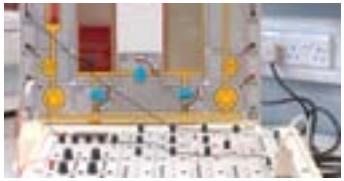
Higher Education Training & Awards Council.

Further Studies at CIT

To progress from the Bachelor of Science in Applied Physics & Instrumentation to the Honours Bachelor of Science in Applied Physics & Instrumentation, candidates must achieve a pass with at least an average mark of 50%. Progression is subject to the availability of places.

Bachelor of Science (Honours) in Applied Physics & Instrumentation

Course Code	Course Fee	Enquiries
CR_SPHYE_8	€300 per 5 credit module (incl. exam fees)	James Barrett T: (021) 4326214 E: james.barrett@cit.ie



ACCS Mode

Cycle A: Modules will be offered on three evenings per week.

Note: This Level 8 course is delivered over two academic years. In the academic year 2010/2011 Cycle A modules are offered. 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 Applied Physics and Instrumentation to the highest undergraduate level.

Minimum Entry Requirements

1. Bachelor of Science in Applied Physics and Instrumentation with a minimum average mark of 50%.
2. Holders of other Level 7 qualifications in a relevant Science or Engineering discipline with a minimum average mark of 50%.
3. Applicants holding relevant Level 8 qualifications or having relevant industrial experience may be eligible for exemptions from certain modules.

Course Content

Cycle A Modules

- Engineering Project Management
- Labview for Instrumentation
- Process Analytical Technologies
- Instrument System Design
- Project (Research Phase or Implementation* phase as appropriate)

Cycle B Modules

- Applications Development for Measurement & Instrumentation
- Advanced Signal Processing
- Advanced Process Automation
- Advanced Process Control
- Statistics and Quality Methods
- Project (Research Phase or Implementation* phase as appropriate)

* 10 credit module

Awards

Single module certification within the Honours Bachelor of Science in Applied Physics and Instrumentation. The major award of the Honours Bachelor of Science in Applied Physics and Instrumentation will be received by students who successfully complete the course programme.

Validating Body

Higher Education Training & Awards Council.

Further Studies at CIT

Graduates are eligible to apply for a post-graduate degree at Masters (MSc) or Doctoral (PhD) levels.

Post-Graduate Research Degrees in Applied Physics & Instrumentation (MSc and PhD)

Graduates with a good honours degree or equivalent in a scientific or engineering discipline may undertake a research project, leading to the award of Master of Science (MSc) by the Higher Education Training & Awards Council. The minimum duration of the MSc is 21 months for full-time students and pro-rata for part-time students. After completing the first year of their Masters programme, research students may be allowed to register for a PhD. The doctoral programme normally requires at least three years of full-time research activity and pro-rata for part-time students.

Enquiries

Dr Liam McDonnell
T: (021) 4326214
E: liam.mcdonnell@cit.ie

Introductory Modules in Applied Physics & Instrumentation

http://modules.cit.ie
€200 per 5 credit module (incl. exam fees)

These introductory modules will be offered, subject to enrolment and resources. Please consult the http://modules.cit.ie for full details of module content. Each of these modules will be presented over one evening (3 hours) a week for the second semester in the academic year 2010/2011, commencing February 2011. Candidates who successfully complete one of these modules will receive five Level 6 credits.

Formula 1 Science & Technology (PHYS6005)

Course Code CR_SFISC_6

Outlines the science & technology concepts that are contributory factors in today's F1 motorsport success. The learner does not require prior background knowledge of science & technology related to F1 motorsport.

Introduction to Astronomy (PHYS6010)

Course Code CR_SASTR_6

Provides an introduction to both the theoretical and practical aspects of astronomy. The module will include practical work at the CIT Observatory at Blackrock Castle.

Physics of Forensics (PHYS6013)

Course Code CR_SFORE_6

This is for anyone who likes solving problems. The principles of physics are used to analyse evidence from crimes and vehicle accidents. Prior knowledge of physics is not required.

Physics of Sport (PHYS6015)

Course Code CR_SSPRT_6

Examines the technology in sport performance and sports equipment. Various sports are used as examples: canoeing, cycling, climbing ropes, golf equipment.

Sport Science Technology & Measurement (PHYS6019)

Course Code CR_SFISC_6

Studies a variety of sports performances from which appropriate mechanical concepts will be developed. Includes practical experience in the recording of physical activity and the collection and analysis of relevant data from these recordings.

Enquiries

Dr Liam McDonnell
T: (021) 4326214
E: liam.mcdonnell@cit.ie

Specialist Courses and Minor Awards in Industrial Automation

Fee €825 per 5 credit module (incl. exam fees)

These specialist courses will be offered, subject to enrolment and resources. These hands-on modules will be presented over one evening (3 hours) a week for one semester (13 weeks) in the academic year 2010/2011, commencing either September 2010 and/or February 2011 subject to demand. Class sizes are strictly limited with each learner being assigned an individual computer workstation.

Introduction to Industrial Automation

Course Code CR_SINDA_6

This is a hands-on module that introduces the learner to the programmable logic control and associated instrumentation, including applications in process industries. No prior knowledge in this area is required.

Industrial Automation

Course Code CR_SINDA_7

This is a specialised hands-on module that encompasses applications of programmable logic controllers (PLCs) as well as a thorough introduction to DCS, SCADA and Delta V. The learner will be expected to have a relevant Level 6 qualification or relevant industrial experience. This module presumes that the learner will have met the learning outcomes of Introduction to Industrial Automation (above).

Advanced Industrial Automation

Course Code CR_SINDA_8

This is a specialised hands-on module 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. The learner will be expected to have a relevant Level 7 qualification or relevant industrial experience. This module presumes that the learner will have met the learning outcomes of Industrial Automation (above).

Level 8 Certificate in Advanced Industrial Automation

This minor award is available to students who successfully complete the three modules and the following two modules:

- Introduction to Industrial Automation Project
- Advanced Industrial Automation Project*

*10 credit module

Level 6 Certificate in Process Control and Automation

This minor award is available to students who successfully complete the following modules from the Higher Certificate in Science and Measurement & Control.

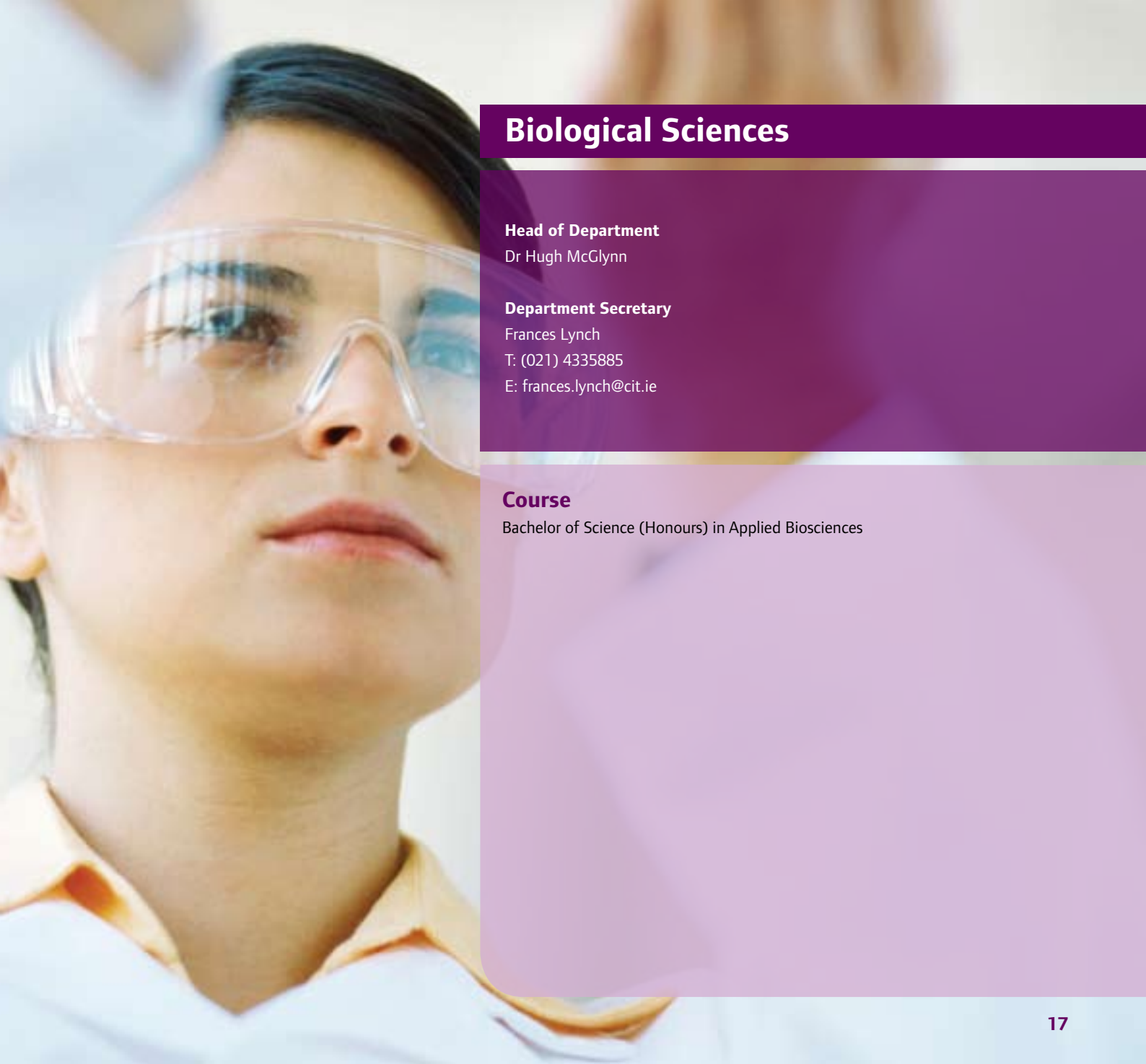
- Practical Computer Technology 2
- Introduction to Process Control
- Introduction to Industrial Automation
- Introduction to Programming for Measurement Applications
- Digital Instrumentation
- Technological Maths 2

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

Harvey Makin
T: (021) 4326214
E: harvey.makin@cit.ie



Biological Sciences

Head of Department
Dr Hugh McGlynn

Department Secretary
Frances Lynch
T: (021) 4335885
E: frances.lynch@cit.ie

Course

Bachelor of Science (Honours) in Applied Biosciences

Bachelor of Science (Honours) in Applied Biosciences

Course Code	Course Fee	Enquiries
CR_SBIOE_8	To be advised	Anna Murphy Department of Biological Sciences T: (021) 4326829 E: anna.murphy@cit.ie

The Honours degree in Applied Biosciences is designed to provide the student with the theoretical knowledge and applied skills to gain employment and practice as a professional biologist in Healthcare, Pharmaceutical, Food Processing, Environmental and Quality Management areas in industry.

Entry Requirements

1. Bachelor of Science in Applied Bio Sciences and Bio Technology or Food Science and Technology or equivalent, with a minimum average of 50%.
2. Holders of other National Diploma or Bachelor of Science in Biological Sciences or the National Diploma in Science in either Applied Bio Sciences and Bio Technology or Food Science & Technology and Degree qualifications in a relevant Science.

Course Programme

The course is run on a two-year, rotating basis. Thus, in the academic year 2010/2011, the course will consist of **Year 2** subjects only.

Module Information

http://modules.cit.ie

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.

Award

The Honours Bachelor of Science in Applied Biosciences will be awarded to students who successfully complete the course programme.

Further Studies at CIT

Graduates are eligible to apply for postgraduate degree at Masters (MSc) or Doctoral (PhD) levels.

School of Building & Civil Engineering

Head of School of Building & Civil Engineering
Dr Joseph R. Harrington, BE, MS, PhD, Eurling, ECEng, FIEI, PE

Head of Department of Civil, Structural & Environmental Engineering
Desmond J. Walsh, BE, MSc, DIC, EurIng, CEng, MIEI, MICE

Head of Department of Construction
Dr Daniel Cahill, MSc, PhD, MRICS

Head of Department of Architecture
Katherine Keane, BSc, MArch

Department Secretary
Mary Crowley
T: 021 4326203
E: mary.crowley@cit.ie

Courses

Higher Certificate in Construction
Bachelor of Science in Construction Management
Bachelor of Science in Quantity Surveying
Higher Certificate in Engineering in Civil Engineering
Bachelor of Engineering in Civil Engineering
The Institution of Structural Engineers – preparation for membership examination
Introduction to Eurocodes
Digital Land Surveying and GPS

Construction Management/ Quantity Surveying

Courses Available

- Higher Certificate in Construction
- Bachelor of Science in Construction Management
- Bachelor of Science in Quantity Surveying

The Construction Manager has overall responsibility for the organisation and profitability of a construction project. Construction Managers monitor the progress, cost and quality of the work and supervise and co-ordinate subcontractors and specialist suppliers. A number of different terms are used to describe the construction manager's role. These include site manager, site agent, project manager, contracts manager and building manager. Managers of construction projects are also responsible for ensuring that the required materials and plant are available on site and for ensuring that all health and safety obligations are met.

The Quantity Surveyor/Commercial Manager is also known as a Building Economist or Construction Cost Consultant, and undertakes a wide and varied range of work. It includes, the preparation of cost plans and tender documents, advising on the selection of contractors, checking the progress of the work on site and calculating interim payments due to contractors. The advice of the Quantity Surveyor/ Commercial Manager enables the design and construction of the project to be controlled within predetermined expenditure limits. The Quantity Surveyor/ Commercial Manager is also responsible for the measurement and valuation of variations in the construction work during the contract and for the preparation and agreement of the final account.

Career Opportunities

These courses qualify the graduate for a wide range of employment opportunities within the construction sector. Recent graduates have found employment with Local Authorities, Quantity Surveyors, Building Contractors, Sub-contractors and Builders Suppliers.

At Higher Certificate Level

Graduates can be involved in a range of construction activities including: producing working drawings; surveying and setting out; organising and supervising plant and equipment use on site; testing of construction materials; supervising the work of subcontractors and craft operatives; estimating the cost of materials and work completed and liaising with suppliers.

At Ordinary Bachelor Degree Level

The course qualifies graduates for a range of employment opportunities across the entire spectrum of the construction industry. The principal areas of employment are Quantity Surveying practices, Surveying & Estimating Departments of major contractors and Construction Management positions in the Construction Sector.

Higher Certificate in Science in Construction

Course Code	Course Fee	Enquiries
CR_CCONE_6	€200 per module (inc. exam fee)	Department Secretary T: (021) 4326203 E: mary.crowley@cit.ie

2 evenings per week 6pm –10pm, depending on modules.

Entry 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.

Course Structure

This course is offered under the ACCS Scheme (See page 7). 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

http://modules.cit.ie

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.

Course Content

Among the areas you would be required to study are:

Level 1

Construction Technology, Building & Environmental, Measurement and Procedures, Organisation and Management, Construction Mathematics, Construction Graphics and Communications, Construction Industry and Procedures, Materials and Structures.

Level 2

Construction Technology, Building and Environmental, Measurement and Estimating, Management, Construction Economics, Construction Law, Cost Planning, Land Surveying.

Award

Higher Certificate in Construction (NFQ Level 6).

Further Studies at CIT

Qualified students are eligible to apply for the BSc in Quantity Surveying and the BSc in Construction Management.

Bachelor of Science in Construction Management

Course Code	Course Fee	Enquiries
CR_CCMNE_7	€200 per module (inc. exam fee)	Department Secretary T: (021) 4326203 E: mary.crowley@cit.ie

2 evenings per week 6pm –10pm, depending on modules.

Entry 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 (See page 7). The modules to be offered in any year will be decided in consultation with the students. The accumulation of sufficient credits for the award will involve an average of two years of study for the Bachelor of Science in Construction Management.

Module Information

http://modules.cit.ie

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.

Course Content

Among the areas you would be required to study are:

Level 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 (NFQ Level 7).

Bachelor of Science in Quantity Surveying

Course Code	Course Fee	Enquiries
CR_CCECE_7	€200 per module (inc. exam fee)	Department Secretary T: (021) 4326203 E: mary.crowley@cit.ie

2 evenings per week 6pm –10pm, depending on modules.

Entry 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 (See page 7). The modules to be offered in any year will be decided in consultation with the students. The accumulation of sufficient credits for the award will involve an average of two years of study for the Bachelor of Science in Quantity Surveying.

Module Information

http://modules.cit.ie

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.

Course Content

Among the areas you would be required to study are:

Level 3

Construction Technology, Measurement, Cost Planning, Development Economics, Construction Procurement, Construction Contracts, Construction Finance, Project.

Award

Bachelor of Science in Quantity Surveying (NFQ Level 7).

Civil, Structural & Environmental Engineering

http://csee.cit.ie

Civil Engineering deals with one of the most visible signs of change and progress around us, the construction and development of buildings and infrastructure. New infrastructure and buildings are required for the public and private sectors: older buildings and existing facilities are redeveloped and renewed. Utilities for water supply, waste treatment and infrastructural developments require the skills of Civil Engineers. Civil Engineers are required to plan, design, construct and maintain these facilities.

The Civil Engineering profession is a broad based discipline, closely associated with public works and the construction industry. Opportunities vary in scope and location and may be office based, site-based or a combination of both.

Further information on the profession may be obtained from the following:
Engineers Ireland http://www.engineersireland.ie/
The Institution of Structural Engineers http://www.istructe.org/
Institution of Civil Engineers http://www.ice.org.uk/

Courses

- **Higher Certificate in Civil Engineering** (NFQ Level 6) – the next intake to this programme is scheduled for 2011/12
- **Bachelor of Engineering in Civil Engineering** (NFQ Level 7) – the next intake to this programme is scheduled for 2011/12
- **The Institution of Structural Engineers** – preparation for Chartered Membership examination.
- **Digital Land Surveying and GPS** – single subject certification
  – a short follow on course for those who successfully completed the 'Introduction to Civil Engineering Surveying' course during 2006/07 and the 'Civil Engineering Surveying' course during 2007/08 (or holders of equivalent qualification(s).
  – please refer to http://csee.cit.ie/ for information updates.
- **Introduction to Eurocodes** – single subject certification

Higher Certificate in Civil Engineering (NFQ Level 6)

The Higher Certificate is the traditional academic qualification for Technician level entry to the civil engineering profession.**

Career Opportunities

Graduates may find employment in local authorities, consulting engineering offices and with building and civil engineering contractors in related areas. The initial employment of a civil engineering technician may involve surveying or setting out, manual or computer aided draughting, sampling and testing materials and site supervision. The course provides a basis for suitably qualified students to progress to Degree studies.

B.Eng in Civil Engineering (NFQ Level 7)

The Bachelor of Engineering (Ordinary) Degree is the traditional academic qualification for Higher Technician entry to the civil engineering profession.**

Career Opportunities

Graduates at Ordinary Degree level may find employment in consulting engineering offices, local authorities and with building and civil engineering contractors. Such opportunities exist both at home and abroad. Graduates are likely to work in conjunction with architects, quantity surveyors, builders and also with personnel from other engineering disciplines. The course also provides a basis for suitably qualified graduates who are interested in pursuing more advanced studies.

The Institution of Structural Engineers

A short course facilitating preparation for the examinations of The Institution of Structural Engineers (http://www.istructe.org)

Digital Land Surveying and GPS

A short follow on course for those who successfully completed the 'Introduction to Civil Engineering Surveying' course during 2006/07 and the 'Civil Engineering Surveying' course during 2007/08 or holders of equivalent qualifications.

Introduction to Eurocodes – single subject certification

A short course, comprising a series of practical lectures, intended to familiarise graduates with the requirements of the Eurocodes in relation to Structural Engineering design.

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

All courses offered are subject to demand and places may be limited.

Higher Certificate in Engineering in Civil Engineering

Course Code	Course Fee	Enquiries
CR_CCIVE_6	€200 per module (inc. exam fee)	Des Walsh, Chartered Engineer T: (021) 4326765 James O'Byrne T: (021) 4326761 E: jim.obyrne@cit.ie W: http://csee.cit.ie

2 evenings per week, 6 - 10pm. 1 Saturday per month (average), 9am - 1pm or 2pm - 6pm.

Please note that intake to this course does not occur on an annual basis; the next intake is scheduled for 2011/12 – please refer to http://csee.cit.ie/ for information updates.

Entry Requirements

Leaving Certificate Grade 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.

Course Programme

Stage 1

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

Stage 2

Module topic areas include Mathematics, Civil Engineering Materials, Structural Detailing, Structural Engineering, Land Surveying, Water Engineering, Civil Engineering Construction & Management, Professional Studies.

Course Structure

The course is offered under the ACCS scheme (See page 7). For further information on modules, see http://modules.cit.ie

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 include Mathematics, Engineering Science, Engineering Graphics & CAD, Land Surveying, Construction.

CCIVE_6 Year 2

Modules from Stage 1 and modules from Stage 2:

Topics include Applied Mechanics (Stage 1), Mathematics, Civil Engineering Materials, Land Surveying, Structural Detailing, Civil Engineering Construction & Management, Professional Studies (Stage 2)

CCIVE_6 Year 3

Modules from Stage 2:

Topics include Land Surveying, Structural Engineering, Structural Design, Water Engineering.

Award

Higher Certificate in Engineering in Civil Engineering (NFQ Level 6).

Further Studies at CIT

Higher Certificate graduates are eligible to apply for the BEng in Civil Engineering (NFQ Level 7).

Bachelor of Engineering in Civil Engineering

Course Code	Course Fee	Enquiries
CR_CCIVE_7	Course Fee €200 per module (inc. exam fee)	Des Walsh, Chartered Engineer T: (021) 4326765 James O'Byrne T: (021) 4326761 E: jim.obyrne@cit.ie W: http://csee.cit.ie

2 evenings per week, 6 - 10pm. 1 Saturday per month (average), 9am - 1pm or 2pm - 6pm.

Please note that intake to this course does not occur on an annual basis; the next intake is scheduled for 2011/12 – please refer to http://csee.cit.ie/ for information updates.

Entry 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.

Course Structure

The course is offered under the ACCS scheme (See page 7). 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 subjects are offered on that basis.

The course is offered on a two year cycle basis.

Course Content

Module topics include
Mathematics, Structural Analysis, Structural Design (Concrete, Masonry, Steel, Timber), Soil Mechanics & Geology, Geotechnical Engineering, Research Project.

Elective modules may be offered in Highway Engineering, Civil Engineering Construction Management, Environmental Engineering and other topics.

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 (NFQ Level 7).

The Institution of Structural Engineers

Course Code	Course Fee	Enquiries
CR_CISTE_9	CIT Fee €600. (Additional fee may be payable to The Institution of Structural Engineers)	John J. Murphy, Chartered Engineer T: (021) 4326741 E: johnjustin.murphy@cit.ie

10 sessions, every second Monday from 7pm - 10pm

Courses of study for the examinations of the Institution of Structural Engineers, subject to demand. The proposed course will be targeted primarily at the Examinations. However, it will be open to those who do not wish to sit these but who would like to improve and advance their knowledge of Structural Engineering.

Note: In order to sit the Examinations it is necessary to be enrolled with the Institution in the appropriate grade of membership. Contact the Institution of Structural Engineers for full details (www.istructe.org.uk).

Digital Land Surveying and GPS

Course Code	Course Fee	Enquiries
CR_CSURV_7	To be advised http://csee.cit.ie	Des Walsh, Chartered Engineer T: (021) 4326765 James O'Byrne T: (021) 4326761 E: jim.obyrne@cit.ie W: http://csee.cit.ie

This is a short follow on course for those who successfully completed the 'Introduction to Civil Engineering Surveying' course during 2006/07 and the 'Civil Engineering Surveying' course during 2007/08 or holders of equivalent qualifications.

It is particularly suited to construction personnel who are involved with the organisation of surveying and setting out on construction sites.

It is likely that the course will be offered over a number of days, including Saturdays, during the first semester. Exact timetable arrangements remain to be finalised. Information updates will be provided on the website of the Department of Civil, Structural & Environmental Engineering at http://csee.cit.ie/.

It is envisaged that successful completion of the course will lead to CIT single subject certification in Digital Land Surveying and GPS.

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

- establish survey control of determined accuracy using GPS equipment and OSI reference
- 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.

Course 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.

Award

Single Subject Certification.

Introduction to Eurocodes

Course Code	Course Fee	Enquiries
To be advised	To be advised http://csee.cit.ie	John J. Murphy, Chartered Engineer T: (021) 4326741 E: johnjustin.murphy@cit.ie

This is a short course, comprising a series of practical lectures, intended to familiarise graduates with the requirements of the Eurocodes in relation to Structural Engineering design.

The course is appropriate for holders of a Level 7 or higher, qualification in Civil and/or Structural Engineering. It is likely that the course will be delivered in the early months of 2011.

The course is currently being developed – further details will be available at http://csee.cit.ie in due course.

Indicative Course Content

Introduction/Overview of Design
Structural Steel Design
Reinforced Concrete Design
Timber & Masonry Design

Award

Single Subject Certification.

School of Business
Department of Continuing Education

Please Note: Lecturers are on annual holidays during the summer and you should contact the Department's Administration office. Telephone nos. 4326577/4326785.

Each course has its own unique e-mail address from which you can apply on line. The application form will contain the starting date for each course. Following your application, please attend on the first night of class unless you hear to the contrary beforehand (i.e. if you do not meet the entry requirements).

Business Studies & Accounting

Head of School of Business
Gerard O'Donovan, BComm, MBA, MMII, MICS

Head of Department of Continuing Education
Paul Mahony, FCA, FCPA, MBS

Department Administrator
Patricia Dillon
T: 021 4326785
E: pat.dillon@cit.ie

Department Secretary
Eileen O'Mahony
T: 021 4326577
E: eileen.omahony@cit.ie

Courses
MBS (Taught Master of Business)
Honours Bachelor of Business (ACCS)
Ordinary Bachelor Degree of Business in Management (ACCS)
Ordinary Bachelor Degree of Business in Accounting (ACCS)
Higher Certificate in Business (ACCS)

Professional Accountancy Courses
Institute of Certified Public Accountants in Ireland
Accounting Technicians Ireland
Diploma in Financial Management

Human Resource Management
BA Degree in Human Resource Management

Other Courses
Introductory Book-Keeping and Accounting
Road Transport - Certificate of Professional Competence (CPC)

Student Testimonial

Margaret O'Sullivan

"A Masters in Business was one of my long standing ambitions. I enrolled in September 1999 in CIT for the Certificate in Business Studies. It was a big decision for me to begin this course as I had completed my Leaving Certificate a few years previously. At this point in my life, I was unsure as to which career path I would choose, as in many ways, at that time the variety of courses available was not as extensive as it is today. I was employed by Cork City Council at the time and I felt that without formal educational qualifications my career advancement would be limited.

Studying was difficult at first but with the encouragement and support of the lecturers, it gradually became part of the weekly routine. The first few years passed swiftly and I graduated in 2001. I commenced the National Diploma in Business Studies the following year and progressed to the Bachelor of Business Studies. I graduated with a first class Honours Degree in October 2005. In 2007, I applied for a place on the Master of Business Degree. A Master of Business was my greatest aspiration and the Department of Continuing Education helped me to pursue my ambition while in full time employment.

The modular structure is fundamental to the success of the course. The format of the course provides the student with manageable and defined topics. Each topic was interesting and provided its own individual challenge. This course has been interesting, challenging and rewarding. Many of the assignments and projects concerned real life examples and involved the study of dynamic local companies. This course has demonstrated that effective contact with industry can vastly enhance the students' knowledge and skills in a rapidly changing environment. Companies are now seeking new ways of competing and delivering value for money in order to remain competitive and to increase their market share and this course is an important future link between business methods, ideas and insights and the operation of modern courses and programmes.

The lecturers and college support staff were always very helpful and available to discuss any difficulties. The encouragement from the lecturers to each individual student allowed greater variety in the subjects chosen for the dissertation. The variety of the projects completed by the students demonstrates a variety of interest and research in modern business. This format provided for an excellent class atmosphere where students supported each other and this in turn enabled the creation of many friendships even though the class participants were diverse in age, work and cultural backgrounds. I am very appreciative of the support and the unrelenting giving of the lecturers both of their time and knowledge and many times it was beyond the call of duty. This very important element of providing excellent support, in my opinion, is a core value in CIT's plan for providing a learning experience that is exciting, fun and very rewarding.

Having completed the programme successfully, I have no hesitation in recommending that it is possible to work full time and achieve academically as well. I am now employed by Cork County Council. Through the knowledge I have gained from my years in CIT, I have been able to bring new skills and knowledge to the Council. This course has opened up many opportunities for me already and I firmly believe that this course has provided me with valuable skills and knowledge and that it heralds an exciting new phase in my life."

MBS - Master of Business – Taught

Course Code	Course Fee	Enquiries
CR_BBUSA_9	€2950 P.A.	John Meyler T: (021) 4326687 E: john.meyler@cit.ie

For application forms please email: mbs@cit.ie

Module Information: http://modules.cit.ie

Aim

The overall aim of this programme is to facilitate the further personal and intellectual development of students, encompassing the skills of analysis, interpretation and synthesis within their chosen field of knowledge. Participants will be required to adopt innovative and creative approaches to business related issues and analyse critically business and management problems in a national, international and global context.

Entry Requirements

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

The Department of Continuing Education offers four streams for the Masters Degree in Business viz:
(1) Marketing
(2) Accounting
(3) Information Systems
(4) Enterprise

Course Structure

The following mandatory modules are common to all streams:

- Research Methods
- Services Marketing Management
- Information Systems Framework
- Applied Corporate Strategy
- International Corporate Strategy
- Research Dissertation

Specialist Modules

(1) Marketing Stream
Strategic Marketing Management
Contemporary Issues in Marketing
Applied Marketing Communications

(2) Accounting Stream
Financial Accounting & Reporting
Strategic Management Accounting
Corporate Governance

(3) Information Systems Stream
Enterprise Data Based Management
Data Communications and Networks
Information Systems Development

(4) Enterprise Stream
Innovation and Creativity
Enterprise Finance and Law
New Venture Management and Growth

Course Programme

- Two part-time academic years (4 semesters)
- Each semester is of a 15 week duration (including examinations).
- Semester 1 commences on Wednesday, 8th September 2010 at 6.30pm in T103
- Presentation of course consists of lectures, tutorials, case studies, visiting lectures, etc

Semester 1 Wednesday & Friday
Semester 2 Friday only
Semester 3 Wednesday & Friday
Semester 4 Research Dissertation

Time: Wed 6.30pm - 9.30pm | Fri 3.00pm - 6pm and 6.30pm - 9.30pm

- Fees should be paid in full by the 31st October of the academic year.
- Please submit I.D. photograph with the application form.

Honours Bachelor of Business (ACCS)

Course Code	Course Fee	Enquiries
CR_BBUSN	Course Fee €190 per module (inc. exam fees)	Paul Mahony T: (021) 4326554 E: paul.mahony@cit.ie

For application forms please email: bsh@cit.ie

Year 1: Monday & Wednesday, 6pm - 10pm
Year 2 (One semester only): Two evenings per week, 6pm - 10pm

This programme has been designed to provide a balanced education through a critical study of business.

Entry 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.

Course Structure

The principle areas of study are:
Mandatory – each module carries 5 credits
Strategic Management 1
Strategic Management 2
Financial Management 1
Financial Management 2
Business Ethics
The Business Environment

Electives (choose 6) – each module carries 5 credits
Business Marketing Environment
Business Marketing
Workforce Diversity
International HRM
Decision Support Systems
MIS Strategy and Planning
Strategic Management Accounting 1
Strategic Management Accounting 2
Entrepreneurship

Duration

One academic year and one semester.

Award

Honours Bachelor of Business

Progression

Graduates with an Honours Bachelor of Business with a H22 award or higher can apply for CIT's Taught Master of Business.

Commencement Date

Year 1 - Monday, 13th September 2010 at 7pm
Year 2 - Monday, 13th September 2010 at 7pm

Ordinary Bachelor Degree of Business in Management (ACCS)

Course Code	Course Fee	Enquiries	
CR_BMNGT_7 Year 1 **CR_BMNGT_7 Year 2**	€165 per 5 credit module (inc. exam fees)	Year 1 Martin O'Sullivan T: (021) 4326314 E: martin.osullivan@cit.ie	Year 2 Bernard Vallely T: (021) 4326338 E: bernard.vallely@cit.ie

For application forms please email: bsmg@cit.ie

Lectures

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

Aims

This Ordinary 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. Honours Bachelor of Business.

Entry Requirements

Year 1

A minimum of a two year Higher Certificate (Level 6) is required in a discipline other than business studies.

Note: Students in Year 1 must account for 60 credits, either by Recognition of Prior Learning (RPL) and/or course work. The module selection for each student will be carried out in conjunction with the course co-ordinator.

Year 2

Higher Certificate in Business, with minimum of Pass result or successful completion of Year 1 of the Ordinary Bachelor Degree in Business.

Course Structure

The principle areas of study are:

Year 1 – Modules

Economics (10 credits)
Management (10 credits)
Management Information Systems (5 credits)
Financial Accounting (5 credits)
Marketing (10 credits)
Behavioural Science (10 credits)
Business Law (5 credits)
Business Mathematics & Statistics (5 credits)

Year 2 – Modules, all mandatory

Management Accounting (5 credits)
Strategic Management (5 credits)
Human Resource Management (5 credits)
Organisational Behaviour (10 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)

Award

Ordinary Bachelor Degree of Business in Management

Lecture Commencement Dates

Year 1 Monday 13th September 2010 at 6pm
Year 2 Tuesday 14th September 2010 at 6pm

Ordinary Bachelor Degree of Business in Accounting

Course Code	Course Fee	Enquiries
CR_BACCT_7 (ACCS) **CR_BACCT_7 (ACCS)**	€165 per 5 credit module (inc. exam fees)	Paul Mahony T: (021) 4326554 E: paul.mahony@cit.ie

For application forms please email: bacc@cit.ie

Aim

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.

Entry Requirements

Bridging Studies

Graduates of the Institute of Accounting Technicians in Ireland or equivalent.

Directly to Semester (1)

A Higher Certificate in Business with sufficient credits in Financial Accounting, Economics, Management Accounting, Business Law and Business Mathematics & Statistics.

Award

Ordinary Bachelor Degree of Business in Accounting

Further Studies

Graduates of this degree who obtain an average of 50% or more would be eligible to progress to the Bachelor of Business (Hons) in Accounting or Honours Bachelor of Business.

Commencement Date

Semester 1: Monday, 13th September 2010 at 6.30pm

Course Structure

Bridging Studies - Modules

Introduction to Micro-economics
Mathematics and Statistics 1
Mathematics and Statistics 2
The Macroeconomy
Organisational Systems
Introduction to Marketing

Semester 1 - Modules

Mandatory

Advanced Financial Accounting 1
Advanced Management Accounting 1
Financial Management 1
Management Information Systems 1
Electives
Auditing 1
Income Tax

Semester 2 - Modules

Mandatory

Advanced Financial Accounting 2
Advanced Management Accounting 2
Financial Management 2
Management Information Systems 2
Electives
Auditing 2
Taxation

Higher Certificate in Business (ACCS)

Course Code	Course Fee	Enquiries	
CR_BBUSA_6	€165 per 5 credit module (inc. exam fees)	Year 1 Dr Felix Raekson T: (021) 4326784 E: felix.raekson@cit.ie	Year 2 Aisling Conway E: aisling.conway@cit.ie

For application forms please email: hc@cit.ie

Year 1 and 2:
Trimester 1: Two evenings per week, 6pm - 10pm
Trimester 2: Three evenings per week, 6pm - 10pm
Trimester 3: One evening 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.

Entry 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.

Progression

Successful graduates can progress to the Level 7 Ordinary Bachelor Degree of Business in Management or Accounting.

Commencement Date

Year 1 - Wednesday 15th September 2010 at 6.30pm
Year 2 - Wednesday 15th September 2010 at 7.00pm

Course Structure

Year 1 – Modules
Behavioural Science
Business Mathematics & Statistics
Economics
Financial Accounting
Communications
Information Technology

Year 2 – Modules
Decision Making
Cost and Management Accounting
Law
Marketing
Financial Accounting
Management
Human Resource Management

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, (see page 7). Credits and Certificates are awarded for each module passed. Students who accumulate the appropriate number of modules qualify for the award of Higher Certificate.

Professional Accountancy Courses

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.

Institute of Certified Public Accountants in Ireland

Course Code	Course Fee	Enquiries
CR_BCPAC_8	€300 per subject (F2) €350 per subject (P1) €350 per subject (P2)	Ann Marie Twomey T: (021) 4326338 E: annmarie.twomey@cit.ie

For application forms please email: cpa@cit.ie

Formation 2 – Monday & Thursday
Paper 1 Management Accounting
Paper 2 Financial Accounting
Paper 3 Information Systems
Paper 4 Taxation

Professional Level

Professional 1 – Tuesday & Thursday
Paper 1 Managerial Finance
Paper 2 Corporate Reporting
Paper 3 Corporate Law and Governance
Paper 4 Auditing

Professional 2 – Tuesday & Thursday
Paper 1 Strategy, Leadership & Knowledge Management (M)
Paper 2 Audit Practice & Assurance Services (E)
Paper 3 Advanced Corporate Reporting (M)
Paper 4 Strategic Corporate Finance (E)
Paper 5 Strategic Performance Management (E)
Paper 6 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 subjects. However, students intending to qualify and apply for a practice certificate must sit and pass the Auditing and Taxation elective subjects.

Institute Information

Institute of Certified Public Accountants in Ireland (CPA),
9 Ely Place, Dublin 2.
T: 01 6767 353 W: www.cpaireland.ie

Registration with CPA

01 December 2010 for April 2011 Exams
01 June 2011 for August 2011 Exams

Exam Registration Closing Date(s)

01 March 2011 for April 2011 Exams
01 August 2011 for August 2011 Exams

Awarding Body

Institute of Certified Public Accountants in Ireland

Commencement Date

Formation 2 Monday, 13th September 2010
Professional 1 Tuesday, 14th September 2010
Professional 2 Tuesday, 21st September 2010

CPA Institute contact details
Exams
Arron Feery T: 01 4251 021
Registration for new students
Cliodhna Kenny T: 01 4251 022
Exemptions
Julia Haenig T: 01 4251 023

Course Code	Course Fee	Enquiries
CR_BIATI_6	€900 Year 1 €990 Year 2	Ann Marie Twomey T: (021) 4326338 E: annmarie.twomey@cit.ie

For application forms please email: iati@cit.ie

Year 1: Tuesday & Thursday, 6.30pm - 9.30pm
Year 2: Tuesday & Thursday, 6.30pm - 9.30pm.

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.

Entry Requirements
Leaving Certificate with a minimum of Grade D3 in five subjects at Ordinary level. 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.

Year 1
Financial Accounting 1
Law & Ethics
Business Management
Taxation 1

Year 2
Financial Accounting 2
Taxation 2
Integrated Accounting Systems
Management Accounting

Duration
Two years

Institute Information
Accounting Technicians Ireland (ATI)
47/49 Pearse Street
Dublin 2
T: 01 6498 100
W: www.accountingtechniciansireland.ie

Exemption Deadline
Friday 1st October 2010

Exam Registration Closing Date(s)
Start 8th February 2011 for May 2011 exams.
Registration as first time student with ATI by 31st October 2010.
Contact Niamh McGrath at the Institute: T: 01 6498 180

Exemptions
Please note that applications for exemptions must be made directly to the Accounting Technicians Ireland.

Awarding Body
ATI

Commencement Date
Year 1 - Tuesday, 21st September 2010
Year 2 - Thursday 16th September 2010

Diploma in Financial Management

Course Code	Course Fee	Enquiries
CR_BFMAN_8	Course Fee €1,400	Martin O'Sullivan T: (021) 4326314 E: martin.osullivan@cit.ie

For application forms please email: dipfm@cit.ie

Monday & Thursday, 7pm - 10pm

This course builds on the strengths of the well established Certified Diploma in Accounting and Finance and is designed to give business managers from non-financial backgrounds confidence in the financial skills they need to achieve their fullest potential.

Examination Subjects

Module A

1. Interpretation of Financial Statements
2. Performance Management

Module B

3. Financial Strategy
4. Risk Management

Candidates will also be required to complete a written assignment for each assessment module in the form of a project.

Entry Requirements

The minimum entry requirement is an ACCA recognised degree, HN D/HN C and/or membership of a non-accounting professional body. Individuals who do not hold these qualifications may be admitted on the basis of their work experience. In this case, applicants are normally required to be at least 23 years old and should be able to demonstrate, with an employers reference (present or past), that the Diploma is relevant to the experience you have gained. If you are self-employed a reference from an accountant, solicitor or bank manager will be required.

There are no exemptions awarded from the Diploma in Financial Management, irrespective of the qualifications held.

Exam Registration Date

15th April 2011 for June 2011 exams

Address for Registration

Chartered Association of Certified Accountants
1 Woodside Place
Glasgow
G3 7QF

Institute Information

Association of Chartered Certified Accountants (ACCA)
9 Leeson Park, Dublin 6
T: 01 4963 144
W: www.accaglobal.com

Note: Additional fees are payable to the ACCA. All textbooks must be purchased directly from the ACCA.

Awarding Body

Association of Chartered Certified Accountants (ACCA)

Commencement Date & Registration

Monday 27th September 2010

Student Testimonial

Brendan Dennehy

"Twenty five years on and I still have nightmares about sitting my Leaving Certificate. I suspect like many others, I vowed then never to return to formal education.

However, in the back of my mind I always felt the need and the desire to attain a third level qualification. A friend suggested I enquire into the Human Resource Management course in CIT. In 2002, I commenced the certificate degree course and completed the Honours Degree course in April 2008.

Learning about subjects such as industrial relations and organisational behaviour in a class full of people from diverse backgrounds led to some heated, but ultimately enlightening discourse. Attending such lectures was, for me, a catalyst for examining my own work life. I was reminded of Socrates famous dictum "The unexamined life is not worth living".

It didn't take much examination for me to realise that I wanted to pursue a different career. After twenty-four years in employment, I recently started my own workplace mediation consultancy.

I owe a debt of gratitude to my lecturers and my classmates in CIT whose guidance and encouragement helped me to overcome any concerns I may have had during my time there, and whose support in my decision to become self employed, was always fulsome.

Looking back I firmly believe my decision to attend CIT was instrumental in leading me to where I am today and I would highly recommend this course to anyone."

Bachelor of Arts in Human Resource Management

Course Code	Course Fee	Enquiries
CR_BHRMN_7	All years: €165 per 5 credit module (incl. exam fees)	Olive Murphy-O'Dwyer T: (021) 4326314 E: olive.murphyodwyer@cit.ie

For application forms please email: dhrm@cit.ie

This three year BA includes an embedded award at Level 6 whereby all students who successfully complete Year 1 will be awarded a Certificate in HR Management and Development. Students who successfully complete the three year programme will also be awarded a Bachelor of Arts in Human Resource Management (Level 7).

Years 1 and 2 - Monday & Wednesday 6pm - 10pm
Year 3 - Tuesday & Thursday 6pm - 10pm
Additional tutorials and workshops will be provided.

Aim

This course is designed to meet the needs of those working in human resources/training and development or who provide support for key aspects of these functions. The programme is also suitable for someone new to or aspiring to a career in the human resources/ training and development functions. The course also attracts students who work as line managers, supervisors or team leaders who wish to gain people management skills as well as the owners or managers of small businesses.

Entry 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.

Duration

Three academic years

Course Structure

Year 1 - Modules
Human Resource Management
Training and Development
Employment Law
Employee Relations
Recruitment and Selection
Performance Management
HR Information Systems
Project
Year 2 - Modules
Managing Information
People Resourcing
Business Law
Industrial Relations
Integrated Case Study (10 credits)
Management
Year 3 - Modules
Employee Rewards
Corporate Strategy
Human Resource Strategy
Training and Testing
Health and Safety
Management Report

Award

BA Degree in Human Resource Management

Progression

Graduates from the BA Degree can progress to the Honours Bachelor of Business Studies via one semester of Bridging Studies (details on request).

Commencement Date

Wednesday 15th September 2010

Introductory Book-Keeping and Accounting

Course Code	Course Fee	Enquiries
CR_BBACC_6	€400	Noreen Murphy T: (021) 4326785 E: noreen.murphy@cit.ie

For application forms please email: bk@cit.ie

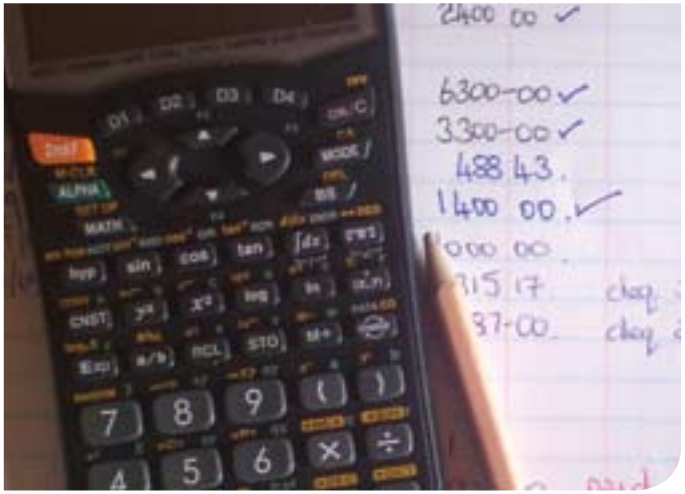
Tuesday, 6.30pm - 9.30pm

Class size is limited to 20 students.

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 first section of the course will be dedicated to instructing students on manual processing, while the later part will concentrate on 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.



Duration

10 weeks
This course will be offered twice during the 2010/11 academic year.

Commencement Dates

Course 1: Tuesday 5th October, 2010
Course 2: Tuesday 11th January 2011

Road Transport Course - Certificate of Professional Competence in Road Haulage & Road Passenger Transport (CPC)

Course Code	Course Fee	Enquiries
CR_ERTPC_6	€900 inc. Manual	Departmental Secretary T: (021) 4326577 E: eileen.omahony@cit.ie

For application forms please email: cpc@cit.ie

Monday, Tuesday, and Friday, 7pm - 10pm

This course is one of the requirements for qualification to hold a Road Freight Carrier's Licence or a Road Passenger Transport Operator's Licence C.P.C.

Awarding Body

Chartered Institute of Logistics & Transport in Ireland,
1 Fitzwilliam Place,
Dublin 2.
T: 01 676 3188
W: www.ccs.ie/citi/citi.htm

Course Content

- Road Transport Operations
- Access to the Transport Market
- Financial Aspects & Accounts
- Contract, Civil, Commercial & Social Law
- Health & Safety Legislation
- Route Planning & Road Safety
- Setting up a Road Transport Business
- Management & Marketing
- Technical Standards
- Employment Law
- Conventions & Documentation

Duration

One term
This course will be offered twice during the 2010/2011 academic year.

Commencement Dates

Course 1: Late September 2010
Exam: Late January 2011

Course 2: February 2011
Exam: June 2011

Educational Opportunities Department

Brian McGrath, BComm, FCA
John O'Shea, BEng, CEng, FIEI, FIChemE

Department Secretary
Louise Byrne
T: (021) 4335150
E: louise.byrne@cit.ie

Courses

Higher Certificate in Business for Mature Students
Higher Certificate in Science in Good Manufacturing Practice & Technology (Full-time)
Higher Certificate in Science in Good Manufacturing Practice & Technology (Part-time)
Bachelor of Science in Good Manufacturing Practice and Technology

Higher Certificate in Business for Mature Students

Course Code	Course Fee	Enquiries
CR_ BBUSE_6	Standard Department of Education full-time registration fee applies	Louise Byrne Educational Opportunities Department T: (021) 4335150 E: louise.byrne@cit.ie

To commence September 2010

Aim
This course aims to equip mature students, 23 years of age by 1 January of the year of entry, with the necessary skills and knowledge to take advantage of new employment opportunities in areas such as accounting, marketing, computing, banking, insurance, etc.

Entry Requirements
Leaving Certificate is desirable but not essential. Relevant work experience, skills gained through experiential learning and other qualifications will be considered when assessing applications.

Module Information
http://modules.cit.ie
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.

Course Content
Year 1
Behavioural Science, Business Mathematics & Statistics, Introduction to Information Technology, Economics, Financial Accounting, Communications, Public and Business Institutions.

Year 2
Legal Studies, Management, Management Accounting, Marketing, Information Technology, Financial Accounting, Decision Making in Economics and Management.

Duration & Timetables
This is a full time course over two academic years. Lectures are time tabled from Monday to Friday between 9am - 2pm in so far as possible to accommodate the needs of mature students.

Further Studies
Qualified students are eligible to apply for the Bachelor Degrees in Business and thereafter, for the Bachelor of Business (Honours) degrees.

Cost
No tuition fees are payable except by certain categories of student. Student services, registration and examination fees may apply, depending on circumstances of the student.

Note: The Third-Level Training Grant administered by local VEC offices are available for eligible students. The course is also recognised under the Back to Education Allowance Scheme, which in certain circumstances permits those participants in receipt of social welfare payments to retain these payments while completing the course.

Higher Certificate in Science in Good Manufacturing Practice & Technology (18 months full-time)

Course Code	Course Fee	Enquiries
CR_SGMPR_6_Y1	Standard Department of Education full-time registration fee applies	Louise Byrne Educational Opportunities Department T: (021) 4335150 E: louise.byrne@cit.ie

An 18-month accelerated technician course, which emphasises Good Manufacturing Practice (GMP) & Technology targeting the Pharmaceutical, Biopharmaceutical and Medical Devices manufacturing sectors. The principal aim of this course is to provide a nationally accredited educational programme in Good Manufacturing Practice and Technology for people keen to work in production, quality assurance or validation roles within leading Pharmaceutical, Chemical, Biotechnology and Medical Devices manufacturing companies.

On completion of the course, students will be capable of:

- Applying safe practices within the industry.
- Assisting during audits of plant facilities and manufacturing operations in accordance with appropriate GMP guidelines.
- Establishing methodological systems of record keeping, file management in printed and electronic form, in keeping with GMP guidelines.
- Writing and using Standard Operating Procedures.
- Applying scientific and regulatory knowledge, obtained during the course, to their work activities.
- Carrying out technical measurements appropriate to their working environment.
- Carrying out appropriate quality control procedures and assisting in quality control audits.
- Using information technology in the workplace
- Understanding validation, contamination & cleanroom principles
- Understanding key unit operations in the Pharmaceutical & Medical Devices Industries

Module Information

http://modules.cit.ie
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

Indicative Course Content & Duration

December 2010 – January 2011
Selection and orientation of new students

February 2011 – June 2011
Modules include:
Information Technology, Chemistry, Cell and Microbiology, Mathematics for Manufacturing Operations, Occupational Health & Safety/Environmental Management, GMP1/Quality Assurance, Creativity, Innovation and Teamwork.

June 2011 – January 2012
Modules include:
Industrial Placement/Project
And the following modules:
Measurement Science
GMP2/Quality Control
Microbiology

February 2012 – June 2012
Modules include:
Lean Manufacturing, Organic and Inorganic Chemistry, Calibration Science, Contamination Control, Clean Room Management, Manufacturing & Processing Technology, Introduction to Biotechnology or Free Elective.

Higher Certificate in Science in Good Manufacturing Practice & Technology (18 months full-time)

Further Studies

Students completing the Higher Certificate in Good Manufacturing Practice & Technology have the opportunity to proceed to the Bachelor of Science in Good Manufacturing Practice (Level 7).

Entry Requirements

Individuals under the age of 23 must have obtained at least 5 passes at Ordinary Grade D3 in the Leaving Certificate Examinations to include English and Mathematics. 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.

Cost

No tuition fees are payable except by certain categories of student. Student services, registration and examination fees may apply, depending on circumstances of the student.

Note: The Third-Level Training Grant administered by local VEC offices is available for eligible students. The course is also recognised under the Back to Education Allowance Scheme which in certain circumstances permits those participants in receipt of social welfare payments to retain these payments while completing the course.

How to Apply

Application is **not** through the Central Application Office (CAO). A special application form is required. If you would like to discuss this course informally or obtain a brochure and application form please contact

Louise Byrne
Educational Opportunities Department
T: (021) 4335150
E: louise.byrne@cit.ie

What the students say

"This course gave me the up to date skills and relevant work experience that the pharmachem companies look for when recruiting and I got the job I wanted in one of the biggest pharmaceutical companies here in Cork"

"Being an accelerated course meant we all had to work hard to get through, but it was worth it in the end as the job offers started to come in"

"All the class pulled together and the lecturers were very helpful... everyone wanted us to succeed"

Higher Certificate in Science in Good Manufacturing Practice & Technology (Part-time Option)

Course Code	Course Fee	Enquiries
CR_SGMPE_6_Y1	Module Fee: €475	Louise Byrne Educational Opportunities Department T: (021) 4335150 E: louise.byrne@cit.ie

To commence September 2010

1 - 4 evenings a week depending on the number of modules taken. A number of daytime workshops to be decided. A nationally accredited education programme designed to meet the education and training needs of people in the areas of Production, Quality Assurance and Validation in the Biopharmaceutical, Pharmaceutical and Medical Devices industries.

Entry Requirements

Candidates under 23 must have obtained a minimum of Leaving Certificate Grade D3 at Ordinary Level in 5 subjects including Mathematics, and English or Irish, OR an appropriate craft/technician qualification OR non-standard applicants (e.g. mature students – over 23 years) will be considered on an individual basis. Eligible candidates may be interviewed.

Course Outline

This course is designed for existing employees or potential new recruits in the Biopharmaceutical, Pharmaceutical and Medical Devices industries who would like an accredited qualification in any of following areas:

Indicative Content

Modules will include:

cGMP I and QA, Cell and Microbiology, Chemistry, Measurement Science, Information Technology, Maths for Manufacturing Operations, Occupational Health and Safety/Environmental Management, cGMP II and QC, Total Quality Management, Contamination Control and Cleanroom Management, Manufacturing and Processing Technology, Calibration Science, Introduction to Biotechnology, Industrial Project.

Course Options

Credits and Certificates are awarded for each subject passed, allowing participants to select accredited modules appropriate to skill need and/or gather credits towards the award of Higher Certificate.

Exemptions

Applicants who have appropriate experience and knowledge of the Pharmaceutical or Medical Devices industries may be considered exempt from examination of some subjects in Stage 1 or Stage 2 upon providing evidence via the Recognition of Prior Learning (RPL) scheme of the Institute.

Further Studies

Students completing the Higher Certificate in Good Manufacturing Practice & Technology have the opportunity to proceed to a Bachelor of Science in Good Manufacturing Practice (Level 7). Please contact Louise Byrne for more details.

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.

Bachelor of Science
in Good Manufacturing Practice and Technology

Course Code	Course Fee	Enquiries
CR_SGMPE_7_Y1	€600 per module	Louise Byrne Educational Opportunities Department T: (021) 4335150 E: louise.byrne@cit.ie

Entry Requirements

Candidates are required to have a Higher Certificate in an Engineering or Science Discipline to undertake the complete programme. However, there is no minimum entry requirement for individual modules - candidates will be considered on a case by case basis.

To commence September 2010

3 modules – each night from 6.30pm – 9.30pm

- Validation Science
- Manufacturing Operations
- Chemical Applications for the Pharmaceutical Industry

To commence February 2011

3 modules – each night from 6.30pm – 9.30pm

- Technology Transfer
- Maintenance, Utilities and Facilities
- Biopharmaceutical Fermentation

A nationally accredited programme designed to meet the education and training needs of supervisors and higher technicians in the areas of Production, Quality Assurance and Validations in the Biopharmaceutical, Chemical and Medical Device Industries.

This course is a follow on from the successful Higher Certificate in Good Manufacturing Practice. The programme comprises 12 modules. It is planned to offer three modules each semester. Thus, the programme can be taken over 2 years or spread out over 3 or more years. Individual modules may be taken

There is a considerable element of continuous assessment. Laboratory experiments are included in appropriate modules.

Indicative Content

- Validation Science
- Manufacturing Operations
- Chemical Applications for the Pharmaceutical Industry
- Technology Transfer
- Maintenance, Utilities and Facilities
- Biopharmaceutical Fermentation
- People Management
- Process Improvement
- Biopharmaceutical Downstream Processing
- Environmental Management
- Capstone Project
- Medical Devices
- Invitro Diagnostic Technology
- Formulation

Note: The running of individual modules will be dependent on a sufficient number of students enrolling on the course.

Chemical & Process Engineering

Head of Department
John O'Shea, BEng, CEng, FIEI, FIChemE

Department Secretary
Frances Lynch
T: 021 4335885
E: frances.lynch@cit.ie

Course

Certificate in Safety and Health at Work

Certificate in Safety and Health at Work

Course Code	Course Fee	Enquiries
CR_ESHW K_6	see below	Frances Lynch T: 021 4326885 E: frances.lynch@cit.ie

Course Fee
The fee is subject to an annual increase, which will be confirmed circa July 2010. As a reference the fee for the full programme in the 2009/2010 session was €2,240. Fees include all tuition and programme materials, as well as the examination fee.

Duration
The programme is a one-year, part-time study programme organised in two semesters over 25 weeks. The programme will be delivered on Friday mornings from 9am - 11am commencing in October 2010 and will run until May 2011.

Entry Requirements
Students are expected to be working while undertaking the programme. Successful applicants are expected to have a good level of upper second level education and to be able to write reports and to have basic computer literacy. Places are offered on a first-come, first-served basis.

Introduction
The Certificate in Safety and Health at Work is produced by University College Dublin (UCD), and will be broadcast live by satellite to 16 centres including Cork Institute of Technology. This is a one-year, part-time multidisciplinary Certificate programme and is pitched at Level 7 on the National Qualification Authority of Ireland (NQAI) framework. It is designed for managers, supervisors, safety representatives and others with an interest in safety and health in the workplace.

Programme Outline & Aims
In this programme, students will gain a comprehensive introduction to a range of topics relating to safety and health in the workplace including: legislation; risk and safety management; identification of physical, chemical, psycho-social, and ergonomic hazards; occupational health hazard management and occupational safety hazard management.

The programme emphasises practical aspects of hazard control, such as machine guarding, fire prevention and avoidance of occupational illness. Lectures are given by leading experts in each topic, from UCD and other universities, the Health and Safety Authority, and public and private sector industries.

Programme Content
- Principles of Occupational Safety and Health
- Occupational Health Hazard Management
- Occupational Safety Hazard Management
- Occupational Health and Safety Project

Career Opportunities

Students who successfully complete the Certificate in Safety and Health at Work will be able to apply their knowledge to communicate health and safety information to peers and supervisors and to advise management on a range of Occupational Safety and Health (OSH) issues in their workplace.

The UCD Certificate in Safety and Health at Work is accredited by the Institution of Occupational Safety and Health (IOSH) as the academic requirement for the Tech IOSH grade of membership. Applicants for membership will also need to be able to demonstrate five years experience at an appropriate level in health and safety practice. Further information is available at www.iosh.co.uk

Assessment

The programme is arranged in four modules. Each of these modules is assessed by assignment and/or by examination or in-class test. *An Occupational Safety and Health Project* module is undertaken in the student's own time, with comprehensive text support. Students who successfully complete the requirements of all four modules will be awarded a Certificate in Safety and Health at Work.

How to Apply

Students apply on line on UCD application form. To apply online simply click on http://www.ucd.ie/apply and follow the instructions Students are advised to apply early as places are offered on a first-come, first-served basis. Further information is available from the UCD Centre for Safety and Health at Work, http://www.ucd.ie/cshw/

Awarded by

University College Dublin

Further information

Programme Administrator
UCD School of Public Health and Population Science,
Centre for Safety and Health at Work,
Woodview House, Belfield, Dublin 4.
T: 01 7163420
E: cshw@ucd.ie
W: http://www.ucd.ie/cshw/
or
Frances Lynch
Department of Chemical and Process Engineering
Cork Institute of Technology
Bishopstown, Cork
T: 021 4335885
E: frances.lynch@cit.ie

Chemistry

Head of Department
Dr John Wood, CChem MRSC FICI

Department Secretary
Mary Phelan
T: (021) 4326214
E: mary.phelan@cit.ie

Courses

Bachelor of Science in Analytical and Pharmaceutical Chemistry
Bachelor of Science (Honours) in Analytical Chemistry with Quality Assurance
Certificate in Quality Assurance – Special Purpose Award (Level 6)
Diploma in Quality Management – Part I
Diploma in Quality Management – Part 2

Bachelor of Science
in Analytical and Pharmaceutical Chemistry

Course Code	Course Fee	Enquiries
CR_SCHEM_7_Y2 **CR_SCHEM_7_Y3**	€200 per module (inc. exam fee)	Dr John Wood T: (021) 4326227 (or Department Secretary) E: john.wood@cit.ie

Module information, see http://modules.cit.ie

Entry Requirements

Applicants for semester 1 or 2 modules must have Leaving Certificate Grade D3 (Ordinary or Higher Level) in five subjects (which must include Mathematics and either Irish or English), or have equivalent approved qualifications (supported by official documentary evidence). Individual module requirements must also be met where appropriate.

Applicants for semester 3 or 4 modules must have completed the modules of semesters 1 and 2, or have equivalent approved qualifications (supported by official documentary evidence). Individual module requirements must also be met where appropriate.

Applicants for semester 5 or 6 modules must have completed the modules of semesters 1, 2, 3, and 4, or have equivalent approved qualifications (supported by official documentary evidence). Individual module requirements must also be met where appropriate.

Delivery of these modules on a part-time/evening basis will be subject to demand resulting in the creation of viable class groups. Otherwise, successful applicants will be invited to join the cohort of full-time day students taking their respective modules (subject to availability of places and other constraints). Semester 1, 3, and 5 modules for full-time students are completed between September and January, while semester 2, 4, and 6 modules are completed between February and June.

Applications should be made to the Admissions Office of the Institute before 1st June 2010. Applicants should quote the appropriate course code (above), indicating that they are applying as Part-time/ ACCS students. Offers of places for semester 3, 4, 5 and 6 modules will be made at the end of June; offers of places for semester 1 and 2 modules will be made in September. Late applications may be considered at the Institute evening class enrolment sessions on Monday 6th September.

Modules

Modules marked 'M' are mandatory for completion of the stage or award; those marked 'E' are elective modules.

Part-time students may apply for individual modules. In general, 6 modules must be completed in order to complete a semester, and 12 modules constitute a stage.

Semester 1
M General and Inorganic Chemistry
M Introduction to Physics
M Technological Mathematics 1 (CA)
M Biomolecules and Cells
M Laboratory Practices
M Creativity, Innovation & Teamwork

Semester 2
M Physical Chemistry 1
M Organic Chemistry
M Calculus and Statistics for Biological Science
M Computing Skills
E Physics
E Enzymes, Energy and Disease
E Introduction to Biotechnology

Semester 3
M Organic & Pharmaceutical Chemistry 1
M Inorganic Chemistry
M Analytical Chemistry 1
M Industrial Chemistry
M Fundamentals of Microbiology
E Quality, Validation, and Regulatory Affairs
E Structural Biochemistry

Semester 4
M Organic & Pharmaceutical Chemistry 2
M Physical Chemistry 2
M Analytical Chemistry 2
M Calculus and Statistics 2
M Instrumentation & Computing
E Quality, Validation, and Regulatory Affairs
E Structural Biochemistry
E Enzymes and Metabolism

Semester 5
M Spectroscopic and Chromatographic Methods
M Organic & Pharmaceutical Chemistry 3
M Inorganic & Physical Chemistry 1
M Quality Assurance for the Chemical Industry
M Experimental Chemistry
E Chemical Applications for the Pharmaceutical Industry
E Enzymes and Metabolism
E Applied Enzymology
E Analytical Microbiology
E Industrial Biotechnology

Semester 6
M Environmental Analysis
M Organic & Pharmaceutical Chemistry 4
M Inorganic & Physical Chemistry 2
M Industrial Placement

Note: Late Applications for places will be taken at the Institute evening class enrolment sessions on Monday 6th September.

Bachelor of Science (Honours) in Analytical Chemistry with Quality Assurance

Course Code	Course Fee	Enquiries
CR_SACQA_8 (semester 7 and semester 8 modules)	Course Fee €300 per module (inc. exam fee)	Dr John Wood T: (021) 4326227 (or Department Secretary) E: john.wood@cit.ie

Module information, see http://modules.cit.ie

Entry Requirements

Applicants for semester 7 or semester 8 modules must have completed the BSc in Analytical and Pharmaceutical Chemistry with an overall average final mark of 50%, or have equivalent approved qualifications (supported by official documentary evidence). Individual module requirements must also be met where appropriate.

Delivery of these modules on a part-time/evening basis will be subject to demand resulting in the creation of viable class groups. Otherwise, successful applicants will be invited to join the cohort of full-time day students taking their respective modules (subject to availability of places and other constraints). Semester 7 modules for full-time students are completed between September and January, while semester 8 modules are completed between February and June.

Applications for should be made to the Admissions Office of the Institute before 1st June 2010. Applicants should quote the appropriate course code (above), indicating that they are applying as Part-time/ACCS students. Offers of places for semester 7 and 8 modules will be made at the end of June. Late applications may be considered at the Institute evening class enrolment sessions on Monday 6th September.

Modules

Modules marked 'M' are mandatory for completion of the degree; those marked 'E' are elective modules. Part-time students may apply for individual modules. In general, 6 modules must be completed in order to complete a semester, and 12 modules are required to complete the degree.

Semester 7

M Analytical Methodology & LIMS
M Advanced Chromatographic Methods
M Electrochemical, Thermal & Particle
M Quality Management Systems for Chemists
M Experimental Analytical Chemistry
E Specialist Topics (Immunoassays, Philosophy of Science)
E Applied Enzymology
E Pharmaceutical Biotechnology
E Pharmaceutical Microbiology

Semester 8

M Advanced Spectroscopic Methods
M Analytical Applications
M Statistical Quality Control
M Pharmaceutical Quality Management
M Experimental Project

Certificate in Quality Assurance – Special Purpose Award (Level 6)

Course Code	Course Fee	Enquiries
CR_SQASS_6	€400 per module (includes registration and examination fees)	Dr Mary McCarthy T: (021) 4326289 (or Department Secretary) E: mary.mmccarthy@cit.ie

Monday or Tuesday or Wednesday, 7pm - 10 pm

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.

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
- Documentation for quality assurance
- Calibration concepts

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

Entry 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.

Duration

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.

Award

Certificate in Quality Assurance – Special Purpose Award (Level 6).

Awarding Body

Cork Institute of Technology.

Note 1: Applications for places will be taken at the Institute evening class enrolment session on Monday 6th September.

Note 2: This course has been devised to replace the City & Guilds Certificate in Quality Assurance, which is no longer offered by the City & Guilds of London Institute.

Diploma in Quality Management – Part 1

Course Code	Course Fee	Enquiries
CR_SQMAN_Y1	€700 Exam fee: €125	Dr Mary McCarthy T: (021) 4326289 (or Department Secretary) E: mary.mmccarthy@cit.ie

Monday or Tuesday or Wednesday, 7pm - 10 pm

Entry Requirements

Applicants are required to have the City & Guilds Certificate in Quality Assurance or an equivalent qualification. Experience in quality management will be taken into account. Applications on an "equivalent" basis are 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.

Topics covered include

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.

Duration

One evening per week for one academic year.

Award

Diploma in Quality Management – Part 1.

Awarding Body

Excellence Ireland Quality Association (EIQA)

Note: Applications for places will be taken at the Institute evening class enrolment session on Monday 6th September.

Diploma in Quality Management – Part 2

Course Code	Course Fee	Enquiries
CR_SQMAN_Y2	€800 Exam fee: €125	Dr Mary McCarthy T: (021) 4326289 (or Department Secretary) E: mary.mmccarthy@cit.ie

Monday or Tuesday or Wednesday, 7pm - 10 pm

Entry 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.

Topics covered include

- 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.

Duration

One evening per week for one academic year.

Award

Diploma in Quality Management – Part 2.

Awarding Body

Excellence Ireland Quality Association (EIQA).

Note: Applications for places will be taken at the Institute evening class enrolment session on Monday 6th September 2010.

School of Computing & Mathematics

Head of School
Michael Loftus, BEng, MEng.Sc.

Department of Computing
Head of Department
Jim O'Dwyer, BA (Mod), H Dip Ed, FICS.

Department Secretary
T: 021 4335160
E: it@cit.ie

Courses

Higher Certificate
Higher Certificate in Science in Computing*

Ordinary Degree
Bachelor of Science in Computing
Bachelor of Science in Information Technology Support

Honours Degree
Bachelor of Science (Hons) in IT Management

Post Graduate
MSc in Software Development*
Post Graduate Diploma in Computing in Education
MSc in Computing in Education
MSc in Networking and Security

CISCO Network Academy
CISCO Certified Network Associate
CISCO Certified Network Professional
Fundamentals of Wireless LANs
CISCO Network Security 1
CISCO Network Security 2

CompTIA
CISCO IT/Essentials 1/CompTIA A+
CISCO IT/Essentials 2/CompTIA Server+
CompTIA Security+
CompTIA Network+

Novell (CLP)
Novell's Certified Linux Professional (CLP)

Microsoft Academy

VMware Academy

IT Infrastructure Library (ITIL)
ITIL Foundation Certificate V3 Bridge Programme
ITIL Foundation Certificate V3

*This programme is supported under the National Development Plan

Higher Certificate in Science in Computing

Course Code	Course Fee	Enquiries
CR_KCOME_6	€160 per module (inc. exam fee)	Department Secretary T: (021) 4335160 E: it@cit.ie

This programme is supported under The National Development Fund

ACCS Mode
At least two evenings and Saturday mornings.

The programme is designed to provide the student with the education and skills needed to pursue a career as a Software or Computer Technician.

Entry Requirements
Non-Standard Applicants: Mature Students, FETAC (NCVA Level 2) Second Chance etc are particularly welcome. Standard Applicants: Leaving Certificate grade D3 at Ordinary or Higher Level in 5 subjects including Mathematics and either English or Irish.

Module Information
http://modules.cit.ie
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.

Duration
At least six semesters, depending on the number of modules taken per semester.

Award
Higher Certificate in Science in Computing
(Single module certification possible).

Content
Among the areas you would be required to study are:
- Programming
- Computer Architecture
- Computer Networks
- Database Systems
- Communication
- Operating Systems
- Probability and Financial Mathematics
- Web Development
- Business Management

Progression
On successful completion of this programme there are progression opportunities open to further Higher Education Qualifications at Ordinary Degree and Honours Degree Level.

Application
An application form can be obtained from and should be returned to the Admissions Office, Cork Institute of Technology, Bishopstown, Cork.

Closing Date
Closing date for completed application forms is Monday 6th September 2010. Late applications may be considered should any places become available.

NDP
National Development Plan 2007 - 2013

Bachelor of Science in Computing

Course Code	Course Fee	Enquiries
CR_KCOME_7	€300 per module (inc. exam fee)	Department Secretary T: (021) 4335160 E: it@cit.ie

ACCS Mode
Two evenings and Saturday mornings.

This programme is designed as a follow on programme from the Higher Certificate in Science in Computing.

Entry Requirements
To be eligible to undertake the programme or a single subject you must hold a Higher Certificate in Science in Computing or equivalent. The Department operates a policy of recognising prior learning (RPL) in compliance with the overall Institute policy of RPL. www.cit.ie/rpl

Module Information
http://modules.cit.ie
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
The modules will be offered on a cyclical basis over two academic years.

Among the areas you would be required to study are:
- Programming
- Analysis and Design
- Systems Administration
- Application user interfaces
- Web development
- Business Management
- Project

Award
Bachelor of Science in Computing (Single module certification possible).

Application
An application form can be obtained from and should be returned to the Admissions Office, Cork Institute of Technology, Bishopstown, Cork.

Closing Date
Closing date for completed application forms is Monday 6th September 2010. Late applications may be considered should any places become available.

Bachelor of Science in Information Technology Support

Course Code	Course Fee	Enquiries
CR_KITSE_7	€300 per module (inc. exam fee)	Department Secretary T: (021) 4335160 E: it@cit.ie

ACCS Mode
At least two evenings and Saturday mornings.

Module Information
http://modules.cit.ie
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
The modules will be offered on a cyclical basis over two academic years.

Among the areas you would be required to study are:
- Systems Administration
- Internet and Network Services
- Network Security
- WAN Technologies
- Project Management
- Computer Services Management
- Project

Elective areas include:
- e-Business
- Database Administration
- Object-Oriented Programming
- Wireless Technologies

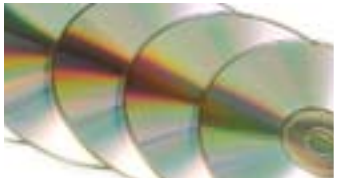
Entry Requirements
To be eligible to undertake the programme or a single module you must hold a Higher Certificate in Science in Information Technology Support or equivalent. The Department operates a policy of recognising prior learning (RPL) in compliance with the overall Institute policy of RPL. www.cit.ie/rpl

Award
Bachelor of Science in Information Technology Support
(Single module certification possible).

Application
An application form can be obtained from and should be returned to the Admissions Office, Cork Institute of Technology, Bishopstown, Cork.

Closing Date
Closing date for completed application forms is Monday 6th September 2010. Late applications may be considered should any places become available.

Bachelor of Science (Honours) in IT Management



Course Code	Course Fee	Enquiries
CR_KCSME_8	€365 per module (inc. exam fee)	Department Secretary T: (021) 4335160 E: it@cit.ie

ACCS Mode
Two evenings and Saturday mornings.

This programme is designed as a follow-on programme from the BSc in Computing in Information Technology Support. The programme is designed to provide the student with the knowledge needed for the planning, implementation and management of computing resources and service delivery. A student must take 9 modules, each of 5 credits, and the 15 credit project to complete the programme.

Content
The modules will be offered on a cyclical basis over two academic years.

Among the areas you would be required to study are:
- Strategic IT Planning
- Strategic IT Management
- IT Service Delivery
- IT Service Management
- Security Incident Handling
- Security Exploit Prevention
- Project

Elective areas include:
- Management
- Datacommunications
- Data Mining

Module Information
http://modules.cit.ie
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.

Entry Requirements
To be eligible to undertake the programme or a single module you must hold a Bachelor of Science in Information Technology Support or equivalent. The Department operates a policy of recognising prior learning (RPL) in compliance with the overall Institute policy of RPL. www.cit.ie/rpl

Award
Bachelor of Science (Honours) in IT Management
(Single module certification possible).

Application
An application form can be obtained from and should be returned to the Admissions Office, Cork Institute of Technology, Bishopstown, Cork.

Closing Date
Closing Date for completed application forms is Monday 6th September 2010. Late applications may be considered should any places become available.

Master of Science in Software Development

Course Code	Course Fee	Enquiries
CR_KSDEV_9	€420 per module (excl. exam fee)	Dr John Creagh T: (021) 4326659 E: it@cit.ie W: http://computing.cit.ie/courses/mscsd

This programme is supported under The National Development Fund

ACCS Mode
Two evenings per week and Saturday mornings.

Aim
The programme is designed to provide the postgraduate student with the advanced theoretical knowledge and skills necessary for their continuing professional development (CPD) in the software industry. The main focus is in the area of software development with particular emphasis on current software design principles and methods and software quality.

Content
The programme requires the graduate to take four mandatory and four elective taught modules. A Research Project must also be completed.

Module Information
http://modules.cit.ie
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.

Mandatory Modules
Software Engineering
Software Quality
Advanced Object Technology
Computing Research & Practice
Research Project

Elective Modules
Artificial Intelligence
Computer Simulation & Modelling
Security and Cryptography
Distributed Object Technology
Formal Methods
Human Computer Interaction
Interactive Graphics
Web-Based Systems
Real Time Systems
Telecommunications
Parallel Computing
Storage Technology

The Research Project, which may include the design and implementation of a high quality non-trivial software application, is also mandatory. The modules will be taught by CIT staff, experts from industry and other educational institutions. Modules may be substituted at the discretion of CIT subject to approval by the validating authority.

Award
Master of Science in Software Development.

NDP
National Development Plan 2007 - 2013

Entry Requirements

Applicants will normally have a primary honours degree with first or second class honours or its equivalent, in a computing discipline. Other applicants may be accepted if they have at least four years experience in Software Development and can satisfy CIT that they possess an adequate background for the programme.

Applicants may be interviewed by an admission panel. Particular attention will be paid to the applicants 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 student's CPD plan.

Duration

There are two taught semesters of 13 weeks each, 12 weeks of lectures followed by 1 week of assessment, normally September to January and February to May. Each taught module is scheduled for 2 hours lectures, 1 hour laboratory/tutorial per week. At least two modules will be offered each semester, 6pm – 10pm two evenings per week with Saturday mornings available for laboratories if and when required. Typical student progress will be:

Year 1
1st Semester
2nd Semester
1 Core and 1 Elective Module
2 Core and 1 Elective Module

Year 2
1st Semester
2nd Semester
1 Core and 1 Elective Module
1 Elective and Research
Project

The Research Project will normally commence in February and be assessed in September.

Award

Masters of Science in Software Development
(Single module certification is possible).

Application

An application form can be obtained from and should be returned to the Admissions Office, Cork Institute of Technology, Bishopstown, Cork. Closing date for completed application forms is Monday 6th September 2010. Late applications may be considered should any places become available.

Post Graduate Diploma in Computing in Education

Course Code	Course Fee	Enquiries
CR_KCPED_9	€1950	Paul Rothwell T: (021) 4335160 E: it@cit.ie W: http://computing.cit.ie/pgdipced.html

Two evenings per week and Saturday mornings as needed.

Aim
This programme is designed to provide the graduate, a teacher in first or second level education, with an understanding of fundamental computing and how computing may be applied in an educational environment.

Entry Requirements
Degree level 8 or its equivalent and at least three years teaching experience. The N.T. diploma will be considered equivalent to a pass degree for the purpose of entry onto the programme. Applicants with a second-class honours degree in Computing or Information Technology or equivalent and at least three years teaching experience will be considered for exemptions from some subjects. Exemptions will not be granted in either Educational Theories and Practices or Computer Supported Learning.

Content
Among the areas you would be required to study are:
- Computer Networking in Schools
- Computer Organisation
- Applied Programming
- Databases in Education
- Multimedia
- Human-Computer Interfaces for Learning
- Computer Supported Learning
- Educational Theories

Duration
One academic year.

Award
Post Graduate Diploma in Computing in Education.

Note: The next entry date for this programme is September 2010.

Master of Science in Computing in Education

Course Code	Course Fee	Enquiries
CR_KCPEM_9	€1950	Paul Rothwell T: (021) 4335160 E: it@cit.ie W: http://computing.cit.ie/pgdipced.html

Two evenings per week and Saturday mornings as needed.

Aim

Building on the foundations laid down in the Post Graduate Diploma in Computing in Education, this programme aims to equip the graduate with analytical and design skills. It provides software development skills to allow the student design and implement school-based applications to support the teaching and assessment functions. The programme also examines the area of managing computer systems and school-based networks. The graduate will also be capable of teaching Computing as a discipline in a second level school. The ability to analyse a problem, design and implement a solution will be demonstrated in the project.

Module Information

http://modules.cit.ie

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:

- Software Development
- Algorithmics
- Artificial Intelligence
- Quantitative Analysis
- Systems & Network Management
- Project

Note: Software Development and Project are mandatory, the other modules are electives. The student must complete the mandatory modules and two electives.

Entry Requirements

Students who achieve an average of 50% in the Post Graduate Diploma in Computing in Education will be considered for admission to the M.Sc. programme. Non standard applicants will be considered on an individual basis.

Duration

One academic year. The Project will run for the second half of the year and requires less frequent attendance.

Award

Master of Science in Computing in Education.

Note: This programme is taken after the Post Graduate Diploma in Computing in Education. The next scheduled entry to this programme is September 2010.

Master of Science in Networking and Security

Course Code	Course Fee	Enquiries
CR_KNSCE_9	€420 per module	Vincent Ryan T: (021) 4335160 E: vincent.ryan@cit.ie E: it@cit.ie

May be up to three evenings depending on the modules selected

Aim
This course is designed to provide the graduate student with the advanced theoretical knowledge and skills in the interrelated areas of Computer Networking and Computer Security.

Module Information
http://modules.cit.ie
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.

Course Content
Mandatory modules
Computer & Network Security (10 credits)
Advanced Networks (10 credits)
Cryptography
Computing Research & Practice
Security Management
Network & Security Research Project (30 credits)

Elective modules (Choose 5)
I.T. Law and Ethics
Malware Analysis
Mobile Development
Mobile Networking
Remote Networking
Software Security
Storage Technology
Telecommunications

Entry Requirements
An honours primary degree in a Computing Discipline or equivalent.

Duration
One year Full-time (12 calendar months) or two years Part-time

Award
Master of Science in Networking and Security

CISCO Network Academy Programme

CISCO is the major multinational company that produces routers, switches and software that power the Internet and global telecommunications, as such CISCO Certification is recognised worldwide. CIT is a CISCO Regional Academy for Ireland (the first such Academy in Europe) and has 12 affiliated CISCO Local Academies in the Institutes of Technology and Universities. CIT trains the trainers for these Local Academies in its CISCO equipped laboratories. CIT provides, on request, group courses by CISCO certified trainers leading to participants being able to sit CCNA and CCNP examinations (CISCO Certified Network Associate/Professional).

These qualifications are part of the Cisco hierarchy of professional qualifications.

CISCO
Certified Network Associate

Course Code	Course Fee	Enquiries
CR_KCNAS_6	€2250 (excludes exam fee)	Tim Horgan E: tim.horgan@cit.ie E: cisco@cit.ie W: http://cisco.cit.ie

Lectures every Wednesday night,
Lab will take place either on Thursday/Friday night or Saturday morning.

Aim

This programme aims to offer the student the training necessary, in both theory and hands-on practical work, to achieve the Cisco qualification of Network Associate. This programme, which consists of four modules, is designed to teach the objectives of the CCNA qualification, from a basic overview level of networking in module 1 to an advanced discussion of prescribed networking topics in modules 3 and 4, e.g. ISDN, Frame Relay, VLANs, etc. On completion of module 4, the student will have the requisite knowledge to sit the Sylvan prometric test (#640-801), which awards the CCNA qualification.

Module Information

Module 1
Network Fundamentals
This module introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. It uses the OSI and TCP layered models to examine the nature and roles of protocols and services at the application, network, data link, and physical layers.

>

The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. Labs use a "model Internet" to allow students to analyse real data without affecting production networks. Packet Tracer (PT) activities help students analyse protocol and network operation and build small networks in a simulated environment. At the end of the module, students build simple LAN topologies by applying basic principles of cabling; performing basic configurations of network devices, including routers and switches; and implementing IP addressing schemes.

Module 2

Routing Protocols and Concepts

This module describes the architecture, components, and operation of routers, and explains the principles of routing and routing protocols. Students analyse, configure, verify, and troubleshoot the primary routing protocols RIPv1, RIPv2, EIGRP, and OSPF. By the end of this module, students will be able to recognise and correct common routing issues and problems.

The Routing Protocols and Concepts module also presents configuration, implementation, and troubleshooting labs. Packet Tracer (PT) activities reinforce new concepts, and allow students to model and analyse routing processes that may be difficult to visualise or understand.

Module 3

LAN Switching and Wireless

This module helps students develop an in-depth understanding of how switches operate and are implemented in a LAN environment for small and large networks. Beginning with a foundational overview of Ethernet, this module provides detailed explanations of LAN switch operation, VLAN implementation, Rapid Spanning Tree Protocol (RSTP), VLAN Trunking Protocol (VTP), Inter-VLAN routing, and wireless network operations. Students analyse, configure, verify, and troubleshoot VLANs, RSTP, VTP, and wireless networks. Campus network design and Layer 3 switching concepts are introduced.

Module 4

Accessing the WAN

This module explains the principles of traffic control and access control lists (ACLs) and provides an overview of the services and protocols at the data link layer for wide-area access. Students learn about user access technologies and devices and discover how to implement and configure Point-to-Point Protocol (PPP), Point-to-Point Protocol over Ethernet (PPPoE), DSL, and Frame Relay. WAN security concepts, tunnelling, and VPN basics are introduced. The module concludes with a discussion of the special network services required by converged applications and an introduction to quality of service (QoS).

Entry Requirements

None, but a basic knowledge of computer networking would be an advantage.

Duration

Mid September 2010 to mid June 2011.

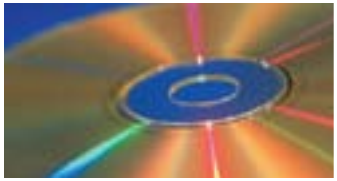
Validating Body

CISCO

Closing Date

Monday 6th September 2010

CISCO
Certified Network Professional



Course Code	Course Fee	Enquiries
CR_KCNPR_6	€1,300 per module (excludes exam fee)	E: cisco@cit.ie W: http://cisco.cit.ie

One evening per week and a number of Saturday mornings per module.

Aim
This programme aims to offer the student the training necessary, in both theory and hands-on practical work, to achieve the Cisco qualification of Network Professional. The programme will be delivered in four modules; each module will be a preparation programme for one of the four exams necessary to obtain the CCNP qualification.

Modules
Module 1
Building Scalable Cisco Internetworks

Module 2
Implementing Secure Converged Wide Area Networks (ISCW)

Module 3
Building Cisco Multilayer Switched Networks (BCMSN)

Module 4
Optimising Converged Cisco Networks (ONT)
Sylvan Exam: 642-901 BSCI
Sylvan Exam: 642-825 ISCW
Sylvan Exam: 642-812 BCMSN
Sylvan Exam: 642-845 ONT

Duration
12 - 15 weeks per module (3 hours/evening), with 10 practical sessions (4 hours, two Saturdays per month).

Validating Body
CISCO

Closing Date
Monday 6th September 2010.

Fundamentals of Wireless LANs

Course Code	Course Fee	Enquiries
CR_KWLAN_6	€1,100 per module (excludes exam fee)	E: cisco@cit.ie W: http://cisco.cit.ie

One evening per week and a number of Saturday mornings.

Fundamentals of Wireless LANs is an introductory programme that focuses on the design, planning, implementation, operation and troubleshooting of wireless networks. As organisations adopt wireless LAN technology in order to extend access to network resources, they require qualified professionals who can design, install, support and operate a wireless LAN solution. It covers a comprehensive overview of technologies, security, and design best practices with particular emphasis on hands-on skills in the following areas:

- Wireless LAN setup & troubleshooting
- 802.11a & 802.11b technologies, products and solutions
- Site Surveys
- Resilient WLAN design, installation and configuration
- WLAN Security - 802.1x, EAP, LEAP, WEP, SSID
- Vendor interoperability strategies

Cisco Wireless LAN Specialists understand radio technologies associated with WLAN 802.11g standards, WLAN and bridge topologies and applications, can configure WLAN products including access points, bridges, client devices and accessories, can determine best options and configure the appropriate security method for Wireless LAN environments, understand basic antenna theory, understand how to perform a site survey covering WLAN topology and design, and understand vertical market deployment and challenges including equipment utility and cable awareness.

Any student may attend this programme. However, a basic understanding of CISCO IOS is assumed.

Closing Date

Monday 6th September 2010.

CISCO
Network Security 1

Course Code	Course Fee	Enquiries
CR_KNSEC_6	€1,500 per module (excludes exam fee)	E: cisco@cit.ie W: http://cisco.cit.ie

One evening per week and a number of Saturday mornings per module

Aim

After completing this programme AND the Network Security 2 programmes, students will be prepared to take the Securing Networks with Cisco Routers and Switches (SNRS) and Securing Networks with PIX and ASA (SNPA) Security Certification exams. These are two of the five exams that count towards the Cisco Certified Security Professional (CCSP) certification. In addition, Network Academy students who pass these two exams will be able to apply for Cisco Firewall/ASA Specialist status.

The Network Security 1 programme focuses on the overall security processes in a network with particular emphasis on hands on skills in the following areas:

- Security policy design and management
- Security technologies, products and solutions
- Firewall and secure router design, installation, con figuration, and maintenance
- AAA implementation using routers and firewalls
- Securing the network at both layer 2 and 3 of the OSI model

Entry Requirements

Applicants must hold the CCNA qualification.

Duration

12 - 15 weeks (3 hours/evening), with 6 - 8 practical sessions (4 hours, two Saturdays per month).

Validating Body

CISCO

Closing Date

Monday 6th September 2010.

CISCO
Network Security 2

Course Code	Course Fee	Enquiries
CR_KNSEC_6	€1,500 per module (excludes exam fee)	E: cisco@cit.ie W: http://cisco.cit.ie

One evening per week and a number of Saturday mornings per module

Aim

After completing this programme AND the Network Security 1 programme, students will be prepared to take the Securing Networks with Cisco Routers and Switches (SNRS) and Securing Networks with PIX and ASA (SNPA) Security Certification exams. These are two of the five exams that count towards the Cisco Certified Security Professional (CCSP) certification. In addition, Network Academy students who pass these two exams will be able to apply for Cisco Firewall/ASA Specialist status.

The Network Security 2 programmes focuses on the overall security process in a network with particular emphasis on hands on skills in the following areas:

- Security policy design and management
- Security technologies, products and solutions
- Firewall and secure router design, installation, configuration, and maintenance
- Intrusion Prevention (IPS) implementation using routers and firewalls
- VPN implementation using routers and firewalls

Entry Requirements

Applicants must hold the CCNA qualification. It is essential that students MUST have also completed the Network Security 1 programme before being permitted to attempt Network Security 2.

Duration

12 - 15 weeks (3 hours/evening), with 6 - 8 practical sessions (4 hours, two Saturdays per month).

Validating Body

CISCO

Closing Date

Monday 6th September 2010.

CompTIA

Computing Technology Industry Association has been dedicated to advancing the growth of the Information Technology (IT) industry and those working in it. With more than 19,000 members in 89 countries, CompTIA is the leading Global IT Trade Association with influence in all areas of the IT industry worldwide.

CIT is the first CompTIA E2C (Education To Careers Centre) to be set up in Ireland and, with its close relationship with Cisco Systems Networking Academy, delivers the Cisco sponsored IT Essentials 1 and 2 Programmes which enable students to gain the CompTIA A+ and Server + Accreditations. Other accreditations that may be attained from CompTIA are CompTIA Network +, Security + and INet +.

CISCO
IT Essentials 1/CompTIA A+

Course Code	Course Fee	Enquiries
CR_KHOST_6	€1,200 per module (excludes exam fee)	E: cisco@cit.ie W: http://cisco.cit.ie

Two evenings per week: Monday 6.30pm - 9.30pm and Thursday 6.30pm - 9.30pm

Core Hardware and Operating Systems Technologies

The IT Essentials 1 Programme is a curriculum sponsored by Hewlett Packard delivered through the Cisco Networking Academy Programme. It maps to CompTIA's A+ Certification.

Aim

IT Essentials 1 /COMPTIA A+ will prepare students for both Examinations which make up COMPTIA A+ Certification;
-A+ Essentials
-A+ 220 - 602

Students who successfully complete this programme will also receive Cisco IT Essentials 1 Certificate. On completion, the student has the requisite knowledge to sit the COMPTIA A+ Pearson VUE Examinations which are necessary to achieve Certification.

Programme Modules

- Information Technology Basics
- Computer Assembly
- Operating System Fundamentals
- Windows 98/NT/2000/XP Operating Systems
- Networking Fundamentals
- Printers/Printing
- Multimedia
- Maintenance and Upgrades
- Troubleshooting

Achieving A+ Certification will illustrate that you have attained a broad base of knowledge and competency in Core Hardware and Operating Systems Technologies.

>

CISCO
IT Essentials 1/CompTIA A+

Industry Support for CompTIA A+®

The technology community identifies CompTIA A+ certification as the perfect entry point into an IT career. Technology and certification companies including Microsoft, Hewlett-Packard, Cisco, Novell and Certiport recognise CompTIA A+ Certification as part of their certification programmes. Top technology companies including CompuCom, CompUSA and IBM have also made CompTIA A+ certification mandatory for their service technicians.

Additionally, more than 100 companies now require CompTIA A+ certification as a prerequisite to qualify for their corporate and vendor-specific training programmes.

Entry Requirements

None, but is best suited to someone in IT Support or who wants to enter the field of Information Technology.

Duration

September 2010 to February 2011 (approximately 16 weeks). Closing date for receipt of applications Monday 6th September 2010.

Validating Body

Computer Technology Industry Association.

CISCO IT/Essentials 2 /CompTIA Server+

Course Code	Course Fee	Enquiries
CR_KNOST_6	€1,200 (includes CompTIA Server+ exam fees)	Department Secretary T: (021) 4335160 E: it@cit.ie or pat.mccarthy@cit.ie

Two evenings per week: Monday 6.30pm - 9.30pm and Thursday 6.30pm - 9.30pm

Network Operating Systems Technologies

The IT Essentials 2 Programme is a curriculum sponsored by Cisco delivered through the Cisco Networking Academy Programme. It maps to CompTIA's Server + Certification.

Aim

IT Essentials 2 /COMPTIA Server + will prepare students for the COMPTIA Server + Certification;
– Server+ 2005 Server Examination SKO-002.

Students who successfully complete this programme will also receive Cisco IT Essentials 2 Certificate.

On completion the student has the requisite knowledge to sit the COMPTIA Server + Prometric Exam (#SKO-002) which will achieve CompTIA Certification.

Programme Modules

- Operating System Fundamentals
- Windows 2000 and Network Operating Systems
- Windows 2003
- VMWare
- Network Components and Security
- TCP/IP Networking
- Linux Installation and Administration
- System Administration
- Troubleshooting

Achieving Server + Certification will illustrate that you have attained a broad base of knowledge and competency in Network Operating Systems and Server Technologies.

Industry Support for CompTIA Server+

The technology community identifies CompTIA Server+ Certification as being well respected and companies such as Microsoft, Hewlett-Packard, Cisco, Novell and Certiport recognise CompTIA Server+ Certification as part of their certification programmes. Top technology companies including CompuCom, CompUSA and IBM have also made CompTIA Server+ certification mandatory for Systems/ Network Administrators.

Additionally, more than 100 companies now require CompTIA Server+ certification as a prerequisite to qualify for their corporate and vendor-specific training programmes. Further Information on COMPTIA A+ can be found at the following website:
http://www.comptia.org/certification/a/default.aspx

Entry Requirements

Suited to those who have successfully completed Cisco IT Essentials 1/COMPTIA A+, COMPTIA A+ or Network+ or those who have been working in an IT role (Technical Support or System/ Network Administration) for a period of time.

Duration

February 2011 to May 2011.
Closing date for receipt of applications 6th September 2010.

Validating Body

Computer Technology Industry Association

CompTIA Security+

Course Code	Course Fee	Enquiries
CR_KSECY_X	€1,200 (includes exam fees)	Department Secretary T: (021) 4335160 E: it@cit.ie or pat.mccarthy@cit.ie

Two evenings per week: Monday 6.30pm - 9.30pm and Wednesday 6.30pm - 9.30pm

Networking Principals & Networking Technologies

This programme is designed for PC users who wish to add knowledge of network and server security to their career in IT, be it in Networking Support or System Administration. The programme will provide the student with a good level of knowledge of the fundamentals of security and provide them with an entry level certification in Security, so that they may pursue advanced qualifications in this area such as CISSP or CSSP.

The CompTIA Security+ certification is an internationally recognised validation of the technical knowledge required of foundation-level security practitioners. A CompTIA Security+ certified individual has successfully proven holding a foundation level of skill and knowledge in General Security Concepts, Communication Security, Infrastructure Security, Basics of Cryptography and Operational / Organisational Security. Candidates are recommended to have two years experience in a networking role with pre-existing knowledge of TCP/IP, experience in a security related role.

Resources & Materials

All learning resources required to successfully complete this programme are included. Students are also provided with as much personal tuition and support from our experienced Instructors as they require throughout the programme.

Aim

CompTIA® Security+ Certification will prepare students for the CompTIA Security+ Certification Exam. On completion, the student has the requisite knowledge to sit COMPTIA Security+ Exam which is necessary to achieve Certification.

Programme Topics

- General Security Concepts
- Communication Security
- Infrastructure Security
- Basics of Cryptography
- Operational / Organisational Security
- Network Security
- Network Installation
- Wireless Security
- Firewalls

Programme Objectives

- Understand security concerns and concepts of the following types of devices.
- Firewalls, Routers, Switches, Wireless, RAS (Remote Access Server).
- VPN (Virtual Private Network), IDS (Intrusion Detection System), Network Monitoring Diagnostics, Workstations, Servers, Mobile Devices.
- Understand the concepts behind the following kinds of Security Topologies.
- Security Zones, DMZ (Demilitarised Zone), Intranet, Extranet, VLANs (Virtual Local Area Network), NAT (Network Address Translation), Tunnelling.
- Differentiate types of intrusion detection such as Network Based, Active Detection, Passive Detection, Host Based, Honey Pots, Incident Response.
- Be able to identify and explain each of the following different kinds of cryptographic algorithms Hashing Symmetric and Asymmetric.
- Cryptography Confidentiality, Integrity, Digital Signatures, Authentication, Non-Repudiation, Digital Signatures, Access Control.

The technology community identifies CompTIA Security+ certification as the perfect entry point into a Security Analyst career. Technology and certification companies including Microsoft, Hewlett-Packard, Cisco, Novell, Symmantec, Trend Micro and others recognise CompTIA Security+ Certification as a valuable certification to have.

For more information please consult the following web page
http://certification.comptia.org/resources/objectives/Security_Objectives.pdf

Entry Requirements

Best suited to someone in IT Support, Network or Server Administration or someone working in a network/security role who wishes to attain certification.

Duration

September 2010 to January 2011 (approximately 12 weeks).
Closing date for receipt of applications 6th September 2010.

CompTIA Network+

Course Code	Course Fee	Enquiries
CR_KINET_6	€1,200 (includes exam fees)	Department Secretary T: (021) 4335160 E: it@cit.ie or pat.mccarthy@cit.ie

Two evenings per week: Tuesday 6.30pm - 9.30pm and Thursday 6.30pm - 9.30pm

Networking Principals & Networking Technologies

This programme is designed for PC users who wish to pursue a career in Networking Support or Administration. The programme is an excellent primer in networks and will provide the student with a good level of knowledge so that they may pursue other accreditations such as Certified Cisco Network Associate (CCNA) and Microsoft Certified Professional.

The Network+ Certification programme will give you a good understanding of how network connectivity devices function including network cards, hubs, bridges, routers, gateways and wireless devices.

The programme also addresses TCP/IP and its utilities, covering such topics as IP addressing, sub-netting, routing and DHCP. Network maintenance security and troubleshooting are also discussed in detail.

Resources & Materials

All learning resources required to successfully complete this programme are included. Students are also provided with as much personal tuition and support from our experienced Instructors as they require throughout the programme.

Aim

CompTIA® Network+ Certification will prepare students for the CompTIA Network+ Certification Exam. On completion, the student has the requisite knowledge to sit the COMPTIA Network+ Exam which is necessary to achieve Certification.

Programme Topics

- Networking Design & Concepts
- Network Functions
- Network Installation
- Wireless Communications
- TCP/IP and WAN Technologies
- Network Security

Programme Objectives

- Understand the functions of various network connectivity devices.
- Implement a Network installation and use network applications.
- Work with client/server and multi-vendor environments.
- Examine the TCP/IP suite, WAN technologies and remote connectivity.
- Install and support Windows NT and establish network printing.
- Learn how to maintain network security and troubleshoot Industry Support for CompTIA Network+:

The technology community identifies CompTIA Network+ certification as the perfect entry point into a Networking career. Technology and certification companies including Microsoft, Hewlett-Packard, Cisco, Novell and Certiport recognise CompTIA Network+ Certification as part of their certification programmes.

Entry Requirements

None, but is best suited to someone in IT Support who wants to enter the field of Networking.

Duration

September 2010 to February 2011 (approximately 16 weeks).
Closing date for receipt of applications 6th September 2010.

Validating Body

Computer Technology Industry Association

NOVELL

Today, with more than 20 years of experience, Novell's software for the open enterprise continues to deliver increased operating flexibility at a lower total cost of ownership, by providing enterprise-class solutions and support for proprietary and open source software to over 50,000 enterprises in 43 countries around the globe. With SUSE Linux, Novell now offers the full range of Linux solutions, from the server to the desktop, with additional enterprise-grade networking services and technical support unmatched by any other Linux vendor.

In August 2005, Novell launched www.openSUSE.org, aimed at promoting the adoption of Linux worldwide, by providing free and easy access to the world's most usable Linux distribution, SUSE™ Linux.

Novell's Certified Linux Professional (CLP)

Course Code	Course Fee	Enquiries
CR_KLNUX_6	€2,400 (includes Fee for one exam)	Department Secretary T: (021) 4326281 E: it@cit.ie E: aaron.krawczyk@cit.ie

One evening per week, usually Wednesday nights 6.30pm - 9.30pm

Aim

Students work with multiple lab exercises to help them practically apply course concepts and reinforce their proficiency with features and management utilities in SLES 10. These are advanced administrative skills common to an experienced administrator in an enterprise environment. Students who successfully complete this programme will have acquired the knowledge needed to become a full Novell CLP, the ideal certification for people interested in become Linux administrators.

Module 1 (3064)

Getting Started with Linux: Novell's Guide to Comptia's Linux+

The Getting Started with Linux is a curriculum sponsored by Novell and maps to CompTIA's Linux+ Certification.

Novell's Certified Linux Professional (CLP)

Programme Modules
- Install SLES 10
- Linux Basics
- Linux Desktop
- Linux Help Resources
- Linux Administration
- Linux Shell and Command Line
- Linux Directories and Files
- Linux Text Editors
- Linux Processes
- Network configuration and hardware
- Linux Services
- Security

Module 2 (3072)
Novell's SuSe Linux Administration

Novell's Suse Linux Administration is a curriculum sponsored by Novell and maps to Novell's Certified Linux Administrator Certification.

Programme Modules
- Update and monitor a SLES 10 server
- Configure the Network Manually
- Perform administrative tasks with YaST
- Manage users and groups
- Provide basic system security
- Manage the Linux file system
- Manage software installation
- Manage system initialisation, processes, and services
- Remotely access a SLES 10 server

Module 3 (3073)
Novell's Advanced SuSe Linux Administration

Novell's Advanced Suse Linux Administration is a curriculum sponsored by Novell and maps to Novell's Certified Linux Professional Certification.

Programme Modules
- Provide basic network services (such as printing and web access)
- Configure Network Services
- Secure a SLES 10 Server
- Manage Backup and Recovery
- Develop Shell Scripts
- Compile Software from Source
- Health Check and Performance Tuning
- Manage Hardware and Component Changes

Programme Details
Training Options: Instructor Led

Lecture/Lab: All certification and product knowledge include both lectures and hands-on labs.

Entry Requirements
None, but is best suited to someone in IT Support or who wants to enter the field of Linux Administration.

Duration
October 2010 to May 2011 (approximately 28 weeks). Closing date for receipt of applications end September 2010.

Validating Body
Computer Technology Industry Association.
Novell® Testing.
Novell® Certified Linux Professional 10 (Novell CLP 10)

Microsoft IT Academy

Microsoft is perhaps the world's best known software company. It produces a wide range of software from office applications, operating systems, both desktop and server, corporate based applications like e-mail and databases to software development tools. The Microsoft Academy programme provides a range of courses to prepare participants for Microsoft Certification examinations and to provide training in Microsoft technologies. Courses are supported by extensive online e-learning content. The resulting certification is recognised worldwide and is in demand from employers. Some of the benefits of Microsoft Academy courses and certification include:

Job Opportunities

A Microsoft Academy course builds your proficiency in working with Microsoft technologies. A Microsoft certification demonstrates that you are a technical leader with the capability to successfully implement Microsoft business solutions for your organisation or clients.

A Firm Basis of Skills

Microsoft Academy courses cover wide-ranging aspects of the product or technology you are studying. The rigorous course material process includes extensive job task analyses, reviews by internal and external technology experts, and testing to ensure accuracy and relevance of material.

Employer Recognition

The Microsoft Academy programme will increase your worth in your current position and those that you are applying for. Many employers specifically look for the Microsoft qualifications as they show you have the skills for the job.

VMware Academy

This programme has been developed to introduce students to VMware technologies. It enhances students' experiences by providing students with access to:

- The latest VMware technologies
- High quality curriculum
- Course paths that lead to certification
- Courses that can be integrated into degree programmes
- Web course access with content that supports the faculty-led learning environment

Demand for VMware Academy programmes has grown strongly in recent years across the world.

All enquiries by email to: it@cit.ie

IT Infrastructure Library (ITIL) V3 Bridge Programme

ITIL is the internationally recognised framework for the delivery and support of cost-effective, high-quality IT services. ITIL, which is now established across thousands of organisations world-wide. provides a robust foundation for IT service delivery and support and has been adopted by major technology organisation like Microsoft, HP, Sun and Dell who all have developed their own adaptation the framework (e.g. Microsoft MOF).

ITILv3 provides a comprehensive framework that supports the entire lifecycle of service delivery and support, from service strategy to service operation, and continual service improvement. Developed in 2007, ITILV3 is now closely aligned and integrated with other complimentary standards and frameworks, such as ISO20000, COBIT and ISO27001.

ITIL certification is increasingly demanded for any IT professional working in the IT services environment, whether in management, planning or operational support.

ITIL Foundation Certificate V3 Bridge Programme
(subject to approval)

Course Code	Course Fee	Enquiries
CR_KIT3B	€400 (inc. exam fee)	Department Secretary T: (021) 4335160 E: it@cit.ie

One day (Saturday)

This programme provides the student who already possesses the Foundation V2 certificate, with an understanding of the concepts of V3.

Achieving the Foundation Certificate V3 Bridge will demonstrate that you have an understanding of key concepts of ITIL V3 and prepare you for more advanced levels of study.

Aims

The programme is made up of both theory and practical work. It is designed to meet the requirements of the ITILV3 Foundation level Bridge certificate, and also to provide the student with the requisite knowledge to recognise how ITIL V3 principles may be applied to improve service lifecycle components in the workplace. The examination comprises a multi-choice, 30 minute paper to be taken on the same day as the programme. This certificate is a prerequisite to studying further, advanced certification levels in ITIL V3. Successful completion will provide the student with 2 credits towards the ITILv3 Diploma.

Programme Modules

- ITIL v3 Components
- ITIL Refresh
- Service Management as Practice
- Service Lifecycle
- Service Strategy
- Service Design
- Service Transition
- Service Operation
- Continual Service Operation
- Revision
- Examination

ITIL Foundation Certificate V3
(subject to approval)

Course Code	Course Fee	Enquiries
CR_KIT13	€800 (inc. exam fee)	Department Secretary T: (021) 4335160 E: it@cit.ie

Three successive Saturday mornings. Each day will cover 1 module of the programme.

Aim

The programme is made up of both theory and practical work. It is designed to meet the requirements of the ITILV3 Foundation level certificate, and also to provide the student with the requisite knowledge to recognise how ITIL may be applied to improve service support and delivery processes in the workplace.

The exam comprises a multi-choice, 1 hour paper to be taken on the final afternoon of the programme.

The Foundation level certificate is a prerequisite to studying further, advanced certification levels and provides the student with 2 credits towards the ITIL advanced diploma.

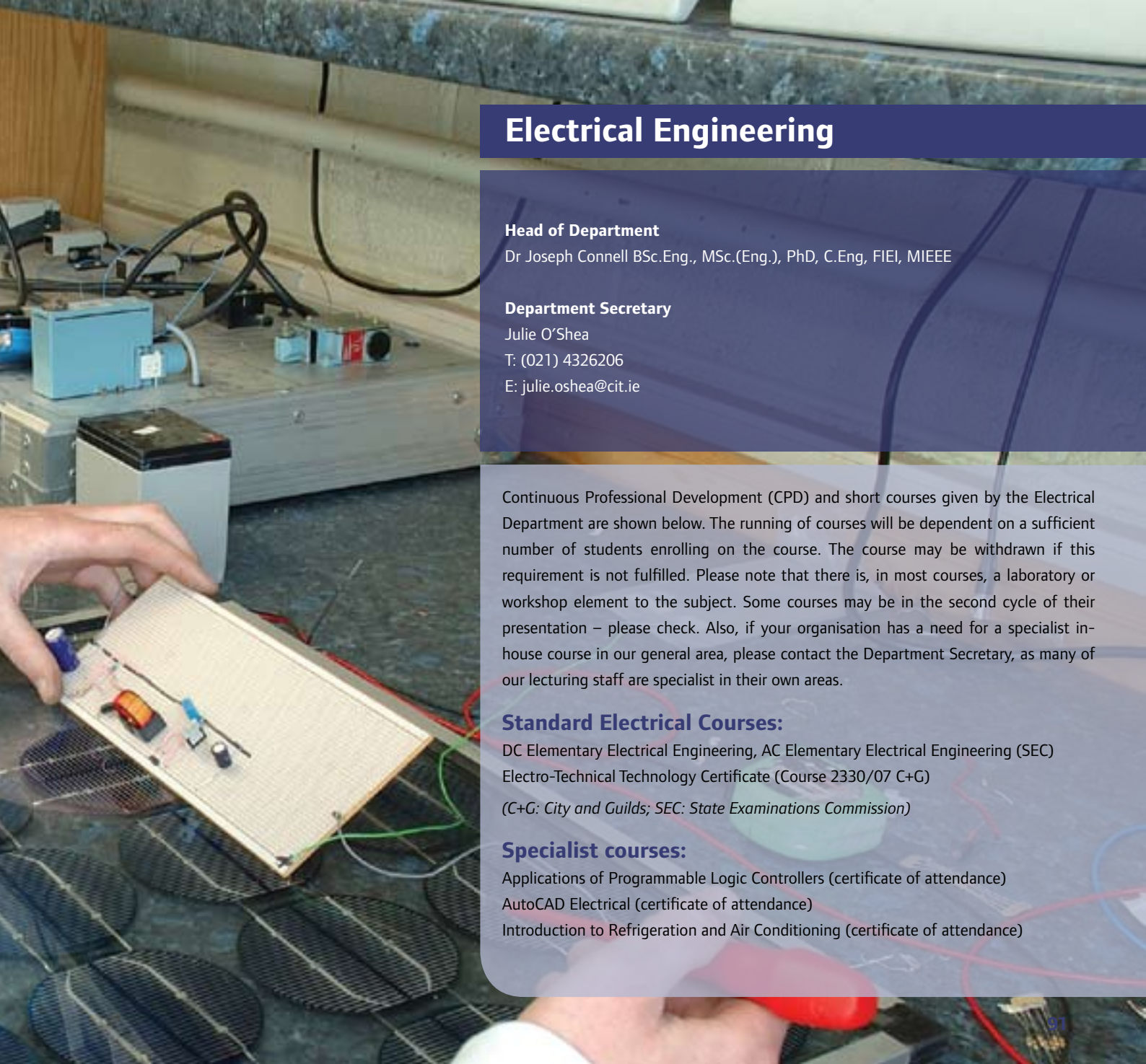
Content

Module 1
Introduction to the Service Lifecycle
Service Strategy
Service Design

Module 2
Service Transition
Service Operation

Module 3
Continual Service Improvement
Technology and Architecture
Revision
Examination

Achieving the Foundation Certificate will demonstrate that you have an understanding of IT Service Management concepts, and prepare you for more advanced levels of study.



Electrical Engineering

Head of Department
Dr Joseph Connell BSc.Eng., MSc.(Eng.), PhD, C.Eng, FIEI, MIEEE

Department Secretary
Julie O'Shea
T: (021) 4326206
E: julie.oshea@cit.ie

Continuous Professional Development (CPD) and short courses given by the Electrical Department are shown below. The running of courses will be dependent on a sufficient number of students enrolling on the course. The course may be withdrawn if this requirement is not fulfilled. Please note that there is, in most courses, a laboratory or workshop element to the subject. Some courses may be in the second cycle of their presentation – please check. Also, if your organisation has a need for a specialist in-house course in our general area, please contact the Department Secretary, as many of our lecturing staff are specialist in their own areas.

Standard Electrical Courses:

DC Elementary Electrical Engineering, AC Elementary Electrical Engineering (SEC)
Electro-Technical Technology Certificate (Course 2330/07 C+G)

(C+G: City and Guilds; SEC: State Examinations Commission)

Specialist courses:

Applications of Programmable Logic Controllers (certificate of attendance)
AutoCAD Electrical (certificate of attendance)
Introduction to Refrigeration and Air Conditioning (certificate of attendance)

DC Elementary Electrical Engineering (SEC)
AC Elementary Electrical Engineering (SEC) One year course

Course Code	Course Fee	Enquiries
CR_EEEPR_7	€590	James McEnery T: (021) 4309300 E: james.mcenery@cit.ie

Monday 7pm - 10pm CIT Bishopstown campus.

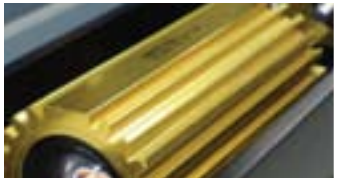
Aim
To introduce the course participants to dc and ac circuits as used in the electrical industry.

Entry requirements
Ideally a Leaving Certificate or the first year of an apprenticeship programme.

Contents
Syllabus: *DC Elementary Electrical Engineering*
Symbols, Abbreviations and Definitions Introduction (Ohms Law) Circuit Theory, Kirchhoffs Laws, Wheatstone Bridge Calculations Voltage Drop (2 core distribution cable), Resistivity Temperature Coefficient of Resistance, Efficiency, Inductance, Capacitance Instruments, Batteries, DC Motors Power and Energy Specific Heat Capacity.

Syllabus: *AC Elementary Electrical Engineering*
Generation of a Sine Wave. Production of an Alternating Waveform. Angular Velocity and Frequency. Standard Expression for an Alternating Quantity Calculation of Max, Average and RMS value of voltage and current. Peak Factor, Form Factor, Phase and Phase Angle, Phasor Representation.
Series Circuits: RL, RC and RLC. Resonant circuits, Parallel Circuits. Determination by calculation and graphically the total supply current. The Transformer, Principle of Operation Double Wound and Auto Transformer Efficiency. Power, Power Triangle, KW, KVA and Kvar calculations. Power Factor.

Electro-Technical Technology Certificate (Course 2330/07 C & G)



Course Code	Course Fee	Enquiries
CR_EEICC_6	€580	Donal Neally T: (021) 4326582 E: donal.neally@cit.ie

Thursday 7pm - 9.30pm CIT Bishopstown campus

Aim
To assist apprentices to reach the standard of proficiency expected of approved electricians in the electrical installation industry.

Entry Requirements
Apprentices must have at least THREE 'C' grades in their Phase 4 electrical installation theory exams. Holders of other equivalent qualifications are considered on an individual basis.

Duration
One year

Content
The course is split between practical and theory and the areas to be covered are:
Electrical Principles and Application of Health and Safety
Regulations – BS 7671
Inspection, Testing and Commissioning
Installation – fault diagnosis and rectification

Both single and three phase are undertaken, including instrument and power transformers and electronics.

Craft theory will include: earthing, lighting, cable sizing, calculations, motors etc.

Award
Certificate in Electro-Technical Technology 2330 Level 3

Awarding Body
City and Guilds of London Institute.

Application of Programmable Logic Controllers

Course Code	Course Fee	Enquiries
CR_TLOGC_6	Course 1 Fee: €780 Course 2 Fee: €795	Gerard Geaney T: (021) 4326856 E: gerard.geaney@cit.ie

Night to be arranged with group and lecturers.
Course 1 (Autumn Term) 7pm - 10pm
Course 2 (Spring Term) 7pm - 10pm

Aim

To provide training in the application and programming of programmable logic controllers (PLCs) for technical personnel.

Course Content

Programming of Siemens, Telemecanique, Sprecher + Schuh, Mitsubishi, and Allen Bradley controllers in practical examples.

Note: The courses have evolved from the Department's involvement in the EU COMETT Programme for Transnational Technology Transfer. Entry to Course 2 is dependent on successful completion of Course 1 or equivalent.

A certificate of attendance will be issued on successful completion of the course.

Autocad Electrical

(Interpretation and design of electrical drawings with the aid of AutoCAD)

Course Code	Course Fee	Enquiries
CE_TACEL_6	€675	Seán Looney T: (021) 4326855 E: sean.looney@cit.ie

One evening per week 7pm - 10pm.

Aim

To provide the student with:

- An in depth understanding of electrical drawings;
- The ability to produce electrical drawings;
- The competence to read electrical drawings;
- AutoCAD skills.

Entry Requirements

- No previous CAD knowledge required.
- Minimum electrical knowledge required (applicants may be invited to interview).

Course Content

- Basic AutoCAD principles
- IEC Standards
- Architectural drawings for factory layout, incorporating electrical layouts for lighting, sockets
- Reading and design of line diagrams for incoming supply, main transformer, distribution boards etc.
- Reading and design of circuit diagrams for lighting circuits, socket circuits, heating circuits, lathes, motor control and PLC control diagrams.
- Reading and design of simple electronic circuits, block diagrams, e.g. motor speed control.
- Reading and design of wiring diagrams for lighting circuits, socket circuits, heating circuits, lathes, drilling machines, pumping stations and PLC control diagrams.
- Fault finding with the aid of diagrams.

Duration

One evening per week for one academic year.

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

A certificate of attendance will be issued on successful completion of the course.

Introduction to Refrigeration and Air Conditioning

Course Code	Course Fee	Enquiries
CE_EIRAC_6	€475	David O'Riordan T: (021) 4309300 E: david.oriordan@cit.ie

One evening per week 7pm - 10pm.

Aim
To give the participants an appreciation of the basic fundamentals of the refrigeration system, by utilising both classroom theory and workshop practical applications.

Entry Requirements
Leaving Certificate or a participant who has successfully completed an apprenticeship in an appropriate field (plumbing, electrical or allied).

Course Content
- Basic Refrigeration Cycle
- Heat absorption and rejection
- System components
- Compressor control circuit
- Function of high/low pressure switch
- Pump down cycle
- Electric defrost

Course Duration
It is proposed to run the course twice yearly between September to December and between January and March. The course will be delivered over a 10 week period, from 7pm – 10pm on a week night to be decided.

Location
The course will be run at the department's dedicated training facility at Northpoint Business Park, Mallow Road, Cork.

A certificate of attendance will be issued on successful completion.

Electronic Engineering

Head of Department
Dr Joseph Connell, BSc.Eng., MSc.(Eng.), PhD, C.Eng, FIEI, MIEEE

Department Secretary
Julie O'Shea
T: (021) 4326206
E: julie.oshea@cit.ie

Department Website
http://e-eng.cit.ie

Courses

Bachelor of Engineering (Honours) in Electronic Systems Engineering
Master of Engineering in Embedded Systems Engineering

Bachelor of Engineering (Honours) in Electronic Systems Engineering

Course Code	Course Fee	Enquiries
CR_EELES_8	€300 per module	Dr Oliver Gough T: (021) 4326178 E: oliver.gough@cit.ie

Evening Delivery (subject to numbers) or Shared Delivery with full-time students (subject to numbers)

Aim

(a) To provide an opportunity for further development for Level 7 qualification holders who want to continue their education in the areas of Control, Telecommunicatons and Embedded Systems.
(b) To satisfy the needs of industry at systems level for Level 8 electronic engineering personnel.

Entry Requirements

Bachelor of Engineering in Electronic Engineering (Level 7) or equivalent, at merit or distinction level.

Module Information

http://e-eng.cit.ie

The Department of Electronic Engineering 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.

Mode

This course is offered under a credit based structure. This Honours Degree programme has 12 modules of 5 credits each. On accumulating 60 credits through part-time or full-time learning, the learner is eligible for the Bachelor of Engineering (Honours) in Electronic Systems Engineering award.

Further Studies

Graduates with distinction or merit may be considered for entry to the Master of Engineering in Embedded Systems Engineering course.

Master of Engineering in Embedded Systems Engineering

Course Code	Course Fee	Enquiries
CR_EMBED_9	TBC	Fergus O'Reilly T: (021) 4326342 E: fergus.oreilly@cit.ie

Evening Delivery (subject to numbers) or Shared Delivery with full-time students (subject to numbers)

Aim

(a) To provide an opportunity for further development for Level 8 qualification holders who want to specialise in the area of Embedded Systems, i.e. sensor hardware, microprocessor systems, high level programming, network concepts, physical embedding, digital hardware design, middleware and wired/wireless communications.

(b) To satisfy the needs of industry at embedded systems level for Level 9 electronic engineering personnel.

Entry Requirements

Bachelor of Engineering (Honours) in Electronic Engineering (Level 8) or equivalent or cognate discipline equivalent at merit or distinction level.

Module Information

http://e-eng.cit.ie/MastersIntro.html

The Department of Electronic Engineering 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.

Mode

This course is offered under a credit based structure. It consists of three terms over a calendar year, Sept – Sept. Terms 1 and 2 are 30 credits each and consist mostly of taught elements; term 3 involves a 30-credit project to take place in industry or in a department research group. On accumulating 90 credits through part- time or full-time learning the learner is eligible for the M.Eng award.

Further Studies

Graduates of this course may progress to a PhD research programme within the Department of Electronic Engineering.

CIT's NIMBUS Centre for Embedded Systems Research

World Silver medallist Olive Loughnane visits CIT's Performance Analysis Lab at the Biomedical Engineering Department.

Mechanical & Manufacturing Engineering

Head of Department of Mechanical Engineering
John O'Shea, BEng, CEng, FIEI, FIChemE

Head of Department of Manufacturing, Biomedical & Facilities Engineering
Daithí Fallon, BE, MEngSc, CEng, MIEI

Department Secretary
Deirdre Burke
T: (021) 4326505
E: deirdre.burke@cit.ie

Courses

Bachelor of Engineering in Mechanical Engineering

City and Guilds 2565 International Vocational Qualifications (IVQ) in Mechanical Engineering

- 2565 Technician Diploma in Mechanical Engineering Theory
- Mechanical Science
- Technological Mathematics

Coded Welding Course European Standard EN287
165 Certificate in Welding and Fabrication Practice

Computer Aided Engineering (CAE)

- Computer Aided Draughting & Design using AutoCAD
- Three Dimensional Design using AutoCAD/Inventor

Centre for Advanced Manufacturing and Management Systems (CAMMS)
See page 111

Bachelor of Engineering in Mechanical Engineering

Course Code	Course Fee	Enquiries
CR_EMECN_7	€540 per 5 credit module (inc. exam fee)	Jim Burns T: (021) 4326232 E: jim.burns@cit.ie

Three evenings per week (to be arranged)

This is a 60 credit Level 7 degree course comprising 8 mandatory modules, one free choice 5 credit module and two project modules (totalling 15 credits) It is envisaged that students should complete the programme over 3 years on a part-time basis.

Module Information

http://modules.cit.ie
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.

The following four modules are being offered in 2010/11 academic year:

Semester 1
Modules (September to December 2010)
Technological Mathematics 301 (MATH 7020)
Elective Module

Semester 2
Modules (January to May 2011)
Manufacturing Technology (MECH 7007)
Thermofluids 3 (INTR 7009)

Entry Requirements

Higher Certificate in Mechanical Engineering (NFQ Level 6) or equivalent.

Duration

Three evenings per week per academic year.

2565 Technician Diploma in Mechanical Engineering Theory – Plant Technology (City & Guilds)

Course Code	Course Fee	Enquiries
CR_E2565_D	€580 per subject (inc. exam fee)	Jim Burns T: (021) 4326232 E: jim.burns@cit.ie

Three evenings per week (to be arranged) 7pm - 10pm

This course provides a broad-based introduction to Mechanical Engineering Theory for a qualified craftperson or a person with suitable Leaving Certificate subjects. It is a classroom-based course and students must pass examinations in the following THREE subjects to qualify for the City & Guilds 2565 IVQ Technician Diploma in Mechanical Engineering Theory – Plant Technology.

Engineering Fundamentals 2
Mathematics (Statistics, Algebra, Trigonometry, Calculus), Heat, Mechanics (Statics, Dynamics, Stress/Strain, Simple Machines), Electrical Theory, Electrical Machines.

Plant Technology
Steam Generation, Power Plant, Fuels & Combustion, Instrumentation & Controls, Prime Movers, Compressors, Air Conditioning, Pumps, Electrical Supplies & Installations.

Plant Installation and Maintenance
Maintenance Procedures, Power Transmission, Lubrication, Sealing, Fasteners, Welding and Joints, Lifting, Machine Foundations, Alignment and Commissioning

Entry Requirements
Applicants should have completed the 2565 Technician Certificate in Mechanical Engineering Theory or have a recognised craft/technician qualification in Mechanical Engineering (or cognate discipline).

Duration
Three evenings per week for one academic year.

Awarding Body
City & Guilds of London Institute – International Vocational Qualification (IVQ)

Mechanical Science

Course Code	Course Fee	Enquiries
CR_E2565_A	€580 for the academic year (inc. exam fee)	Jim Burns T: (021) 4326232 E: jim.burns@cit.ie

One evenings per week (to be arranged)

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.

Entry Requirements

Applicants should have completed the 2565 Technician Diploma Certificate in Mechanical Engineering Theory or have a recognised craft/technician qualification in Mechanical Engineering (or cognate discipline).

Course Programme

For module titles and contents, see http://modules.cit.ie
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.

Semester 1
Mechanical Science (Statics, Stress and Strain) MECH 6035

Semester 2
Mechanical Science (Dynamics and Fluids) MECH 6036

Duration

One evening per week per academic year.

Awarding Body

Cork Institute of Technology

Technological Mathematics

Course Code	Course Fee	Enquiries
CR_EAMAT_6	€580 for the academic year (inc. exam fee)	Jim Burns T: (021) 4326232 E: jim.burns@cit.ie

One evening per week (to be arranged)

This course provides candidates the necessary mathematical foundation to progress to degree level studies in Mechanical Engineering on a part-time or full-time basis.

Entry Requirements

Applicants should have completed the 2565 Technician Diploma in Mechanical Engineering Theory or have a Pass in Leaving Certificate Mathematics (Ordinary Level).

Course Programme

For module titles and contents, see http://modules.cit.ie
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.

Semester 1
Technological Mathematics 101 MATH 6012

Semester 2
Technological Mathematics 201 MATH 6040

Duration

One evening per week over one academic year.

Awarding Body

Cork Institute of Technology

Coded Welding Course
European Standard EN287

Course Code	Course Fee	Enquiries
CR_EN287_6	€1,250 (excl. test fees)	John Twohig T: (021) 4326680 (or Department Secretary) E: john.twohig@cit.ie

Two evenings per week - Monday (27) and Tuesdays (8)

This course provides a coded welding qualification to EN 287/ASME IX, for tradespersons/ welders and other suitable candidates working in general steel fabrication plate/pipe and construction industry.

Entry Requirements

A good working knowledge of the appropriate welding process is desirable.

Structure

Candidates may take any or all of the following Welder Qualification tests:

- Metal-Arc Gas Shielded welding (MAG) solid wire, plate and fillet welds in vertical up position
- Metal-Arc Gas Shielded welding (MAG) solid wire, plate fillet welds in horizontal/vertical position
- Metal-Arc Gas Shielded welding flux cored wire, plate fillet welds in horizontal/vertical position
- Manual Metal-Arc Welding (MMA) rutile electrodes, plate and fillet welds in vertical up position
- Manual Metal-Arc Welding (MMA) basic electrodes, plate and fillet welds in vertical up position
- Tungsten Arc Gas Shielded welding (TIG) carbon steel pipe Ø89 mm x 5.5 mm wall thickness
- Tungsten Arc Gas Shielded welding (TIG) stainless steel pipe Ø 48 mm x 2.77 mm wall thickness

Qualification test fee of €65 will be applied for **each** test specimen sent for NDT, no test fees are included in the course fee.

A theory test may be taken for each process, this test is not mandatory.

Duration

The course is presented over one full academic year September 2010 to June 2011.
27 Monday evenings, practical training; and 8 Tuesday evenings, theoretical classes.

Award

A Welder Qualification Certificate to EN 287 & ASME IX will be awarded to candidates on successful completion of any of the above tests to the required standard.

165 Certificate in Welding & Fabrication Practice

Course Code	Course Fee	Enquiries
CR_EW165_6	€1,250 (excl. test fees)	John Twohig T: (021) 4326680 (or Department Secretary) E: john.twohig@cit.ie

Two evenings per week (to be arranged)

This revised 165 scheme has been developed to replace the old 165 City & Guilds of London Institute Welding Craft Practice Scheme. The revision has taken place with the full involvement and support of the Welding Institute.

The scheme is intended to assist students/trainees to reach a standard of practical proficiency in welding related to that specified in EN 287 – BS 4872. The scheme is suitable for a wide range of students and craft persons, for example: the selfemployed, adults wishing to pursue single units and young people who are new entrants to the industry.

The scheme is presented in unit form at levels 1, 2 and 3.

Structure

Level 1, 2 and 3
Unit 1 Gas Welding and Cutting
Unit 2 Manual Metal-Arc Welding
Unit 3 Metal-Arc Gas Shielded Welding
Unit 4 Tungsten Arc Gas Shielded Welding
Unit 5 Fabrication Processes
Unit 6 Related Studies
Unit 7 Engineering Drawing

Certificates will be awarded for any four units to include at least two different welding processes. Additional units may be taken as endorsements.

Records of achievement will be awarded for individual units successfully completed.

Note: Examination fees are payable to the awarding body. These are not included in the course fee.

Awarding Bodies

Awarding Body Consortium (ABC)
The Certificate and Records of Achievement will be endorsed by the Welding Institute.

Computer Aided Engineering (CAE)
Computer Aided Draughting & Design using AutoCAD

Course Code	Course Fee	Enquiries
CR_TCADD_6	€840 for the academic year (inc. exam fee)	Jim Burns T: (021) 4326232 E: jim.burns@cit.ie

One evening per week (to be arranged)

This introductory level course is intended to develop the participants' competence in AutoCAD. It is offered on a part-time basis and requires attendance of one evening per week for the academic year.

Entry Requirements
Applicants should have some experience in Draughting or Graphic design.

Course Programme
For module titles and contents, see http://modules.cit.ie
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.

Semester 1
Introductory CAD

Semester 2
Advanced 2D CAD Applications

Duration
One evening per week for one academic year.

Awarding Body
Cork Institute of Technology

Three Dimensional Design using AutoCAD/Inventor

Course Code	Course Fee	Enquiries
CR_E3DDA_6	€840 for the academic year (inc. exam fee)	Jim Burns T: (021) 4326232 E: jim.burns@cit.ie

One evening per week (to be arranged)

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.

Entry Requirements
The applicant should be competent in two-dimensional CAD.

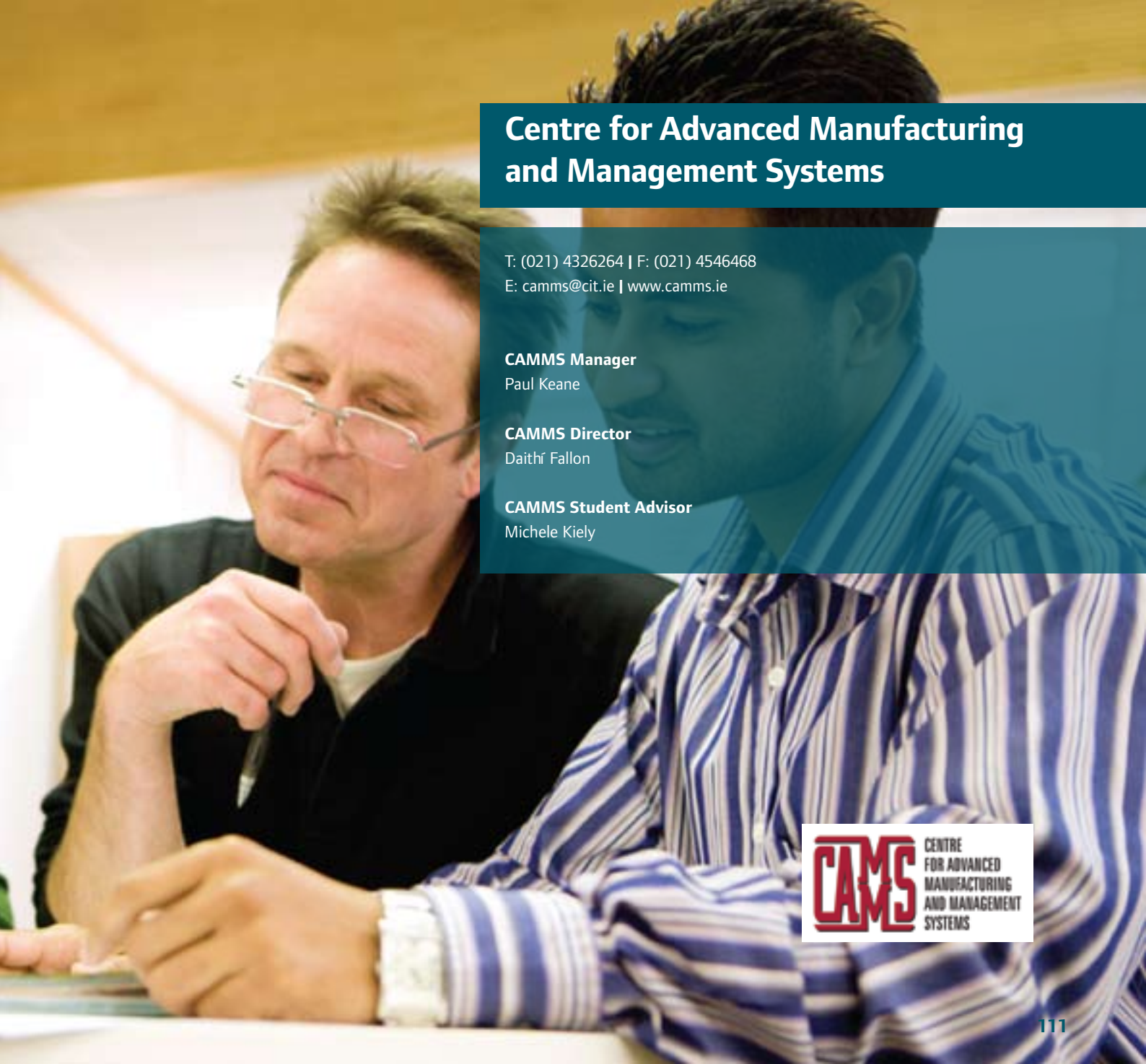
Course Programme
For module titles and contents, see http://modules.cit.ie
CIT has developed a website which gives full details of all modules for all courses. The website also has information on recommended textbooks, average weekly workload, assessments and exams.

Semester 1
Three Dimensional Design using AutoCAD

Semester 2
Solid Modelling and Design (Inventor)

Duration
One evening per week for one academic year.

Awarding Body
Cork Institute of Technology



Centre for Advanced Manufacturing and Management Systems

T: (021) 4326264 | F: (021) 4546468
E: camms@cit.ie | www.camms.ie

CAMMS Manager
Paul Keane

CAMMS Director
Daithí Fallon

CAMMS Student Advisor
Michele Kiely

CAMS
CENTRE FOR ADVANCED MANUFACTURING AND MANAGEMENT SYSTEMS

CENTRE FOR ADVANCED MANUFACTURING AND MANAGEMENT SYSTEMS

CAMMS is attached to the Departments of Mechanical Engineering and Manufacturing Engineering at CIT. The Centre uses the design, build, test and validate expertise of these departments in solving problems for industry and in delivering up to date training and education. Certifications available include American Society for Quality, Society of Manufacturing Engineers, and City and Guilds. CAMMS is currently developing thematic knowledge areas that reflect the strengths of the faculty. Themes include:

- Quality
- Project Management
- Control & Automation
- Manufacturing Engineering
- Biomedical Engineering
- Sustainable Technology

The Centre is an Associate Member of the International Institution for Production Engineering Research (CIRP) and a recognised Training Provider for Continuing Professional Development (CPD) to Engineers Ireland. Tailored courses can be delivered at place of work or at CIT.

Centre for Advanced Manufacturing and Management Systems

Courses

5.1 Continuous Improvement for Production Teams (company based training)

5.2 American Society for Quality Certification Programmes (ASQ)
- Certified Quality Technician (CQT)
- Certified Quality Engineer (CQE)

5.3 Lean and Six Sigma Programmes
5.3.1 Introduction to Lean & Six Sigma
5.3.2 Lean Practitioner
5.3.3 Lean Six Sigma Green Belt
5.3.4 Lean Six Sigma Black Belt (Diploma in Six Sigma)

5.4 Project Management Programmes
5.4.1 Diploma in Project Management: Special Purpose Award, Advanced
5.4.2 Project Management Techniques

5.5 Automation and Control Systems Programmes
5.5.1 Automation & Control Systems: Special Purpose Award, Intermediate
- Mechatronics
- SCADA and Automation Systems
- Robotics

5.6 Society of Manufacturing Engineers Certification Programmes (SME)
5.6.1 Certified Manufacturing Technologist (CMfgT)
5.6.2 Certified Manufacturing Engineer (CMfgE)

5.7 Sustainable Energy Programmes
5.7.1 Building Energy Rating (BER) Assessor Training
- BER Domestic Dwellings
- BER Commercial Buildings

5.7.2 Sustainable Energy: Special Purpose Award, Fundamental
- Introduction to Sustainable Energy Systems
- Wind Energy

5.7.3 Sustainable Energy: Special Purpose Award, Intermediate
- Energy Management
- Sustainable Energy in Buildings
- Introduction to Wave Energy

5.8 Biomedical Engineering Programmes
5.8.1 Introduction to Biomedical Devices
5.8.2 Anatomy of Biomechanics

5.9 Bachelor of Science Degrees
5.9.1 Bachelor of Science (Honours) in Process Plant Technology
5.9.2 Bachelor of Science (Honours) in Advanced Manufacturing Technology

5.1 Continuous Improvement for Production Teams (company based training)

Course Code	Course Fee	Enquiries
CR_ECIPT_X	Price will vary on specific company needs.	T: (021) 4326264 E: camms@cit.ie W: www.camms.ie

2 to 4 days delivery, 4 to 6 weeks mentoring.

Continuous improvement is an ongoing 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

Course 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 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

2 to 4 days delivery, 4 to 6 weeks mentoring.

Certification

Centre for Advanced Manufacturing and Management Systems (CAMMS), CIT.

HETAC credits are available for many CAMMS courses. Please contact CAMMS directly for more details.

5.2 American Society for Quality Certification Programmes (ASQ)

CENTRE FOR ADVANCED MANUFACTURING AND MANAGEMENT SYSTEMS

Course Code	Course Fee	Enquiries
CR_ECQTE_6 **CR_ECQEN_6**	€1100 - CQT* €1250 - CQE (*Primer included in course fee. ASQ exam fee not included)	T: (021) 4326264 E: camms@cit.ie W: www.camms.ie

Tuesday and Thursday, 7pm - 9pm

The awarding body is the American Society for Quality (ASQ), which has more than 100,000 members worldwide dedicated to the advancement of learning, quality improvement and knowledge exchange.

The Certification programmes on offer are:
Certified Quality Technician (CQT)
Certified Quality Engineer (CQE)

Entry Requirements

A candidate must have relevant experience/education and satisfy the membership requirements of the ASQ. There are separate entry requirements and separate examinations for each certification.

Course Content

Each candidate must pass a multiple-choice examination based on the Body of Knowledge for each certification programme*. Some of the topics included are:

- Probability and Statistics
- Statistical Process Control
- Process Capability
- Design of Experiments
- Metrology, Inspection and Testing
- Quality Planning, Management and Product Liability
- Quality Costs Analysis
- FMEA, Design and Analysis
- Reliability, Maintainability and Product Safety
- Project Management
- Lean Enterprise

* For individual examination entry requirements and Body of Knowledge, see http://www.asq.org/certification/

Duration

Two evenings per week for one academic year.

Awarding Body

American Society for Quality (ASQ)
(Examination fees are payable to the ASQ)

*** External Support funding may be available for this course. Please contact CAMMS to enquire.**
*** Discounts available for groups of three or more.**

5.3.1 Introduction to Lean & Six Sigma

Course Code	Course Fee	Enquiries
CR_EILSS_X	€400* (includes course notes)	T: (021) 4326264 E: camms@cit.ie W: www.camms.ie

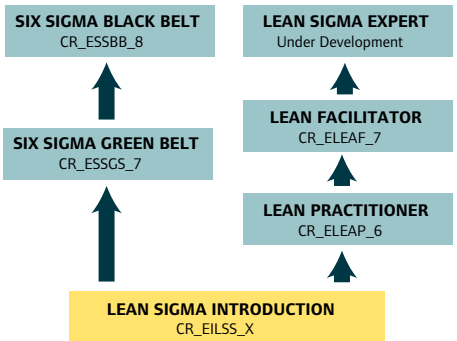
Duration

2 Day Course

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.

The course allows participants to select between Lean or Six Sigma, for their own future development and/or as the most appropriate method for their company. Participants have the option of applying for either the Lean Practitioner Programme or the Six Sigma Green Belt Certification Programme.

Note: Introduction to Lean/ Six Sigma is not a pre-requisite to attending the Lean Sigma Practitioner, Lean Six Sigma Green Belt or Lean Six Sigma Black Belt.



Entry Requirements

This programme **requires no prior knowledge** or experience of Lean or Six 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.

Course Content

- Day 1: Introduction to Lean
  Introduce the participants to the background to Lean and introduce the concepts behind reducing waste.
- Day 2: Introduction to Six Sigma
  Explains how Six Sigma targets variation and introduces the concepts.

Certification

Centre for Advanced Manufacturing and Management Systems (CAMMS), CIT

Note: This course is restricted to 10 participants. Eligible candidates will be considered on a first come first served basis.

*** External Support funding may be available for this course. Please contact CAMMS to enquire.**
*** Discounts available for groups of three or more.**

CENTRE FOR ADVANCED MANUFACTURING AND MANAGEMENT SYSTEMS

Course Code	Course Fee	Enquiries
CR_ELEAP_6	€1500* (includes course notes and exam fees)	T: (021) 4326264 E: camms@cit.ie W: www.camms.ie

Candidates pursuing the Lean Sigma Practitioner Programme will be capable of applying lean principles and tools to drive improvements and show measurable results. The programme will consist of assessment of theory by examination, as well as assessment of practice by portfolio. The portfolio is based on the achievement of certain project milestones by candidates, as defined by the programme requirements at each level.

Entry Requirements

Candidates must have a total of four years of combined industrial experience, lean experience and academic study.

Course Content

- Introduction to Lean principles
- Tools for finding and eliminating waste
- Tools for continuous improvement
- Improving quality, cost, delivery, business and service processes, and business results

Duration

Seven days over three months.

Awarding Body

CIT: Five credits at Fundamental Level on National Framework of Qualifications

Note: This course is restricted to 10 participants. Eligible candidates will be considered on a first come first served basis.

*** External Support funding may be available for this course. Please contact CAMMS to enquire.**
*** Discounts available for groups of three or more.**

5.3.3 Lean Six Sigma Green Belt

Course Code	Course Fee	Enquiries
CR_ESSGS_7	€2055*	T: (021) 4326264 E: camms@cit.ie W: www.camms.ie

*8 full days HETAC Awarded Six Sigma Green Belt (includes course notes and HETAC exam fees).

OPTIONAL: Two additional days preparation for ASQ Six Sigma Green Belt (includes course notes). Exam fees payable separately to ASQ. Preparation course takes place in May each year.

Six Sigma is a very successful methodology for **Productivity and Continuous Improvement**. It uses a structured approach known as DMAIC (Define, Measure, Analyse, Improve and Control) to reduce variation and improve efficiency. It is being successfully deployed across many sectors and in companies of all sizes in the pharmaceutical, healthcare, medical device, financial and service sectors. This course provides a structured approach to solving problems and putting a sustaining mechanism in place to ensure problems do not re-arise.

Entry Requirements

Candidates should have at least three years experience in a suitable working environment. The course is aimed at 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

Eight full days over three months. Optional two additional days for ASQ preparation.

Course Content

- Introduction to Lean and Six Sigma, DMAIC Methodology
- Facilitating Project Teams
- Defining the Project, Process Mapping
- 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, Return on Investment, Critical Success Factors

Awarding Body

CIT: Five credits at Intermediate Level on the National Framework of Qualifications.

Candidates who complete the Six Sigma Green Belt Programme will be eligible to sit the American Society for Quality (ASQ) Six Sigma Green Belt exam. (Examination fees payable to the ASQ). CAMMS offers a two day ASQ Green Belt preparation course in May of every year.

Note: This course is restricted to 10 participants. Eligible candidates will be considered on a first come first served basis.

*** External Support funding may be available for this course. Please contact CAMMS to enquire.**
*** Discounts available for groups of three or more.**

5.3.4 Diploma in Lean Six Sigma (Six Sigma Black Belt)
Special Purpose Award – Advanced *30 ECTS Credits*

CENTRE FOR ADVANCED MANUFACTURING AND MANAGEMENT SYSTEMS

Course Code	Course Fee	Enquiries
CR_ESSBB_8	€8500 (Discounts available for Six Sigma Green Belt Graduates)	T: (021) 4326264 E: camms@cit.ie W: www.camms.ie

A certified Six Sigma Black Belt is a professional who is an expert in Six Sigma philosophies and principles, including supporting systems and tools. A Black Belt should 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 model in accordance with Six Sigma principles. They have a basic 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 heavily on statistical principles including DOE (Design of Experiments) and SPC (Statistical Process Control).

Entry Requirements
A demonstration of several years work experience in a technical role in manufacturing or a service industry is required. A grounding in six sigma principles is desirable.

Course Content
- Introduction to Lean and Six Sigma, DMAIC Methodology
- Change Management, Team Building, Facilitation, Conflict Resolution
- Project Control, Return on Investment, Critical Success Factors
- MINITAB
- Measurement System Analysis
- Hypothesis Testing, Regression, Control Charts, Process Sigma
- Design of Experiments

Mentoring
Throughout their training, and until the completion of their projects, six sigma black belts will receive support and mentoring from their tutor.

Duration
Twenty full days over six months.

Awarding Body
CIT: Thirty credits at Advanced Level on the National Framework Qualifications (*subject to approval*).

Candidates who complete the Six Sigma Black Belt Programme will be encouraged to sit the American Society for Quality (ASQ) Six Sigma Black Belt exam. Six Sigma Black Belt requires two completed projects with signed affidavits or one completed project with signed affidavit and three years of work experience in one or more areas of the Six Sigma Body of Knowledge.

Note: This course is restricted to 10 participants. Eligible candidates will be considered on a first come first served basis.

*** External Support funding may be available for this course. Please contact CAMMS to enquire.**
*** Discounts available for groups of three or more.**

5.4.1 Diploma in Project Management

Special Purpose Award – Advanced *15 ECTS Credits Including PMP Preparation*

Course Code	Course Fee	Enquiries
CR_EDPM_8	TBA. Includes HETAC exam fees, (PMI exam fee not included).	T: (021) 4326264 E: camms@cit.ie W: www.camms.ie

With the emergence of Project Management as a standalone profession, international accreditation that is accepted across industries is becoming increasingly important. This course is aimed at those who seek to employ Professional Project Management techniques in the Initiation, Planning, Execution, Control and Close-Out of their Projects. The course covers all knowledge areas of the PMBOK© – the Project Management Body of Knowledge, which is the basis for PMP (Project Management Professional) Certification administered by the Project Management Institute (PMI).

The course is suitable for individuals who may have practical experience in managing projects but need to supplement this with the necessary education the Diploma in Project Management and also certification as a PMP. The diploma course includes detailed preparation for those candidates who intend to sit for PMP Certification by combining advanced techniques and methodologies with the real-life experiences of leading project managers from a variety of industries. A Special Purpose Award in Project Management at an Advanced Level, will be issued to all successful candidates.

Duration

14 full time days over 6 months, including a 2 day PMP-exam preparatory 'boot-camp' course.

Certification

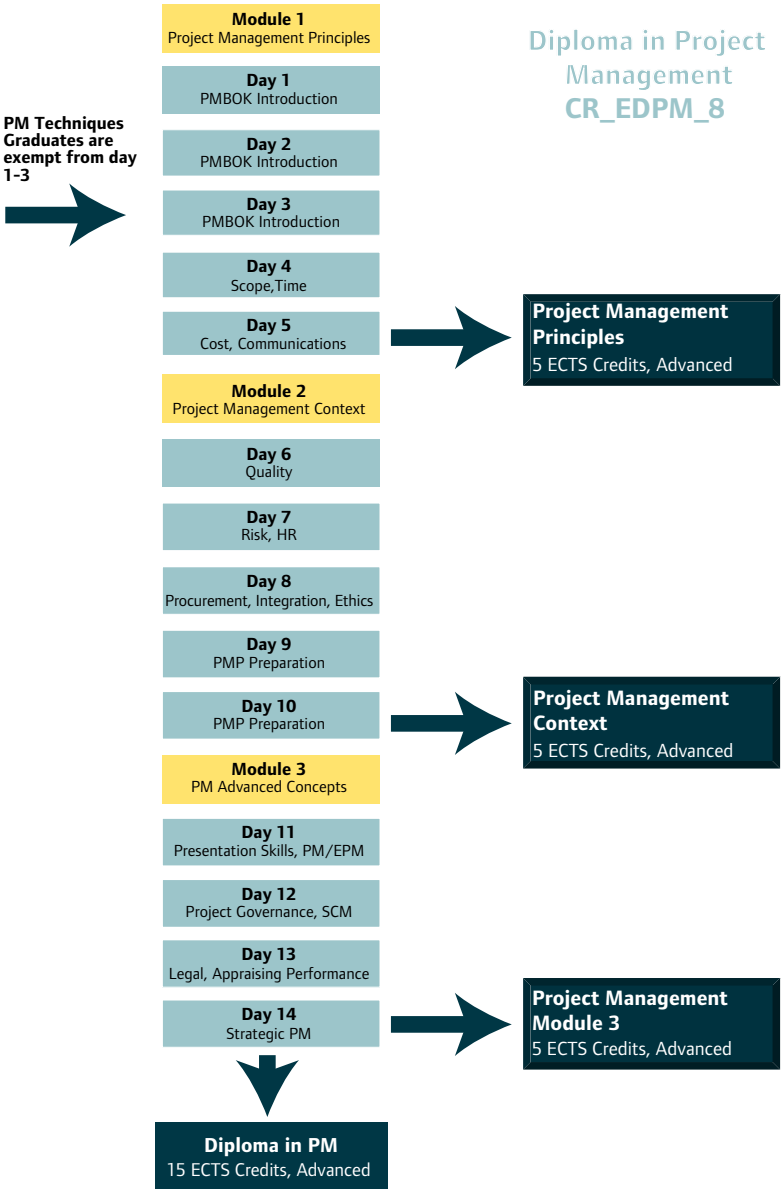
CIT: 15 credits at Advanced Level on the National Framework of Qualifications. Students who complete all three modules, will be entitled to a Diploma in Project Management (Special Purpose Award – Advanced)

Project Management Institute (PMI): Project Management Professional (on successful completion on PMI exam). PMI exam fees are not included

Note: This course is restricted to 12 participants. Eligible candidates will be considered on a first come first served basis.

* **External Support funding may be available for this course. Please contact CAMMS to enquire.**
* **Discounts available for groups of three or more.**

Diploma in Project Management
CR_EDPM_8



5.4.2 Project Management Techniques

Course Code	Course Fee	Enquiries
CR_TPMAN_6	€850*	T: (021) 4326264 E: camms@cit.ie W: www.camms.ie

The course is aimed at those involved in the planning, control and execution of project work in the broadest sense. Lectures combined with individual hands-on computer practical sessions will be used to instruct participants in the key areas of project planning and control.

Candidates should have basic computer skills. This course also aims to familiarise attendees with the context in which a project occurs. The interaction between organisational structures, work relationships and managing oneself are explored. The broader environment of project management is examined including factors influencing personal effectiveness, leadership and communications.

Course Content

The course content is based on the Project Management Institute (PMI) Body of Knowledge.

- Planning Techniques
- Resource Management
- Progress Measurement and Reporting
- Cost Management
- Computer Aided Project Management
- Project Management Body of Knowledge
- Personal Effectiveness
- Leadership
- Communication

Participants are expected to work on and present a project of their own choosing.

Awarding Body

CIT: Five credits at Intermediate Level on the National Framework of Qualifications.

Note: Successful participants will be eligible to three days exemption from the Diploma in Project Management

Duration

One evening per week for 12 weeks.

Note: This course is restricted to 12 participants. Eligible candidates will be considered on a first come first served basis.

*** External Support funding may be available for this course. Please contact CAMMS to enquire.**

*** Discounts available for groups of three or more.**

5.5 Automation and Control Systems Programmes

5.5.1 Certificate in Automation & Control Systems

Special Purpose Award – Intermediate *15 ECTS Credits*

Students who complete the modules listed below will be entitled to a **Certificate in Automation & Control Systems** (Special Purpose Award – Intermediate). These modules can also be taken and certified individually.

- Mechatronics
- Automation Systems
- Robotics

Mechatronics (2800 City & Guilds)

CENTRE FOR ADVANCED MANUFACTURING AND MANAGEMENT SYSTEMS

Course Code	Course Fee	Enquiries
CR_EPEPN_6 **CR_EMTRO_6**	€1800* (includes exam fee)	T: (021) 4326264 E: camms@cit.ie W: www.camms.ie

Entry Requirements

Candidates must have at least two years relevant industrial experience and should have obtained their Leaving Certificate or an appropriate craft/technician qualification.

Course 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, hydraulic, mechanical and electrical actuation systems
- Principles of embedded control (PLC's, controllers)
- Design, build and fault find on mechatronic systems

Candidates who successfully complete this course will qualify for the following qualification: **PART 3 Certification in Engineering – Mechatronics**

This course covers the practical and theoretical requirements for certification by City and Guilds. Certification requires that a canidate provide evidence of competence in the construction, operation and maintenance of pneumatic and electro-pneumatic systems through practical tasks and by meeting knowledge criteria.

Awarding Body

CIT: Five credits at Intermediate Level on the National Framework of Qualifications.

City & Guilds of London Institute: PART 3 Certification in Engineering – Mechatronics.

Duration

One evening per week for one academic year **OR** nine day intensive course.

Note: Courses are restricted to 10 participants. Eligible candidates will be considered on a first come first served basis.

*** External Support funding may be available for this course. Please contact CAMMS to enquire.**

*** Discounts available for groups of three or more.**

SCADA & Automation Systems

Course Code	Course Fee	Enquiries
CR_ESCDA_7	€850* (includes exam fee)	T: (021) 4326264 E: camms@cit.ie W: www.camms.ie

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 equipmen,t 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.

Entry Requirements

Candidates must have at least two years relevant industrial experience and should have obtained their Leaving Certificate or an appropriate craft/technician qualification.

Course 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)

Aarding Body

CIT: Five credits at Intermediate Level on the National Framework of Qualifications.

Duration

One evening per week for twelve weeks.

Note: Courses are restricted to 10 participants. Eligible candidates will be considered on a first come first served basis.

*** External Support funding may be available for this course. Please contact CAMMS to enquire.**
*** Discounts available for groups of three or more.**

Course Code	Course Fee	Enquiries
CR_EROBT_7	€850* (includes exam fee)	T: (021) 4326264 E: camms@cit.ie W: www.camms.ie

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 in-depth knowledge of Robotic Sensors.

Entry Requirements

Candidates must have at least two years relevant industrial experience and should have obtained their Leaving Certificate or an appropriate craft/technician qualification.

Course Content

- Robotic cell design
- End effectors
- Robitics programming
- External sensors

Awarding Body

CIT: Five credits at Intermediate Level on the National Framework of Qualifications.

Duration

One evening per week for twelve weeks.

Note: Courses are restricted to 10 participants. Eligible candidates will be considered on a first come first served basis.

*** External Support funding may be available for this course. Please contact CAMMS to enquire.**
*** Discounts available for groups of three or more.**

5.6 Society of Manufacturing Engineers Certification Programmes (SME)

The awarding body is the Society of Manufacturing Engineers (SME), which has 70,000 members world-wide. The SME is dedicated to the dissemination of information and education in the area of manufacturing engineering.

Two levels of Certification are offered:
- Certified Manufacturing Technologist (CMfgT)
- Certified Manufacturing Engineer (CMfgE)

5.6.1 Certified Manufacturing Technologist (CMfgT)

Course Code	Course Fee	Enquiries
CR_ECMTE_6	€1000* includes course textbook. (Course Fee does not include examination fees, payable to the SME).	T: (021) 4326264 E: camms@cit.ie W: www.camms.ie

Monday and Wednesday, 7pm - 9pm

Entry Requirements
Candidates must have a minimum of four years manufacturing experience or two years relevant education.

Course Content
- Engineering Mechanics
- Materials and Design
- Production Processes
- Quality Control and SPC
- Management and Production Planning
- Occupational Health and Safety
- Automation
- Maintenance

Duration
Two evenings per week for one academic year.

Awarding Body
Society of Manufacturing Engineers (SME)
(Course fee **does not include examination fees,** payable to the SME)

Note: This course covers the content for CIT module "Manufacturing Technologist". Passing a further assessment will earn five credits at Level 6 on the National Framework of Qualifications.

*** External Support funding may be available for this course. Please contact CAMMS to enquire.**
*** Discounts available for groups of three or more.**

5.6.2 Certified Manufacturing Engineer (CMfgE)

Course Code	Course Fee	Enquiries
CR_ECMEN_6	€840* includes course textbook. (Course Fee does not include examination fees, payable to the SME).	T: (021) 4326264 E: camms@cit.ie W: www.camms.ie

Monday 7pm - 9pm

Entry 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-year experience/education requirement).

Course 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

Duration

One evening per week for one academic year.

Awarding Body

Society of Manufacturing Engineers (SME)
(Course fee does not include examination fees, payable to the SME)

*** External Support funding may be available for this course. Please contact CAMMS to enquire.**
*** Discounts available for groups of three or more.**

5.7 Sustainable Energy Programmes

5.7.1 Building Energy Rating (BER) Assessor Training

The EU directive on the Energy Rating of Buildings (EPBD) will require that Ireland has a cohort of trained assessors to energy rate both domestic and commercial buildings.

Building Energy Rating (BER) Assessor Training for Domestic Dwellings (New and Existing Dwellings)

Course Code	Course Fee	Enquiries
CR_EENRT_7	€2000* (includes course notes and exam fee)	T: (021) 4326264 E: camms@cit.ie W: www.camms.ie

The course will focus on the background theory to building energy performance application of this knowledge to the use of the Dwelling Energy Assessment Performance (DEAP) software.

Entry Requirements

N.B. Level 6 (National Certificate/ Higher Certificate) qualification in Building Services, Construction Studies or related discipline such as Civil, Architecture or Structural Engineering.

Application Procedure

Applicants should post or e-mail a CV (clearly indicating educational qualification) to CIT CAMMS centre. Applicants will be dealt with on a first come first served basis.

Duration

Two evenings a week for eight weeks.

Awarding Body

- Successful candidates are awarded five credits at Intermediate Level on the National Framework of Qualifications. Candidates achieving a 70% overall mark for continuous assessments, a short answer question assessment and a practical final exam will be eligible to register with SEI as a BER assessor.
- All graduates must also complete the SEI National Exam

*** External Support funding may be available for this course. Please contact CAMMS to enquire.**

*** Discounts available for groups of three or more.**

Building Energy Rating (BER) Assessor Training for Commercial Buildings

Course Code	Course Fee	Enquiries
CR_EBERC_7	€950 (Excludes SEI exam fee and registration)	T: (021) 4326264 E: camms@cit.ie W: www.camms.ie

The course will focus on the background theory to building energy performance of commercial buildings.

Entry Requirements

N.B. Level 7 (National Certificate/Higher Certificate) qualification in Building Services, Construction Studies or related discipline such as Civil, Architecture or Structural Engineering.

Application Procedure

Applicants should post or e-mail a CV (clearly indicating educational qualification) to CIT CAMMS centre. Applicants will be dealt with on a first come first served basis.

Duration

2 ½ Days

*** External Support funding may be available for this course. Please contact CAMMS to enquire.**
*** Discounts available for groups of three or more.**

5.7.2 Certificate in Sustainable Energy
Special Purpose Award – Fundamental *10 ECTS Credits*

Students who complete the modules listed below will be entitled to a **Certificate in Sustainable Energy** (Special Purpose Award – Fundamental). These modules can also be taken and certified individually.

- Introduction to Sustainable Energy Systems
- Wind Generation and Renewable Energy Systems

Introduction to Sustainable Energy Systems

Course Code	Course Fee	Enquiries
CR_ESESY_6	€850* (includes course notes and exam fee)	T: (021) 4326264 E: camms@cit.ie W: www.camms.ie

This course aims to introduce the fundamentals of Sustainable Energy Systems. The course concentrates on energy sources which are directly utilised in building energy systems and small scale electrical generation. An appreciation of the current conditions relating to the Irish energy situation, policies, grants and support structures will be given.

The bulk of the course material will introduce the student to a wide range of potential sustainable energy sources including wind, biomass, geothermal, solar, hydro, and energy efficiency measures.

The majority of the sessions will include a visiting specialist from the area, who will have direct experience of installation, economics, planning, and operational issues associated with various energy sources.

Entry Requirements
This course is an introductory level programme and is open to all.

Duration
One evening per week for 12 weeks.

Awarding Body
CIT: 5 credits at Fundamental Level on the NFQ.

Course Content
- Energy Sources, Use and Policy
- Wind Energy
- Wood Pellet and Chip
- Solar Thermal
- Biofuels and transport Fuels
- Geothermal and Heat Pumps
- Solar PV and Fuel Cells
- Hydroelectricity
- Domestic Energy Ratings BER/DEAP/EPBD
- Energy System Design Study

Participants are expected to work on and present a project of their own choosing.

Note: This course is restricted to 10 participants. Eligible candidates will be considered on a first come first served basis.

*** External Support funding may be available for this course. Please contact CAMMS to enquire.**
*** Discounts available for groups of three or more.**

CENTRE FOR ADVANCED MANUFACTURING AND MANAGEMENT SYSTEMS

Course Code	Course Fee	Enquiries
CR_EWIND_X	€850* (includes course notes)	T: (021) 4326264 E: camms@cit.ie W: www.camms.ie

It is envisaged that renewable energy technologies will make a major contribution to electricity production, transport and the industry sector in the near future. This is due to its environmental benefits, increasing competitiveness and the rising costs of fossil fuels. Renewable energy sources such as wind power will be used for the achievement of both national and international targets for the reduction of greenhouse gas emissions and green electricity generation targets.

This course will examine the energy crisis that exists in Ireland today and the need for a greater use of wind power generation. It will introduce the basics of electricity, its generation from wind power, storage and exportation to the national electricity grid. The course aims to teach everything needed for the planning of, purchasing, installation, operation and maintenance of a wind turbine suitable for domestic or small industrial uses. It is aimed at anyone interested in installing such wind turbine and associated technologies. The course will utilise the on-site wind generator at Cork Institute of Technology for both theoretical and laboratory based lessons.

The course is divided into classroom and laboratory work, outside monitoring of renewable energy equipment, two assignments during the module and a final exam.

Entry Requirements

This course is aimed at both an introductory level and to people with a technical background. A background in engineering, mathematics, physics or electrical trade would be an advantage but is not essential. The course fee includes a detailed set of course notes and exam fee

Course Content

- Wind and renewable energy introduction
- Electrical engineering principals
- Electrical generator aspects
- Wind power theory
- Site selection mathematics
- Wind generator construction, selection and sizing
- Purchasing of equipment, planning requirements and grants
- Electrical power conversion
- Electricity grid connection, transmission and embedded generation
- Commissioning, operation and maintenance
- Prediction and monitoring of wind turbine output

Duration

Three hours per week for 12 weeks.

Awarding Body

CIT: 5 credits at Fundamental Level on the National Framework of Qualifications.

*** External Support funding may be available for this course. Please contact CAMMS to enquire.**
*** Discounts available for groups of three or more.**

5.7.3 Certificate in Sustainable Energy

Special Purpose Award – Intermediate *15 ECTS Credits*

Students who complete the modules listed below will be entitled to a **Certificate in Sustainable Energy** (Special Purpose Award – Intermediate). These modules can also be taken and certified individually.

- Energy Management
- Sustainable Energy in Buildings
- Marine Engineering

Energy Management

Course Code	Course Fee	Enquiries
CR_EENMG_7	€850* (includes course notes)	T: (021) 4326264 E: camms@cit.ie W: www.camms.ie

This course examines the impact of the generation, distribution and use of electricity and electrically powered products on the environment, and the management methodologies to be applied to reduce and avoid these impacts.

Course Content

- Environmental Management Systems
- Products: Design for Environment
- Auditing
- Ecomapping
- Legislative Framework
- Impacts of the use of electricity.

Entry Requirements

Students are recommended to first complete the **Certificate in Sustainable Energy** (Special Purpose Award – Level 6).

Duration

One evening per week for 12 weeks.

Awarding Body

CIT: 5 credits at Intermediate Level on the National Framework of Qualifications.

Note: This course is restricted to 10 participants. Eligible candidates will be considered on a first come first served basis.

*** External Support funding may be available for this course. Please contact CAMMS to enquire.**
*** Discounts available for groups of three or more.**

Sustainable Energy in Buildings

CENTRE FOR ADVANCED MANUFACTURING AND MANAGEMENT SYSTEMS

Course Code	Course Fee	Enquiries
CR_ESENB_7	€850* (includes course notes)	T: (021) 4326264 E: camms@cit.ie W: www.camms.ie

This course involves the study of the energy processes involved in building operations, evaluation of heating, cooling, ventilation and natural lighting technology.

This course enables participants to appraise the energy systems involved in building operations and to calculate the operational performance of equipment used in building heating, cooling and ventilation, utilising sustainable sources.

- **Sustainable Heating Options**
  Biomass, waste, chp, passive solar, heat pumps (gshp, ashp, wshp)
- **Sustainable Cooling Options**
  Heat Pumps, Solar refrigeration, evaporative cooling, ground tubes
- **Sustainable Ventilation Options**
  Natural (stack effect), wind induced, solar chimneys.
- **Sustainable Lighting Options**
  Daylight, photovoltaic, light tubes, advanced glazing technology.

Entry Requirements

Students are recommended to first complete the **Certificate in Sustainable Energy** (Special Purpose Award – Fundamental).

Duration

One evening per week for 12 weeks.

Awarding Body

CIT: 5 credits at Intermediate Level on the National Framework of Qualifications.

Note: This course is restricted to 10 participants. Eligible candidates will be considered on a first come first served basis.

*** External Support funding may be available for this course. Please contact CAMMS to enquire.**
*** Discounts available for groups of three or more.**

Introduction to Wave Energy

Course Code	Course Fee	Enquiries
CR_EMAST_7	€850* (includes course notes)	T: (021) 4326264 E: camms@cit.ie W: www.camms.ie

This module deals with the engineering aspects of structures in a marine environment, covering waves and wave action, buoyancy and stability, anchoring and marine corrosion with a particular focus on marine based sustainable energy systems.

- **Waves**
  Wave geometry, wave energy, wave spectra.
- **Buoyancy and stability**
  Displacement, initial stability, metacentric height, degrees of freedom.
- **Corrosion**
  Types of corrosion, cathodic protection, protective coatings, materials in a marine environment.
- **Seafloor and Marine Soils**
  Dense sands, calcareous sands, boulders, overconsolidated silts, silts and clays.
- **Anchoring and Mooring**
  Deep ocean operation, multicomponent slack mooring, tension mooring, coastal zone operation, multipoint mooring system, deadweight, drag embedment, plate and pile anchors.

Entry Requirements

Students are recommended to first complete the **Certificate in Sustainable Energy** (Special Purpose Award – Fundamental).

Duration

One evening per week for 12 weeks.

Awarding Body

CIT: 5 credits at Intermediate Level on the National Framework of Qualifications.

Note: This course is restricted to 10 participants. Eligible candidates will be considered on a first come first served basis.

*** External Support funding may be available for this course. Please contact CAMMS to enquire.**
*** Discounts available for groups of three or more.**

5.8.1 Introduction to Biomedical Devices

Course Code	Course Fee	Enquiries
CR_EBDEV_6	€850* (includes course notes and exam fee)	T: (021) 4326264 E: camms@cit.ie W: www.camms.ie

This programme is suitable anyone wishing to enhance their general knowledge of the biomedical devices industry, with a view to career advancement or career change. The course familiarises students with a range of medical disorders and symptoms and the related biomedical devices used for the treatment of such disorders. On completion, students will be able to describe a range of biomedical components and explain their function. They will be able to identify the importance of regulatory requirements when working in the healthcare industry.

Course Content

- **Cardiovascular:** Overview of the Heart, review of a number of heart disorders along with symptoms, treatments and associated medical devices.
- **Esophageal:** Overview of the Esophagus, review of a number of esophageal disorders along with symptoms, treatments, and associated medical devices.
- **Hepatocellular Carcinoma:** Overview of the digestive system disorders and stages of cancer progression. Focus on primary liver cancer (Hepatocellular Carcinoma – HCC). Trans-arterial Chemo Embolisation procedure and associated medical devices and use**.** Introduction to Embolic Coil manufacturing processes
- **NeuroVascular**: Brief overview of brain disorders, focus on brain aneurysms – treatments, minimally invasive devices (coil design features & functionality, delivery device overview). Introduction to manufacturing processes; injection moulding, extrusion, wire drawing, catheter coating process.
- **Orthopaedics**: Primarily focused on hips.
- **Ergonomics**
- **Electrotechnology**

Duration

Five full days.

Certification

Centre for Advanced Manufacturing and Management Systems (CAMMS), CIT.

Note: This course is restricted to 10 participants. Eligible candidates will be considered on a first come first served basis.

*** External Support funding may be available for this course. Please contact CAMMS to enquire.**
*** Discounts available for groups of three or more.**

5.8.2 Anatomy of Biomechanics

Course Code	Course Fee	Enquiries
CR_EBMEC_8	€1300* (includes course notes and exam fee)	T: (021) 4326264 E: camms@cit.ie W: www.camms.ie

This programme covers the anatomical basis of the biomechanics of selected major body systems: the musculoskeletal, nervous and circulatory. The main emphasis is on living, functional anatomy. There will be continual reference to clinical conditions. Course delivery will be through interactive lectures and tutorials, combined with study of anatomical models.

Course Contents

- **Introduction:** Anatomical terminology and organisation of skeletal, muscular, nervous and cardiovascular tissues.
- **Joints:** Classification by form; relationships of form to function; examples from limb joints.
- **Muscle:** Muscle types; skeletal muscle types; structure-function relationships; innervation.
- **Nervous system:** Organisation of brain and spinal cord; somatotopic organisation in the central nervous system; the production of movement.
- **Limbs:** Muscle groups and patterns of muscle organisation; functional anatomy of the principal joints (hip, knee, ankle, shoulder, elbow, wrist).
- **Trunk, head and neck:** Basic body plan; body wall – skeleton, muscles, innervation; organisation and distribution of cardiovascular components; blood supply to heart and brain; heart – morphology and function; coronary circulation; anatomy of stroke.
- **Vertebral column and pelvis:** structure – function relationships, including force transmission.

Duration

Three days

Certification

Centre for Advanced Manufacturing and Management Systems (CAMMS), CIT.

HETAC credits are available for many CAMMS courses. Please contact CAMMS directly for more detail.

Note: This course is restricted to 12 participants. Eligible candidates will be considered on a first come first served basis.

*** External Support funding may be available for this course. Please contact CAMMS to enquire.**
*** Discounts available for groups of three or more.**

5.9.1 Bachelor of Science (Honours) in Process Plant Technology

Course Code	Course Fee	Enquiries
CR_EPPTN_8	See module costing below.	T: (021) 4326264 E: camms@cit.ie W: www.camms.ie

Three evenings per week, 7pm - 10pm
One Saturday per month, 10am - 5pm

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.

Entry Requirements

Merit or better in a relevant Diploma course or equivalent.

Duration

Three evenings per week and one Saturday per month. The course can be completed in two academic years.

Modules	Annual Fee per Subject
Mandatory	
· Project	€1300
· Quality Engineering	€490
· Engineering Project Management	€490
· Process Automation & Control	€490
· Mathematics and Statistics	€490
· Process Plant Services	€490
· Process Plant Equipment	€490
· Maintenance & Reliability	€490
· Facilities	€490
Electives (Choose One)	
· Automation Systems	€490
· Advanced Materials and Processes	€490

5.9.2 Bachelor of Science (Honours) in Advanced Manufacturing Technology

Course Code	Course Fee	Enquiries
CR_EAMTN_8	See module costing below.	T: (021) 4326264 E: camms@cit.ie W: www.camms.ie

Three evenings per week, 7pm - 10pm
One Saturday per month, 10am - 5pm

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.

Entry Requirements

Merit or better in a relevant Diploma course or equivalent.

Duration

Three evenings per week and one Saturday per month. The course can be completed in two academic years.

Modules	Annual Fee per Subject
Mandatory	
· Project	€1300
· Quality Engineering	€490
· Engineering Project Management	€490
· Automation Systems	€490
· Mathematics and Statistics	€490
· Product Development	€490
· Manufacturing Systems	€490
· Maintenance & Reliability	€490
· Facilities	€490
Electives (Choose One)	
· Process Automation & Control	€490
· Advanced Materials & Processes	€490

Media Communications

Head of Department
Rose McGrath
E: rose.mcgrath@cit.ie

Department Secretary
Maud Coffey
T: (021) 4326293
E: maud.coffey@cit.ie

Courses

Higher Diploma in Arts in Public Relations - HETAC Level 8
Certificate in Media Production - HETAC Level 6

Modules include:

Design for Print
Introduction to Video
Digital Imaging
Web Design and Interactive Media

Higher Diploma in Arts in Public Relations (Level 8)

Course Code	Course Fee	Enquiries
CR_BPURE_6	€1500	Emmett Coffey T: (021) 4326293 E: emmett.coffey@cit.ie

Monday and Tuesday, 7pm - 10pm

Aim

The Higher Diploma in Arts in Public Relations aims to offer learners the opportunity to develop their communication skills within a challenging, supportive and easily accessible framework.

The course is designed to provide learners with a critical awareness of the theories and practice of professional communications as they relate to contemporary public relations and a comprehensive understanding of the role and workings of the mass media.

Graduates of this course will be able to

- Demonstrate detailed knowledge of the strategic function of public relations as a key form of communication by organisations.
- Apply the techniques of public relations to achieve planned PR objectives.
- Apply a range of media writing techniques required in the practice of PR.
- Demonstrate a theoretical awareness and practical application of personal presentation skills including uses and applications of multimedia tools.
- A critical appreciation of specialist areas central to the work of the public relations practitioner and of the ethical and legal issues involved in PR.

Assessment will be carried out through examination and continuous assessment (individual and group work).

Who can apply?

Candidates would be expected to be degree holders in cognate disciplines including arts and business. It is anticipated that many applicants will be in subject related employment and wishing to upskill with a view to job diversification or promotion. With this in mind, Recognition of Prior Learning (RPL) will be applicable for candidates entering from the workplace or applying for admission from other institutes, http://www.cit.ie/rpl.

Course Programme

For module titles and contents, see http://modules.cit.ie
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.

Duration

1 Year Part-Time.

Note: A small number of weekend workshops will also be held throughout the year. The course is delivered through a combination of formal lectures, practical's, tutorials and workshops.

Award

Higher Diploma in Arts in Public Relations (HETAC Level 8).

Certificate in Media Production (HETAC Level 6)

Course Code	Course Fee	Enquiries	
CR_HMEDP_6	€400 per module	Brian Doyle, Course Coordinator T: (021) 4326293 E: brian.doyle@cit.ie	Rose McGrath, Head of Department T: (021) 4326226 E: rose.mcgrath@cit.ie

Aim

To provide stand-alone modules for those who wish to update their knowledge or expand on their range of expertise in Media Design Production. Converting the part-time evening courses to a Certificate HETAC Level 6; the modules facilitates employers and employees and those wishing to upgrade their skills by offering individual or multiple modules in an easily accessible, learner centred manner.

Graduates of this course will be able to

- Demonstrate a practical and theoretical knowledge of design for print.
- Demonstrate digital image creation and manipulation.
- Present video production knowledge of the process of shooting and editing video.
- Apply a range of interactive media, design and technical skills in the production and management of media types, which can be delivered via the web.

Entry Requirements

Candidates would be expected to have successfully completed the Leaving Certificate (or equivalent). Basic computer and keyboard skills are necessary. Recognition of Prior Learning (RPL) will be applicable for candidates, http://www.cit.ie/rpl.

Modules

Design for Print
Introduction to Video
Digital Imaging
Web Design and Interactive Media

Duration

1 Year Part-Time

Award

Certificate in Media Production (HETAC Level 6).

Please note this course is delivered on Apple Mac computers.

Design for Print (Level 6) Module

Course Code	Course Fee	Enquiries	
CR_HMEDP_6	€400	Brian Doyle, Course Coordinator T: (021) 4326293 E: brian.doyle@cit.ie	Rose McGrath T: (021) 4326226 E: rose.mcgrath@cit.ie

Tuesday and Thursday, 7pm - 9pm. Semester 1

Semester 1

Aim

This module provides training and practical experience in the process of design for print. Students will be introduced to the principles of design as they relate to print production. Using industry standard software packages, this module covers the approaches that can be used in the design, lay-out and production of various printed materials, for example brochures, flyers, newsletters and posters.

On successful completion of this module the learner will be able to

- Describe the function and operation of the hardware and software involved in print based design and production;
- Apply the principles of design in the creation of a range of printed materials using a combination of type and image;
- Demonstrate effective communication of information in printed form using a combination of type and image to the requirements of a provided brief;
- Demonstrate the stages involved in preparing designed material for commercial offset and digital printing.

Entry Requirements

Leaving Certificate (or equivalent). Basic computer and keyboard skills are necessary. Recognition of Prior Learning (RPL) will be applicable for candidates, http://www.cit.ie/rpl.

Duration

Semester 1 (15 weeks).

Please note this course is delivered on Apple Mac computers.

Introduction to Video (Level 6) Module

Course Code	Course Fee	Enquiries	
CR_HMEDP_6	€400	Brian Doyle, Course Coordinator T: (021) 4326293 E: brian.doyle@cit.ie	Rose McGrath T: (021) 4326293 E: rose.mcgrath@cit.ie

Monday and Wednesday, 7pm - 9pm. Semester 1

Semester 1

Aim

This module is intended as an introduction to the video production process. It provides an overview of the technology as well as an examination of the process of shooting and editing video. This module will provide the student with the knowledge required to create video content of competent quality which could be used in project or thesis work.

On successful completion of this module the learner will be able to

- Interpret the processes involved in the production of professional video;
- Demonstrate the ability to create a coherent plan for a video production;
- Construct using non-linear editing software a piece of edited footage using simple cut sequences;
- Demonstrate a clear understanding of basic video camera operation;
- Create a simple authored video film from shot material.

Entry Requirements

Leaving Certificate (or equivalent). Basic computer and keyboard skills are necessary. Recognition of Prior Learning (RPL) will be applicable for candidates, http://www.cit.ie/rpl.

Duration

Semester 1 (15 weeks).

Please note this course is delivered on Apple Mac computers.

Digital Imaging (Level 6) Module

Course Code	Course Fee	Enquiries	
CR_HMEDP_6	€400	Brian Doyle, Course Coordinator T: (021) 4326293 E: brian.doyle@cit.ie	Rose McGrath T: (021) 4326293 E: rose.mcgrath@cit.ie

Tuesday and Thursday, 7pm - 9pm. Semester 2

Semester 2

Aim

This module provides practical experience in the process of digital image creation and manipulation. Students will be introduced to the principles of digital imagery. Using industry standard software packages, this module covers the approaches that can be used in the creation of digital images for output in print or screen form.

On successful completion of this module the learner will be able to

- Demonstrate the function and operation of hardware and software involved in digital imaging;
- Demonstrate the application of visual language through the production of effective images;
- Use appropriate software applications for the creation, correction, retouching and manipulation of digital images;
- Identify and discuss the technical issues associated with digital image storage and output for print and screen.

Entry Requirements

Leaving Certificate (or equivalent). Basic computer and keyboard skills are necessary. Recognition of Prior Learning (RPL) will be applicable for candidates, http://www.cit.ie/rpl.

Duration

Semester 2 (15 weeks).

Please note this course is delivered on Apple Mac computers.

Web Design and Interactive Media (Level 6) Module

Course Code	Course Fee	Enquiries	
CR_HMEDP_6	€400	Brian Doyle, Course Coordinator T: (021) 4326293 E: brian.doyle@cit.ie	Rose McGrath T: (021) 4326293 E: rose.mcgrath@cit.ie

Monday and Wednesday, 7pm - 9pm. Semester 2

Semester 2

Aim

The module provides an introduction to interactive media design. It covers how to analyze and evaluate interactive multimedia. It also deals with the design and technical considerations for the production and management of media types such as text, graphics, audio and video content, which can be delivered via the web.

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

- Identify the stages involved in interactive media design and production;
- Analyse and evaluate interactive media products in terms of visual, technical and functional design;
- Demonstrate the technical issues related to the function and operation of hardware and software components, media storage and delivery involved in interactive media production;
- Demonstrate the application of design and development skills and competencies through the production of effective interactive products as applicable to set project.

Entry Requirements

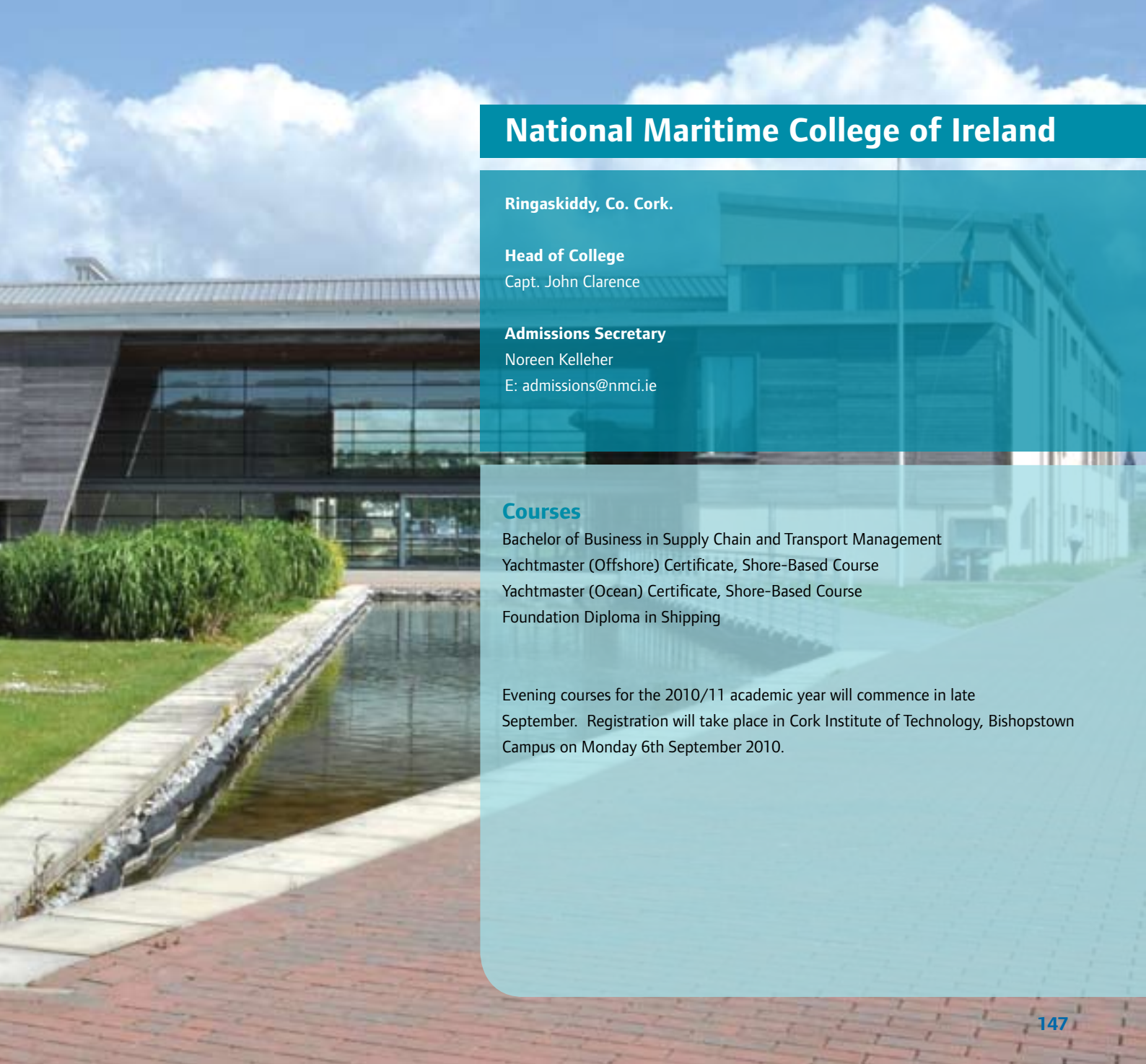
Leaving Certificate (or equivalent). Basic computer and keyboard skills are necessary. Recognition of Prior Learning (RPL) will be applicable for candidates, http://www.cit.ie/rpl.

Duration

Semester 2 (15 weeks).

Please note this course is delivered on Apple Mac computers.


NATIONAL MARITIME COLLEGE OF IRELAND



National Maritime College of Ireland

Ringaskiddy, Co. Cork.

Head of College
Capt. John Clarence

Admissions Secretary
Noreen Kelleher
E: admissions@nmci.ie

Courses

Bachelor of Business in Supply Chain and Transport Management
Yachtmaster (Offshore) Certificate, Shore-Based Course
Yachtmaster (Ocean) Certificate, Shore-Based Course
Foundation Diploma in Shipping

Evening courses for the 2010/11 academic year will commence in late September. Registration will take place in Cork Institute of Technology, Bishopstown Campus on Monday 6th September 2010.

Bachelor of Business in Supply Chain and Transport Management

Course Code	Course Fee	Enquiries	
CR_BSCTM_7	€2,800	Pat Mullen E: Logicertmullen@eircom.net	Jane M O'Keeffe E: jokeeffe@nmci.ie

Entry 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 or Graduateship in Supply Chain Management or an equivalent Level 6 qualification in a relevant discipline.

Benefits

You will be one of the elite few

- who will posses a degree in Supply Chain and Transport Management,
- who, as a result, will secure challenging, better paid and more fulfilling positions in the Supply Chain,
- who will be empowered with the knowledge and skills to implement the latest best practices in Supply Chain Management in your organisation.

Module Information

http://modules.cit.ie

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.

Modules

Semester 1

Quality and Lean Operations
Managing Performance Measurement
Warehousing and Inventory Control in the Supply Chain
Business and Supply Chain Strategy
Transport and Distribution in the Supply Chain
Supply Chain Management Accounting and Managerial Finance

Semester 2

Supply Chain Purchasing
Organisational Structure and Human Resource Development
Supply Chain Leadership and Communications
Supply Chain IT and E-Commerce
International Trade and Customs Law
Advanced Operations Management

Commencement Date

September 2010

Yachtmaster (Offshore) Certificate, Shore-Based Course

Course Code	Course Fee	Enquiries
CR_MYMOF_6	€550	Badiul Alam E: badiul.alam@nmci.ie

Monday 7pm - 9pm

This course is an important part of the ISA Yachtmaster Training Scheme, and is intended for all who seek a recognised Yachtmaster qualification. Although there is no specific qualification for admission to the course, it is desirable that students should have achieved the Day Skipper level of competence.

Aim
The course is designed to teach students the basic principles and navigational skills necessary for the safe conduct of coastal and offshore passages.

Duration
24 weeks

Yachtmaster (Ocean) Certificate, Shore-Based Course

Course Code	Course Fee	Enquiries
CR_MYMOC_6	€450	Badiul Alam E: badiul.alam@nmci.ie

Wednesday 7pm - 9pm

This course is designed for experienced sailors and is primarily intended for persons holding the ISA Yachtmaster (Offshore) Certificate. Successful completion of the course leads to the award of the Yachtmaster (Ocean) Certificate. As the course content is almost entirety confined to astro or celestial navigation, it may also appeal to those yachtsmen who wish to take their navigational skills to a more advanced level.

Aim
The course is designed to teach students the elementary navigational skills necessary for the safe conduct of ocean passages.

Duration
16 Weeks

Foundation Diploma in Shipping

Course Code	Course Fee	Enquiries
CR_MSHIP_6	€1,010	Roddy Cooke E: roddy.cooke@nmci.ie

One night per week 7pm - 9pm

This course, under the auspices of the Institute of Chartered Shipbrokers in London (www.ics.org.uk), is suited to those involved in the world of shipping, transport, freight forwarding, port operations and ship agency work.

Content

- Introduction to Shipping
- Port Agency

Duration

Approximately 24 weeks

Department of Social & General Studies

Head of Department
Jim Walsh BA, HDip Ed, BCL, LLB

Department Secretary
Helen Dillon
T: (021) 4335310
E: helen.dillon@cit.ie

Courses

One Year Certificate in Counselling Skills

Higher Certificate in Arts in Counselling Skills

Bachelor of Arts (Honours) in Counselling & Psychotherapy*

* The Bachelor of Arts (Hons) in Counselling and Psychotherapy is recognised as a professional training course by the Irish association for Counselling and Psychotherapy and satisfies the professional accreditation requirements of this body.

In Brief

One Year Certificate in Counselling Skills
This course is a One Year Certificate course in its own right and for those who are seeking to complete the full training, it is also year one of the four year honours degree in Counselling and Psychotherapy.

Higher Certificate in Arts in Counselling Skills
This course is a Higher Certificate course in its own right and for those who are seeking to complete the full training, it is also year two of the four year honours degree in Counselling and Psychotherapy.

Bachelor of Arts (Hons.) in Counselling and Psychotherapy Years 3 and 4
This course comprises the final two years of the the four year honours degree in Counselling and Psychotherapy. It is open to those who have completed the One Year Certificate and Higher Certificate courses or their equivalent through prior training.

One Year Certificate in Counselling Skills

Course Code	Course Fee	Enquiries
CR_HCOUI_6	€1750	(i) Regarding application form to: Helen Dillon T: (021) 4335310 (ii) Regarding the course to: Gus Murray T: (021) 4347800 or Helen Clancy T: (021) 4892108

Aims

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.

Course Content

The course is offered over two semesters from September to May. Each semester has 5 modules. The following are the key components of course content:

Part I Counselling Theory

- Introduction to Counselling Training & Experiential Learning
- Person centred counselling theory
- Person centred counselling application
- Family systems theory
- Family systems application
- Introduction to Developmental theory
- Change and loss

Part II Counselling Skills

- The core skills of counselling – theory and practice
- Forming a helping relationship
- Counselling Skills practice, review and feedback
- Counselling Skills application

Part III Experiential Group Process

The purpose of the Experiential Group Process module is to provide the students with a facilitated group experience through which they will have the opportunity to develop Personal process competencies which are necessary for their development as Counselling trainees.

Entry Requirements

Applicants for 2010 / 2011 must
(a) Be over 25 years of age at the date of registration;
(b) Be assessed through interview;
(c) Submit two written references. (See application form for details).

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.

Duration

The course is offered on a part-time basis for the duration of the academic year as follows:
(a) Theory and Application Programme – one evening per week – Mondays or Tuesdays 6.30pm – 9.30pm.
(b) Counselling Skills Workshops – one additional evening every three to four weeks 6.30pm – 9.30pm.
(c) Experiential Group Process – Ten Saturdays, 10.00am – 5.00pm spread throughout the year. Dates for these are arranged when the course begins.

Attendance

Attendance at all sessions is a requirement

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.

Award

The One Year Certificate is awarded by the 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. It is not a professional qualification in Counselling and does not qualify the holder to practice as a professional counsellor.

Application

A special application form is required for this course. It can be downloaded from the College website www.cit.ie and should be returned to Gus Murray, Department of Social and General Studies, Cork Institute of Technology, Cork on or before FRIDAY, 13 August 2010. Please mark envelope One year Certificate application. Interviews will be scheduled as early as possible after the closing date.

Higher Certificate in Arts in Counselling Skills

Course Code	Course Fee	Enquiries
CR_HCOUN_6	€1900	(i) Regarding application form to: Helen Dillon T: (021) 4335310 (ii) Regarding the course to: Gus Murray T: (021) 4347800 or Helen Clancy T: (021) 4892108

Aims

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 Counselling and Psychotherapy in B.A. Years 3 and 4.

Course Content

The course is offered over two semesters from September to May. Each semester has 5 modules. The following are the key components of course content:

Part I Counselling Theory

- Ego states –Theory and Application
- Life Script - Theory and Application
- Group process - theory and application
- Developmental theory

Part II Counselling Skills

- Level 2 Counselling skills – theory and practice
- Writing a Counselling Process review
- Counselling Skills practice, review and feedback
- Counselling skills application

Part III Experiential Group Process

The purpose of the Experiential Group Process module is to provide the students with a facilitated group experience through which they will have the opportunity to develop, expand and consolidate Personal process competencies which are necessary for their development as Counselling trainees.

Duration

The course will be offered on a part-time basis for the duration of the academic year. 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. There will be two weekend workshops in addition to the regular weekly sessions. There will also be five evening skills workshops.

Attendance

Attendance at all sessions is a requirement.

Personal Therapy

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

Entry Requirements

Applicants must

(a) Be over 25 years of age at the date of registration;

(b) Have successfully completed the One Year Certificate in Counselling Skills or its equivalent;

(c) Be assessed through interview;

(d) Submit two written references (for applicants who have not already been on a prior stage of the course) See application form for details.

Garda Vetting

All applicants to the Higher Certificate in Arts in Counselling Skills will be required to undergo Garda vetting. Depending upon the outcome of the vetting process, the Institute reserves the following rights:

1. to not register a student
2. to remove an existing registered student
3. to delay the student's practice placement modules.

In all circumstances, it is the applicant student's responsibility to proactively disclose any convictions/cases pending.

The Institute reserves the right to inform any placement agency of the existence of any convictions/cases pending.

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.

Award

The Higher Certificate 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. To achieve a professional qualification, it is necessary to complete the Bachelor of Arts in Counselling and Psychotherapy, years 3 and 4.

Application

A special application form is required for this course. It can be downloaded from the College website www.cit.ie and should be returned to the Gus Murray, Department of Social and General Studies, Cork Institute of Technology, Cork. Please mark envelope Higher Certificate application. Closing date for completed application forms is FRIDAY, 14 May 2010.

The Bachelor of Arts (Hons) 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 (Hons) in Counselling & Psychotherapy - Year 3
Year 4: Bachelor of Arts (Hons) in Counselling & Psychotherapy - Year 4

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

Course Code	Course Fee	Enquiries
CR_HCOUN_6	Year 3: €2750 Year 4: €2750	(i) Regarding application form to: Helen Dillon T: (021) 4335310 (ii) Regarding the course to: Gus Murray T: (021) 4347800 or Helen Clancy T: (021) 4892108

Aims

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.

Core Theoretical Orientation

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.

Course Content

The course is offered over two semesters from September to May each year. Each semester has 5 modules. The course has five key elements which are integrated in the training, using a strong experiential and practical focus. These are:
(i) Counselling and Psychotherapy Theory and Application
(ii) Practitioner Development
(iii) Experiential Group Process /personal process integration
(iv) Supervised Counselling and Psychotherapy practice
(v) Counselling and Psychotherapy integration

(i) **Counselling and Psychotherapy Theory and Application**
The Gestalt Approach
The Person centred and Transactional analysis approaches revisited and integrated
An introduction to Self Psychology
An introduction to the Cognitive Approach
Integrating elements from the psychoanalytic Tradition
Developmental Theory
Personality Theory
An integrative theory of Counselling and Psychotherapy
Professional Practice and Ethics
Understanding Abnormality
Therapeutic change

(ii) Practitioner Development
Structuring the Counselling and Psychotherapy process
Developing a Therapeutic Relationship
Assessment and Diagnosis

Counselling Planning
Integrative Interventions
Supervised Practice

(iii) Experiential group process/personal process integration
The content of the Experiential Group Process arises from within the process itself. The purpose of the Experiential Group Process module is to provide the students with a facilitated group experience through which they will have the opportunity to develop, expand and consolidate Personal process competencies which are necessary for their development as Counselling and Psychotherapy practitioners.

(iv) Supervised Counselling and Psychotherapy practice
Through regular supervision the student will receive ongoing support, guidance and assessment of all aspects of his/her work with clients.

(v) Counselling and Psychotherapy Integration
This element provides students with the opportunity to integrate the theoretical, personal and practice elements of their training in an experiential way

Entry requirements

Applicants for 2010/2011 must
(a) Be over 25 years of age at the date of registration.
(b) Have successfully completed the Higher Certificate in Arts in Counselling Skills or its equivalent through alternative prior learning.
(c) Be assessed through interview or progression assessment for internal students
(d) Submit two written references (for applicants who have not already been on a prior stage of the course). (See application form for details.)

Please note: Before applying for Year 3 and Year 4 of the Bachelor of Arts (Hons.) in Counselling & Psychotherapy you must complete successfully the One year Certificate in Counselling Skills **AND** the Higher Certificate in Counselling Skills or its equivalent.

Garda Vetting

All applicants to the Bachelor of Arts (Honours) in Counselling & Psychotherapy will be required to undergo Garda vetting. Depending upon the outcome of the vetting process, the Institute reserves the following rights:
1. to not register a student
2. to remove an existing registered student
3. to delay the student's practice placement modules.

In all circumstances, it is the applicant student's responsibility to proactively disclose any convictions/cases pending.
The Institute reserves the right to inform any placement agency of the existence of any convictions/cases pending.

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 the College. 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.

Award

On successful completion of the full programme, students will be awarded a Bachelor of Arts Degree in Counselling and Psychotherapy, conferred by the Higher Education Training and Awards Council. On achieving the degree, students will be equipped to carry out Counselling and Psychotherapy in a structured setting with the support of supervision. The BA degree is a fully validated professional Counselling and Psychotherapy training programme which satisfies the accreditation requirements of the Irish Association for Counselling and Psychotherapy.

Duration

The course will be offered on a part-time basis over two years. 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. There will be occasional evening skills workshops in Year 3.

Assessment

Assessment will be made for the purposes of evaluating overall competency in Counselling and Psychotherapy. To this end, the assessment methods are:

(i) Written projects;
(ii) Practical skills assessments;
(iii) Attendance at and participation in all programme activities;
(iv) A final oral examination.

Application

A special application form is required for this course. It can be obtained from It can be downloaded from the College website www.cit.ie and should be returned to the Gus Murray, Department of Social and General Studies, Cork Institute of Technology, Cork. Please mark envelope B.A degree application. Closing date for completed application forms is FRIDAY, 14 May 2010.

Tourism & Hospitality

Head of Department
Adrian Gregan

Department Secretary
Fiona Murphy
T: (021) 4326677
E: fiona.murphy@cit.ie

Courses

Bachelor of Arts in Culinary Arts
Higher Certificate in Hospitality Management
Advanced Certificate in Professional Cookery – Total Immersion Programme
Advanced Certificate in Professional Cookery (Day Release)
Primary Certificate Course in Food Hygiene
Accommodation Advanced Skills Programme
Practical Bakery Techniques
Supervisory Development Programme
Professional Bar Operations

Bachelor of Arts in Culinary Arts

Course Code	Course Fee	Enquiries
OCULP_7_Y3	Course Fee €450 per module (incl. exam fee)	Department Secretary T: (021) 4326677

Aims

The aim of these modules is to develop advanced culinary art skills of a specialised nature. The emphasis is on extending culinary knowledge and ability in a flexible and imaginative manner towards excellence, innovation and artistic merit.

Entry Requirements

A recognised culinary arts or professional cookery qualification or equivalent and minimum of one years' industry experience and must be working as a chef in a recognised catering establishment.

Mature students will be considered on an individual basis and in accordance with CIT regulations for part-time enrolment.

Modules

Six modules:

Stream 1
- Classical & Contemporary Cuisine
- Specialised Kitchen & Larder

or

Stream 2
- Pastry & Confectionery 1
- Pastry & Confectionery 2

Students follow Stream 1 or Stream 2 and the following 5 modules
Culinary Leadership & Training
Gastronomy
Food Product development
Synoptic Study
Work Based Learning Portfolio

Module Mode of Delivery

* Modules are offered on a 2 to 3 year rotation.

- Classical & Contemporary Cuisine > 1 afternoon for the academic year
- Specialised Kitchen & Larder 2* > 1 afternoon for the academic year
- Pastry & Confectionary 1 > 1 afternoon for the academic year
- Pastry & Confectionery 2* > 1 afternoon for the academic year
- Culinary Leadership & Training > 1 evening per week
- Gastronomy > 1 evening per week
- Food Product Development* (morning)
- Culinary Dissertation*

* Will be offered in the year commencing September 2010/2011 (Students are required to have completed part 1 of the module prior to continuing to the 2nd stage).

Students should expect to take 2/3 years to complete the Bachelor of Arts in Culinary Arts.

Please note:
Modules are offered subject to demand and mode of delivery is in consultation with the student group. Changes to the above configuration may take place as the programme is reviewed.

Award

HETAC: Bachelor of Arts in Culinary Arts
Individual modules may be awarded, Certificate in Advanced Culinary Arts (Single Subject).

Higher Certificate in Hospitality Management – Day Release in association with the Irish Hospitality Institute

Course Code	Course Fee	Enquiries
OHOSM_6_Y1	€950 per annum	Philip Murray Department of Tourism and Hospitality Studies E: philip.murray@cit.ie

The Higher Certificate in Hospitality Management in association with the Irish Hospitality Institute is designed to provide a relevant professional qualification for those who wish to pursue a supervisory/ management career in the hospitality industry.

The course is aimed at people currently employed in the hotel, catering and tourism industry who wish to attain a formal Education Qualification. Students attend college one day per week while engaging in full time employment in a hospitality or tourism organisation. The outcome of the course will provide trainee managers with the academic knowledge and practical training necessary to efficiently manage diverse hospitality operations.

Who should apply?

- Trainee Managers in industry.
- Those who wish to prepare themselves for management positions in the Hospitality Industry.
- Mature students (over 23yrs) working in the industry.
- International students with excellent English and relevant work experience will be considered through application and interview process.
- All trainee managers who are on a structured training programme.

Selection interviews will determine places. Exemptions may be given in specific areas. Applicants must be engaged in the Hospitality Industry and all applicants will be assessed on a case-by-case basis.

Aims

On completion of the course, graduates will have developed competence in the range of technical, organisational, administrative and supervisory management skills needed to:

- Control all aspects of the day-to-day practical operation and functioning of the department for which they will be responsible;
- Identify and maintain standards of operation in line with customer expectations and management policy;
- Liaise with departments and interdependent functions within the organisation;
- Identify and respond positively to pressures, changes and organisational demands of the job;
- Communicate effectively at all levels.

Course Content

The course is structured in two parts, Business Management education provided by CIT and practical experience working in the workplace.

Academic

- Accounting
- Information technology
- Communications
- Management
- Economics
- Marketing
- Human Resource Management
- Tourism Industry Perspectives
- Hospitality Law
- Hospitality Health and Safety

>

Higher Certificate in Hospitality Management – Day Release in association with the Irish Hospitality Institute

Industry

In order to get the best experience and most relevant training available, the Department of Tourism and Hospitality and the Irish Hospitality Institute has created an In-House 'Trainee Management Programme' with recommendations for management development and training. If possible, it is recommended that trainee managers rotate between departments to gain comprehensive knowledge and experience of hospitality operations.

The Department of Tourism will assess the student's progression over the programme duration and establish educational equivalences in practical learning attained in the workplace.

Awards

HETAC: Higher Certificate in Business in Hospitality Management

Additionally, Graduates of the course will receive

- Irish Hospitality Institute Certificate in Hospitality Management
- Graduate Membership of the Irish Hospitality Institute
- Graduate Membership of the Catering Managers Association of Ireland

Further Studies at CIT

Graduates who receive satisfactory grades may progress to the Bachelor of Business in Hospitality Management.

Please note: Delivery of this programme is dependent on sufficient number of applicants.

Advanced Certificate in Professional Cookery - Total Immersion Programme

Course Code	Course Fee	Enquiries
FALPR_6_Y1	€1,500 (incl. exam fee)	Ann O'Connor Department of Tourism and Hospitality Studies E: ann.oconnor@cit.ie

Course

This course is aimed at mature participants, with a passion for cookery, who wish to pursue a career as a professional chef in the hospitality sector. The course covers the key skills required in professional cookery, and is delivered in 3 stages of learning:

- Learning the Fundamentals
- Exploring the Techniques
- Refining Culinary Service

The programme provides participants with the benefits of personal attention, instant feedback, hands-on experience and reinforcement so that each carefully planned class logically provides participants with the tools for working in the catering sector. Participants will truly immerse themselves in the world of professional cookery.

The programme is an adaption of the FETAC Advanced Certificate in Professional Cookery (Level 6).

This premier programme offers high quality hands-on education where both theory and practical elements are delivered in state of- the-art professional culinary facilities. As part of the programme, participants work in industry in a professional production kitchen and enhance the practical skills of professional cookery. Work experience is directly aligned to the learning in college to ensure skills and knowledge are reinforced and embedded for the enhancement of the overall learning experience.

Who should apply?

The course is aimed at a variety of people including career changers, school leavers with a proven flair for cookery, employees in industry. Only candidates who show a level of maturity and demonstrate a passion for food and a commitment to the field of professional cookery will be considered for entry into this programme.

NB: Places are limited to 16 participants per year.

Collaboration with a premier Culinary Institute

In developing the Advanced Certificate in Professional Cookery programme for delivery in this accelerated format, the Department of Tourism and Hospitality worked closely with Fáilte Ireland and the French Culinary Institute in New York.

Course Content

The nine month programme is structured as follows:

6 months > 3 days in college and 2 days working in industry with an employer of choice.

3 months > Intensive structured industry training with an employer of choice followed by final assessment and examination.

Modules

- Culinary Skills and Standards
- European, Mediterranean and Global Cuisine
- Pastry
- Larder
- Food Safety and Nutrition
- Gastronomy
- Culinary Science and Technology
- Restaurant Service and Communications

Some of the benefits you can expect

- Gain an internationally recognised qualification in 9 months;
- Avail of valuable college education and intensive industry experience in a structured manner;
- Opportunity to learn from highly skilled lecturing staff;
- As a participant, you will develop a broad base of knowledge, a confidence in your skills and the fluency to move successfully into a career that is right for you.

Award

FETAC Level 6 Award: Advanced Certificate in Professional Cookery.

National Apprentice Programme – Advanced Certificate in Professional Cookery (Day Release) FETAC Level 6

Course Code	Course Fee	Enquiries
FCHEF_6_D1	TBC	Liam Noonan Department of Tourism and Hospitality Studies T: (021) 4326677 E: liam.noonan@cit.ie

This programme focuses on developing professional qualifications for people who are working in the field of professional cookery but have not previously gained a Professional Cookery qualification. Participants must already be working in professional cookery in an establishment where their employer is committed to facilitating their further development.

Course Content

The National Apprenticeship Programme in Professional Cookery is a day release programme with attendance at CIT and on-the-job training in a recognised catering business over a 3-year period. [There is an initial 2 full time week attendance required in the first year]

Year 1

At the beginning of Year 1, apprentices must complete a period of full time college-based training where the programme will cover in detail the fundamental skills of professional cookery. This is followed by attendance at college for one day per week for 2 semesters.

Year 2 and Year 3

Apprentices attend college for one day per week for 2 semesters. Additional participation may be required over the course of the year.

Modules

- Culinary Skills and Standards
- Food Safety, Nutrition
- Classical Cuisine
- European, Mediterranean and Global Cuisine
- Pastry
- Larder
- Gastronomy
- Culinary Science and Technology and Menu Planning and Cost Control
- Restaurant Service and Communications

The programme operates on the basis of mentor support, i.e., participating employers are required to provide a mentor/trainer, preferably a member of staff who has successfully completed an accredited trainer programme. The trainer should also attend college for briefings and programme review.

Some of the benefits you can expect

Participant

- Gain an internationally recognised qualification in your chosen field of study;
- Continue to earn while you learn with an employer of your choice;
- Enrich your job immediately as you acquire more skills and secure a better future within the industry;
- Access to state-of-the-art training facilities.

Employer

- Improved business performance due to highly trained staff;
- Increased levels of return through greater staff commitment to the business;
- Enhanced image for you as an employer of choice;
- A new approach to off-the-job training to facilitate business;
- Access to state-of-the-art training facilities.

Employer commitment is vital

Participating employers play a critical role in the operation of the programme by abiding by a specific code of practice developed for the programme by industry representatives.

The next step

Participant

Complete the application form and return to The Department of Tourism and Hospitality Studies at Cork Institute of Technology.

Employer

Establishments wishing to operate this programme and nominating an employee must be registered. Please complete the Registration of Establishment Form and return it to The Department of Tourism and Hospitality Studies at Cork Institute of Technology.

It requires a high level of commitment from employers, however in return, the benefits that can accrue to you and your business are very attractive.

Primary Certificate Course in Food Hygiene

Course Code	Course Fee	Enquiries
CR_OFHYG_6	€230 (payable to CIT) exam fee €30 (payable to EHOA)	Catherine O'Mahony T: (021) 4326801 E: catherine.omahony@cit.ie

The Primary Certificate in Food Hygiene is a minimum requirement for all food handlers. Applications to Catherine O'Mahony, Lecturer, Department of Tourism and Hospitality Studies, CIT.

Course Content

- Food hygiene
- Food contamination
- Food delivery and storage
- Food preparation, cooking and service
- Personal hygiene
- Design and layout of food premises and pest control
- Cleaning
- An introduction to Hazard Analysis Critical Control Point

Duration

This course is operated over a 9-hour period; 2 days 10am - 3pm

Commencement date

2010 > 22nd and 29th October
2011 > 12th and 19th February

Award

Successful candidates will be awarded the EHOA (Environmental Health Officers Association) Primary Certificate in the Principles & Practice of Food Hygiene.

Accommodation
Advanced Skills Programme

Course Code	Course Fee	Enquiries
CR_OACCE_6	€395	Kathleen Griffin T: (021) 4326677 E: kathleen.griffin@cit.ie

This programme is designed to meet the need of persons working in the accommodation sector of the Hospitality Industry, including Hotels, Guest Houses, Serviced Apartments and many other businesses which offer accommodation.

The programme will be delivered primarily as an evening programme with additional study sessions in consultation with the participating group.

Aims

To provide the requisite training and development opportunity for persons working in the accommodation services sector of the hospitality industry to further enhance their level of professional skills.

Course Content

- Principles, routines and techniques of cleaning
- Cleaning equipment, materials and cleaning agents
- Care and provision of linen and laundry
- Cost and quality control in accommodation services
- Accommodation legislation
- Interior design and maintenance
- Customer care and in-house selling and promotion
- Information technology.

Award

FETAC National Certificate

Please note: Delivery of this programme is dependent on sufficient number of applicants.

Practical Bakery Techniques

Course Code	Course Fee	Enquiries
CR_FPASB_6	€550 (incl. exam fee)	Department Secretary T: (021) 4326677 E: hospitality@cit.ie

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. The cost of class materials is included in the course fee.

Course Content

- Yeast Breads – cheese and onion, sundried tomato, herb and seed breads, Bagels.
- Scones, savoury and fruit, soda breads, banana bread.
- Bun Dough, Swiss buns, hot-cross buns, Chelsea buns, doughnuts, Madeira cake.
- Croissants and Pizza.
- Danish pastries and chocolate roulade.
- Choux pastry, sugar spirals and chocolate piping.
- Christmas puddings and cakes, Frangipane tarts.
- Tiramisu, Coffee sauce, sticky toffee pudding, toffee sauce.
- Cake decoration, sweet pastry - baked cheese cakes, Chocolate tart.
- Puff pastry, sausage rolls, cheese straws, savoury tarts, and chocolate chip muffins.

Duration

The course is operated on Monday evenings over 12 weeks, consisting of a four-hour practical class.

Award

A certificate will be awarded to all successful participants.

Supervisory Development Programme

Course Code	Course Fee	Enquiries
CR_OSDPR_6	€495	Department Secretary T: (021) 4326677

Aims

This course is designed specifically with the needs of the hospitality and tourism sector in mind. It is ideally suited for the 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.

Course Content

- Understanding the role and attributes of the supervisor
- Supervisory Management
- Introduction to Human Resource Management
- Staff Training Skills & Implementing Training Plans
- Marketing & Promotions
- Current Employment Legislation (Introduction)
- Introduction to Computing & Applied Hospitality IT
- Introduction to Book-Keeping & Accounts

The programme is suitable to learners who have previously undertaken course in tourism and hospitality operations, additionally applicants with sufficient work experience can be considered. The programme is accredited at FETAC Level 6.

Duration

This programme may be offered as a day release programme over 30 weeks, or alternatively 2 nights per week over the academic year.

Award

FETAC Level 6 Specific Purpose Certificate in Supervisory Development.

Please note: Delivery of this programme is dependent on sufficient number of applicants.

Professional Bar Operations

Course Code	Course Fee	Enquiries
CR_OBARR_6	€290	Department Secretary T: (021) 4326677

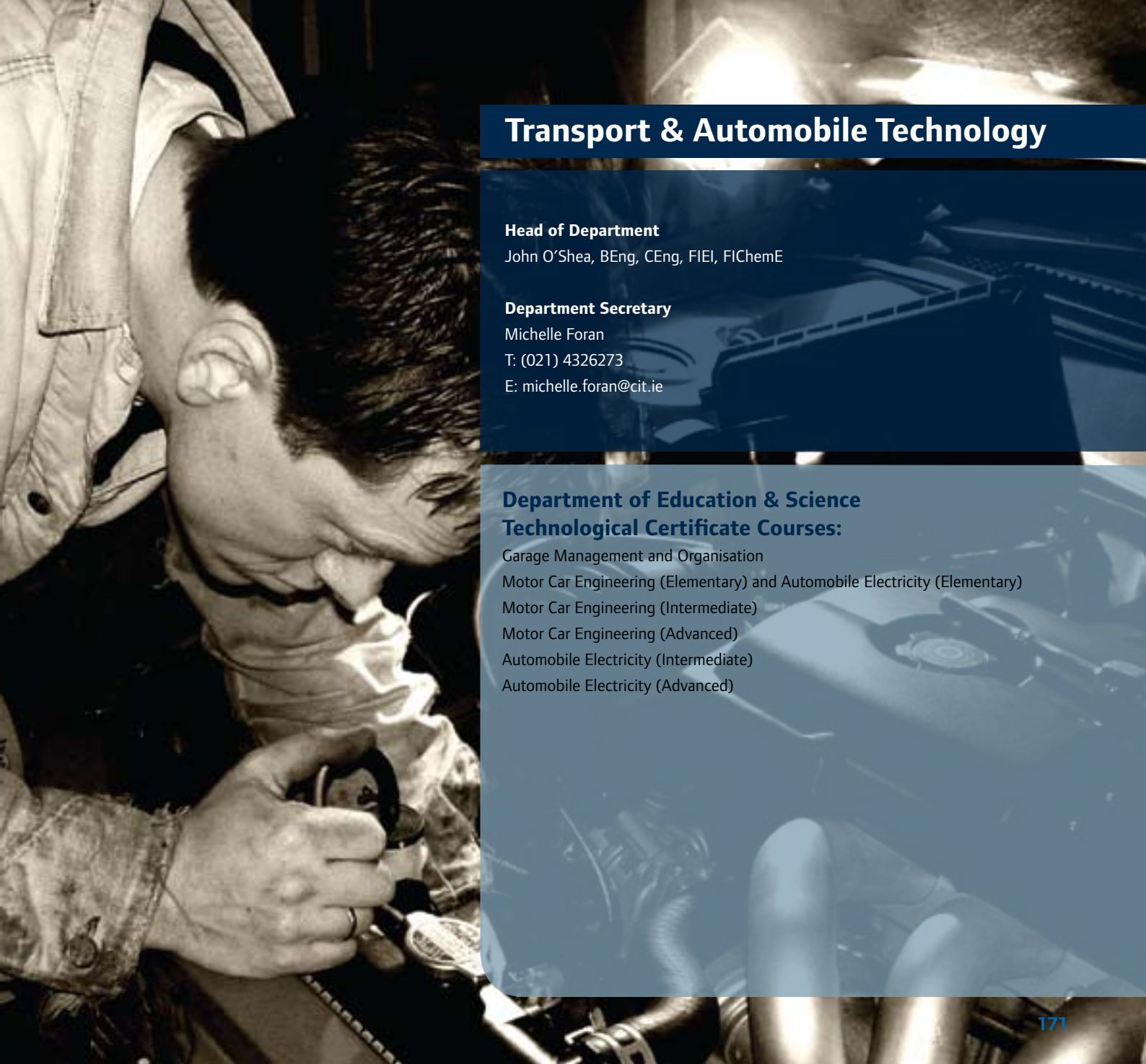
Duration
12 weeks, one night per week.
Monday 6.30pm - 9.30pm
Commencing 20th September

Aims
The aim of this course is to give participants an opportunity to increase their knowledge, skills and aptitude and to motivate them into becoming more competent bartenders.

Content
- Responsible Service of Alcohol
- Attributes of the Professional Bar Tender
- Customer Care
- Basic Bar Law
- Service of Beverages; alcoholic and non alcoholic
- Product Knowledge
- Cellar and Cold Room equipment
- Cocktails and Wines/Service of Wine
- Use of Equipment e.g. Cash Register, EPOS, Glass Washer etc.
- Cocktail Competition

Award
Certificate in Bar Operations.

CIT's Bar Training Facilities



Transport & Automobile Technology

Head of Department
John O'Shea, BEng, CEng, FIEI, FIChemE

Department Secretary
Michelle Foran
T: (021) 4326273
E: michelle.foran@cit.ie

Department of Education & Science Technological Certificate Courses:

Garage Management and Organisation
Motor Car Engineering (Elementary) and Automobile Electricity (Elementary)
Motor Car Engineering (Intermediate)
Motor Car Engineering (Advanced)
Automobile Electricity (Intermediate)
Automobile Electricity (Advanced)

Garage Management & Organisation

Course Code	Course Fee	Enquiries
CR_EGOMA_6	€480 (inc. exam fee)	Pat O'Shaughnessy T: (021) 4326250 E: pat.oshaughnessy@cit.ie

Duration
One night per week for one academic year.

Entry Requirements
Department of Education and Science Technological Certificate (Intermediate) or equivalent.

Course Content
Management
Finance
Consumer and Commercial Law
Administration
Organisation and Reception
Data Protection Service advisor role
Block Exemption Regulations
Insurance Policies
Business Planning
Total Quality Management

Award
Department of Education and Science Technological Certificate
IMI Certificate

Awarding Body
Department of Education and Science
The Institute of the Motor Industry.

Motor Car Engineering (Elementary) and Automobile Electricity (Elementary)

Course Code	Course Fee	Enquiries
CR_TMCEE_6	€480 (inc. exam fee)	Michael O'Riordan T: (021) 4326329 E: michael.oriordan@cit.ie

Duration
One night per week for one academic year.

Course Content
Engines
Transmission
Brakes
Suspension
Steering
Automobile Electronics

Award
Technological Certificate (Elementary Level) is awarded to candidates who complete the Elementary level examinations within a specified time. Single subject certification is also provided.

Awarding Body
Department of Education and Science.

Motor Car Engineering (Intermediate)

Course Code	Course Fee	Enquiries
CR_TMCMI_6	€480 (inc. exam fee)	Michael O'Riordan T: (021) 4326329 E: michael.oriordan@cit.ie

Duration
One night per week for one academic year.

Course Content
Engine Construction
Engine Components
Timing Diagrams
Diesel Engine Systems
Petrol Injection
Transmission Systems
Gearboxes
Drive Layouts
Steering and Suspension
Brake Systems

Award
Technological Certificate (Intermediate Level) is awarded to candidates who complete the Motor Car Engineering (Intermediate Level) examination and one other Intermediate Level examination within a specified time.
Single subject certification is also provided.

Awarding Body
Department of Education and Science.

Motor Car Engineering (Advanced)

Course Code	Course Fee	Enquiries
CR_TMCMA_6	€480 (inc. exam fee)	Gary O'Neill T: (021) 4326329 E: gary.oneill@cit.ie

Duration
One night per week for one academic year.

Course Content
Diesel and Petrol Systems
Emission Controls
Rotary Piston Engine
Valve Timing
Transmission Systems
Epicyclic Gearbox
CVT and Wheel Drive
Power Assisted Steering
Traction Control
Air Conditioning
Safety Restraint Systems (SRS)

Award
Technological Certificate (Advanced Level) is awarded to candidates who complete the Motor Car Engineering (Advanced Level) and one other Advanced Level examination within a specified time.
Single subject certification is also provided.

Awarding Body
Department of Education and Science.

Automobile Electricity (Intermediate)

Course Code	Course Fee	Enquiries
CR_TMCEI_6	€480 (inc. exam fee)	Gary O'Neill T: (021) 4326329 E: gary.oneill@cit.ie

Duration
One night per week for one academic year.

Course Content
Circuits
Sensors
Actuators Displays
Fault-finding
Testing Ignition Systems
Injection
Lighting and Cooling Systems
ABS Braking and SRS Systems

Award
Technological Certificate (Intermediate Level Examination) is awarded to candidates who complete the Motor Car Engineering (Intermediate Level) examination and one other Intermediate Level examination within a specified time.
Single subject certification is also provided.

Awarding Body
Department of Education and Science.

Automobile Electricity (Advanced)

Course Code	Course Fee	Enquiries
CR_TMCEA_6	€480 (inc. exam fee)	Noel O'Halloran T: (021) 4326329 E: noel.ohalloran@cit.ie

Duration
One night per week for one academic year.

Entry Requirements
Applicants must have completed Motor Mechanics Phase 6 and have completed Automobile Electricity (Intermediate).

Course Content
Starter Motor Circuits
Electronic Ignition
Coil Over Plug and Glow Plug Circuits
Engine Alignment Systems
Lighting Systems
CAN Bus
Cruise Control
Instruments and Displays
Climate Controls
Lighting Circuits
Locking and Security Systems

Award
Technological Certificate (Advanced Level) is awarded to candidates who complete all the Motor Car Engineering (Advanced Level) and one other Advanced Level examination within a specified time.
Single subject certification is also provided.

Awarding Body
Department of Education and Science.

CIT Crawford College of Art & Design

Sharman Crawford Street, Cork.
T: (021) 4335220 | F: (021) 4962267

Head of College
Orla Flynn | E: orla.flynn@cit.ie

Head of Department of Art Therapy & Continuing Visual Education
Ed Kuczaj | E-mail: ed.kuczaj@cit.ie

Evening Courses

Areas of Study:
Life Drawing
Drawing/Painting
Photography
Stained Glass
Pottery
Textiles

Weekend Courses

Art Therapy Summer School
Certificate in Principles of Art Therapy (Foundation Course)
Certificate in Arts in Group Facilitation
Certificate in Arts Participation and Global Development
Art Therapy Introductory Weekend Workshops
Folder Preparation Course
Crawford Art Summer School

Enrolment will take place at the CIT Crawford College of Art & Design on Thursday 9th September 2010, from 5.30pm to 8.30pm. All fees must be paid in full on enrolment.

These modules generally run on week nights, one night per week over 24 weeks from October to April. For more information, please view: www.cit.ie/courses

Crawford College also runs occasional short Art courses in the above areas. These are advertised on www.cit.ie.

Life Drawing – beginners/advanced

Tutors: Helle Helsner & Helen Farrell
Monday & Wednesday

The beginner's course is a basic course in objective drawing, from the model, in various media (pencil, ink, charcoal, etc.).

The advanced life drawing course is intended for artists and students who already have basic drawing skills. The course will explore new approaches to observational drawing as well as working with traditional drawing methods. This will enable students to work through the various problems that arise through the process of life drawing within a contemporary art context. Applicants should be familiar with gesture drawing and have a basic understanding of proportion and perspective.

Drawing/Painting

Tutor: Eileen Healy
Tuesday & Thursday

A drawing course for beginners and those with some experience who wish to improve their drawing skills. This course deals with improving visual concentration and eye to hand co-ordination in the studio. The course incorporates the use of colour, still life and life model.

The painting course begins with the essential practice of drawing and gradually leads to painting in acrylic or oil. The course deals with colour mixing, use of materials, and painting techniques while using still life and the model as subject matter.

Photography – beginners/advanced

Tutor: Roseanne Lynch
Thursday

The basic course for beginners is concerned with developing the student's ability to operate camera controls to produce composed, sharp pictures under normal and studio lighting conditions. Developing and printing of black and white photographs is an integral part of the course. The advanced course builds on and develops the skills of the student further and students enrolling for the advanced course should have completed the beginners course.

Stained Glass

Tutor: Sue Wainwright
Tuesday

A practical course in glass design. Techniques for cutting, painting, firing, leading and soldering are covered. Please note that there is an extra costing (not included in the Course Fee) for the materials used in the class.

Pottery – beginners/advanced

Tutors: Orla Boyle/Mary Timmons
Monday & Tuesday

The beginners course is specifically designed for the novice to clay and will incorporate basic coil and slab-building techniques, with a brief introduction to the potter's wheel. A variety of decoration methods and glaze applications will also be considered.

The advanced course is geared towards those who have already explored the basic processes of working with clay. Therefore an emphasis on the designing of each piece, from start to finish and particular attention to decoration and glaze application will assume greater importance.

Textiles

Tutor: Caroline Smith
Tuesday

This course offers a wide variety of Textile techniques including silk screen-printing and print techniques such as weaving, felt making, batik and paper making. The course is ideal for beginners or people with previous experience, and is suitable for all ages.

Art Therapy Summer School 2011

This is a five-day experiential art therapy workshop exploring a theme and one's personal journey therein. This course is highly recommended. It will run for five days in July or August 2011. (Dates to be announced). Please contact Louise Foott for enrolment and course details.
E-mail: louise.foott@cit.ie

Certificate in Principles of Art Therapy (Foundation Course) 2011 - 2012

This course offers a further introduction to Art Therapy, from October to April (Saturday 10am - Sunday 3pm, to accommodate travel arrangements). It usually falls on the second weekend of the month and runs over eight weekends.

Each weekend students will participate in experiential workshops with qualified arts therapists. A variety of approaches to Art Therapy is introduced through workshops, lectures and seminars. This is a 10 credit level 8 course.

Entry to this course is by interview. Closing date for application is the end of April 2011.
Please contact Louise Foott for enrolment details.
E-mail: louise.foott@cit.ie

Certificate in Arts in Group Facilitation 2011 - 2012

This course 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. It is run one weekend a month for ten weekends from September through to June, (Friday or Saturday, 10am; Sunday, 3.30pm) including six three day weekends.

There will be a total of 26 training days. Participants will also carry out approximately 10 hours of work practice in their own time. This is a 10 credit level 8 course.

Closing date for application is the end of April 2011. Please contact Louise Foott for enrolment details.
E-mail: louise.foott@cit.ie

Certificate in Arts Participation and Development: Creative Approaches to Global Education and Action

This 10 credit level 8 course explores the use of creativity in approaching issues of participation in global educational and action issues. The course combines presentations, case studies and group participation with a focus on experiential learning. The course is aimed at artists, youth workers, community workers, teachers, educators and volunteers who are interested in developing a global perspective in their practice. It runs over 8 weekends including three 3 day weekends (Fri – Sun).

For further details contact ccad.globalarteduc@cit.ie

Art Therapy Introductory Weekend Workshops

Each weekend will consist of an exploration of the theory and practice of Art Therapy, together with an opportunity to work experientially. Introductory weekends are normally held in November, March and May each year.

Please contact Louise Foott for enrolment details and dates.
E: louise.foott@cit.ie

AR015 Folder Preparation Course

(Saturday mornings, Max. 22)

Course Fee: €480
Saturdays 10am - 1pm

This is a 15-week course suitable for those seeking art college entry. It will take place on Saturdays from 10am - 1pm. Participants will be tutored in composition, observational drawing, life drawing, painting, and developing a sketchbook. Other activities, such as photography, collage, 3D, and gallery visits are covered during the course. Tuition will be given in developing a well-balanced portfolio.

Enrolment by post or in person on Thursday 9th September 2011 from 5.30pm - 8.30pm.

Crawford Art Summer School 2011

The College offers a one-week summer school in Painting, Drawing, and other visual activities subject to demand. This programme is designed to reach out to all ages and abilities. It provides an atmosphere in which to learn, enjoy and experiment in the arts.

Please contact the office in May 2011 for a brochure on the above course.
T: 021 4335220
E: ccad.enquiries@cit.ie

Course fees are inclusive of cost of practice materials only. Students undertaking individual projects are required to provide their own materials.

Senior citizens (over 65 years) will be entitled to a 50% reduction. Evidence of entitlement may be required.

People enrolling for a course paid for by a Community Employment Scheme (or similar) must produce at enrolment written undertaking of payment by scheme.

All courses will run subject to minimum enrolment. All course fees must be paid in full on enrolment. Course lecturing staff may be subject to change.

Please note that all times are subject to change.

For enrolment details please contact
CIT Crawford College of Art & Design,
Sharman Crawford Street,
Cork.
T: (021) 4335220
E: ccad.enquiries@cit.ie

CIT Cork School of Music

Union Quay, Cork T: (021) 480 7300

Director
Dr Geoffrey Spratt | E: geoffrey.spratt@cit.ie.

Head of School
Aiveen Kearney | E: aiveen.kearney@cit.ie.

Head of the Department of Keyboard Studies
Dr Gabriela Mayer | E: gabriela.mayer@cit.ie.

Acting Head of the Department of String Studies
Joan Scannell | E: joan.scannell@cit.ie.

Head of the Department of Wind, Percussion, Voice & Drama Studies
John O'Connor | E: john.oconnor@cit.ie.

Head of the Department of Musicianship & Academic Studies
Maria Judge | E: maria.judge@cit.ie.

Courses

Choral Groups
Instrumental Groups

Adult Music Literacy
Courses for Teachers
Individual Tuition
Recitals and Concerts
Choral Groups

Fleischmann Choir
Wind Ensemble
Jazz Big Band
Symphony Orchestra

Choral Groups

Fleischmann Choir
Rehearsals for this large, mixed-voice choir take place on Monday evenings from 7.45pm - 10.15pm. The conductor is Dr Geoffrey Spratt (Director of the CIT Cork School of Music and Founder-Conductor of the Irish Youth Choir, Fleischmann Choir & Canticum Novum). This group specialises in singing large-scale works for choir and orchestra.

In recent years it has performed Beethoven's *Mass in C*, Berlioz's *Grande Messe des morts [Requiem]* (in both Wales and Ireland) and *Te Deum*, Borodin's "Polovtsian Dances" from Prince Igor, Brahms' *Ein deutsches Requiem & Nänie*, Bruckner's *Te Deum*, Angel Climent's *Missa solemne* & Motet: *Caro mea*, Dvorák's *Mass*, Fauré's *Requiem*, Fleischmann's *Clare's Dragoons & Song of the Provinces*, Grieg's Incidental Music for *Peer Gynt*, Handel's *Messiah, Zadok the Priest & Chandos Anthem* No.1, Haydn's *Missa in tempore belle*, *The Seasons & The Creation*, Hummel's *Alma virgo*, Bryan Kelly's *Africa*, Mathias's *Ave Rex*, Mozart's *Requiem*, Orff's *Carmina Burana*, Poulenc's Gloria, Stainer's *The Crucifixion*, Vaughan Williams' *Serenade to Music*, Verdi's *Missa da Requiem* (in both Germany and Ireland) and Vivaldi's *Dixit Dominus & Gloria*, as well as music by J. S. Bach, Beethoven, Bernstein, Bizet, Britten, Clucas, Donizetti, Elgar, Holst, Mascagni, Mathias, Mozart, Parry, Puccini, Purcell, Stanford, Tchaikovsky, Vaughan Williams and Verdi, carols, folksong arrangements, gospel arrangements, Negro spirituals and opera choruses.

The choir's programme for the 2008-2009 season included the first complete performances in Cork of Haydn's *The Seasons* with the RTÉ Concert Orchestra and a team of internationally-renowned soloists. Details of the programme for the 2010-2011 and 2011-2012 seasons will be available from the CIT Cork School of Music's Public Office on or after 1 September 2010. The former will include performances of Britten's *St Nicholas* and Puccini's *Messa di Gloria* with the CSM Symphony Orchestra.

Membership is open to enthusiastic and committed choral singers; auditions are held if the number of applications exceeds the number of vacancies for any given section. Applicants should complete the application form available from the School's Public Office T: (021) 4807301.

Instrumental Groups

CSM Wind Ensemble
The CSM Wind Ensemble is a flexible group of up to forty members that caters for wind and percussion players of at least Grade VIII standard. The Wind Ensemble rehearses on Wednesday nights from 8pm - 10pm and is directed by John O'Connor (Head of the CIT Cork School of Music's Department of Wind, Percussion, Voice & Drama Studies). The ensemble explores advanced repertory written specifically for wind groups, ranging from the wind serenades of Mozart to contemporary works.

Details of the programme for the 2010-2011 season will be available from the School's Public Office on or after 1 September 2010. Applications are welcome from external players who may be members of other bands; entry is subject to audition. Applicants should complete the relevant application form available from the School's Public Office T: (021) 4807301.

Jazz Big Band
Rehearsals for this 20-piece ensemble take place on Monday nights from 8pm - 10pm under the direction of John O'Connor (Head of the CIT Cork School of Music's Department of Wind, Percussion, Voice & Drama Studies). 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.

Symphony Orchestra
Rehearsals take place on Tuesday nights from 7.30pm - 10pm. The conductor is Dr Geoffrey Spratt, (Director of the CIT Cork School of Music and Founder-Conductor of the Irish Youth Choir and Fleischmann Choir). All the members are of at least Grade VIII standard and the orchestra performs the 19th- and 20th-century literature for large orchestra, regularly accompanies distinguished instrumental soloists, and performs the oratorio repertory with the School's Fleischmann Choir. The orchestra also undertakes other projects as they arise; for example, the highlights of its 2008-2009 season were performance of concertos by Samuel Barber (for violin) and John Tavener (*The Protecting Veil* for cello), Elgar's *"Enigma" Variations* and Ravel's *The Bolero*.

Details of the programmes for the 2010-2011 and 2011-2012 seasons will be available from the School's Public Office on or after 1 September 2010. The former will include music by Malcolm Arnold and Gordon Jacob, Tchaikovsky's *Symphony No. 6* ("Pathétique") and Puccini's *Messa di Gloria* with the Fleischmann Choir.

Applications are welcome from external players who may be members of other orchestras; entry is subject to audition. Applicants should complete the relevant application form available from the School's Public Office T: (021) 4807301.

Adult Music Literacy
Adults who wish to become musically literate may enrol for this weekly class.

Courses for Teachers
In addition to the Adult Music Literacy classes, which are offered to adults wishing to improve their musical skills, the School offers courses in Practical Keyboard Skills for Primary and Post-Primary Teachers, and anyone involved in accompanying choirs or group singing. Using the School's unique Piano*labs*, small groups are helped to develop the skills needed to accompany choirs and class singing. Post-Primary School Teachers also have the opportunity to explore the new elements of the Junior and Leaving Certificate courses, which incorporate backing chords and improvisation. A limited number of places also exist for teachers who wish to develop their conducting skills, focusing on choral work.

Individual Tuition
A limited number of vacancies may arise for individual tuition in singing, speech, theory of music and certain instruments. Whilst enrolments normally take place in April and are subject to audition/interview, enquiries about vacancies are welcome at any time. Applicants should consult the School's Enrolment Information Booklet, then consult the relevant Head of Department, and, finally, complete the relevant application form(s) available from the School's Public Office.

Recitals and Concerts
The CIT Cork School of Music hosts a wide-ranging series of 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. Full details are to be found in the Music Diaries distributed free of charge by the School and Cork Orchestral Society each term/session.

Further information may be obtained from the CIT Cork School of Music, Union Quay, Cork T: (021) 4807301.

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E&OE

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For application forms log on to:

http://www.cit.ie/eveningandweekendcourses

www.cit.ie

CIT

Continuing Education
2010-2011