MTU’S MISSION
To lead change and, through education, empower people for a successful future in a globalised world.

MTU VISION
To lead transformation through education.

MTU VALUES
We are inclusive, engaging, dynamic and bold.

Access to onsite campus facilities and services for staff and students will be guided as per the prevailing public health restrictions. The COVID-19 pandemic and associated public health restrictions may present challenges for students and staff alike and will dictate our activities. Up to date information here.
incorporating
MTU Bishopstown Campus, Cork
MTU Cork School of Music
MTU Crawford College of Art & Design
National Maritime College of Ireland
MTU North Campus, Kerry
MTU South Campus, Kerry

CONTINUING EDUCATION COURSES
2021 - 2022

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

T: 021 432 6100
E: infoCork@mtu.ie
W: www.mtu.ie

Twitter: @mtu_ie
Facebook: www.facebook.com/mymtu
Welcome from 
MTU President

This year’s Continuing Education Handbook is being launched at a very exciting time since Munster Technological University came into being on 1st January 2021. It is, of course, also a challenging time for everyone as we strive to manage the impact of the COVID-19 pandemic. The need for, and the value of, continuing education and training and the pursuit of Lifelong Learning has never been more relevant. Across MTU we have embraced remote teaching and learning platforms to ensure continuity of education for our students.

As we face into the 2021/2022 academic year we can assure you that we will continue to make the most relevant, high quality and profession-focussed courses available to our part-time and continuing education learners. Our courses continue to be delivered in a manner that is in line with current Public Health guidelines and we will always put the MTU Learner at the centre of our delivery. As always, the range of courses being made available will be interesting, enriching and relevant. We hope you can join us on what will be an exciting learning journey over 2021/2022.

With such a range of courses on offer, I hope that you find what you’re looking for at MTU – Succeeding Together.

Professor Maggie Cusack, 
President of Munster Technological University
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School of Business

Organisation & Professional Development
Bachelor of Arts in Human Resource Management (Level 7)
Bachelor of Arts (Honours) in Human Resource Management (Level 8)
Master of Arts in Human Resource Management (Taught) (Level 9)
Master of Business Administration in Strategy (Level 9)

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

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

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

Accounting & Information Systems
Bachelor of Business (Honours) in Accounting (Level 8)
Certificate in Designing Innovative Services (Level 8)

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

School of Humanities

Applied Social Studies
One Year Certificate in Counselling Skills (Level 6)
Higher Certificate in Arts in Counselling Skills (Level 6)
Bachelor of Arts (Honours) in Counselling & Psychotherapy (Level 8)
Master of Arts in Integrative Psychotherapy (Level 9)
Master of Arts in Play Therapy (Level 9)
Tourism & Hospitality
Bachelor of Arts in Culinary Arts (Level 7) – National Chef de Partie Apprenticeship
Bachelor of Arts (Honours) in Culinary Arts (Level 8) – National Sous Chef Apprenticeship
Higher Certificate in Arts in Culinary Arts – Professional Chef Programme (Level 6)
Certificate in Culinary Skills (Level 6)
Bakery, Breads & Pastry (Level 6)
Pastry, Tarts & Gateaux (Level 6)
Gourmet Culinary Techniques (Level 6)
Professional Bar Operations (Level 6)
The Art of Mixology (Level 6)
Food Photography (Level 7)
Management Principles for Services (Level 6)
Revenue Management & Distribution (Level 8)
Certificate in Retail Food Service Operations

School of Building & Civil Engineering

Civil, Structural & Environmental Engineering
Higher Certificate in Engineering in Civil Engineering (Level 6)
Bachelor of Engineering in Civil Engineering (Level 7)
Bachelor of Engineering in Environmental Engineering (Level 7)
Certificate in Building Information Modelling (BIM) Technologies (Level 7)
Certificate in Strategic Building Information Modelling Management (Level 8)
Certificate in Applied Building Information Modelling and Management (Level 8)
Bachelor of Science (Honours) in Building Information Modelling and Management (Level 8)
Postgraduate Diploma in Science in BIM and Digital AEC (Level 9)
Master of Engineering in Structural Engineering (Level 9)
Master of Engineering in Civil Engineering (Environment and Energy) (Level 9)
Short CPD Courses
Building Regulatory Engineering
Fire Engineering Design
Fire Safety Certification
Fire Safety Engineering
Practical Land Surveying
Digital Land Surveying and GPS

Construction
Master of Science in Construction Project Management
Certificate in Mechanical & Electrical Quantity Surveying (Level 8)
Higher Certificate in Science in Construction (Level 6)
Bachelor of Science in Construction Management (Level 7)
Bachelor of Science in Quantity Surveying (Level 7)
### Mechanical, Biomedical and Manufacturing Engineering

- Bachelor of Engineering in Mechanical Engineering (Level 7)  
- Mechanical Engineering Science (Level 6)  
- Certificate in 3D CAD and Solid Modelling (Level 6)

### Centre for Advanced Manufacturing and Management Systems (CAMMS)

1.0 Mechanical, Electrical and Plumbing – BIM Applications
2.0 Lean & Six Sigma Programmes
   - 2.1 Introduction to Lean & Six Sigma
   - 2.2 Lean Sigma Yellow Belt
   - 2.3 Lean Sigma Green Belt
   - 2.4 Lean Sigma Black Belt
   - 2.5 Lean Sigma Master Black Belt
   - 2.6 Continuous Improvement for Production Teams
3.0 Project Management Programmes
   - 3.1 Diploma in Project Management
   - 3.2 Project Management Techniques
4.0 Automation & Control Systems Programmes (Level 7)
   - 4.1 Certificate in Automation & Control Systems
     - 4.1.1 Mechatronics
     - 4.1.2 SCADA and Automation Systems
     - 4.1.3 Robotics
   - 4.2 Certificate in Advanced Mechatronics (Level 8)
     - 4.2.1 Advanced Mechatronics Part 1
     - 4.2.2 Advanced Mechatronics Part 2
   - 4.3 Certificate in Digitised Automotive Operations (Level 7)
5.0 Manufacturing Engineering
   - 5.1 Certified Manufacturing Engineer (CMfgE)
   - 5.2 Metrology Training (AUKOM Level 1)
   - 5.3 Certificate in Computerised Production & Inspection Processes
   - 5.4 Certificate in Intelligent Manufacturing Systems
   - 5.5 Certificate in Biomedical Device Manufacture
6.0 Bachelor of Engineering Degrees
   - 6.1 Bachelor of Engineering (Honours) in Process Plant Technology
   - 6.2 Bachelor of Engineering (Honours) in Advanced Manufacturing Technology

### Process, Energy & Transport Engineering

- Master of Engineering in Chemical & Biopharmaceutical Engineering (Level 9)
- Certificate in Biopharmaceutical Processing (Level 7)
- Certificate in Process Safety (Level 7)
- Certificate in Validation Science (Level 7)
- Bachelor of Science in Good Manufacturing Practice & Technology (Level 7)

### Short Courses – Special Purpose Awards

- Science of Biotechnological Manufacturing Operations (Level 6)
- Certificate in Cleanroom Manufacturing Practices (Level 6)
- Certificate in Brewing & Distilling Operations (Level 7)
### School of Science & Informatics

**Physical Sciences**

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<thead>
<tr>
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<tr>
<td>Higher Certificate in Science in Industrial Measurement &amp; Control</td>
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<td>Bachelor of Science (Honours) in Instrument Engineering</td>
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<td>Certificate in Advanced Industrial Automation</td>
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</tr>
<tr>
<td>Certificate in PLC Based Automation Systems</td>
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<tr>
<td>Certificate in Introduction in PLC Based Automation Systems</td>
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</tr>
<tr>
<td>Certificate in Industrial Instrumentation and Calibration</td>
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<td>Certificate in Quality Assurance</td>
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<tr>
<td>Diploma in Quality Management Part 1</td>
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<td>Diploma in Quality Management Part 2</td>
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**Mathematics**

<table>
<thead>
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<th>Course</th>
<th>Level</th>
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<tr>
<td>Higher Diploma in Science in Data Science &amp; Analytics</td>
<td>8</td>
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<tr>
<td>Certificate in Process Data Analytics</td>
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**Computer Science**

<table>
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<tr>
<td>Master of Science in Artificial Intelligence</td>
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<tr>
<td>Master of Science in Cloud Computing</td>
<td>9</td>
</tr>
<tr>
<td>Master of Science in Software Architecture &amp; Design</td>
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<tr>
<td>Master of Science in Cybersecurity</td>
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<tr>
<td>Master of Science in Cybersecurity Management</td>
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<td>Master of Science in Information Design &amp; Development</td>
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<td>Higher Diploma in Science in Cloud Computing</td>
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<td>Higher Certificate in Science in Software Development</td>
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<tr>
<td>Bachelor of Science in Software Development</td>
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### National Maritime College of Ireland

**Maritime Studies**

<table>
<thead>
<tr>
<th>Course</th>
<th>Level</th>
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<tbody>
<tr>
<td>Bachelor of Business (Honours) in Global Supply Chain Management</td>
<td>8</td>
</tr>
<tr>
<td>Bachelor of Business in Supply Chain and Transport Management</td>
<td>7</td>
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<tr>
<td>Certificate in Biopharmaceutical Supply Chain Management</td>
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<td>Certificate in Customs and Global Trade Management</td>
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Sight-Singing Classes 165
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Individual Tuition 165
### Arts in Health & Education
- Master of Arts in Art Therapy (Level 9)
- Certificate in Creativity & Change (Level 9)
- Master of Arts in Arts and Engagement (Level 9)
- Certificate in Eco Arts Practice (Level 9)

### Weekend Courses
- Certificate in Socially Engaged Theatre (Level 8)
- Certificate in Principles of Art Therapy (Level 8)
- Certificate in Arts in Group Facilitation (Level 8)
- Art Therapy Summer School
- Introductory Days – Art Therapy & Participatory Arts

### Fine Art & Applied Art
- Master of Arts in Art & Process (Level 9)
- Portfolio Preparation
- Summer Portfolio Preparation Course

### Evening Classes
- Ceramics: Processes and Techniques (Level 6)
- Ceramics: Bringing Your Ideas to Life (Level 7)
- Ceramics: Decorating Surfaces (Level 7)
- Ceramics: The Potter's Wheel (Level 7)
- Drawing and Painting Processes (An Introduction) (Level 6)
- Drawing and Painting – Developing Visual Language (Level 7)
- Life Drawing: Media and Approaches (Level 7)
- Life Drawing: Advanced (Level 8)
- Darkroom Photography: Mastering the Basics (Level 6)
- Darkroom Photography Now (Level 7)
- Digital Photography: Beginning Image Making (Level 6)
- Digital Photography and Storytelling (Level 7)
- Introduction to Digital Video Techniques (Level 6)
- Digital Video and Storytelling (Level 7)
- Textiles: Techniques and Materials (Level 6)
- Creating 2D and 3D Textile Art (Level 7)

### Media Communications
- Master of Arts in Journalism and Digital Content Creation (Level 9)
- Master of Arts in Public Relations with New Media (Level 9)
- Master of Arts in E-Learning Design and Development (Level 9)
- Certificate in Digital Media Design and Development (Level 8)
- Certificate in TV Production (Level 8)
Munster Technological University awarded over €2.2m to provide 837 places across a range of courses developed to address industry skills needs

These funded places are spread over 28 courses in a broad range of disciplines including Cloud Computing, Data Science and Analytics, Quantity Surveying, Culinary Skills, Pharmacy Management, Circular Economy as well as in Sustainable Agriculture, Automation & Control, Supply Chain Management, Manufacturing Practices & Systems, Information Design & Development, Building Information Modelling (BIM) with Revit, Leadership and Transformational Change, and Automotive Operations.

Springboard+ courses are free for people who are unemployed, those who were previously self-employed and returners to the workforce. Courses at NFQ Level 6 are also free for those in employment. For employed participants on courses NFQ level 7 – 9, 90% of the course fee is funded by the Government, with participants required to contribute just 10% of the fee.

MTU is committed to industry engagement and our partnerships with enterprises and representative groups, such as the South-West Regional Skills Forum, ensure that our courses are current and relevant. The work-based learning approach which has been designed into these courses will maximise the employability of the graduates.

Please visit Springboard+ for more detailed information, and how to apply [https://springboardcourses.ie](https://springboardcourses.ie)
About Munster Technological University

Whatever your plans and talents MTU 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, MTU has a varied part-time and evening programme, one of the largest at third level in the country.

MTU has six principal campuses
www.mtu.ie

MTU Bishopstown Campus, Cork
MTU Crawford College of Art & Design, Cork
MTU Cork School of Music, Cork
National Maritime College of Ireland, Ringaskiddy, Co. Cork
MTU North Campus, Kerry
MTU South Campus, Kerry

The student population comprises approximately 18,000 between full-time and part-time courses. Courses are offered in Engineering, Science, Business, Humanities, Fine Art, Applied Art, Photography, Multimedia, Nursing, Outdoor Activity, Wildlife, Informatics, Music, Musical Theatre, and Theatre & Drama at Higher Certificate, Degree and Honours Degree level. There is also an extensive range of postgraduate research and taught programmes at Masters and Doctoral level.

Quality and Qualifications
Ireland (QQI)

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

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

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

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

Effective contact with industry is a key objective of the University. 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 University.

MTU offers students an opportunity to pursue courses of proven merit in a progressive and caring environment where students’ needs are treated as paramount.
Student Email System

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

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

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

MTU Smart Card

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

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

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

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

E: cardoffice@mtu.ie

Opening Hours
Monday to Thursday 8.30am – 1.00pm & 1.30pm – 4.30pm
Friday 8.30am – 1.00pm & 2.00pm – 4.30pm

For the first semester, the Office is also open from 5.00pm to 7.30pm Monday to Thursday for the first 3 weeks. For the second semester, the Office is also open from 5.00pm to 7.00pm Monday to Thursday for the first 2 weeks.

Gerard Daly – weave detail
MTU Fees Office in Cork

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

Fees
Details of course fees are included with the course information in this handbook. Students should note that fees quoted relate to the academic year 2021/2022 only and are subject to change on an annual basis. Except where stated, course fees cover the cost of tuition only. Registration fees for professional bodies etc. are payable separately to these institutions.

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

Students can check their account balance and pay their fees online at here

Failure to pay fees on time will result in a late payment fee of 10% being applied and students will no longer have access to the following IT facilities:
- Student Email
- PCs on Campus
- Blackboard
- Library Search
- Card Topup
- Password Reset
- Wifi Registration
- Get Microsoft Office
- Access Student Drive

- Where course fees are being funded by an employer, you are asked to seek payment or reimbursement from your employer. Where an employer requires an invoice in their Company name the employer must e-mail feesCork@mtu.ie with the relevant details and the amount of fees they will be funding.
- For semesterised courses, students pay for the relevant modules at the beginning of each semester. Payment of fees by laser, debit or credit card can be made online here or by phoning 021 433 5440.

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

Withdrawing from a course
Students who wish to withdraw from their course must complete the Online Withdrawal Form[click here] and submit it to the MTU Admissions Office as soon as possible. Where students fail to inform admissions of their withdrawal they will remain liable for any unpaid fees on their accounts.

E-mail AdmissionsCork@mtu.ie

Refund Policy

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

The following refund policy applies to all courses detailed in this handbook for the 2021/2022 academic year:

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

Please note that the Fees Office will use your MTU email account for important communications.
MTU Examinations Office in Cork

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

Entering for examinations is the responsibility of the registered student.

Semester examinations
For semester 1, 2 and 3 examinations, students should ensure they are correctly registered for all required modules by the deadlines indicated.

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

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

Fees: Only students who have completed their registration processes (i.e. paid their fees in full) are entitled to sit examinations.

Employer paying fees: If the student’s employer or any outside agency is paying his/her fees, the onus is on the student to ensure that the correct fees are paid in full, please email AdmissionsCork@mtu.ie

Students with disabilities requesting examination supports
Students with disabilities, specific learning differences or health/medical conditions may be entitled to examination supports, such as extra time, reading software, typing, or smaller exam room for their exams. In order to receive this support, students will need to complete the DSS online application form, submit relevant documentation, and have a DSS Needs Assessment. It is important to note that there are application deadlines for exams in semester one and semester two.

T: 021 433 5107/5137
E: dssCork@mtu.ie

Bombard - Student Engagement Exhibition at the James Barry Exhibition Centre, MTU Bishopstown Campus.
MTU Access Service in Cork

MTU Access Service in Cork is committed to widening participation, increasing access and supporting positive educational outcomes for under-represented groups. The Access Service is strongly committed to providing a high quality, professional and student-centred service. This is achieved by a strong commitment to the principles of social inclusion and by working locally, regionally and nationally in partnership with key stakeholders. The Access Service provides a range of supports for student groups who are under-represented at third level. We support
- students with disabilities
- mature students
- Further Education award holders
- students who experience socio-economic disadvantage
- members of minority ethnic groups

The Access Service provides a wide range of pre-entry, entry and post-entry supports that enhance the academic experience and learning outcomes of the students who engage with the Service. Supports include: personal; academic; and financial supports.

Contact
T: 021 433 5138
E: AccessCork@mtu.ie

Disability Support Service (DSS)

If you are a new student or are already studying in MTU you may need to contact the Disability Support Service (DSS) if you feel like you may need some extra support due to your learning difference, disability or health condition.

We can guide and support you to access your course, achieve your academic goals and become a more independent learner. The DSS Student Guide will give you valuable information on the DSS and how to apply for supports/reasonable accommodations. The DSS is a confidential service.

The DSS offers a range of supports including learning support, assistive technology, confirmation of exam supports, physical access to campus, sign language interpreters/stereotyping etc., (availability of supports may be dependent on funding available). Students are recommended to apply for support from the DSS as early as possible in the academic year.

You can apply for support from the DSS by filling out the online application form – here and submitting evidence of your disability/medical condition/learning difference.

Contact
Laura Coleman
Disability Support Officer
T: 021 433 5107 / 5137
E: dssCork@mtu.ie
The National Framework of Qualifications

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

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

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

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<thead>
<tr>
<th>Level</th>
<th>Qualification</th>
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<td>Higher Certificate</td>
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<tr>
<td>Level 7</td>
<td>Ordinary Bachelor Degree</td>
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<tr>
<td>Level 8</td>
<td>Honours Bachelor Degree; Higher Diploma</td>
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<tr>
<td>Level 9</td>
<td>Master’s Degree; Postgraduate Diploma</td>
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<tr>
<td>Level 10</td>
<td>Doctoral Degree</td>
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</tbody>
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For more information please visit www.nfq.ie and www.qqi.ie as well as www.mtu.ie
Modularisation & Semesterisation

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

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

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

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

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

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

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

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

Non-EU Applicants
Due to visa and immigration restrictions, non-EU applicants may not register on part-time programmes unless in circumstances where it does not have any implications on their immigration status. Please contact the MTU International Office in Cork for further information on fees and eligibility.

Contact
E: international@mtu.ie
T: 021 433 5300
MTU Extended Campus

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

Customised Courses and In-Company Training

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

Learning Clinic Service

In order to support employers and employees in identifying suitable learning and development pathways MTU offers a Learning Clinic Service. Experienced staff can be available at your premises at a time that suits you to discuss education and training needs to explore the development of tailored courses and the recognition of prior learning.

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

GE Healthcare

Recognition of Prior Learning

“learning from life counts too”

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

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

Access to onsite campus facilities and services for staff and students will be guided as per the prevailing public health restrictions. The COVID-19 pandemic and associated public health restrictions may present challenges for students and staff alike and will dictate our activities. Up-to-date information at here.

Regulations

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

Parking Facilities

Parking facilities are provided at the University. Vehicles parked in non-designated areas will risk being towed away or clamped. Please refrain from blocking access to private residences near the University.

Library

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

Bishopstown Campus
Opening hours during term
Monday – Thursday 8.30am – 9.45pm
Friday 8.30am – 5.30pm
Opening hours outside of term
Monday – Friday 9.00am – 5.30pm
Please visit the main library homepage for Saturday opening hours, and opening hours for other campus libraries, CCAD, CSM, and NMCI.

Banking

ATM facilities are available in the Student Centre.

Catering Facilities

Bishopstown Campus
Food Court
Monday – Thursday: 8.15am to 8.45pm
(Note: Hot food is available until 7.00pm each night)
Friday: 8.15am to 2.30pm
Saturday: 10.00am to 1.30pm
Costa Coffee
Monday – Thursday: 8.15am to 2.45pm
Friday: 8.15am to 4.00pm
The Snack Bar
Monday – Friday: 9.30am to 2.30pm
The Bistro
Monday – Friday: 8.00am to 2.30pm

Retail Facilities

Bishopstown Campus
Quikpick Shop
Monday – Thursday: 8.15am to 6.30pm
Friday: 8.15am to 1.45pm
Quikpick Deli Nexus Market
Monday – Thursday: 8.00am to 4.00pm
Friday: 8.00am to 3.00pm

Admissions/Registrations

T: 021 433 5040  E: AdmissionsCork@mtu.ie
Opening hours
First Three Weeks of Semester 1:
Monday – Thursday
9.30am – 7.00pm
Friday
9.30am – 12.30pm; 2.00pm – 4.00pm
During term:
Monday – Thursday
9.30am – 4.00pm
Friday
9.30am – 12.30pm; 2.00pm – 4.00pm
Outside of term:
Monday – Friday
9.30am – 12.30pm; 2.00pm – 4.00pm

Examinations

E: ExamsCork@mtu.ie
Opening hours
Monday – Friday
8.30am – 12.30pm; 2.00pm – 4.00pm

Accounts/Course Fees

T: 021 433 5440 E: feesCork@mtu.ie
Opening hours
Monday – Thursday
9.30am – 4.00pm
Friday
9.30am – 12.30pm; 2.00pm – 4.00pm

Reception

MTU Bishopstown Campus T: 021 432 6100
MTU Crawford College of Art & Design T: 021 433 5200
MTU Cork School of Music T: 021 480 7300
National Maritime College of Ireland T: 021 433 5600
Chaplaincy/Student Support Team

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

Coordinator of Pastoral Care
Edel Kelly
T: 021 433 5756
E: edel.kelly@mtu.ie

Chaplaincy is a dynamic presence at MTU recognising and responding to the pastoral and spiritual needs of students and staff. We offer a welcoming space and a supportive presence, especially in times of distress, illness and bereavement. We are available throughout the year for support, guidance and advice in complete confidence for those of all faiths and none.

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

MTU Alumni Office in Cork

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

To hear all the latest news and events from MTU please update your email address.

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

Ten Ways for Alumni to Stay Connected to MTU

1. Visit the Website. Gain access to many resources.
2. Update Your Details. Log onto our website to update your contact details or contact the Alumni Office by emailing AlumniCork@mtu.ie
3. Stay Connected Online. Join us on Twitter and LinkedIn.
4. Reminisce. View, post or share photos and tag us at MTU Alumni on Twitter
5. Advocate. Tell the MTU story near and far by submitting a Graduate Profile.
6. Stay Updated. Read and share the latest campus and alumni news from the Alumni E-newsletter. Subscribe by e-mailing AlumniCork@mtu.ie
7. Network. Build MTU connections across the globe through setting up or becoming involved in a MTU Branch near you.
8. Advance Your Career. Tap into professional resources and career services through the MTU Careers Office in Cork.
9. Give Back. Pay it forward by giving to the area of MTU that means the most to you or seek other ways to support MTU as a volunteer or mentor.
10. Return to MTU. Attend MTU events on campus such as seminars, special events or sporting events. Visit the MTU events page and news page for frequent updates.

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

LinkedIn: MTU Alumni Network
Twitter: @MTU_Alumni
HEAD OF SCHOOL
Dr Breda Kenny

The School consists of the following Departments:

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

www.mtu.ie
DEPARTMENT OF ORGANISATION & PROFESSIONAL DEVELOPMENT

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

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

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

HEAD OF DEPARTMENT
Don Crowley

DEPARTMENT SECRETARIES
Eileen O’Mahony
Location: Room D143
T: 021 433 5900
E: opd@mtu.ie

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

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

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

All programmes offered are subject to demand and places may be limited. All online applicants will receive an email confirmation. Details about eligibility, programme orientation, and timetable arrangements will be sent to all applicants in advance of programme commencement.
BACHELOR OF ARTS IN HUMAN RESOURCE MANAGEMENT

COURSE CODE CR_BHRMN_7

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

ENQUIRIES
Olive Murphy O’Dwyer
T: 021 433 5900
E: olive.murphyodwyer@mtu.ie

Course & Module Information, and to apply online, visit go.mtu.ie/CRBHRMN7

Duration & Delivery
Year 1
Semester One – Mondays & Wednesdays, 6pm – 10pm
Semester Two – Mondays, Wednesdays & Thursdays, 6pm – 10pm

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

Year 3
Tuesdays & Thursdays 6pm – 10pm

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

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

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

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

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

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

Content
Year 1 – Modules
Creativity, Innovation & Teamwork
Introduction to Human Resource Management
Training and Development (2 x 5 credit modules)
Employment Law
Employee Relations
Employee Behaviour & Motivation
Recruitment and Selection
Performance Management
HRM IT
Organisational Behaviour
Communications for Business

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

Year 3 – Modules
Learning & Training
Employee Rewards (2 x 5 credit modules)
Corporate Strategy Development
HRM Strategy (2 x 5 credit modules)
Training and Testing
Health and Safety (2 x 5 credit modules)
HRM Profession Project
Research Methods for HRM
Project Management Framework
The BA (Honours) in Human Resource Management is a one year Level 8 add-on programme. This Level 8 Honours Degree will allow graduates to apply for Level 9 Masters programmes and will aid them as their career progresses to strategic roles in organisations.

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

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

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

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

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

Semester 1
Consultancy and Research
Organisational Development
Business Finance
eHRM
Occupational Psychology

Semester 2
Managing an International Workforce
Negotiation
Emerging Markets & Trends
Corporate Strategy Implementation
Concept Acquisition

Consultancy Project, completed over the full academic year. 10 credits (ECTS)
COURSE CODE
CR_BHRMN_9
(Level 9)

Course & Module Information, and to apply online, visit go.mtu.ie/CRBHRMN9

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

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

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

Admission Requirements
Bachelor of Arts (Honours) in Human Resource Management (Level 8) at grade H2.2 or higher. Graduates of cognate Honours programmes who have attained a grade H2.2 and a minimum of 20 credits of HRM modules or HR experience may also be eligible. The programme is offered on a modular basis and requires learners to attain 90 credits.

All applicants whose first language is not English must provide evidence of English language proficiency (IELTS score of at least 6.0). English language tests must be undertaken no more than two years prior to the start of the programme.

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

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

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

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

Stage 1/Semester 1
- International Corporate Strategy
- Professional Employment Law
- HRM in Context
- Coaching and Mentoring (4 Saturdays)

Stage 1/Semester 2
- Applied Corporate Strategy
- Employee Engagement
- Leading, Managing & Developing
- Training & Knowledge Management

Stage 2/Semester 1
- Research Methods
- Reward & Incentive Management
- Performance Management
- Sourcing & Testing

Stage 2/Semester 2
- HRM Dissertation (30 credits)
Aim
The aim of the MBA in Strategy is to enable learners to develop their leadership and strategic management skills, thus raising their individual performance and assisting their organisations achieve success. The MBA enables the learner, as a professional, to review their leadership and management style and identify how they can improve upon same to increase their effectiveness at a senior level in the workplace. The programme allows learners to develop an appreciation of the interconnectedness of all aspects of the organisation, and an appreciation of the role each function must play in delivering on organisational goals. For most learners, moving to a strategic role in their organisation requires an understanding of functions outside of their existing professional competence together with an expert command of the strategic management.

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

All applicants whose first language is not English must provide evidence of English language proficiency (IELTS score of at least 6.0). English language tests must be undertaken no more than two years prior to the start of the programme.

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

Content
Stage 1/Semester 1
• Research Methods
• Exploring Corporate Strategy
• International Performance Management
• Leadership & Organisational Behaviour

Stage 1/Semester 2
• Economics of Global Markets
• International Business Strategy
• Contemporary Issues in Marketing
• IT & Data Analytics

Stage 2/Semester 1
(One Mandatory and One Elective – 10 ECTS)
• International Business Field Trip
• Operations Strategy
• Innovation & Creativity
• Organisational Change Management
• Corporate Finance
• Services Marketing Management

Stage 2/Semester 2
• Research Dissertation

Duration & Delivery
• Two part-time academic years (4 semesters)
• Each semester is of 15 week duration (including examinations).
• Presentation of course consists of lectures, tutorials, case studies, visiting lectures, and site visits.

Stage 1/Semester 1 – Wednesday & Friday
Stage 1/Semester 2 – Wednesday & Friday
Stage 2/Semester 1 – Wednesday & Friday
Stage 2/Semester 2 – Research Thesis

Time: Wed 6pm – 10pm; and Fri 3pm – 8pm.

Award
Master of Business Administration (MBA) in Strategy (Level 9 on the National Framework of Qualifications).
Accounting Technicians are qualified accounting professionals that work at all levels of finance. They can work in all types of organisations and are widely employed throughout the public sector, industry and commerce, and in private accountancy practices. They are involved in the day-to-day practical work of accountancy and play a key operational role in producing reliable financial information. Accounting Technicians can perform a wide range of finance roles, from accounts staff to financial controller and beyond.

Delivery
Tuesday & Thursday, 6.30pm – 9.30pm / 7.00pm – 10.00pm.

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

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

Awarding Body
Accounting Technicians Ireland

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

Content

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

Year 2
- Advanced Financial Accounting
- Advanced Taxation
- Management Accounting
- Financial Data Management
- Work Practice Module - Level 4
- Work Practice Module - Level 5

For further updates on these Work Practice Modules contact Accounting Technicians Ireland.

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

Institute Information
Accounting Technicians Ireland (ATI), 2nd Floor, CA House, 47/49 Pearse Street, Dublin D02 YN40
T: 01 649 8100 www.accountingtechniciansireland.ie

Important Dates
- Exemption Deadline: Friday 8th October 2021. Please note that applications for exemptions must be made directly to the Accounting Technicians Ireland.
- Exam registration closing date: 7th February 2022 (June sitting) and 25th July 2022 (August sitting).
- Registration closing date for 1st year with ATI: 15th October 2021.
- Registration closing date for 2nd year/continuing students: 15th October 2021.

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

Content

Foundation
Financial Accounting
Management Accounting
Taxation
Management Fundamentals

Professional
Financial Reporting
Managerial Finance
Advanced Taxation
Corporate Law
Audit & Assurance
Performance Management

Strategic
Advanced Financial Reporting (Mandatory)
Strategy & Leadership (Mandatory)
Data Analytics for Finance (Elective)*
Advanced Tax Strategy (Elective)**
Advanced Audit & Assurance (Elective)**
Strategic Corporate Finance (Elective)

*Data Analytics for Finance will be delivered online by CPA Ireland.
**MTU will deliver two elective modules at Strategic level

1. Advanced Audit & Assurance and

Institute Information
The Institute of Certified Public Accountants in Ireland
17 Harcourt Street
Dublin D02 W963
T: 01 425 1000
www.cpaireland.ie

Registration with CPA
1st December 2021 for April 2022 Exams
1st June 2022 for August 2022 Exams

Exam Registration Closing Date(s)
1st March 2022 for April 2022 Exams
1st August 2022 for August 2022 Exams

Awarding Body
Institute of Certified Public Accountants in Ireland

Commencement Date
September 2021
The running of this programme will be dependent on a sufficient number of students enrolling on the course. The programme may be withdrawn if this requirement is not fulfilled.

CPA Institute contact details
Exams: Arran Feery T: 01 4251021 E: afeery@cpaireland.ie
Registration for new students: Sinéad O’Donovan
T: 01 4251016 E: sodonovan@cpaireland.ie
Exemptions: Lisa Kelly T: 01 4251024 E: LKelly@cpaireland.ie

Course & Module Information, and to apply online, visit go.mtu.ie/CRBCPAC8
NB: For students pursuing the CPA qualification and Masters programme, an annual payment of €500 to CPA Ireland will apply. This fee will cover, exemptions, student membership of CPA Ireland and all associated exams.

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

**Content**

**Year One**

<table>
<thead>
<tr>
<th>Modules - Full Academic Year</th>
<th>Credits</th>
<th>Semester One Modules</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Advanced Financial Reporting (SL)</td>
<td>10</td>
<td>Strategic Corporate Finance Communications &amp; Professional Development</td>
<td>5</td>
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<tr>
<td>Strategy &amp; Leadership (SL)</td>
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<tr>
<th>Semester Two Modules</th>
<th>Credits</th>
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<tr>
<td>Research Methods</td>
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**Year Two**

<table>
<thead>
<tr>
<th>Modules - Full Academic Year</th>
<th>Credits</th>
<th>Semester One Modules</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Audit &amp; Assurance (SL)</td>
<td>10</td>
<td>Data Analytics &amp; Strategy</td>
<td>5</td>
</tr>
<tr>
<td>Advanced Tax Strategy (SL)</td>
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<table>
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<tr>
<th>Semester Two Modules</th>
<th>Credits</th>
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<tr>
<td>Accounting Inquiry (Research)</td>
<td>20</td>
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<tr>
<th>Work-Based Learning – year one and year two</th>
<th>Credits</th>
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<td>10</td>
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**Professional Level** – Tuesday & Thursday

Managerial Finance  
Financial Reporting  
Corporate Law  
Audit & Assurance

**Strategic Level (SL)** – Monday & Thursday

Strategy & Leadership (M)  
Advanced Audit & Assurance (E)  
Advanced Financial Reporting (M)  
Advanced Tax Strategy (E)

**Entry Criteria**

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

**Institute Information**

The Institute of Certified Public Accountants in Ireland  
17 Harcourt Street, Dublin D02 W963  
T: 01 425 1000 www.cpaireland.ie

**Registration with CPA**

1st December 2021 for April 2022 Exams  
1st June 2022 for August 2022 Exams

**Exam Registration Closing Date(s)**

1st March 2022 for April 2022 Exams  
1st August 2022 for August 2022 Exams

**Awarding Body**

Institute of Certified Public Accountants in Ireland  
Munster Technological University

**Commencement Date**

September 2021  
The running of this programme will be dependent on a sufficient number of students enrolling on the course. The programme may be withdrawn if this requirement is not fulfilled.

**CPA Institute contact details**

Exams: Arran Feery T: 01 425 1021 E: afeery@cpaireland.ie  
Registration for new students: Sinéad O’Donovan T: 01 425 1016 E: sodonovan@cpaireland.ie  
Exemptions: Lisa Kelly T: 01 4251024 E: LKelly@cpaireland.ie

www.mtu.ie
MTU IN PARTNERSHIP WITH CIMA

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

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

CIMA CERTIFICATE IN BUSINESS ACCOUNTING

COURSE FEE
€1,500 (includes recommended CIMA textbooks). *See additional costing below.

ENQUIRIES
Dr Ruth Vance
T: 021 433 5808 E: ruth.vance@mtu.ie
E: cima@mtu.ie

*Additional Costing
Registration and Membership fees of £77, plus examination fees of £100 per subject, are all payable to CIMA.

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

Graduate with the CIMA Certificate in Business Accounting
• Study one subject per month for four months
• Successfully complete the relevant examination at the end of each month

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

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

Subject Delivery
1 x 2hr introductory session (Wednesday 6pm – 8pm)
2 x 8hr full day sessions (2 x Saturdays 9am – 4pm))
1 x 2hr revision and QBR session (Wednesday)

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

Course & Module Information, and to apply online, visit go.mtu.ie/CRBBUACX

COURSE CODE
CR_BBUAC_X
ACCA DIPLOMA IN ACCOUNTING & BUSINESS

COURSE CODE
CR_BACCB_6

COURSE FEE
€1,500 (excludes examination fees)

ENQUIRIES
Martin O’Sullivan
T: 021 433 5904
E: martin.osullivan@mtu.ie

Course & Module Information, and to apply online, visit go.mtu.ie/CRBACCB6

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

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

Delivery
Tuesday 6.00pm – 10.00pm & Wednesday 6.30pm – 9.00pm

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

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

Subjects
Financial Accounting
Management Accounting
Business and Technology
Foundations in Professionalism (offered entirely online via ACCA).

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

- transfer to the ACCA Qualification and commence their studies at F4 onwards of the ACCA Qualification
- OR
- continue to study for the Certified Accounting Technician (CAT) Qualification. However, please note students who continue with the CAT Qualification will have to complete a further 6 CAT exams and gain one year’s relevant work experience. The CAT qualification involves completing 9 exams, three of which you will have completed as part of the Diploma in Accounting in Business, and one year’s relevant work experience.

Content
Financial Accounting, Management Accounting, and Business and Technology will be taught from October to May with examinations taking place in early June.

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

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

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

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

Institute Information
ACCA Ireland, La Touche House, 1st Floor, IFSC, Dublin, D01 R5P3
T: 01 4475678 E: info@accaglobal.com
www.accaglobal.com
Certificate in Leadership Development

Course Code: CR_BLEAD_8
(Level 8)

Course Fee
€2,500

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

Course & Module Information, and to apply online, visit go.mtu.ie/CRBLEAD8

Duration
One semester (six months) part-time programme

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

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

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

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

The teaching methods that will be employed on the course will be intensively interactive, with an action-learning focus and use of live case studies and workplace problems. Rather than an exclusively lecture-style approach, the emphasis in class will be on lecturer-led group discussion and class debate, which will draw upon the experiences of learners to illustrate key learning points and to bring concepts, theories and frameworks to life.

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

Content
Three modules (each at 5 ECTS, Level 8)

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

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

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

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

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

COURSE CODE
CR_BSUMA_6
(LEVEL 6)

COURSE FEE
€2,500*

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

Course & Module Information, and to apply online, visit go.mtu.ie/CRBSUMA6

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

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

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

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

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

Content
Four modules (each at 5 ECTS, Level 6)

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

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

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

Performance Management

Award
On successful completion of the four modules, graduates will receive a Special Purpose Award – Certificate in Supervisory Management (Level 6, 20 ECTS).
Course Information, and to apply online, visit go.mtu.ie/CRBBACC6

Duration
10 weeks. This course will be offered twice during the 2021/2022 academic year, subject to demand.

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

Content
This course is intended to introduce participants to:
- Books of original entry
- Value added Tax (VAT)
- Receivables (debtors) and Payables (creditors) ledgers
- Treatment of PAYE, PRSI, and other deductions

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

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

Commencement Dates
Course 1: September 2021
Course 2: February 2022
Courses

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

HEAD OF DEPARTMENT
Caroline O'Reilly

DEPARTMENT SECRETARY
Emma Clifford
Location: Room E1A
T: 021 433 5806
E: BusinessCork@mtu.ie

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

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

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

All part-time programmes at MTU will run subject to sufficient student numbers. Where a programme cannot proceed, applicants will be contacted and advised on alternative study options.
COURSE CODE
CR_BBUSA_6
(LEVEL 6)

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

ENQUIRIES
Sheila Butler
T: 021 433 5806
E: sheila.butler@mtu.ie

Course & Module Information, and to apply online, visit go.mtu.ie/CRBBUSA6

Duration & Delivery

Year 1 and 2
Trimester 1:
Four modules over two evenings per week, 6pm – 10pm
Trimester 2:
Six modules over three evenings per week, 6pm – 10pm
Trimester 3:
Two modules over two evenings per week, 6pm – 10pm

Aim
To give participants a firm foundation in business related knowledge and skills, with a view to commencing a career or enabling individuals to make an immediate contribution in their place of employment. Successful completion of the course will afford students the opportunity of progressing to a Bachelor Degree or other courses. Are you eligible for Recognition of Prior Learning (RPL)? For details, click here.

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

Award

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

Commencement Date
This course commences in September and further information can be found online. Early application is strongly advised as places are limited.

Content

Year 1 – Modules, all mandatory
Organisational Behaviour
Introduction to Supply Chain
Essential Maths & Stats for Business
Stats & Financial Maths for Business
Introduction to Microeconomics
Fundamentals of Financial Accounting
Cost Accounting
Introduction to Marketing
Communication for Business
Creativity, Innovation & Teamwork
Business IT Skills
Introduction to Management

Year 2 – Modules, all mandatory
Economic Data & Analysis
Cost & Management Accounting
Financial Accounting
Company & Partnership Accounting
Contemporary Management Issues
Financial Accounting Analysis
Marketing Strategy Principles
Professional HR Practice
Introduction to Macroeconomics
Irish Legal System
Irish Civil Law
IT Communication

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

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

COURSE CODE CR_BMNGT_7
(LEVEL 7)

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

ENQUIRIES
Year One (Qualifying year)
Niamh Lenihan
T: 021 433 5806
E: niamh.lenihan@mtu.ie

Year Two (Award year)
Bernard Vallely
T: 021 433 5806
E: bernard.vallely@mtu.ie

Course & Module Information, and to apply online, visit go.mtu.ie/CRBMNGT7

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

Commencement Dates
This course commences in September and further information can be found online. Early application is strongly advised as places are limited.

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

Are you eligible for Recognition of Prior Learning (RPL)? For details, click here.

Admission Requirements
Year one entry: BMNGT_Y2 (Qualifying Year): A minimum of a two year Higher Certificate (Level 6) is required in a discipline other than business studies.

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

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

Year two entry: BMNGT_Y3 (Award Year): Higher Certificate in Business, with minimum of Pass result or successful completion of the Qualifying Year of the Bachelor of Business in Management (Level 7).

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

Content
The principle areas of study are:
Year One entry (Qualifying year)
Economics (10 credits)
Management (10 credits)
Information Systems (5 credits)
Financial Accounting (5 credits)
Marketing (10 credits)
Organisational Behaviour (5 credits)
Contemporary Business (5 credits)
Business Law (5 credits)
Business Mathematics & Statistics (5 credits)

Year Two entry (Award Year)
Economics International Trade (5 credits)
Human Resource Management (5 credits)
Organisational Processes & Systems (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)
Business Strategy Simulation (5 credits)

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

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

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

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

**Commencement Date**
This course commences in September and further information can be found online. Early application is strongly advised as places are limited.

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

**Admission Requirements**
(a) Ordinary Bachelor Degree in Business; or
(b) Equivalent qualification.

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

**Content**
The principle areas of study are:
- **Mandatory – each module carries 5 credits**
  - Strategic Analysis
  - Strategic Selection
  - Financial Management
  - Corporate Finance
  - Business Ethics
  - Enterprise & Innovation

- **Electives (choose 6) – each module carries 5 credits**
  - Business to Business Marketing
  - Sales Strategy Management
  - Workforce Diversity
  - International HRM
  - Business Metrics
  - IS Strategy and Planning

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

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

**Progression**
Graduates with an Honours Bachelor of Business with a H2.2 award or higher can apply for MTU's Master of Business Administration (MBA) in Strategy.
Courses

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

HEAD OF DEPARTMENT
Dr Claire O’Sullivan Rochford

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

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

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

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

All part-time programmes at MTU will run subject to sufficient student numbers. Where a programme cannot proceed, applicants will be contacted and advised on alternative study options.
**BACHELOR OF BUSINESS (HONOURS) IN ACCOUNTING**

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

**ENQUIRIES**
Noreen Murphy (Stage 1)  
T: 021 433 5920 E: noreen.murphy@mtu.ie  
AnnMarie O'Donoghue (Stage 2)  
T: 021 432 6170 E: annmarie.odonoghue@mtu.ie

Course & Module Information, and to apply online, visit go.mtu.ie/CRBACCE8

**Duration & Delivery**
This is a two year programme.  
Stage 1 is delivered 3 nights per week from 6pm – 10pm for two semesters.  
Stage 2 is delivered over two semesters and two summers. Each semester in Stage 2 involves 2 nights per week 6pm – 10pm. Each summer session requires one night per week plus two Saturdays over a ten week period.

The programme will be delivered over 4 semesters and 2 summers commencing in September 2021 and finishing in August 2023.

**Aim**
The overall aim of the programme is to prepare graduates for a career in accounting and finance while also earning exemptions for the pursuit of a professional accounting qualification.

**Admission Requirements**

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

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

**Content**
Advanced Management Accounting  
Financial Management Concepts  
Income Tax  
Single Entity and Group Accounting  
Integrated Accounting Systems  
Auditing – Regulation & Control  
Financial Management for Accountants  
Managing Human Capital  
BIS Management and Applications  
Management Accounting  
Business And IT  
Aspects of Employment Law

The principal areas of study in Stage 2 are:  
Strategic Management  
Advanced Financial Management  
Strategic Management Accounting  
Financial Reporting  
Auditing  
Taxation  
Corporate Governance  
Company Law

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

**COURSE CODE**
CR_BDEIS_8

**LEVEL 8**

**COURSE FEE**
€900

**ENQUIRIES**
Dr Fred Creedon
T: 021 432 6166
E: fred.creedon@mtu.ie

Course & Module Information, and to apply online, visit go.mtu.ie/CRBDEIS8

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### Duration & Delivery

4 Full Saturdays online
13 Tuesday evenings online
Next intake in February 2022 assuming minimum student numbers reached.

### Admission Requirements

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

### Overview

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

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

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

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

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

### Content

#### Design Thinking for Services

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

#### Design Thinking Seminar Series

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

### Award

On successful completion of both modules, graduates will receive a Certificate in Designing Innovative Services (Level 8, 10 ECTs, on the National Framework of Qualifications).
Courses

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

HEAD OF DEPARTMENT
Dr Pio Fenton

DEPARTMENT SECRETARY
Shirley O'Driscoll
Location: Room E11
T: 021 433 5939
E: shirley.odriscoll@mtu.ie

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

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

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

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

Over the last few years, more and more companies have shifted their marketing budgets towards Digital Marketing. With this trend set to continue, and an ever-widening set of tools available, MTU offers an innovative MSc in Digital Marketing Strategy. MTU has developed a strong track record in providing short Digital Marketing programmes over the last few years and has found the level of expertise and insight developed through such programmes to be unparalleled.

The programme is aimed at those working in traditional and digital marketing or those aspiring towards a senior position that requires a solid foundation in multiple aspects of Digital Marketing. Progress through the programme is designed to carefully develop essential skills to a point of expertise in the context of an overall strategic perspective.

MTU’s panel of lecturers has substantial commercial experience, and is drawn from a range of local, national and international companies that lead the way in digital marketing.

Admission Requirements

1. Candidates ideally should have attained at least a H2.2 degree in a cognate area (an area related to business, media or visual communications).
2. Degree-holders from non-cognate areas will be considered provided that these candidates can demonstrate significant relevant industrial experience.

Duration

Part-time: 4 semesters at the MTU Bishopstown Campus. Also available as an online programme.

This innovative Masters programme will deliver students who are at the forefront of knowledge pertaining to digital marketing strategy and digital leadership.

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

Course & Module Information, and to apply online, visit go.mtu.ie/CRBDMAS9

Overview

Over the last few years, more and more companies have shifted their marketing budgets towards Digital Marketing. With this trend set to continue, and an ever-widening set of tools available, MTU offers an innovative MSc in Digital Marketing Strategy. MTU has developed a strong track record in providing short Digital Marketing programmes over the last few years and has found the level of expertise and insight developed through such programmes to be unparalleled.

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Course & Module Information, and to apply online, visit go.mtu.ie/CRBDMAS9

Overview

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Course & Module Information, and to apply online, visit go.mtu.ie/CRBDMAS9

Overview

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Part-time: 4 semesters at the MTU Bishopstown Campus. Also available as an online programme.

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Course & Module Information, and to apply online, visit go.mtu.ie/CRBDMAS9

Overview

Over the last few years, more and more companies have shifted their marketing budgets towards Digital Marketing. With this trend set to continue, and an ever-widening set of tools available, MTU offers an innovative MSc in Digital Marketing Strategy. MTU has developed a strong track record in providing short Digital Marketing programmes over the last few years and has found the level of expertise and insight developed through such programmes to be unparalleled.

The programme is aimed at those working in traditional and digital marketing or those aspiring towards a senior position that requires a solid foundation in multiple aspects of Digital Marketing. Progress through the programme is designed to carefully develop essential skills to a point of expertise in the context of an overall strategic perspective.

MTU’s panel of lecturers has substantial commercial experience, and is drawn from a range of local, national and international companies that lead the way in digital marketing.

Admission Requirements

1. Candidates ideally should have attained at least a H2.2 degree in a cognate area (an area related to business, media or visual communications).
2. Degree-holders from non-cognate areas will be considered provided that these candidates can demonstrate significant relevant industrial experience.

Duration

Part-time: 4 semesters at the MTU Bishopstown Campus. Also available as an online programme.

This innovative Masters programme will deliver students who are at the forefront of knowledge pertaining to digital marketing strategy and digital leadership.

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

Course & Module Information, and to apply online, visit go.mtu.ie/CRBDMAS9

Overview

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Admission Requirements

1. Candidates ideally should have attained at least a H2.2 degree in a cognate area (an area related to business, media or visual communications).
2. Degree-holders from non-cognate areas will be considered provided that these candidates can demonstrate significant relevant industrial experience.

Duration

Part-time: 4 semesters at the MTU Bishopstown Campus. Also available as an online programme.

This innovative Masters programme will deliver students who are at the forefront of knowledge pertaining to digital marketing strategy and digital leadership.

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

Course & Module Information, and to apply online, visit go.mtu.ie/CRBDMAS9
Overview
This two-year part-time programme (4 semesters) is geared at providing non-business graduates with the skills required to develop and promote products and services in an international environment while furthering their business skills and knowledge. Students build upon their own discipline (science, engineering, computing etc) to develop a solid understanding of Business Development, Internationalisation and Innovation in an interesting educational environment. Students will expand their business knowledge and skills through simulation, guest speakers and an international trip. Students will also undertake an industry consultancy project which will prepare them for opportunities in the workplace. The programme is an excellent opportunity for students who want to complement their degree with business skills.

Aim
This programme is ideal for anyone with a technical or scientific background who is looking to develop their understanding of business:
- Career advancement – Graduates with complementary skillsets (e.g. Business and Computing) find employment opportunities more easily.
- Internationalisation – The world marketplace is increasingly global – having an understanding of and an appreciation for that is essential.
- Industry Engagement – This programme exposes students to industry in a very integrated way that corresponds with the student’s development over the year.

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

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

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

Admission Requirements
This programme is geared at non-business students. As applicants will emanate from non-business areas the following entry criteria need to be met:
1. A 2.2 in an Honours Degree in a non-cognate area. All areas where the specialism is not business, Marketing, Accounting/Finance or Business Information Systems will be considered
2. A Personal Statement must be provided by the applicant.
3. An interview may be held with applicants.
4. An IELTS of 6.5 (or equivalent) will be requested of non-EU students where deemed appropriate by the Head of Department.

Award
Master of Science in International Business (Level 9 on the National Framework of Qualifications).
BACHELOR OF ARTS (HONOURS) IN INTERNATIONAL BUSINESS WITH AVIATION STUDIES

COURSE CODE
CR_BIBAV_8
(LEVEL 8)

COURSE FEE
€7,000 in six instalments

ENQUIRIES
Riona Flood
E: riona.flood@mtu.ie

Course & Module Information, and to apply online, visit go.mtu.ie/CRBIBAV8

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

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

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

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

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

Delivery
Two modules per week for 15 week blocks (approx. 6 hours of lectures/content/contact in total per week)
Semester 1 & 4: September – January (break for Christmas)
Semester 2 & 5: January – May (break for Easter)
Semester 3 & 6: June – August

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

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

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

Award
Bachelor of Arts (Honours) in International Business with Aviation Studies (Level 8 on the National Framework of Qualifications).
COURSE CODE
CR_BAVBU_8
(LEVEL 8)

CERTIFICATE IN AVIATION BUSINESS

COURSE FEE
€1,250

ENQUIRIES
Shirley O’Driscoll
T: 021 433 5939
E: shirley.odriscoll@mtu.ie

Duration & Delivery
The programme is offered on a part-time basis for one semester. Two modules per week for 15 week blocks (approx. 6 hours of contact in total per week) All classes are delivered fully online and all interactions with MTU are online. The course commences in January 2022 and all material is recorded and available for review after a class has occurred. This course is assessed solely by continuous assessment, with no final examinations.

Admission Requirements
Ideally candidates will have a Level 7 award in any discipline. Where students do not have such an award, they may avail of Recognition of Prior Learning (RPL) with experience in the aviation sector being considered positively here.

Applicants will be expected to have an IELTS of 6.0 for English language proficiency (or equivalent) where deemed necessary by the Head of Department.

Aim
This programme provides a short immersion into aviation business and puts some emphasis on operations and projects in that arena. The modules provide suitable bridges to business knowledge for those from a non-cognate background. It is aimed at supporting training and education for professionals in the aviation sector and for those aspiring to work in the sector. This may include pilots, cabin crew, aircraft maintenance personnel, engineers, airport workers, and others.

Module Information
MTU 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.

• MGMT8067 Aviation Business Environment (10 Credits)
This module explores the aviation business and its environment from the perspective of those that may have some exposure to that industry. The module looks at the strategic, tactical and operational aspects of the business while exploring trends and challenges. Key aspects of the aviation ecosystem are discussed including human resource management, risk management and aviation finance.

• MGMT8068 Operation & Project Management (10 Credits)
Business Operations Management focused on Operations Strategy Development, and Business Process Improvement through Projects. This module will equip learners with the skills for analysing operations management from a strategic perspective and explore the core principles of the project management process to manage successful projects in light of international business requirements.

Award
Certificate in Aviation Business (20 ECTS, Level 8, on the National Framework of Qualifications).
HIGHER DIPLOMA IN BUSINESS IN SALES MANAGEMENT

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

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

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

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

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

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

Duration & Delivery
Semester 1
15 Wednesday evenings and 5 Saturdays

Semester 2
Two nights per week for 15 weeks.

Summer
In-work activity with supervision focused on the Applied Project

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

Award
Higher Diploma in Business in Sales Management (Level 8 on the National Framework of Qualifications).
CERTIFICATE IN SALES STRATEGY
AND TECHNIQUES

COURSE CODE
CR_BSSTE_8
(LEVEL 8)

COURSE FEE
€1,300

ENQUIRIES
Michael Falahee
E: michael.falahee@mtu.ie

Course & Module Information, and to apply online, visit go.mtu.ie/CRBSSTE8

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

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

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

Content
Organisational Sales Strategy (10 credits)
This module aims to impart to the student the importance of understanding how consumers and organisations purchase in order for sales people to successfully develop strategies to positively influence the purchase decision. Leading from this, students gain an understanding of the wider organisational perspectives on sales strategy and sales management issues. On successful completion of this module, the student will be able to

• demonstrate factors central to decision making in B2C and B2B situations.
• develop an effective marketing and sales strategy in the context of a thorough knowledge of consumer and organisational buying behaviour.
• examine the role of sales in the context of the wider organisation.

Effective Sales Techniques (10 credits)
In this module, students develop an understanding of the role and functions of the salesperson and the key skills needed to be a professional sales person. How to take a strategic and planned approach and how to develop long term consultative relationships with customers.

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

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

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

https://springboardcourses.ie/apply/9117
CERTIFICATE IN
DIGITAL MARKETING

COURSE FEE

€1,500

ENQUIRIES

Online programme: Colm Smyth
E: colm.smyth@mtu.ie
On-campus programme: Zahid Aslam
E: zahid.aslam@mtu.ie

Course & Module Information, and to apply online, visit online course: go.mtu.ie/CRBDGMR8 or on campus course: go.mtu.ie/CRBDMRK8

Duration & Delivery
This course is available via two delivery methods – online and on campus. Both commence in September for a 15 week period (with a second intake likely in January). The online version is delivered over 3 weekday evenings per week, while the on campus version takes place at the Bishopstown campus on Tuesday evenings and an additional 3½ Saturdays.

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

Overview
This is an intensive 15 week (1 semester) part-time programme entailing lab work, seminars, and live-case work that is designed to provide the knowledge, skills and confidence required to successfully market business in a digital environment. The programme uses an innovative blend of real-world situations and problems to assist participants in exploring the opportunities of the digital environment.

The industry focus of the programme coupled with the applied nature of teaching provides a practical bedrock of knowledge and experience which can be used to immediate effect in a multitude of business contexts. Participants will explore various social media platforms, website technologies (including mobile), analysis tools and much more in developing a toolbox of skills that is valuable and readily usable in a B2C and B2B environment. The programme is structured to ensure that participant’s time is used wisely and entails a variety of speakers drawn from the business world. A key tenet of this course is Authentic Assessment, and over 80% of marks for assignments are based around tasks that Digital Marketing Managers might be expected to perform.

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

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

Content
- **Digital Marketing Environment** – This module explores the current marketing landscape with emphasis on the challenges posed by the digital context in which many businesses are now operating. This module is delivered using workshops and seminars.

- **Digital Advertising and Social Media** – This practical lab based module will enable students to formulate an integrated digital marketing communications campaign. Students will also learn how to leverage a company’s presence on social media platforms to generate more connections and build relationships with customers.

- **Website Optimisation and Analytics** – Many businesses are using inefficient and outdated websites that perform poorly in terms of search engine optimisation. This module will focus on the development of websites using existing technologies such as Wordpress and similar content management systems.

- **Applied Digital Marketing Strategy** – This module acts as a capstone on the certificate and draws together learning from the above areas with a particular focus on developing a strategic context for content, technology and alternative platforms.

Progression Opportunities
The Certificate in Digital Marketing is part of the Master of Science in Digital Marketing Strategy. Completion of this programme may, dependent upon prior experience and education, allow entry to Semester 2 of that Masters programme.
HEAD OF SCHOOL
Professor Margaret Linehan

The School consists of the following Departments:

- Applied Social Studies
- Tourism & Hospitality
- Sport, Leisure, and Childhood Studies
DEPARTMENT OF APPLIED SOCIAL STUDIES

Courses

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

HEAD OF DEPARTMENT
Dr Tom O’Connor
Location: Room G2.7
T: 021 433 5312
E: tom.oconnor@mtu.ie

DEPARTMENT SECRETARY
Helen Dillon
Location: Room G2.11
T: 021 433 5310
E: helen.dillon@mtu.ie

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

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

All programmes offered are subject to demand and places may be limited. All online applicants will receive an email confirmation.

All part-time programmes will run subject to sufficient student numbers. Where a programme cannot proceed, applicants will be contacted and advised on alternative study options.
## ONE YEAR CERTIFICATE IN COUNSELLING SKILLS

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<tr>
<th>COURSE CODE</th>
<th>CR_HCOUI_6</th>
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<td>LEVEL</td>
<td>6</td>
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### COURSE FEE

€2,000

### ENQUIRIES

Rae Brady  
Location: Room G2.9  
E: rae.brady@mtu.ie

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Course & Module Information, and to apply online, visit go.mtu.ie/CRHCOUI6

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Students should note that fees quoted relate to the academic year 2021 and are subject to change on an annual basis.

### Aim

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

### Dual Relationships

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

### Personal Therapy

Students are required to undertake a minimum of 20 sessions of personal therapy during the One Year Certificate Course. The cost of this is separate to the course and is arranged directly between the student and the therapist.

### Duration & Delivery

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

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

### Admission Requirements

Applicants must:

1. Be 25 years of age or older on 1st January of year of application;
2. Be assessed through interview;
3. Submit two written references.

### Application

Visit website go.mtu.ie/HCOUI6 to apply online. It is the applicant's responsibility to ensure that the references have been submitted by the closing date. References should be submitted confidentially by the referees by email to rae.brady@mtu.ie.

### Award

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

**NB:** It is not a professional qualification in Counselling and does not qualify the holder to practice as a professional counsellor.
Students should note that Fees quoted relate to the academic year 2021 and are subject to change on an annual basis.

Course is now full. Applications for academic year 2022/2023, please check www.mtu.ie in early February 2022.

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

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

Personal Therapy
Students are required to undertake 25 personal therapy weekly sessions during the Higher Certificate course. The cost of this is separate to the course and is arranged directly between the student and the therapist.

Duration & Delivery
The course is offered on a part-time basis over two semesters from September to May. Each semester has 5 modules. Attendance at all sessions is a requirement. The regular sessions will be held on week evenings – 6.30pm to 9.30pm.

Alternatively some of the sessions may be held on Saturday 10.00am to 5.00pm. When a Saturday is involved, it will replace two evening sessions. During Year 2, there will be two weekend workshops in addition to the regular weekly sessions. There will also be five evening skills workshops.

Admission Requirements
Applicants must
1. Be 25 years of age or older on 1st January of year of application;
2. Have successfully completed the One Year Certificate in Counselling Skills;
3. Be assessed through interview or progression assessment for internal applicants.

National Vetting Bureau: MTU uses the National Vetting Bureau (NVB) to help assess the suitability of all applicants on this programme.

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

NB: To achieve a professional qualification, it is necessary to complete Bachelor of Arts (Honours) in Counselling and Psychotherapy, years 3 and 4.
BACHELOR OF ARTS (HONOURS) IN COUNSELLING & PSYCHOTHERAPY (YEARS 3 & 4)

COURSE CODE: CR_HCOUN_8 (LEVEL 8)

COURSE FEE
Year 3: €2,975
Year 4: €2,975

ENQUIRIES
Year 3: Terry Naughton
E: terry.naughton@mtu.ie
Year 4: Maria Bowens
E: maria.bowens@mtu.ie

Course & Module Information, and to apply online, visit go.mtu.ie/CRHCOUN8

Students should note that Fees quoted relate to the academic year 2021 and are subject to change on an annual basis.

Course is now full. Applications for academic year 2022/2023, please check www.mtu.ie in early February 2022.

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

Year 1: The One Year Certificate in Counselling Skills
Year 2: The Higher Certificate in Arts in Counselling Skills
Year 3: Bachelor of Arts (Honours) in Counselling & Psychotherapy – Year 3
Year 4: Bachelor of Arts (Honours) in Counselling & Psychotherapy – Year 4

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

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

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

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

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

The course has five key elements which are integrated in the training, using a strong experiential and practical focus. These are
1. Counselling and Psychotherapy Theory and Application
2. Practitioner Development
3. Experiential Group Process/personal process integration
4. Supervised Counselling and Psychotherapy Practice
5. Counselling and Psychotherapy integration
Admission Requirements

Applicants must
1. Be 25 years of age or older on 1st January of year of application;
2. Have successfully completed the Higher Certificate in Arts in Counselling Skills;
3. Be assessed through interview or progression assessment for internal students;

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

Award

On successful completion of the full programme, students will be awarded a Bachelor of Arts (Honours) in Counselling and Psychotherapy. On achieving the honours degree, graduates will be equipped to carry out Counselling and Psychotherapy in a structured setting with the support of supervision. The BA honours degree is a fully validated professional Counselling and Psychotherapy training programme which satisfies the accreditation requirements of the Irish Association for Counselling and Psychotherapy.
Students should note that Fees quoted relate to the academic year 2020 and are subject to change on an annual basis.

NB: The next intake will be in spring 2022.

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

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

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

**Duration & Delivery**
The programme has 90 credits and will be offered as follows:

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

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

**Admission Requirements**
Applicants must
- Have successfully completed the Bachelor of Arts (Honours) in Counselling or Psychotherapy (minimum H2.2) or an equivalent professional training in Counselling and Psychotherapy that satisfies the training requirements for professional accreditation.
- Have competed one year post-qualifying supervised clinical practice with a minimum of 100 hours of clinical practice which is verified by an accredited supervisor.
- Be assessed through interview.
- Submit two written references (for applicants who have not already been on a prior stage of the course).

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

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

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

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

**Award**
Master of Arts in Integrative Psychotherapy (Level 9 on the National Framework of Qualifications).
Students should note that Fees quoted relate to the academic year 2020 and are subject to change on an annual basis.


Additional Costing
Clinical Supervision (from MTU approved supervisors) is not included in the course fees
- Please allow additional costs for Professional Supervision of €2,500 and €2,000 for year 1 and year 2.
- Personal Therapy – students are required to undertake 50 sessions (25 sessions for year 1 and 25 sessions for year 2 at your own expense). Personal Therapy fees can range between €50 and €100 per session.
- Setting up a playroom (purchasing of toys/rent a playroom also has to be considered).

Overview
This programme is a postgraduate clinical training in Play Therapy. It aims to equip practitioners with the advanced knowledge and clinical capability that would match international standards of best practice within the Play Therapy profession. The key areas are personal therapy and personal development.

Duration & Delivery
3 years
The course lectures are delivered on a part time basis on Saturdays. However, 1 day a week is also required for placement (this must be during Social Work Office hours to facilitate child protection reporting). Students also have to consider time involved in Personal Therapy and academic study for course assignments. Students may be required to attend one block residential weekend (Friday, Saturday, and Sunday in the year).

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

On successful completion of the taught elements, students will be awarded a Postgraduate Diploma in Play Therapy, unless they proceed to Year 3.

Year 3 (30 credits) The MA in Play Therapy is awarded to candidates who successfully complete a module in research skills and a research dissertation.

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

Applicants must be 25 years of age or older on 1st January of the year of application; and have at least two years post qualifying experience of working with children. Applicants will be required to submit two references with their online application process. Applicants will be shortlisted to attend for interview based on their online applications.

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

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

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

HEAD OF DEPARTMENT
Dr Noel Murray

DEPARTMENT SECRETARY
Roisín Clancy
Location: Room T200
T: 021 433 5820
E: HospitalityCork@mtu.ie

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

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

All programmes offered are subject to demand and places may be limited. All online applicants will receive an email confirmation. Details about eligibility, programme orientation, and timetable arrangements will be sent to all applicants in advance of programme commencement.
COURSE CODE
CR_OCUAR_7
(LEVEL 7)

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

Content
Year 1 Semester 1
Fundamental Culinary Skills
Fundamentals of Patisserie
Introduction to Food Safety and Culinary Science
Information Technology
Learning at Third Level

Year 1 Semester 2
Refining Culinary Skills
Developing Patisserie Skills
Introduction to Food and Beverage Skills
Workplace Communication
Nutrition and Diet

Year 2 Semester 1
Planning a Culinary event
Classical Cuisine
Plated Desserts
Applied Food and Beverage Costing
Exploring Food

Year 2 Semester 2
Apprentice led Culinary Event
Creative Plated Desserts
Principles of Garde Manger
Contemporary Cuisine
Applied Food Safety Management

Year 3 Semester 1
Classical Culinary Practice
Applied Culinary Management

Year 3 Semester 2
Advanced Pastry Arts
Food Photography and Social Media
Food Product Design and Innovation

Year 4 Semester 1
Advanced Pastry Arts and Design
Food Product Development with Enterprise

Year 4 Semester 2
Contemporary Garde Manger
Food Studies and Applied Research for Industry

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

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

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

Progression
Graduates may progress to the Bachelor of Arts (Honours) in Culinary Arts (Sous Chef Apprenticeship) – Level 8 on the National Framework of Qualifications.
NATIONAL SOUS CHEF APPRENTICESHIP
BACHELOR OF ARTS (HONOURS) IN CULINARY ARTS

COURSE CODE
CR_OCUAR_8
(LEVEL 8)

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

ENQUIRIES
Roisín Clancy
T: 021 433 5820
E: HospitalityCork@mtu.ie

Course & Module Information, and to apply online, visit go.mtu.ie/CROCUAR8

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

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Sept - Dec</th>
<th>Dec - Jan</th>
<th>Jan - May</th>
<th>June - Aug</th>
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<tbody>
<tr>
<td></td>
<td>5 days in a block in MTU</td>
<td>On the job</td>
<td>5 days in a block in MTU</td>
<td>On the job (work-based learning captured)</td>
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<tr>
<td></td>
<td>11 weeks of 1 day in MTU &amp; 4 days at work</td>
<td>On the job</td>
<td>11 weeks of 1 day in MTU &amp; 4 days at work</td>
<td>On the job (work-based learning captured)</td>
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<tr>
<th>Year 2</th>
<th>Dec - Jan</th>
<th>Jan - May</th>
<th>June - Aug</th>
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<td>12 weeks of 1 day in MTU &amp; 4 days at work</td>
<td>On the job</td>
<td>On the job (work-based learning captured)</td>
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<td>12 weeks of 1 day in MTU &amp; 4 days at work</td>
<td>12 weeks of 1 day in MTU &amp; 4 days at work</td>
<td>12 weeks of 1 day in MTU &amp; 4 days at work</td>
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HIGHER CERTIFICATE IN ARTS IN CULINARY ARTS - PROFESSIONAL CHEF PROGRAMME

ENQUIRIES
Síle Hammon
Laura Dorney
E: admissionsCork@mtu.ie

Register with Springboard https://springboardcourses.ie

Application procedure
You must register with Springboard https://springboardcourses.ie/ and apply for Higher Certificate in Arts in Culinary Arts – Professional Chef Programme. Once your application on the Springboard website has been accepted, MTU Admissions office in Cork will be in contact with you to complete your registration.

This course is designed for upskilling/advanced skilling purposes and suitable for any candidate currently working at commis chef/chef de partie level.

Admission requirements
Students will be required to have completed 60 ECTS, Level 6 Certificate in Culinary Arts/Culinary Skills, or equivalent. Eligible applications will be ranked on the basis of academic merit. The University’s policy in relation to recognition of prior learning (RPL) applies.

Aim
The aim of the programme is to provide learners with the knowledge and advanced skills and competencies necessary for a successful and progressive career in the culinary arts sector.

Students will be taught essential practical skills underpinned with the academic knowledge required of a modern day professional chef.

Duration and delivery
This is a part-time course that will be delivered with a blended learning approach. This course will take place during the day for approximately 16 hours per week (over 2 days) Mondays and Tuesdays, 9am to 6pm (September to December, and February to May). Mandatory induction/training will take place on week commencing 13th September. Formal classes start week commencing 20th September.

Award
Higher Certificate in Arts in Culinary Arts (Level 6, 60 ECTS on the National Framework of Qualifications)
Application procedure
You must register with Springboard https://springboardcourses.ie/ and apply for Certificate in Culinary Skills course. Once your application on the Springboard website has been accepted, MTU Admissions office will be in contact with you to complete your registration.

Admission requirements
The minimum entry requirements for the Certificate in Culinary Skills is five passes in the Leaving Certificate examination or QQI Level 5. Mature Learners will be invited for interview. The University’s policy in relation to recognition of prior learning (RPL) applies.

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

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

After completion learners will have the ability to:

Knowledge
• Describe the organisation, marketing, costing and control elements of running a professional kitchen
• Apply scientific principles, technologies and systems to operating a professional kitchen
  • Manage the implementation of food control, food cost, portion and quality control in a professional kitchen

Skills
• Demonstrate a wide range of precision technical culinary skills to produce a variety of classical and contemporary dishes
• Apply and adapt nutritional knowledge to creative food production and menu planning
• Analyse appropriate styles of food and beverage service

Competence
• Explain the role of gastronomy in the development of culinary arts
• Operate computer software and systems relevant to the culinary arts
• Evaluate a range of knowledge, skills and competence to design, organise, serve and evaluate a meal experience.
• Apply relevant provisions of legislation and regulation relevant to the hospitality business, including health and safety at work legislation, food safety legislation and the principles of Hazard Analysis and Critical Control Points (HACCP). Identify key academic and independent learning skills

Duration and delivery
This is a part-time course that will be delivered with a blended learning approach. This course will take place during the day for approximately 16 hours per week (over 2 days). Mandatory induction/training will take place on week commencing 13th September.

Formal classes will commence on the 22nd September 2021. This programme runs on Wednesday & Thursday, 9am to 6pm (September to December, and February to May)

Students are required to do 400 hours of work experience. Students will be assisted in finding work experience by an academic member of staff.

Award
Certificate in Culinary Skills (Level 6, 60 ECTS on the National Framework of Qualifications)
BAKERY, BREADS & PASTRY

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

ENQUIRIES
Roisín Clancy
T: 021 433 5820
E: HospitalityCork@mtu.ie

Course & Module Information, and to apply online, visit go.mtu.ie/CRFTCXXB6

Module Code
HOSP6084

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

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

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

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

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

Note: Modifications to the configuration of the course may take place in accordance with changing requirements.
PAstry, tArts aND GaTEAuX

COURSE CODE
CR_FTCXXE_6
(LEVEL 6)

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

ENQUIRIES
Roisin Clancy
T: 021 433 5820
E: HospitalityCork@mtu.ie

Course & Module Information, and to apply online, visit go.mtu.ie/CRFTCXXE6

Module Code
HOSP6085

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

Content
Modern Gateaux and small pastries made using the following:
• Macaroons
• Choux Pastry
• Sweet Pastry
• Puff Pastry
• Chocolate Techniques
• Fillings – glacage, mousse, frangipane, caramel, pastry cream, praline, etc.

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

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

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

Award
MTU: Single Module Certification (5 ECTS credits at Level 6 on the National Framework of Qualifications).
GOURMET CULINARY TECHNIQUES

COURSE CODE
CR_FTCXXF_6
(LEVEL 6)

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

ENQUIRIES
Roisín Clancy
T: 021 433 5820
E: HospitalityCork@mtu.ie

Course & Module Information, and to apply online, visit go.mtu.ie/CRFTCXXF6

Module Code
HOSP6125

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

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

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

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

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

Note: Modifications to the configuration of the course may take place in accordance with changing requirements.
# Module Code
HOSP6012

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

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

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

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

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

## Apply
Apply online or by application form (available by email HospitalityCork@mtu.ie). Places are limited on this course.

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

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

COURSE CODE
CR_FTCXXD_6
(LEVEL 6)

COURSE FEE
€450

ENQUIRIES
Roisín Clancy
T: 021 433 5820
E: HospitalityCork@mtu.ie

Course & Module Information, and to apply online, visit go.mtu.ie/FTCXXD6

Module Code
HOSP6044

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

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

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

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

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

Note: Modifications to the configuration of the course may take place in accordance with changing requirements.
Module Code
HOSP7065

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

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

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

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

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

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

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

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

Note: Modifications to the configuration of the course may take place in accordance with changing requirements.
Many organisations are in a position where their supervisors have excellent technical skills, but they often lack management skills which are essential to be an effective supervisor. There is increasing evidence that people management is positively related to superior organisational performance.

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

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

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

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

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

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

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

TOUR8009

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

Admission Requirements

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

Aim

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

Content

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

Duration and Delivery

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

Apply

Apply online. Online applications for this programme open annually in October for commencement in the following February. The closing date for applications is 31st January. Places are limited on this course and subject to availability.

Award

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

Note: Modifications to the configuration of the course may take place in accordance with changing requirements.
Springboard+ application procedure
You must register with Springboard https://springboardcourses.ie/ and apply for the Certificate in Retail Food Operations. Once your application on the Springboard website has been accepted, MTU Admissions office in Cork will be in contact with you to complete your registration.

Delivery and duration
This programme will be delivered part-time from September 2021 to May 2022. Mandatory induction/training will take place on week commencing 13th September. Formal classes start week commencing 20th September.

Provisional schedule: (times to be confirmed in late August, due to potential COVID-19 restrictions)
Semester 1 (September 2021 to December 2021) – 1.5 days per week (13 hours in total)
Semester 2 (January 2022 to May 2022) – 1 day per week (8 hours in total) (9am to 6pm)

Admission requirements
Applicants must hold an FET/QQI award at NFQ level 5 or equivalent. The University’s policy in relation to recognition of prior learning (RPL) as applies. Applicants may also be required to attend for interview.

Aim
The Certificate in Retail Food Service Operations is designed to develop highly competent skilled, industry-ready food preparation professionals, equipped with industry relevant techniques and commercial practices, all underpinned by the highest professional standards of food production and health and safety.

The modules to be completed as part of this programme will include:
• Intro to Food Preparation and Cooking Techniques
• Food Safety and Culinary Science
• Fundamental Patisserie Skills
• Fundamentals of Food Cost and Control
• Retail Food Production
• Work Placement (Kitchen)

Award
Certificate in Retail Food Operations (35 ECTS, Level 6, on the National Framework of Qualification)
HEAD OF SCHOOL
Dr Joseph Harrington

The School consists of the following Departments:

- Architecture
- Civil, Structural & Environmental Engineering
- Construction
Courses

- Higher Certificate in Engineering in Civil Engineering (Level 6)
- Bachelor of Engineering in Civil Engineering (Level 7)
- Bachelor of Engineering in Environmental Engineering (Level 7)
- Certificate in Building Information Modelling (BIM) Technologies (Level 7)
- Certificate in Strategic Building Information Modelling Management (Level 8)
- Certificate in Applied Building Information Modelling and Management (Level 8)
- Bachelor of Science (Honours) in Building Information Modelling and Management (Level 8)
- Postgraduate Diploma in Science in BIM and Digital AEC (Level 9)
- Master of Engineering in Structural Engineering (Level 9)
- Master of Engineering in Civil Engineering (Environment and Energy) (Level 9)

Short CPD Courses

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

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

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

For further information on entry standards to the Civil Engineering profession please refer to the Engineers Ireland website at www.engineersireland.ie
Part-time students who are in a position to attend by day may take modules on the programme at any time.

**Delivery**

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

**Admission Requirements**

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

**Content**

**Stage 1**

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

**Stage 2**


**Structure**

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

**CCIVE_6 Year 1**

Modules from Stage 1:
Topics typically include Mathematics, Engineering Science, Engineering Communication, Land Surveying, and Construction.

**CCIVE_6 Year 2**

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

**CCIVE_6 Year 3**

Modules from Stage 2:
Topics typically include Practical Land Surveying, Structural Engineering, Structural Design, and Hydraulics and Hydrology.

**Award**

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

**Further Studies at MTU**

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

**APPLICATION**
Apply online at go.mtu.ie/CRCCIVE7

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

**ENQUIRIES**
Des Walsh
E: des.walsh@mtu.ie

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

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

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

1) Civil Engineering: go.mtu.ie/CRCCIVE7
2) Environmental Engineering: go.mtu.ie/CRCENVI7

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

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

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

**Award**
1) Bachelor of Engineering in Civil Engineering (Level 7 on the National Framework of Qualifications) or
2) Bachelor of Engineering in Environmental Engineering (Level 7 on the National Framework of Qualifications).

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BACHELOR OF ENGINEERING IN ENVIRONMENTAL ENGINEERING

**APPLICATION**
Apply online at go.mtu.ie/CRCENVI7

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

**ENQUIRIES**
Des Walsh
E: des.walsh@mtu.ie

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MTU Continuing Education Courses in Cork 2021-2022
COURSE CODE
CR_CBIMG_7
(LEVEL 7)

COURSE FEE
€1,650 (Multiple applications from the same company will be eligible for a 10% discount for 2 attendees, 15% for 3 attendees or more)

ENQUIRIES
Seán Carroll
E: sean.carroll@mtu.ie
T: 021 433 5950

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

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

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

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

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

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

Mandatory Module
INTR7024 Collaborative BIM (10 ECTS credits)

Elective Modules (choose one)
INTR6016 Introduction to Geographic Information Science
INTR6021 3D Built Environment Modelling

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

Award
Special Purpose Award – Certificate in Building Information Modelling Technologies (Level 7 on the National Framework of Qualifications).
CERTIFICATE IN STRATEGIC BUILDING INFORMATION MODELLING MANAGEMENT

COURSE CODE
CR_CSBIM_8
(LEVEL 8)

Course & Module Information, and to apply online, visit go.mtu.ie/CRCSBIM8

*CMultiple applications from the same company will be eligible for a 10% discount for 2 attendees, 15% for 3 attendees or more.

Admission Requirements
Applicants should have a minimum of a Level 7 architectural technology or engineering or construction related qualification.

In order to take elective module INTR8030 Virtual Design & Construction, applicants are advised to have completed the MTU Certificate in Building Information Modelling Technologies Special Purpose Award (or have the equivalent prior learning). Alternatively, elective INTR9017 Infrastructure Asset Management is available.

Equivalent recognition may be given through the Recognition of Prior Learning process on an individual case-by-case basis to candidates who have not achieved this academic standard but who can demonstrate significant relevant professional experience in the Built Environment discipline.

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

Participants will gain experience in using industry standard technology such as Autodesk Revit, Navisworks, Recap 360, BIM 360 Glue, and BIM 360 Field or other equivalent software. The programme is delivered by academic staff involved in BIM research combined with industry professionals charged with the delivery of BIM projects in Ireland and abroad.

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

This programme will also offer a natural stepping-stone in the lifelong learning journey of those who have previously completed the well-established MTU Certificate in Building Information Modelling Technologies programme, which now has over 100 graduates.

Content
The programme comprises two mandatory modules and choose one elective:

Mandatory
INTR8028 BIM – Theory and Practice
DESI8018 Design Thinking for BIM

Elective (choose one)
INTR9017 Infrastructure Asset Management
INTR8030 Virtual Design & Construction

Through interaction with the MTU Careers Service, the student will be provided with the tools to engage in effective Career Planning and Management. Careers education will be facilitated through tailored employability workshops, one-to-one support, relevant career resources and, networking opportunities with employers and recruitment agencies, thus leading to increased job readiness.

Award
Special Purpose Award – Certificate in Strategic Building Information Modelling Management (Level 8, 15 ECTS Credits on the National Framework of Qualifications).

ENQUIRIES
Seán Carroll
E: sean.carroll@mtu.ie

COURSE FEE
€1,650*

MTU Continuing Education Courses in Cork 2021-2022
CERTIFICATE IN APPLIED BUILDING INFORMATION MODELLING AND MANAGEMENT

COURSE FEE
€3,300*

ENQUIRIES
Seán Carroll  
E: sean.carroll@mtu.ie

*Multiple applications from the same company will be eligible for a 10% discount for 2 attendees, 15% for 3 attendees or more.

Admission Requirements
Applicants should have a minimum of a Level 7 architectural technology or engineering or construction related qualification.

Equivalent recognition may be given through the Recognition of Prior Learning process on an individual case-by-case basis to candidates who have not achieved this academic standard but who can demonstrate significant relevant professional experience in the Built Environment discipline.

Aim
This Certificate is a four module, 30 credit, part-time programme. The programme provides an opportunity for architectural, engineering, and construction degree graduates, or qualifying students, to acquire effective skills and knowledge in the strategic application of Building Information Modelling (BIM) methodologies and technologies within a multidisciplinary and collaborative approach to building design and construction.

Structure
Participants will gain experience in using industry standard technology such as Autodesk Revit, Navisworks, Recap 360, BIM 360 Glue, and BIM 360 Field or other equivalent software. The programme is delivered by academic staff involved in BIM research combined with industry professionals charged with the delivery of BIM projects in Ireland and abroad.

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

This programme will also offer a natural stepping-stone in the lifelong learning journey of those who have previously completed the well-established MTU Certificate in Building Information Modelling Technologies programme, which now has over 100 graduates.

Through interaction with the MTU Careers Service in Cork, the student will be provided with the tools to engage in effective Career Planning and Management. Careers education will be facilitated through tailored employability workshops, one-to-one support, relevant career resources and, networking opportunities with employers and recruitment agencies, thus leading to increased job readiness.

Content
The programme comprises four mandatory modules:

Semester 1
INTR8031 Project BIM+M
INTR8034 Project - Research Phase

Semester 2
CIVL8031 AEC Project & Construct Management
INTR8035 Project - Implementation Phase

Award
Special Purpose Award – Certificate in Applied Building Information Modelling and Management (Level 8, 30 ECTS Credits on the National Framework of Qualifications).
COURSE CODE
CR_CBIMM_8
(LEVEL 8)

Duration of Online Delivery
Two academic years. At MTU, we offer world class online programmes. With our state of the art e-learning infrastructure and dedicated e-learning team, we fully support students participating in our flexible online learning courses.

Admission Requirements
Applicants should have a minimum of a Level 7 architectural technology or engineering or construction related qualification.

Equivalent recognition may be given through the Recognition of Prior Learning (RPL) process on an individual case-by-case basis to candidates who have not achieved this academic standard but who can demonstrate significant relevant professional experience in a Built Environment discipline. Click here for more information.

Overview
The architecture, engineering and construction (AEC) industry is moving towards a situation where BIM is becoming an essential requirement internationally, thereby, creating a clear need for professionals with appropriate process and technology skills. This programme will enable architects, designers and design/project/construction/facility managers to specialise in the use of BIM and the implementation of integrated design and delivery. Upon completion, graduates will have developed skills and knowledge in a highly advanced specialism and the expertise gained is at the forefront of industry requirements. The technical and reflective skills gained will be of immediate advantage to employers in construction, engineering and design roles across the built environment.

Graduates of the programme will target employment across the Architectural, Engineering and Construction sector where there is an on-going national demand for skilled personnel at different levels and most specifically in the following sectors:

• Leveraging ICT advancements within the sector, in particular, Building Information Modelling (BIM);
• Lean design and construction process improvement techniques.

Content
Year 1/Semester 1
Collaborative BIM
Electives
3D Built Environment Modelling
Free Module Choice

Year 1/Semester 2
BIM – Theory and Practice
Virtual Design & Construction
Design Thinking for BIM

Year 2/Semester 1
Project – Research Phase
Project BIM+M

Year 2/Semester 2
AEC Project & Contract Management

Award
Bachelor of Science (Honours) in Building Information Modelling and Management (Level 8, 60 ECTS credits on the National Framework of Qualifications).
**Springboard Application procedure**
You must register with Springboard [https://springboardcourses.ie/](https://springboardcourses.ie/) and apply for Postgraduate Diploma in Science in Applied Building Information Modelling and Digital AEC. Once your application on the Springboard website has been accepted, MTU Admissions office in Cork will be in contact with you to complete your registration.

**Admission requirements**
Applicants should hold a minimum of a Level 8 in civil engineering, construction, architecture, architectural technology, building services engineering, or other cognate disciplines.

Equivalent recognition may be given through the Recognition of Prior Learning process on an individual case-by-case basis to candidates who have not achieved this academic standard but who can demonstrate significant relevant professional experience. Semester 1 electives include Advanced Level modules which provide students with the opportunity, where necessary, to enhance and develop skills in the BIM disciplines at Level 8.

**Mature and non-standard Entrants**
The Institute and Department facilitate non-standard entrants and the transfer of non-standard students on an individual, case by case, basis. A rigorous assessment of prior learning is carried out to establish competence and adherence to the requirements of the programme.

**Aim**
The programme will convert a traditional Architecture, Engineering or Construction graduate into a skilled postgraduate with an understanding of the digitisation of Architecture, Engineering and Construction (AEC), Building Information Modelling (BIM) as well as the potential of digitisation in the delivery of Sustainable Energy Systems and Policies or Facility and Asset Management. The programme will focus on professionals originating from the AEC sector to enhance skills in BIM and Information Technology (IT) to address a current skills gap in the industry.

The underlining philosophy of the postgraduate diploma is the enhancement and deepening of professional practice skills. In addition to learning and developing BIM and digitisation skills, the key aspect of the postgraduate diploma, through the industrial project, is to ensure graduates will gain an understanding of how these skills can be implement in a professional workplace environment.

**Duration and delivery**
This is a part-time course that will be delivered 2 evenings and one afternoon per week.

**Award**
Postgraduate Diploma in Science in Applied Building Information Modelling and Digital AEC (Level 9, 60 ECTS on the National Framework of Qualifications)
The Department offers two taught MEng programmes specialising in the fields of
1) Structural and
2) Civil Engineering (Environment and Energy).

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

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

Please refer to the webpage below for the latest information in relation to next course delivery.
1) Structural: go.mtu.ie/CRSTEN9
2) Civil Engineering (Environment and Energy): go.mtu.ie/CRCCEEE9

Admission Requirements
Advance Entry: Part-time studies
Holders of existing Level 8 qualifications in Civil, Structural or Environmental Engineering are eligible to apply for advanced entry to Year 4 or Year 5 of the programme. Applications are assessed on a case by case basis to determine the stage of entry (direct to Year 5, to Year 5 post Bridging Studies, or direct to Year 4).

Aim
The taught Master of Engineering programmes are designed to:
• deepen the postgraduate student’s technical knowledge, skills and competences in the field of specialisation
• develop an ability to carry out in depth research in a chosen field of Engineering, to draw conclusions from the research and present research findings
• broaden knowledge in other areas such as Sustainability, Management, and Business

Additionally, the MEng in Structural Engineering programme will provide preparation for the Institute of Structural Engineers Professional Practice Examinations by developing structural analysis and design skills.
Programmes in Building Regulatory Engineering, Fire Safety Engineering, Fire Safety Certification, and Fire Engineering Design are offered, subject to demand, on a rotational basis over a two year period.

For details of the programmes offered in 2021/22, click here.

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

**Overview**

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

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

**Award**

Single Module Certification (5 ECTS credits at Level 8 on the National Framework of Qualifications).
Programmes in Building Regulatory Engineering, Fire Safety Engineering, Fire Safety Certification, and Fire Engineering Design are offered, subject to demand, on a rotational basis over a two year period.

Duration & Delivery

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

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

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

Overview
This course will cover many areas of fire safe building design including commercial and residential sprinkler design, smoke control in atria, fire detection systems, emergency lighting systems, portal frame boundary collapse design, together with domestic and non-domestic gas installations. This course should be invaluable to both new users of the relevant fire safety codes, and those that may enjoy a refresher course. All building designers and many contractors will find this short course useful, particularly those involved in fire safety design, and certification of building projects.

This course analyses specific fire safety engineering elements of building design, such as steel portal frame boundary collapse, domestic/commercial sprinkler design, and smoke control in atria. Building system designs, including fire detection, emergency lighting, and gas installations are also analysed.

On successful completion of this course, the learner will be able to

• Understand and analyse active fire safety systems in buildings
• Understand and analyse residential and commercial sprinkler system design
• Understand and analyse the steel portal frame design under fire related boundary conditions
• Understand and analyse smoke control design in atria

Award
Single Module Certification (5 ECTS credits at Level 8 on the National Framework of Qualifications).
Programmes in Building Regulatory Engineering, Fire Safety Engineering, Fire Safety Certification, and Fire Engineering Design are offered, subject to demand, on a rotational basis over a two year period.

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

**Duration & Delivery**

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

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

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

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

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

**Award**
Single Module Certification (5 ECTS credits at Level 8 on the National Framework of Qualifications).
Programmes in Building Regulatory Engineering, Fire Safety Engineering, Fire Safety Certification, and Fire Engineering Design are offered, subject to demand, on a rotational basis over a two year period.

The short course is based on the Module Descriptor CIVL8030.

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

**Content**

- **Fire development within an enclosure**
  Analyses of time to flashover, fire growth rates, effects of suppression, heat release rates, and calorific values.

- **Fire & smoke spread outside initial fire enclosure**
  Analyses of smoke containment, plume shape, stratification of smoke, optical density of smoke, and mechanisms of fire spread.

- **Fire safety of residential and industrial buildings**
  Fire safety engineering comparisons with prescriptive standards for residential and industrial buildings.

- **Probabilistic fire safety risk assessments**
  Analyses of fire safety risks using, probabilistic risk assessment, comparative and absolute analysis, event tree and fault tree analysis, survivor probability distributions and damage areas after flashover.

**Admission Requirements**
Applicants should hold a minimum of a NFQ Level 7 qualification in Civil/Structural Engineering or Architecture or Architectural Technology or in a cognate discipline. Further information in relation to the MTU mode of online delivery may be found [here](#).

**Award**
Single Module Certification (5 ECTS credits at Level 8 on the National Framework of Qualifications).
PRACTICAL LAND SURVEYING

COURSE CODE
CR_CPLSU_7
(LEVEL 7)

COURSE FEE
€650

ENQUIRIES
Jim O’Byrne
T: 021 432 6761
E: jim.obyrne@mtu.ie

Course & Module Information, and to apply online, visit go.mtu.ie/CRCPLSU7

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

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

Having completed this module, an individual would expect to be able to:
• Organise resources, record and process survey data using specialised equipment (e.g. Total Station, GPS, Digital Level)
• Use computer applications to process and manipulate survey data
• Use specialised equipment (e.g. Total Station, GPS, Digital Level) to set out construction works
• Process and present in an appropriate format the outcomes of survey or setting out exercises
• Work as the leader in a team carrying out surveying exercises

Setting out

Data Processing

Global Positioning Systems

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

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

Content
Electromagnetic Distance Measurement
Construction and use of equipment. Sources of error and accuracy. Checking adjustment. Field procedures.

Total Stations
Data capture. Setup data. Feature codes, strings and digital ground modelling. Coordinate systems. Software and hardware requirements.
The course is based on the Module Descriptor CIVL7005 Digital Land Surveying and GPS.

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

Having completed this module, an individual would expect to be able to:
- establish survey control of determined accuracy using GPS equipment and OSI reference
- compute setting out data from survey and design information
- manipulate field survey data and incorporate design data using specialised software
- critically evaluate the use of advanced positioning instrumentation for setting out

Content

**Ordnance Survey**

**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**

**Setting Out**

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

**Award**
MTU Single Module Certification in Digital Land Surveying and GPS (5 ECTS credits at Level 7 on the National Framework of Qualifications).
DEPARTMENT OF CONSTRUCTION

Courses

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

HEAD OF DEPARTMENT
Dr Daniel Cahill

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

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

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

All programmes offered are subject to demand and places may be limited. All online applicants will receive an email confirmation. Details about eligibility, programme orientation and timetable arrangements will be sent to all applicants in advance of programme commencement.
MASTER OF SCIENCE IN CONSTRUCTION PROJECT MANAGEMENT

COURSE CODE
CR_CCOPM_9
(LEVEL 9)

COURSE FEE
€5,000

ENQUIRIES
Dr Daniel Cahill
E: daniel.cahill@mtu.ie

Course & Module Information, and to apply online, visit go.mtu.ie/CRCCOPM9

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

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

*Equivalence: Where an applicant has not completed a relevant Level 8 programme equivalence is assessed through the formal Recognition of Prior Learning (RPL) process used in MTU.

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

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

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

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

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

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

Content
Stage 1/Semester 1
Contract Administration/Dispute Resolve
Sustainability in Engineering
Research Skills and Practice
Construction Project Management
Org Management & Knowledge Management

Electives (choose 1)
Corporate Construction Finance
Mechanical & Electrical Services Cost Planning
Strategic Construction
Development Appraisal
Advanced Measurement
Entrepreneurship
New Venture Management & Growth
Strategic Business Management

Stage 1/Semester 2
Eng. Project Management
Global Project Management
Research Project Development
Construction Value & Risk Management

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

Stage 2/Semester 1
Research Project Realisation (30 ECTS)

Note: Delivery of this programme is subject to sufficient number of applicants.
CERTIFICATE IN MECHANICAL & ELECTRICAL QUANTITY SURVEYING

COURSE CODE: CR_CMEQS_8 (LEVEL 8)

COURSE FEE
Overall Fee: €1,500 (only applicable when ALL three modules are taken in Semester 1)
Individual module fee: €600

ENQUIRIES
Mark Higgins
T: 021 433 6198
E: mark.higgins@mtu.ie

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

Course & Module Information, and to apply online, visit go.mtu.ie/CRCMEQS8

Duration & Delivery
The course is delivered in one semester. All three modules are undertaken in Semester 1 between September and January.

Admission Requirements
Applicants must have achieved a minimum Level 7 Quantity Surveying qualification or equivalent. Where an applicant has not completed a relevant Level 7 programme, equivalence is assessed through the formal Recognition of Prior Learning (RPL) process used in MTU.

Aim
This Certificate programme will provide academically qualified Quantity Surveying graduates with the technical skills and capability in the area of Mechanical and Electrical Quantity Surveying. It enhances their abilities as highly effective practitioners in this specialised area once they have a number of years of practical work experience. It develops the core technical skills of a Mechanical and Electrical Quantity Surveyor in the specific areas of services technology, cost planning and measurement of mechanical and electrical services.

Career Opportunities
It is anticipated that undertaking this programme will enable practitioners, both in Quantity Surveying and Services, to develop their careers in this specialised area of Mechanical and Electrical Quantity Surveying.

Content

Building Services Technology Evaluation
Identification of, characteristics and selection criteria for cost-effective and sustainable environmental, public health, power supply, security and operational services in residential, commercial and industrial buildings.

M&E Cost Planning
This module will enable the student to understand and use cost data and resource information for the purpose of cost planning and control of Mechanical and Electrical Services.

M&E Measurement
This module will enable the student to measure Mechanical and Electrical Services and build up corresponding rates.

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

Award
Certificate in Mechanical and Electrical Quantity Surveying (Level 8 on the National Framework of Qualifications).
HIGHER CERTIFICATE IN SCIENCE IN CONSTRUCTION

COURSE CODE CR_CCONE_6 (LEVEL 6)

COURSE FEE
€220 per 5 credit module
(inc. exam fee)

ENQUIRIES
Carmel Collins
T: 021 433 5950
E: carmel.collins@mtu.ie

Course & Module Information, and to apply online, visit go.mtu.ie/CRCCONE6

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

Admission requirements
Leaving Certificate Grade D3 (Ordinary level) in five subjects to include Mathematics and either English or Irish. Special category applicants (e.g. mature students) will be considered on an individual basis.

Structure
This course is offered under the ACCS Scheme. ACCS is an acronym for “Accumulation of Credits and Certification of Modules”. This scheme allows students instead of studying the entire course – to study one or more modules of the course.

Modules passed, are certified individually, and can be accumulated, leading to an award of the Higher Certificate in Science in Construction. The modules to be offered in any year will be decided in consultation with the students. The accumulation of sufficient credits for the award currently involves an average of three years study for the Higher Certificate in Construction.

Module Information
go.mtu.ie/CRCCONE6
MTU has developed a website which gives full details of all modules for all courses. The website also has information on recommended textbooks, average weekly workload, assessments and exams.

Content
Among the areas you would be required to study are:

Stage 1

Stage 2

Award

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

Note: Delivery of this programme is subject to sufficient number of applicants.
BACHELOR OF SCIENCE IN CONSTRUCTION MANAGEMENT

COURSE CODE CR_CCMNE_7 (LEVEL 7)

COURSE FEE
€220 per 5 credit module (inc. exam fee)

ENQUIRIES
Carmel Collins
T: 021 433 5950
E: carmel.collins@mtu.ie

Course & Module Information, and to apply online, visit go.mtu.ie/CRCCMNE7

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

Admission Requirements
Higher Certificate in Construction. Holders of other relevant qualifications will be considered for admission on an individual basis.

Course Structure
This course is offered under the ACCS Scheme. ACCS is an acronym for “Accumulation of Credits and Certification of Modules”. This scheme allows students instead of studying the entire course – to study one or more modules of the course.

Modules passed, are certified individually, and can be accumulated, leading to an award of the Bachelor of Science in Construction Management. The modules to be offered in any year will be decided in consultation with the students. The accumulation of sufficient credits for the award currently involves an average of two years study for the Bachelor of Science in Construction Management.

Module Information
go.mtu.ie/CRCCMNE7
MTU has developed a website which gives full details of all modules for all courses. The website also has information on recommended textbooks, average weekly workload, assessments, and exams.

Content
Among the areas you would be required to study are:

Stage 3
Construction Technology
Management
Development Economics
Construction Finance
Construction Procurement
Construction Contracts
Building and Land Surveying
Construction Resource

Award
Bachelor of Science in Construction Management (Level 7 on the National Framework of Qualifications).

Note: Delivery of this programme is subject to sufficient number of applicants.
BACHELOR OF SCIENCE IN QUANTITY SURVEYING

COURSE CODE
CR_CCECE_7
(LEVEL 7)

Course & Module Information, and to apply online, visit go.mtu.ie/CECCECE7

COURSE FEE
€220 per 5 credit module (inc. exam fee)

ENQUIRIES
Carmel Collins  
T: 021 433 5950  
E: carmel.collins@mtu.ie

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

Admission requirements
Higher Certificate in Construction. Holders of other relevant qualifications will be considered for admission on an individual basis.

Structure
This course is offered under the ACCS Scheme. ACCS is an acronym for “Accumulation of Credits and Certification of Modules”. This scheme allows students instead of studying the entire course – to study one or more modules of the course.

Modules passed, are certified individually, and can be accumulated, leading to an award of the Bachelor of Science in Quantity Surveying. The modules to be offered in any year will be decided in consultation with the students. The accumulation of sufficient credits for the award currently involves an average of two years study for the Bachelor of Science in Quantity Surveying.

Module Information
go.mtu.ie/CRCCECE7
MTU has developed a website which gives full details of all modules for all courses. The website also has information on recommended textbooks, average weekly workload, assessments, and exams.

Content
Among the areas you would be required to study are:

Stage 3
Construction Technology  
Measurement  
Cost Planning  
Development Economics  
Construction Procurement  
Construction Contracts  
Construction Finance  
Project

Award
Bachelor of Science in Quantity Surveying (Level 7 on the National Framework of Qualifications).

Note: Delivery of this programme is subject to sufficient number of applicants.
SCHOOL OF MECHANICAL, ELECTRICAL & PROCESS ENGINEERING

HEAD OF SCHOOL
Dr Matt Cotterell

The School consists of the following Departments & Centres:

- Mechanical, Biomedical and Manufacturing Engineering
- Centre for Advanced Manufacturing and Management Systems (CAMMS)
- Electrical and Electronic Engineering
- Process, Energy and Transport Engineering
- Centre of Craft Studies

www.mtu.ie
DEPARTMENT OF MECHANICAL, BIOMEDICAL & MANUFACTURING ENGINEERING

Courses
- Bachelor of Engineering in Mechanical Engineering (Level 7)
- Mechanical Engineering Science (Level 6)
- Certificate in 3D CAD and Solid Modelling (Level 6)
- Centre for Advanced Manufacturing and Management Systems (CAMMS) See Page 94

HEAD OF DEPARTMENT
Professor Gerard Kelly

DEPARTMENT SECRETARY
Deirdre Burke
Location: Room A285L
T: 021 432 6505
E: deirdre.burke@mtu.ie

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

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

All programmes offered are subject to demand and places may be limited. All online applicants will receive an email confirmation. Details about eligibility, programme orientation and timetable arrangements will be sent to all applicants in advance of programme commencement.
**BACHELOR OF ENGINEERING IN MECHANICAL ENGINEERING (STAGE 3)**

**Course Code**
CR_EMECN_7 (Level 7)

**Course Fee**
€540 per 5 credit module (inc exam fee)

**Enquiries**
William Irwin
T: 021 433 5789
E: william.irwin@mtu.ie

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

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

**Content**
The following four modules are likely to be offered in the 2021/2022 academic year:

**Semester 1**
Modules (September to December 2021)

- **Materials/Structures Mechanics – MECH7009** (5 Credits)
  On successful completion of this module the learner will be able to
  1. Determine the fundamental transformation relations of two dimensional linear elastic analysis.
  2. Analyse 2D determinate mechanical structures for critical elastic strength of materials parameters.
  3. Solve for two dimensional linear / limited three dimensional non-linear governing equations to design rotating/static machine and structural elements including: curved bars, springs, pressure vessels, rotating discs, shafts and cylinders.
  4. Conduct laboratory experiments in two dimensional mechanics of materials and structures as part of a team in a safe and appropriate manner and produce individual professional reports detailing results, analysis and conclusions.

- **Engineering Management – Manu7009** (5 Credits)
  On successful completion of this module the learner will be able to
  1. Recognise the interests of all functional areas and the benefits of multifunctional teams in the activities of an organisation.
  2. Discuss the nature of operations and the importance they have on long-term business success.
  3. Relate aspects of manufacturing method to process inefficiencies.
  4. Recognise the importance of ethical and safety issues in the engineering profession.

**Semester 2**
Modules (January to May 2022)

- **Thermofluids 3 – INTR7009** (5 Credits)
  On successful completion of this module the learner will be able to
  1. Calculate the heat transfer rates from heat exchangers and other engineering applications. Examine by way of a written report the key factors affecting the selection of energy conversion mechanisms.
  2. Evaluate the operation and performance indicators of equipment associated with heating, cooling, ventilation and air conditioning thermofluid processes.
  3. Conduct lab experiments in thermofluids as part of a team in a safe and appropriate manner
  4. Produce individual professional reports detailing the results, analysis and conclusions which arise.

- **Manufacturing Technology – MECH7007** (5 Credits)
  On successful completion of this module the learner will be able to
  1. Calculate the forces involved in machining and forming processes.
  2. Select an appropriate process to produce required surface finishes
  3. Determine methods to inspect precision machined engineering components
  4. Identify suitable plastic materials and processing methods for parts made from plastic.
This course provides candidates with the necessary mechanical engineering science knowledge to progress to degree level studies in mechanical engineering on a part time or full time basis. It is offered on a part-time basis and requires attendance of two evenings per week for the academic year.

**Admission Requirements**
Applicants should have a recognised craft/technician qualification in Mechanical Engineering (or cognate discipline).

**Content**

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

On successful completion of this module the learner will be able to
1. Determine resultants and apply conditions of static equilibrium to plane force systems.
2. Identify and quantify all forces associated with a static framework using either the method of joints or the method of sections.
3. Construct shear force and bending moment diagrams for beams under various loading conditions.
4. Determine the stresses and strains in prismatic structures due to direct/shear and thermal loads.
5. Manipulate the Simple Bending and Simple Torsion equations to solve basic problems in beams and shafts having symmetrical cross sections.

- **Technological Mathematics101 – MATH6012**

On successful completion of this module the learner will be able to
1. Formulate and solve various equations including those involving the laws of indices and logs.
2. Reduce equations to linear form and interpret constants from graphs.
3. Use trigonometry to solve triangles, graph periodic functions and solve trigonometric equations.
4. Apply differentiation to various functions, rates of change, and optimisation.
5. Evaluate definite integrals, apply integration techniques to problems in Science & Engineering, and formulate differential equations.

**Semester 2**
- **Mechanical Science (Dynamics and Fluids) – MECH 6036**

On successful completion of this module the learner will be able to
1. Manipulate equations of linear and angular motion.
2. Apply momentum, work and energy to linear and angular systems.
3. Apply the laws of friction to objects on the flat and inclined planes.
4. Determine the forces associated with circular motion.
5. Use Bernoulli’s equation and the continuity equation to solve problems in fluid dynamic systems.

- **Technological Mathematics201 – MATH6040**

On successful completion of this module the learner will be able to
1. Differentiate parametrically, implicitly, partially and solve related rates of change problems.
2. Apply vector algebra methods to problems involving forces and moments of forces.
3. Integrate by parts and by inverse trigonometric substitution; and apply integration methods to various applied problems.
4. Solve and analyse simultaneous equations using matrix algebra methods.

**Award**
Certificate in Mechanical Engineering Science (Level 6 on the National Framework of Qualifications).
### COURSE CODE

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### COURSE FEE

€840 for the academic year (incl. exam fee)

### ENQUIRIES

Prof. Gerard Kelly  
T: 021 4326505  
E: ger.kelly@mtu.ie

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This is a general course suited to those with a background in engineering. It is offered on a part-time basis and requires attendance of one evening per week for the academic year.

### Admission Requirements

The applicant should be competent in two-dimensional CAD.

### Content

This programme consists of two modules:

**Semester 1**
- **Three Dimensional Design using AutoCAD – MECH6041**

On successful completion of this module the learner will be able to:
1. Use the World and User systems and define 3D co-ordinates in the construction of 3D drawings.
2. Use multiple viewports and views to construct 3D drawings.
3. Create and edit polygon meshes for surface modelling.
4. Construct and render 3D models in the solid model state and generate 2D views from same.
5. Plot multiple views from finished drawings.

**Semester 2**
- **Introductory 3D Parametric Modelling – MECH6040**

On successful completion of this module the learner will be able to:
1. Use industry specific 3-D parametric modelling software.
2. Develop 3-D models/assemblies.
3. Produce 2-D working drawings from 3-D models.
4. Illustrate the benefits of parametric modelling for design intent.

### Award

Certificate in 3D CAD and Solid Modelling (Level 6 on the National Framework of Qualifications).

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Course & Module Information, and to apply online, visit go.mtu.ie/CRECADM6

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www.mtu.ie
The Centre for Advanced Manufacturing & Management Systems (CAMMS) is attached to the Department of Mechanical, Biomedical and Manufacturing Engineering at MTU Bishopstown Campus, Cork. CAMMS is a Continuing Professional Development Centre (CPD) within MTU dedicated to providing opportunities for workforce development and personal upskilling. The centre capitalises on the extensive expertise within MTU together with external professionals to deliver up to date education and training programmes in Automation and Control, Lean Sigma, Project Management, and Manufacturing Engineering. CAMMS aims to provide career-focused education for the benefit of the personal, intellectual and professional development of students and to solve problems directly related to skills required by industry.

Many CAMMS programmes are validated awards by MTU under delegated authority of Quality Qualifications Ireland (QQI) leading to European Credit Transfer and Accumulation System (ECTS) credits on the National Framework of Qualifications (NFQ). The Centre offers preparatory courses for the Society of Manufacturing Engineers (SME) professional exams and also serves as an official exam site.

CAMMS is currently delivering thematic knowledge areas that reflect the strengths of the Faculty.

**Course themes include:**

- Quality, Lean Sigma
- Project Management
- Automation & Control
- Advanced Mechatronics
- Manufacturing Engineering
- Biomedical Device Manufacture
- Process Plant Technology

The Centre is a recognised training provider for Continuing Professional Development (CPD) to Engineers Ireland. Tailored courses can be delivered at your place of work or at MTU across a wide range of disciplines through consultation with the Centre's multidisciplined staff.

Please refer to www.camms.ie for further details.
Courses

1.0 Mechanical, Electrical and Plumbing – BIM Applications

2.0 Lean & Six Sigma Programmes
   2.1 Introduction to Lean & Six Sigma
   2.2 Lean Sigma Yellow Belt
   2.3 Lean Sigma Green Belt
   2.4 Lean Sigma Black Belt
   2.5 Lean Sigma Master Black Belt
   2.6 Continuous Improvement for Production Teams

3.0 Project Management Programmes
   3.1 Project Management Techniques
   3.2 Diploma in Project Management

4.0 Automation & Control Systems Programmes (Level 7)
   4.1 Certificate in Automation & Control Systems
      4.1.1 Mechatronics
      4.1.2 SCADA and Automation Systems
      4.1.3 Robotics
   4.2 Certificate in Advanced Mechatronics (Level 8)
      4.2.1 Advanced Mechatronics Part 1
      4.2.2 Advanced Mechatronics Part 2
   4.3 Certificate in Digitised Automotive Operations (Level 7)

5.0 Manufacturing Engineering
   5.1 Certified Manufacturing Engineer (CMfgE)
   5.2 Metrology Training (AUKOM Level 1)
   5.3 Certificate in Computerised Production & Inspection Processes
   5.4 Certificate in Intelligent Manufacturing Systems
   5.5 Certificate in Biomedical Device Manufacture

6.0 Bachelor of Engineering Degrees
   6.1 Bachelor of Engineering (Honours) in Process Plant Technology
   6.2 Bachelor of Engineering (Honours) in Advanced Manufacturing Technology
This programme aimed at those who wish to enhance their 3D drawing and design skills in order to operate within a Building Information Management (BIM) regulated environment. It is suitable for those employed or seeking employment with design consultants or engineering/facilities departments within the pharmaceutical, biopharmaceutical, medical device, food manufacturing and water treatment sectors.

The programme has been specifically designed in response to industry needs for upskilling as identified by the South West Regional Skills Forum (SWRSF). The SWRSF (made up of manufacturing, mechanical and MEP consultancy companies) has identified BIM and Revit as two of their top three priority areas for upskilling.

**Content**
Participants will be provided with the skills necessary to contribute effectively through the use of BIM related software applications, specifically Autodesk Revit for Mechanical, Electrical and Plumbing (MEP), in conjunction with a specialised module dedicated to piping design.

Students will develop the ability to use modern computer-based engineering tools to solve well defined building services design problems and communicate effectively with the engineering community. They will learn to create and place equipment, route and coordinate pipework, add electrical components and use P&ID data all within a multidiscipline 3D environment. The programme will also incorporate the use of Piping Standards (BS, DIN, ANSI, etc.) and engineering symbols standards.

**Modules**
- Revit Introduction – introduction to the BIM environment
- Revit-MEP – multidisciplinary services design
- 3D Piping Design – detailed piping design in a virtual environment

**Admission Requirements**
Applicants should have a minimum of a Level 6 qualification (or equivalent) in an engineering discipline such as mechanical, electrical or building services engineering. Equivalent recognition may be given through the Recognition of Prior Learning (RPL) process on an individual case-by-case basis to candidates who have not achieved this academic standard but who can demonstrate significant relevant professional experience in the Built Environment discipline. For details, click here.

**Duration**
September – May, one evening per week.

**Awarding Body**
Special Purpose Award - 15 ECTS Credits at Level 7 on the National Framework of Qualifications, awarded by Munster Technological University.

**Springboard Application Procedure**
You must register with Springboard https://springboardcourses.ie/ and apply for Certificate in Mechanical, Electrical and Plumbing – BIM Applications. Once your application on the Springboard website has been accepted, MTU Admissions office in Cork will be in contact with you to complete your registration.
Lean is a generic process management term referring to the identification and steady elimination of waste. It is closely linked with Six Sigma because of the methodology’s emphasis on reduction of process variation. Lean Sigma introduces the methods and tools used in both techniques.

Note: Introduction to Lean/Lean Sigma is not a pre-requisite to attending the Lean Sigma Yellow Belt, Lean Sigma Green Belt.

Content
- **Day 1:** Introduction to Lean: Introduce the participants to the background to Lean and the concepts behind reducing waste.

- **Day 2:** Introduction to Six Sigma: Explains how Six Sigma targets variation and introduces the concepts.

Admission Requirements
This programme requires no prior knowledge or experience of Lean or Lean Sigma. The programme is suitable for all personnel working within the design, manufacturing, transactional, sales or support environment. It is suitable for management and team leaders through to shop floor personnel and employees directly involved in the process.

Duration
Two full-time days.

Certification
CAMMS, MTU. Please contact CAMMS directly for more details.

Note: Places are limited for this course. Eligible candidates will be considered on a first come first served basis. **Note:** Delivery of this programme is subject to sufficient number of applicants.
2.2 LEAN SIGMA YELLOW BELT

Lean Sigma is a very successful methodology for Service Design and Operational Productivity Improvement. Lean Sigma is based on the elimination of waste and the reduction of variability in processing through engagement and respect for all staff. The Lean Sigma Yellow Belt course introduces the methods and tools for interpretation of customer requirements for service design and operations in all industry sectors. These include Public Service, Healthcare, Biopharma, Insurance, Hospitality, Charities, Software, Call Centre Service, and Manufacturing.

A certified Lean Sigma Yellow Belt is a professional who will be capable of applying Lean and basic Six Sigma principles and tools as part of a team to drive improvements and show measurable results. The programme consists of assessment of theory by examination, as well as assessment of practice by portfolio. The portfolio is based on the achievement of class project assignments by candidates. The course draws on both the basic problem solving tools and waste identification in processes.

Content
- Introduction to Lean Sigma principles
- Lean Sigma Concepts
- Improve service processes
- Understand Voice of the customer
- DMAIC Methodology
- Continuous Improvement Tools
- Tools for eliminating waste
- In class project work
- Workplace identification of improvement opportunites

Admission Requirements
Candidates must have a total of at least four years combined academic and industrial experience in a suitable working environment with proven ability. It is suitable for all staff.

COURSE CODE
CR_ELSYB_6 (LEVEL 6)

COURSE FEE
€995* (includes course notes and exam fees)

ENQUIRIES
T: 021 432 6264
E: CammsCork@mtu.ie
W: www.camms.ie

Course Information, and to apply online, visit go.mtu.ie/CRELSYB6

Duration
Five days over three months.

Awarding Body
Single Module Award
10 ECTS Credits at Level 6 on the National Framework of Qualifications, awarded by Munster Technological University.

Note: Places are limited for this course. Eligible candidates will be considered on a first come first served basis.

* Discounts for groups of three or more and Corporate discounts are available. Please contact CAMMS to enquire. External support funding may also be available for this course.

https://springboardcourses.ie/apply/9554
The course is aimed at all personnel working within the design, manufacturing, transactional, sales or support environment.

Lean Sigma is a very successful methodology for Service Design and Operational Productivity Improvement. Lean Sigma is based on the elimination of waste and the reduction of variability in processing through engagement and respect for all staff.

A certified Lean Sigma Green Belt is a professional who has expertise in Lean Sigma principles, including supporting systems and tools. A Green Belt will demonstrate project team leadership ability. Green Belts understand the application of DMAIC/DMADV models for Service Design and Operational Management in accordance with Lean Sigma principles. They are able to identify non-value added elements and activities and are able to use specific tools. The course draws on both the basic problem-solving tools and basic statistical principles.

Content
- Introduction to Lean and Lean Sigma, DMAIC Methodology
- Coordinating Project Teams
- Defining the Project and setting goals
- Variation and Measurement Techniques
- Analysis of Process Data, Introduction to Statistical Tools
- Cause and Effect, FMEA (Failure Mode & Effect Analysis)
- Process Capability using SPC
- Lean Concepts and Tools
- Project Control, Measuring Success Factors

Admission Requirements
Level 6 qualification preferred. At least three years' experience in a suitable working environment with proven ability. It is suitable for management and team leaders, shop floor personnel and employees directly involved in the office or service process.

Duration & Delivery
Nine full days over three months. MTU Awarded Lean Sigma Green Belt (includes course notes and MTU exam fees).

Awarding Body
15 ECTS Credits at Level 7 on the National Framework of Qualifications, awarded by Munster Technological University.

Note: Places are limited for this course. Eligible candidates will be considered on a first come first served basis.

* Discounts for groups of three or more and Corporate discounts are available. Please contact CAMMS to enquire.

External support funding may also be available for this course.

“SR Technics Airfoil Services in Cork repair commercial jet engine airfoils for some of the world's most prestigious airlines and overhaul shops. The work carried out at the facility is exacting, critical and highly skilled. When we began our lean journey we were fortunate to team up with MTU CAMMS. They have provided our staff with training and education on their courses including Yellow Belt, Green Belt and Black Belt in the past ten years.”
Damien Carroll, Human Resources Manager, SR Technics Airfoil Services

Springboard Application Procedure
You must register with Springboard https://springboardcourses.ie/ and apply for Certificate in Mechanical, Electrical and Plumbing – BIM Applications. Once your application on the Springboard website has been accepted, MTU Admissions office in Cork will be in contact with you to complete your registration.
2.4 LEAN SIGMA BLACK BELT

COURSE CODE

CR_ESSBB_8

(LEVEL 8)

ENQUIRIES

T: 021 432 6264
E: CammsCork@mtu.ie
W: www.camms.ie

COURSE FEE

€4,750* (includes course notes and exam fees)

Course Information, and to apply online, visit go.mtu.ie/CRESSBB8

Lean Sigma is a very successful methodology for Service Design and Operational Productivity Improvement. Lean Sigma is based on the elimination of waste and the reduction of variability in processing through engagement and respect for all staff.

A certified Lean Sigma Black Belt is a professional who is an expert in Lean Sigma philosophies and principles, including supporting systems and tools. A Black Belt will demonstrate team leadership, understand team dynamics, and assign team member roles and responsibilities. Black Belts have a thorough understanding of all aspects of the DMAIC/DMADV models for Service Design and Operational Management in accordance with Lean Sigma principles. They have a thorough knowledge of Lean enterprise concepts, are able to identify non-value added elements and activities and are able to use specific tools. The course draws on both the basic problem-solving tools and advanced statistical principles.

Content

• Introduction to Lean and Lean Sigma, DMAIC Methodology
• Change Management, Team Building, Facilitation, Conflict Resolution
• Project Control, Return on Investment, Critical Success Factors
• Statistical Techniques
• Measurement System Analysis
• Hypothesis Testing, Regression, Control Charts, Process Capability
• Design of Experiments
• Lean Sigma Supply Chain

Mentoring

A work-based project is undertaken as part of the course. Students will receive project support and mentoring from their tutors. Student projects can deliver savings of more than €100,000 per project. As part of the course online support data is provided for all students.

Admission Requirements

Level 6/7 qualification preferred. Green Belt qualified or a demonstration of several years of work experience in a supervision role in service or manufacturing industry is required. Experience in Lean or Six Sigma principles is desirable.

Duration & Delivery

19 full days over six months.

Awarding Body

30 ECTS Credits at Level 8 on the National Framework of Qualifications, awarded by Munster Technological University.

Note: Places are limited for this course. Eligible candidates will be considered on a first come first served basis.

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

Springboard Application Procedure

You must register with Springboard https://springboardcourses.ie/apply/9550 and apply for Certificate in Mechanical, Electrical and Plumbing – BIM Applications. Once your application on the Springboard website has been accepted, MTU Admissions office in Cork will be in contact with you to complete your registration.
Lean Sigma is a very successful methodology for continuous improvement in all organisations. Lean Sigma is based on the elimination of waste and the reduction of variability in processing through engagement and respect for all staff.

A certified Lean Sigma Master Black Belt (MBB) is the go to person for deployment of Lean Sigma systems in the organisation. They hold a key role within or in support of the management team for business achievement of goals utilising improvement and problem-solving techniques. They may mentor and educate others in the organisation and determine best practice adaptation within the organisation for Operational and Design success. MBBs provide everyday leadership to the Lean Sigma effort. MBB's establishing and maintaining the long term Lean Sigma Environment.

Content
The course is delivered by industry practitioners with active case studies and hands on experience. It includes live case study review and will include discussions with the case study experts.

The main module topics are

Semester One
• Creating and Measuring the Lean Sigma Environment (Site visit)
• Lean Sigma MBB Deployment Research Project

Semester Two
• Lean Sigma Analytics (Site visit)
• Lean Sigma MBB Deployment Application Project

Project mentoring and support
A work-based project and a Research project are undertaken as part of the course. Students will receive project support and mentoring from their tutors.

Online support
Online resources are provided for students to support classroom learning.

Admission Requirements
Black Belt or equivalent required. Demonstrated experience in leading Lean Sigma Projects is required.

Duration & Delivery
12 Days

Awarding Body
Special Purpose Award - 30 ECTS Credits at Level 9 on the National Framework of Qualifications, awarded by Munster Technological University.

Discount
Funding is available through some Skillnet groups.

Course Information, and to apply online, visit go.mtu.ie/CRELSMB9
2.6 CONTINUOUS IMPROVEMENT FOR PRODUCTION TEAMS

COMPANY BASED GROUP TRAINING

APPLICATION
Please email CammsCork@mtu.ie for further information.

COURSE FEE
Price will vary on specific company needs.

ENQUIRIES
T: 021 432 6264
E: CammsCork@mtu.ie
W: www.camms.ie

Course Information, visit go.mtu.ie/CRECIPTX

Continuous improvement is an on-going effort to improve products, services or processes. These efforts can seek “incremental” improvement over time or “breakthrough” improvement all at once. Continuous improvement for production teams involves company based training, concentrating on the forming and development of teams, selecting projects, and then mentoring the operators and facilitators to the completion of these projects.

Content
In general, the course content and delivery is tailored to suit the company’s needs. The course content is a combination of delivered lecture material and actual project focused work. Participants will be introduced to continuous improvement practice using basic quality analysis tools and how to apply them in a team environment on company targeted improvement areas. The sessions will include:

Team members and Facilitators
- Quality concepts and basic quality tools
- Small team project management process
- Project focused work

Facilitators Only
- Mentoring and Facilitation techniques for Facilitators

Having completed the course, candidates will be able to apply quality tools and to interpret information and data. In addition, they should be able to apply team concepts both as a member and leader. The Facilitators should be able to understand their role in the process and experience being a Facilitator on a given project.

Duration & Delivery
Two or four days delivery, four or six weeks mentoring.

Certification
CAMMS, MTU. Please contact CAMMS directly for more details.
This course is a comprehensive and practical introduction to Project Management. The content and delivery is applicable to all industrial sectors (not just technical projects). The content is based on the Project Management Body of Knowledge (PMBOK©) which is administered by the Project Management Institute (PMI) in the USA. The PMBOK is a worldwide recognised professional standard for the practice of Project Management.

The course is aimed at those involved in a wide range of projects. Participants come from a broad range of sectors and backgrounds and are typically involved in the planning, control and execution of project work in the broadest sense. Lectures are combined with case studies, workshops, simulations and practical projects. Course delegates complete various assignments in the class, as project teams and individual assignments. There are also hands-on computer practical sessions which will be used to instruct participants in the key areas of project planning and control. Candidates should have basic computer skills.

The course focuses on two main areas, primarily learning new tools and techniques to manage projects more effectively. Secondly, to gain increased awareness and learning in the area of ‘soft skills’ (e.g. leadership, team management, motivation, communication, negotiation, etc.) that are essential to effective project management.

Content
Participants are expected to work on a project of their own choosing. Some short course assignments to be submitted to achieve certification.

- Introduction to Project Management and the fundamentals
- Project selection & initiation. Defining the Project Charter and Project Scope
- Project Planning and defining the Work Breakdown Structure (WBS)
- Managing Project Scope and Change in projects

- Project Time Management – Activity Definition, Activity Duration Estimating, Activity Sequencing, Schedule Development, Schedule Control
- Project Scheduling Software – MS Project version to 2016
- Progress measurement and reporting
- Managing Project Quality and Risk management
- Managing Project Finance and Resources
- Managing People – Team development and the Project Managers Role
- Improving personal effectiveness as a project manager
- Leadership Styles, Communication, Negotiating
- Project Closeout and Evaluation

Duration & Delivery
The evening course is delivered fully online. The course is 10 weeks in duration and consists of one evening session per week, every Tuesday, 6.30pm – 9.30pm.

Awarding Body
5 ECTS Credits at Level 7 on the National Framework of Qualifications, awarded by Munster Technological University.

Note: Successful participants from the evening class will be eligible to two days exemption from the Diploma in Project Management and a reduced price from €3,850 to €3,250.

Note: Places are limited for this course. Eligible candidates will be considered on a first come first served basis.

* A discount structure is available for groups: 5% for 2 people, 10% for 3 or more.
With the emergence of Project Management as a standalone profession, international accreditation that is accepted across industries is becoming increasingly important. The course is suitable for individuals who may have practical experience of either being involved in projects or managing and leading projects but need to supplement this with the necessary education. This course is aimed at those who seek to employ professional project management methodologies in the Initiation, Planning, Execution, Control and Close-Out of their Projects.

This MTU accredited Special Purpose Award in Project Management uses a combination of external experts and in-house lecturers to provide a broad scope of industrial and academic expertise. Our panel of lecturers and experts includes those with PMI® (Project Management Institute), ‘Registered Education Provider’ (REP®) Approval. The content and delivery is applicable to all industrial sectors (not just technical projects).

The programme covers all knowledge areas of the internationally recognised professional standard for the practice of Project Management, the PMBOK® (Project Management Body of Knowledge) which is administered by the PMI (Project Management Institute). MTU’s Award includes a detailed 2-day preparatory ‘boot-camp’ course for those candidates who intend to sit for the PMI credentials, the PMP® or CAPM®.

The Special Purpose Award combines advanced Project Management techniques and methodologies with the real-life experiences of an expert panel of leading project management lecturers from a wide range of industrial sectors. The course consists of a combination of lectures, seminars, case studies, guest speakers, simulations and practical projects. Course delegates complete various assignments in the class, as project teams and individual assignments.

The course is designed for those involved in a wide range of projects. Participants come from a broad range of sectors and backgrounds and are typically involved in the planning, control and execution of project work in the broadest sense.

Duration & Delivery
Due to Covid-19 and restrictions, all classes are currently delivered online. The Diploma is approximately five months in duration and consists of just one online session per week; a mixture of eight Fridays (9am to 4.30pm) and fifteen evening sessions (6.30pm to 9.30pm).

Certification
Students who complete all three modules, will be entitled to an accredited Diploma in Project Management (Special Purpose Award – 15 ECTS Credits at Level 8 on the National Framework of Qualifications, awarded by Munster Technological University.

Project Management Institute (PMI): Candidates who complete the SPA in Project Management will be encouraged to sit the Project Management Institute (PMI) exams. PMI exam fees are not included.

To maintain your PMI credential, you must earn 60 PDUs (Professional Development Units) over 3 years. If a student successfully passes their PMI exam prior to the last 2 sessions on the Diploma, that student will earn 36PDUs whilst simultaneously completing their Diploma qualification.

* The course fee is normally €3,850, however Cork Chamber Skillnet is currently providing a 30% funding support (‘workforce upskilling’) to each Diploma student, reducing the course cost from €3,850 to €2,695, providing a saving of €1,155.

* Please note the 30% level of Skillnet funding support may vary in 2022.

* Course price includes all MTU exam fees, course notes and soft copies of ready-to-use PM Templates
MODULE 1
- Project Initiation & Selection
- Project Charter
- Project Scope Definition
- Project Cost Management
- Project Scheduling
- ‘Microsoft Project’– Scheduling Software Tutorial
- Project Budgeting
- Managing Project Change
- Project Risk Management

MODULE 2
- Project Stakeholder Management
- Project Quality Management
- Project Communications
- Procurement for Project Managers
- Project Resource Management
- Project Integration
- PM Ethics
- Selecting and Applying for the relevant PM Certification
- Agile Project Management
- 2-Day Professional Scrum Master™ (PSM) Bootcamp
- Presentation Skills

MODULE 3
- Myers Briggs profiling, Teams and Communication Styles
- Presentation Skills
- Strategic Project Management
- Project Governance / Global teams
- Using PM Techniques to implement Change Management
- Managing challenging stakeholders
- Recovering a project in difficulty
- Business Process Mapping – Driving Organisational Change through Projects

Diploma in Project Management
15 ECTS Credits, Level 8
4.0 AUTOMATION AND CONTROL SYSTEMS PROGRAMME
4.1 CERTIFICATE IN AUTOMATION & CONTROL SYSTEMS
SPECIAL PURPOSE AWARD – 20 ECTS CREDITS AT LEVEL 7

COURSE CODE CR_EACSY_7

Students who successfully complete the modules Mechatronics; SCADA & Automation Systems; and Robotics will be entitled to a Certificate in Automation & Control Systems (Special Purpose Award) Level 7 on the National Framework of Qualifications, awarded by Munster Technological University.

These modules can also be taken and certified individually. Please see course code, fee, and online application for each module.

4.1.1 MECHATRONICS

COURSE CODE CR_EACSY_7

Content

Practical
• Pneumatic design and implementation
• Electro-pneumatic design and implementation
• PLC design and implementation
• Mechatronic design and implementation

Theory
• Principles of the “Total Engineering Approach” to production systems
• Principles of typical sensors
• Principles of pneumatic, mechanical and electrical actuation systems
• Principles of embedded control (PLCs, controllers)
• Design, build and fault find on mechatronic systems

The course also covers PLC programming to a high standard of achievement allowing students to programme training rigs and develop knowledge of industrial Mechatronic installations.

Admission Requirements
Candidates must have at least two years relevant industrial experience and should have obtained their Leaving Certificate or an appropriate craft/technician qualification.

Duration & Delivery
One evening per week for one academic year, one module per semester.

Awarding Body
10 ECTS Credits at Level 7 on the National Framework of Qualifications, awarded by Munster Technological University.

Note: Places are limited for this course. Eligible candidates will be considered on a first come first served basis.

* Discounts available for groups of three or more.
4.1.2 SCADA & AUTOMATION SYSTEMS

Automation has been an essential tool in enhancing productivity and competitiveness for manufacturing industries. Automation is used to improve manufacturing performance, reduce operational costs and improve quality. Most industrial plants now have some form of automation, which is controlled and monitored by SCADA systems. This course enables participants to adjust, service, maintain, and design modern equipment, and to design and develop SCADA control systems.

During the course, real data from a process control rig and flexible assembly line will be utilised in the design of applications.

Content
- Computer based automation systems
- Control systems
- Connection and circuit technology for transducers
- PLC configuration and control
- Safety systems
- SCADA (Supervisory Control and Data Acquisition)

Admission Requirements
Candidates must have at least two years relevant industrial experience and should have obtained their Leaving Certificate or an appropriate craft/technician qualification.

Duration & Delivery
One evening per week for 12 weeks in Semester 1. Additional programme may run in Semester 2, subject to demand.

Awarding Body
5 ECTS Credits at Level 7 on the National Framework of Qualifications, awarded by Munster Technological University.

Note: Places are limited for this course. Eligible candidates will be considered on a first come first served basis.

* Discounts available for groups of three or more.
4.1.3 ROBOTICS

<table>
<thead>
<tr>
<th>COURSE FEE</th>
<th>ENQUIRIES</th>
</tr>
</thead>
</table>
| €925*      | T: 021 432 6264  
E: CammsCork@mtu.ie  
W: www.camms.ie |

Course Information, and to apply online, visit go.mtu.ie/CREACSY7

An industrial robot is defined as “an automatically controlled, reprogrammable, multipurpose device, for use in industrial automation applications”.

This course gives participants an understanding in Industrial Robotics programming and design, and an indepth knowledge of Robotic Sensors.

**Content**
- Robotic cell design
- End effectors
- Robotics programming
- External sensors

**Admission Requirements**
Candidates must have at least two years relevant industrial experience and should have obtained their Leaving Certificate or an appropriate craft/technician qualification.

**Duration & Delivery**
One evening per week for 12 weeks in Semester 2. Additional programme may run in Semester 1, subject to demand.

**Awarding Body**
5 ECTS Credits at Level 7 on the National Framework of Qualifications, awarded by Munster Technological University.

**Note:** Places are limited for this course. Eligible candidates will be considered on a first come first served basis.

* Discounts available for groups of three or more.
4.2 CERTIFICATE IN ADVANCED MECHATRONICS

SPECIAL PURPOSE AWARD - 10 ECTS CREDITS AT LEVEL 8

COURSE FEE
Overall fee: €1,850 (Only applicable when BOTH modules are taken in one academic year).

ENQUIRIES
T: 021 432 6264
E: CammsCork@mtu.ie
W: www.camms.ie

Course Information, and to apply online, visit go.mtu.ie/CREAMEC8

Students who successfully complete the modules Advanced Mechatronics Part 1; and Advanced Mechatronics Part 2 will be entitled to a Certificate in Advanced Mechatronics (Special Purpose Award).

These modules can also be taken and certified individually. Please see course code, fee, and online application for each module.

We have seen a dramatic change in the complexity of programming and control of modern day machines, where for example controllers use languages like C++ now instead of Ladder Diagram and Soft Motion for more complex machine movements and faster changeovers.

With the integration of Mechanical, Electrical and Electronic equipment in modern day industry, there is a need for an integrated approach to the training requirements for personnel to be able to adjust, service, maintain, programme and design modern equipment. This would include the advanced programming of PLCs, servo drives, machine safety systems, networking, mechanical setup and adjustment of sensors.

The aim of this Special Purpose Award is to address the short fall in the needs of training at this level of automation.

4.2.1 ADVANCED MECHATRONICS PART 1

COURSE FEE
€980* (Includes course notes and exam fees)

ENQUIRIES
T: 021 432 6264
E: CammsCork@mtu.ie
W: www.camms.ie

Module Content
• Principles of the five IEC languages, Ladder, Instruction List, Sequential Function Chart, Function Block & Structured Text.
• Principles surrounding BUS systems, including CAN, Profibus, Profinet, Ethernet, describing addressing, PLC settings, Tag names etc.
• Principles of Analogue sensors, showing resolution, scaling, wiring, types of input 0-10V 4-20MA etc.
• Principles of safety systems up to category 4 machine safety, Safety Relays, Safety PLC’s, interlocking devices.
• Principles of Servo Drive systems, Homing methods, signaling methods i.e. Digital or Bus signalling, Speeds, acceleration etc.

Admission Requirements
Candidates must have successfully completed the MTU Level 7 Mechatronics Module or equivalent and some relevant work experience working in the area of Mechatronics.

Duration & Delivery
One evening per week for 12 weeks in Semester 1.

Awarding Body
5 ECTS Credits at Level 8 on the National Framework of Qualifications, awarded by Munster Technological University.

Note: Places are limited for this course. Eligible candidates will be considered on a first come first served basis.

* Discounts available for groups of two or more.
**4.2.2 ADVANCED MECHATRONICS PART 2**

**COURSE CODE**
CR_EAMEC_8

**COURSE FEE**
€980* (Includes course notes and exam fees)

**ENQUIRIES**
T: 021 432 6264  
E: CammsCork@mtu.ie  
W: www.camms.ie

Course Information, and to apply online, visit [go.mtu.ie/CREAMEC8](http://go.mtu.ie/CREAMEC8)

**Module Content**
- **Industrial Networking**
  Programme PLCs to control Servo Drives, Vision systems & Robotic interaction with mechatronic systems across CAN Open, Profinet, Profinet and Ethernet.
- **Integration of PLCs and Servo Drive systems**
  Programme Servo Drive Controllers to communicate with a PLC in a discrete manner. Programme the PLC to give positional control data to the Servo Drive controller.
- **Vision systems**
  Programme Vision Systems to determine location, shape and orientation of objects. Programme PLCs and Robotic systems to use the information from the vision system.
- **Soft Motion Control**
  Introduce Soft Motion Control for the control of Servo Drive positioning, demonstrating the use of CNC code embedded within a PLC function block.

**Admission Requirements**
Candidates must have successfully completed the MTU Level 7 Mechatronics Module or equivalent and some relevant work experience working in in the area of Mechatronics.

**Duration & Delivery**
One evening per week for 12 weeks in Semester 2.

**Awarding Body**
5 ECTS Credits at Level 8 on the National Framework of Qualifications, awarded by Munster Technological University.

**Note:** Places are limited for this course. Eligible candidates will be considered on a first come first served basis.

* Discounts available for groups of two or more.
4.3 CERTIFICATE IN DIGITISED AUTOMOTIVE OPERATIONS

ENQUIRIES

Mike McGrath
E: Michael.mcgrath@mtu.ie

Register with Springboard https://springboardcourses.ie

Springboard+ application procedure
You must register with Springboard https://springboardcourses.ie/ and apply for the Certificate in Digitised Automotive Operations. Once your application on the Springboard website has been accepted, MTU Admissions office in Cork will be in contact with you to complete your registration.

Admission requirements
Candidates must have a minimum of three years relevant industrial experience and should have obtained their Leaving Certificate examination or an appropriate craft/technician qualification. Candidates may also be considered through MTU’s well-established RPL process.

Aim
This programme has been developed for individuals seeking employment in the Service administration area of Automotive Engineering OR those already working in the sector wishing to up-skill and gain the relevant qualifications in an evolving technological Automotive industry.

Dealer Management Software skillset is vital to industry performance into the future, coupled with Business and Management Skills, course participants will garner essential IT skills and the ability to communicate professionally in the digital world.

Graduates will gain the expertise to manage a modern after-sales department, dealing with costing, scheduling, planning and reporting through the latest digital platforms.

Award
Special Purpose Award, Certificate in Certificate in Digitised Automotive Operations (20 ECTS, Level 7, on the National Framework of Qualification
The course is based on a body of knowledge specified for certification by the Society of Manufacturing Engineers (SME) which is based in the USA. Its prime aim is to provide recognition for candidates who have several years manufacturing experience but no qualification to show for their work-based expertise.

**Content**
- Manufacturing Planning and Control
- Quality Management and Quality Tools
- Analysis of Manufacturing Processes
- Facility Layout and Planning
- Computer Integrated Manufacturing
- Occupational Health and Safety

**Admission Requirements**
Candidates must have a minimum of eight years manufacturing-related work experience and/or education (a maximum of five years of education may be applied toward the eight years experience/education requirement).

**Duration & Delivery**
One evening per week for the academic year.

**Awarding Body**
Society of Manufacturing Engineers (SME).

**Note:** MTU is not the examining body for this programme but acts as an official exam site.

Delivery of this programme is subject to sufficient numbers of applicants.
5.2 METROLOGY TRAINING (AUKOM LEVEL 1)

COURSE CODE
CR_SMETR_6

Course & Module Information, and to apply online, visit go.mtu.ie/CRSMETR6

COURSE FEE
€1,950 (covers tuition, AUKOM Level 1 Handbook and exam fees)

ENQUIRIES
T: 021 432 6264
E: CammsCork@mtu.ie
W: www.camms.ie

Duration
One evening per week over one semester

Admission Requirements
No specific entry requirements but applicants should have a background in CNC/CMM operations. The programme is aimed at production metrologists and consolidates fundamental principles and knowledge catering from beginners through to those with more experience.

Overview
AUKOM is an acronym for the German phrase ausbildung koordinatenmesstechnik, which translates to “coordinate metrology training.” AUKOM was developed in Germany to establish a global training standard for production coordinate measurement practice. Its methodology is vendor-neutral, meaning the skills gained and procedures learnt during certified training are applicable to any brand of measuring equipment and software.

AUKOM training is currently offered in 19 countries and MTU is the only approved training centre in Ireland. Three levels of certification are available; this Level 1 programme concentrates on fundamental concepts, such as dimensional tolerancing, basic programming, and common measuring equipment. Full course details are available at https://www.aukom.info/en/aukom-training-courses/content-level-1.html.

Topics covered in AUKOM Level 1 are:
- Principles of coordinate metrology
- Basic definitions, tolerancing, and geometric elements
- Measuring preparation, including stylus selection, part cleaning, and temperature control
- Documentation & quality management

Candidates will be prepared to take the AUKOM Level 1 test which will be administered by MTU personnel at the end of the programme; AUKOM certificates will be issued to those who successfully complete the programme and the test.

Delivery
The programme is largely classroom-based but will involve practical demonstrations of Coordinate Measuring Machine (CMM) equipment and software.

Award
Metrology Training: AUKOM Level 1 Certificate
*Multiple applications from the same company will be eligible for a 10% discount for 2 attendees, 15% for 3 attendees or more.

**Admission Requirements**
Candidates should have a Level 6 qualification (or equivalent) in Engineering or cognate discipline.
Candidates with sufficient experience which in the judgement of MTU may be deemed equivalent to this qualification will be considered following the principles/procedures set out the University’s Recognition of Prior Learning service in MTU; [click here].

**Structure**
Smart Manufacturing comprises systems that are “fully-integrated, collaborative manufacturing systems that respond in real time to meet changing demands and conditions in the factory, in the supply network, and in customer needs.” The merger of the physical and virtual worlds (cyber physical systems) opens up new areas of innovation enabling optimisation of the entire manufacturing supply chain to create higher quality products, improve productivity, increased energy efficiency involving real-time data collection and analysis.

The aim of this programme is to upskill technicians/engineers in the latest machining and inspection technologies and to show how advances in ICT can be exploited and implemented on the factory floor. The programme will utilise industry-standard computer numerical control (CNC) machine tools, co-ordinate measuring machines (CMM) and CAD/CAM software.

In the past three years, MTU has invested circa €1.5 million in bringing its CNC machining and CMM inspection equipment up to a standard comparable to that in manufacturing industry. The University also has access to the most up-to-date CAD/CAM software. Participants on the programme will thus be exposed to the current state-of-the-art technologies and to the emerging developments and trends. The University has also invested in staff training so that the potential offered by the new equipment/software is fully realised.

It is envisaged that the topics in this programme will be developed to a more advanced level in the following academic year leading to an additional 15 credits for those wishing to progress further.

**Award**
Certificate in Computerised Production & Inspection Processes (15 ECTS credits at Level 7 on the National Framework of Qualifications).
**5.4 CERTIFICATE IN INTELLIGENT MANUFACTURING SYSTEMS**

**COURSE CODE**
CR_EINMS_9
(LEVEL 7)

**COURSE FEE**
€4,200

**ENQUIRIES**
T: 021 432 6264
E: CammsCork@mtu.ie
W: www.camsms.ie

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Course Information, and to apply online, visit go.mtu.ie/CREINMS9

**Duration & Delivery**
2 semesters. At least two evenings per week, partly class room based, partly blended (online).

**Admission Requirements**
Candidates will require a Level 8 qualification in one of the following: Mechanical, Electrical, Electronic, Chemical Engineering, Applied Physics and Instrumentation, Mechatronics or cognate discipline. Candidates with sufficient experience which in the judgement of MTU may be deemed equivalent to this qualification will be considered following the principles/procedures set out the University’s Recognition of Prior Learning service in MTU [click here].

**Overview**
The Certificate in Intelligent Manufacturing Systems is a Level 9 programme which aspires to bridge the gap between the engineering operations and information technology paradigms in the manufacturing sector. Smart Manufacturing has been described as the synthesis of advanced manufacturing capabilities and digital technologies to produce highly customisable products faster, cheaper, better, and greener. A smart factory will integrate data from system-wide physical, operational, and human assets to drive manufacturing, maintenance, inventory tracking and the digitisation of operations in order to achieve this goal.

**Award**

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**Springboard Application Procedure**
You must register with Springboard [https://springboardcourses.ie/apply/9084] and apply for Certificate in Mechanical, Electrical and Plumbing – BIM Applications. Once your application on the Springboard website has been accepted, MTU Admissions office in Cork will be in contact with you to complete your registration.

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https://springboardcourses.ie/apply/9084
This programme was developed for anyone seeking employment in or transferring into the Biomedical Devices Sector as well as anyone wishing to enhance their general knowledge of the industry. The programme is structured around common medical disorders which are treated by biomedical devices manufactured in Ireland. On completion, participants will be familiar with a range of disorders, the anatomy and physiology associated with these disorders, the devices used in their treatment, and the processes involved in the manufacture of these devices.

The programme also familiarises participants with the engineering requirements and standards that apply to cleanrooms employed in the manufacture of medical devices. The programme looks at the specification of appropriate cleaning, packaging and sterilisation operations for medical devices, the assessment of the safety risks associated with manufacturing operations and the requirements for guaranteeing a safe working environment.

The programme also examines the detailed requirements of a Good Manufacturing Practice (GMP) system and the operation of regulatory bodies such as FDA/IMB.

**Content**

- **Anatomy**
  General anatomy, Neuro Anatomy, Cardiovascular anatomy, Orthopaedics.
- **Medical Devices**
  Devices used in the treatment of neurovascular, cardiovascular, orthopaedic disorders and product development history.
- **Manufacturing Processes**
  Introduction to manufacturing processes; injection moulding, extrusion, wire drawing; catheter coating process, embolic coil manufacturing.
- **Cleanroom Technology**
  Cleanroom classification; particle size and counting; filter design and performance, cleanroom layout, materials & standards, cleanroom commissioning and qualification.
- **Cleaning and Sterilisation Technology**
- **Packaging**
  Functions of packaging, packaging requirements for sterilisation, physical & chemical properties of packaging, labelling and packaging control, distribution hazards, production of packages, forming materials and methods, lidding, sealing.
- **GMP**
  Introduction to GMP, GMP documentation – SOPs/regulatory documentation/submissions, Role and requirements of the FDA/IMB/Notified Bodies, introduction to 21 CFR820/Medical Devices Directive, planning for audits. Classification of devices, FDA/IMB submissions – 510k/PMA applications.
- **Validation**
  Validation protocols – Installation, operational and performance qualification. Process validation, design qualification, validation of sterilisation system, design verification, design validation. URS/FDS/FAT/SAT master validation plans. Change control.

**Admission Requirements**

This course is open to anyone with a minimum of two years industrial experience.

**Duration & Delivery**

One evening per week for 13 weeks.

**Awarding Body**

MTU: Certificate in Biomedical Device Manufacture, Special Purpose Award 10 ECTS credits at Level 7 on the National Framework of Qualifications.

**Note:** Places are limited for this course. Eligible candidates will be considered on a first come first served basis.

* Discounts available for groups of three or more.*
This course aims to produce graduates who can make a significant contribution to the design, operation, maintenance and management of process plant. The course concentrates on the mechanical aspects of process engineering design and selection, plant construction, condition monitoring, productive maintenance, plant safety, automation and control systems, project management and investment appraisal. This honours degree programme will help participants to develop the skills and knowledge to implement change and to undertake key operational management roles.

**Admission Requirements**
Merit or better in a relevant Diploma course or equivalent. Candidates with sufficient experience which in the judgment of MTU may be deemed equivalent to this qualification will be considered following the principles/procedures set out by the Recognition of Prior Learning service in MTU [click here].

**Duration & Delivery**
Three evenings per week, 7pm – 10pm, and one Saturday per month, 10am – 5pm. The course can be completed in two academic years.

**Award**
Bachelor of Engineering (Honours) in Process Plant Technology (Level 8 on the National Framework of Qualifications).
6.2 BACHELOR OF ENGINEERING (HONOURS) IN ADVANCED MANUFACTURING TECHNOLOGY

COURSE CODE
CR_EAMTN_8
(LEVEL 8)

COURSE FEE
See module listing

ENQUIRIES
T: 021 432 6264
E: CammsCork@mtu.ie
W: www.camms.ie

Course & Module Information, and to apply online, visit go.mtu.ie/CREAMTN8

All industries involved in the production of goods, whether biomedical, pharmaceutical, chemical, process, electronic or aeronautical require manufacturing engineers. These industries invest heavily in the most up to date automation, software and process control equipment as well as utilising the most modern of training and management techniques.

This honours degree programme aims to produce graduates who can make a significant contribution to the design, operation, and management of manufacturing systems, as well as to the quality and reliability of manufactured products, parts and equipment.

Admission Requirements
Merit or better in a relevant Diploma course or equivalent. Candidates with sufficient experience which in the judgment of MTU may be deemed equivalent to this qualification will be considered following the principles/procedures set out by the Recognition of Prior Learning service in MTU [click here].

Duration & Delivery
Three evenings per week, 7pm – 10pm, and one Saturday per month, 10am – 5pm. The course can be completed in two academic years.

Award
Bachelor of Engineering (Honours) in Advanced Manufacturing Technology (Level 8 on the National Framework of Qualifications).

<table>
<thead>
<tr>
<th>Modules</th>
<th>Annual Fee per Module</th>
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<tr>
<td><strong>Mandatory</strong></td>
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<td>Project</td>
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<tr>
<td>Quality Engineering</td>
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<tr>
<td>Engineering Project Management</td>
<td>€510</td>
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<tr>
<td>Automation Systems</td>
<td>€510</td>
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<tr>
<td>Mathematics and Statistics</td>
<td>€510</td>
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<tr>
<td>Product Development</td>
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<tr>
<td>Manufacturing Systems</td>
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<td>Maintenance &amp; Reliability</td>
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<td>Facilities</td>
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<td><strong>Electives (choose 1)</strong></td>
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<td>Process Automation &amp; Control</td>
<td>€510</td>
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<tr>
<td>Advanced Materials and Processes</td>
<td>€510</td>
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</table>
Courses

- MEng in Chemical & Biopharmaceutical Engineering (Level 9)
- Certificate in Biopharmaceutical Processing (Level 7)
- Certificate in Process Safety (Level 7)
- Certificate in Validation Science (Level 7)
- Bachelor of Science in Good Manufacturing Practice & Technology (Level 7)

Short Courses – Special Purpose Awards

- Science of Biotechnological Manufacturing Operations (Level 6)
- Cleanroom Manufacturing Practices (Level 6)
- Brewing & Distilling Operations (Level 7)

If you have any queries, please contact the Department Secretary, details above. Each programme has its own unique web address from which you can apply online.

All programmes offered are subject to demand and places may be limited. All online applicants will receive an email confirmation. Details about eligibility, programme orientation and timetable arrangements will be sent to all applicants in advance of programme commencement.
This is a 90 credit Level 9 taught programme comprising eight mandatory modules, two free choice 5 credit modules and two project modules, totalling 40 credits.

**Duration & Delivery**
- **Part-time**
- No. of week per semester: 13
- No. of timetable hours per week: circa 6 - 9
- Which days: Variable (usually includes Friday afternoon)
- Duration: 3 years (9 semesters)

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

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

**Admission Requirements**
Applicants must have achieved a minimum of Second Class Honours in a Level 8 BEng (Honours) in Chemical and Biopharmaceutical Engineering or equivalent.

Equivalent recognition may be given through the Recognition of Prior Learning (RPL) process on an individual case-by-case basis to candidates who have not achieved this academic standard but who can demonstrate significant relevant professional experience in the discipline of Chemical and Biopharmaceutical Engineering. For more information, please visit [here](#).

**Content**
All modules are worth 5 credits (ECTS) unless otherwise noted. The elective modules afford the learner the opportunity to broaden his/her skills set in other disciplines or to deepen his/her skills set in a selected area or focus. The elective modules offered in any given year are delivered subject to demand and resource availability.

**Stage 1/Semester 1**
- Emerging Technologies
- Engineering Research Skills
- Environment, Health & Safety
- Lean Sigma – Advanced Statistical Tools for Process Optimisation
- Industrial Heat and Power

**Electives**
- Sustainability in Engineering
- Strategic Business Management

**Stage 1/Semester 2**
- Computational Fluid Dynamics
- Process Technology Transfer
- Industrial Control Systems
- Research Project Preparation (10 ECTS)

**Electives**
- Engineering Project Management
- Environmental Management
- Managing Innovation

**Stage 2/Semester 1**
- Project Realisation (30 ECTS)

**Award**
Master of Engineering in Chemical & Biopharmaceutical Engineering (Level 9 on the National Framework of Qualifications).
COURSE CODE
CR_EBIPR_7
(LEVEL 7)

CERTIFICATE IN
BIOPHARMACEUTICAL PROCESSING

COURSE FEE
€1,650

ENQUIRIES
Elaine McCarthy/Tammy Browne
T: 021 433 5150
E: PET.DeptCork@mtu.ie

Course & Module Information, and to apply online, visit go.mtu.ie/CREBIPR7

Duration and Delivery
The programme is delivered in one year, a module per semester, 6.30pm – 9.30pm, one evening per week. Each module comprises of weekly lectures and biweekly practicals. Practicals are delivered both at MTU and at the National Institute for Bioprocessing Research & Training (NIBRT) in Dublin.

Overview
This Certificate (Special Purpose Award) allows students to attain a knowledge and an understanding of the principles of Biopharmaceutical Processing and its underpinning science. The course predominately covers both cell culture and purification of biopharmaceuticals covering all unit operations, good manufacturing practices, validation and process analytical technology. The Certificate comprises of two modules namely, Biopharmaceutical Upstream and Downstream whereby the students gain significant theoretical knowledge through lectures and site visits. This Certificate upskills professionals from small to large molecule processing. It has an excellent reputation as a Continuing Professional Development (CPD) enabler.

Aim
This Special Purpose Award is designed to meet the education and training needs of scientists and engineers, to equip them with the knowledge and skills to operate effectively in the biopharmaceutical industry.

On successful completion of the Biopharmaceutical Upstream Processing module you will be able to:
- Evaluate the significance of biotechnology as a method for the production of pharmaceutically active substances.
- Examine the key aspects of bioreactor design and contrast the various types of reactors including application, operation and limitations.

On successful completion of the Biopharmaceutical Downstream Processing module you will be able to:
- Evaluate options for media design, control and feeding regimes of cell culture systems.
- Compare and contrast the key aspects of mammalian and microbial cell culture systems and their ability to express biopharmaceutical products.
- Conduct, write and critically evaluate biopharmaceutical upstream based practicals.

Admission Requirements
Candidates are required to have a Higher Certificate Level 6 in Engineering or Science.

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

Award
Special Purposed Award - Certificate in Biopharmaceutical Processing (Level 7, 10 ECTs, on the National Framework of Qualifications).
Springboard+ application procedure
You must register with Springboard https://springboardcourses.ie/ and apply for the Certificate in Process Safety. Once your application on the Springboard website has been accepted, MTU Admissions office in Cork will be in contact with you to complete your registration.

Delivery and duration
Tuesday 6.30pm – 9.30pm – one evening per week for one academic year.
Both modules are delivered through Screencasts & Associated Learning, Workshops & Webinars.

Admission requirements
All qualified candidates are required to have a minimum of a Level 6 in an engineering or science discipline.
Recognition of Prior Learning (RPL) will be applicable for candidates entering from the workplace or applying for admission from other institutes.

Aim
The programme has been developed in conjunction with MTU and UCC. It addresses the key challenge identified over the next decade to ensure an adequate supply of qualified individuals with consistent learnings aligned with industrial needs across the Universities based in the South West (MTU & UCC).

This Special Purpose Award in Process Safety provides an online accredited Level 7 qualification in Process Safety over 1 year for individuals who need to safely handle, store and use potentially hazardous materials and processes. It targets employment roles in production/manufacturing, commissioning and operation roles within pharmaceutical/biotechnology/food & drink manufacturing companies.

Students will attain knowledge and understanding of the theory and application of Process safety. This involves online delivery of the main theoretical elements of the programme combined with Industry delivered seminars and workshops. The first module is designed to give students a theoretical grounding in the issues that must be addressed when assessing the hazards arising from the process industries. The second module addresses Process Safety in practice.

Award
Certificate in Process Safety (10 ECTS, Level 7, on the National Framework of Qualification)
Admission Requirements
All qualified candidates are required to have a minimum of a Level 6 qualification (120 credits), or equivalent, in an engineering or science discipline. Candidates may also be interviewed for positions on the programme.

Delivery
Online

The programme is delivered over two semesters of 13 weeks by online delivery and in the classroom followed by examinations.

Semester 1
Industry Workshops 4 times over the semester, 6pm – 9pm on Wednesdays. You will be given more information on the specific Wednesdays once the programme commences in September. Online presentations and webinars to be taken at your own time throughout the semester.

Semester 2
Lectures every Wednesday 6pm – 9pm.

Overview
This Special Purpose Award in Validation Science provides an accredited level 7 qualification in Validation Science over one year for individuals who are seeking to up-skill or cross-skill in order to gain suitable employment in sectors such as biopharmaceutical, pharmaceutical and medical device industries.

This programme has been developed in response to the requests from the industrial participants in the South Western Skills Forum.

The programme targets employment roles in production/manufacturing, quality assurance, regulatory affairs, commissioning, qualification, validation and operation roles within pharmaceutical/biotechnology/medical device manufacturing companies.

Students gain valuable knowledge and key skills in subject areas pertinent to working in highly regulated manufacturing environments such as GMP, QA, QC and Validation.

Students will attain a knowledge and understanding of the principles of quality regulation as required by the principles of current Good Manufacturing Practice. The importance of validation of equipment, plant, utilities, processes and procedures in industry will be shown to be an essential approach to consistently producing products of the intended quality. The student will gain an understanding of the increasing regulatory requirements relevant to the biomedical, pharmaceutical and biopharmaceutical industry. The proposed modules are focused not only on the biotechnological industries but also find applications into other regulatory compliant environments such as the pharmaceutical and medical technology sectors.

The programme uses a mixture of online multiple choice question assessments and online submission of assignments. The first introductory module is a blended module and will consist of a mixture of online teaching, lectures and workshops. Several industry champions will deliver workshops and webinars that will reinforce the fundamental content delivered by the academic lecture team. Industry generated case studies focusing on different aspects linked to different learning outcomes, online lectures/seminars, Industry Guest Lecturers for webinars.

The second module gives the student a broad understanding of the application of current Good Manufacturing Practices to the validation of equipment, plant, utilities, processes and procedures in the pharmaceutical and medical device industries. The principles of risk assessment techniques in validation are applied.
COURSE CODE
CR_SGMPE_7
(LEVEL 7)

COURSE FEE
€500 per module

ENQUIRIES
Elaine McCarthy/Tammy Browne
T: 021 433 5150
E: PET.DeptCork@mtu.ie

Course & Module Information, and to apply online, visit go.mtu.ie/CRSGMPE7

Delivery
One module per night from 6.30pm – 9.30pm

Admission Requirements
Candidates are required to have a Higher Certificate or higher in an engineering or science discipline (minimum 120 credits). It is required that all qualifying candidates have completed modules in basic chemistry and biology (Level 6), and have a knowledge of GMP, to undertake the complete programme. A Level 6 mathematics module must be part of the qualification. See the following page for more information.

Content
To commence September 2021
Process Improvement (Mandatory)
People Management (Mandatory)
Biopharmaceutical Upstream (Elective)
Free Choice Elective

To commence February 2022
Validation
Manufacturing Operations (Mandatory)
Biopharmaceutical Downstream (Elective)
Biomedical Device Manufacture (Elective)
Free Choice Elective

Project (Mandatory)*

A nationally accredited degree designed to meet the education and training needs of supervisors and higher technicians in the areas of Production, Quality Assurance and Validation in the Pharmaceutical, Biopharmaceutical, Chemical and Medical Device Industries. The programme comprises of 11 modules and a Project. To complete the programme, each student must take the 7 mandatory modules and 3 elective modules, as well as the project. A maximum of one free choice elective may be chosen.

The project is undertaken towards the end of the degree programme, when the student has successfully completed at least seven of the modules. The programme can be taken over 2 years or spread out over 3 or more years.

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

Indicative Content
Validation Science
Manufacturing Operations
Chemical Applications
Technology Transfer
Maintenance, Utilities and Facilities
People Management
Process Improvement
Biopharmaceutical Upstream
Biopharmaceutical Downstream
Energy Management
Formulation
Food Processing Technology
Biomedical Manufacture
Project

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

The student acquires credits until 60 credits have been accumulated. Each module contributes 5 credits except for the Project (10 credits) and Biomedical Device Manufacture (10 credits).

Award
Bachelor of Science in Good Manufacturing Practice & Technology (Level 7 on the National Framework of Qualifications).

Advanced Entry details to this programme overleaf.
ADMISSION REQUIREMENTS TO THE BSC IN GOOD MANUFACTURING PRACTICE & TECHNOLOGY

There are two routes of entry to this BSc course: Direct Entry and Advanced Entry.

**Direct Entry**
Candidates are required to have a Higher Certificate or higher in an engineering or science discipline (minimum 120 credits). It is required that all qualifying candidates have completed modules in basic chemistry and biology (Level 6), and have a knowledge of GMP, to undertake the complete programme. A Level 6 mathematics module must be part of the qualification.

**Advanced Entry**
This route was developed for individuals who have relevant industrial experience seeking to gain a Bachelor of Science degree.

Students complete a technical portfolio which must be approved for entry into the BSc. The recognition of Prior Learning assists the students in the preparation of this. Information and booking of appointments are available at [here](#).

A combination of the following three requirements will be accepted by the University as the equivalent of the Higher Certificate in Science in GMP & Technology for advanced entry to the BSc in GMP & Technology

1. Leaving Certificate Grade O6/H7 (pre. 2017, D3 Ordinary Level) in five subjects to include Mathematics, and either English or Irish.

2. 5 years or more relevant work experience in the pharmaceutical, biopharmaceutical, medical device or food industry. To prove the relevance of their application the candidate will need to show that they are familiar with the topics covered in the following modules of the Higher Certificate (details of these modules can be found on the MTU website: go.mtu.ie/CRSGMPE7Y1):
   a. MANU6011 Calibration Science
   b. STAT6008 Lean Manufacturing
   c. MANU6013 Manufacturing Technology
   d. BIOM6003 Cleanroom Management
   e. MGMT6021 GMP/Quality Assurance
   f. INFO6017 Information Technology
   g. BIOM6004 Contamination Control
   h. MATH6000 Essential Maths Skills

3. The following modules of the Higher Cert in Science in GMP and Technology or their equivalent:
   a. CHEM6002 Chemical Principles
   b. BIOT6003 Introduction to Industrial Biotechnology

These modules may be offered at night this academic year (September 2021 to June 2022) in MTU Bishopstown Campus, Cork.

**Note:** The running of individual modules will be dependent on a sufficient number of students enrolling on the course. The module may be withdrawn if this requirement is not fulfilled.
SPECIAL PURPOSE AWARD CERTIFICATE COURSES (LEVEL 6)

The Special Purpose Award certificate courses (Level 6) are industry relevant short courses and includes a Certificate in Cleanroom Manufacturing Practices and a Certificate in Biotechnological Manufacturing Operations. These special purpose award certificates encompass one module per semester (13 weeks) for an evening a week over 1 academic year and start in September.

We will only offer students the courses in September, we will not take in students during the academic year.

€500 per 5 credit module, total cost of Special Purpose Award Certificate is €1,000 (2 modules).

One evening a week per module over 13 weeks in semester 1 and 2 (one academic year).

SCIENCE OF BIOTECHNOLOGICAL MANUFACTURING OPERATIONS

COURSE CODE CR_ESBMO_6 (LEVEL 6)

Course & Module Information, and to apply online, visit go.mtu.ie/CRESBMO6

COURSE FEE

€1,000 (€500 per 5 credit module x 2 modules)

ENQUIRIES

Elaine McCarthy/Tammy Browne
T: 021 433 5150
E: PET.DeptCork@mtu.ie
E: cert.biotechmanuCork@mtu.ie

Duration & Delivery

The programme is delivered in one academic year. One module per semester.

Semester 1: Tuesday evenings 6.00pm – 10.00pm and Wednesday evenings (x 4) in October 6.00pm – 10.00pm.

Semester 2: Tuesday evenings 6.00pm – 10.00pm

Aim

This award aims to introduce the participants to basic concepts of chemistry such as structures, bonding and their relationship to chemical properties. The industrial biotechnology content includes environmental biotechnology, biopharmaceutical engineering, bioreactor design and bioprocess design considerations. The programme is designed for existing employees or potential new recruits in the Biopharmaceutical, Pharmaceutical, and Medical Devices, and Food industries who would like an accredited qualification. The programme has two modules, namely Chemical Principles (semester 1), and Introduction to Industrial Biotechnology (semester 2).

Admission Requirements

Applications are welcome from persons over 23 years of age by 1 January of year of entry.

Leaving Certificate Grade O6/H7 (pre. 2017, D3 Ordinary Level) in five subjects to include Mathematics and English. Alternative Mathematics does not qualify applicants on this basis. Other examinations/qualifications taken such as GCE/GCSE, trade/craft exams are considered.

Further Studies

Credits and Certificates are awarded for each module passed, allowing participants to gain credits at level 6. They may be used for advanced entry to the BSc in GMP and Technology, see go.mtu.ie/CRSGMPE7Y1

Award

Special Purposed Award - Certificate in Science of Biotechnological Manufacturing Operations (Level 6, 10 ECTs, on the National Framework of Qualifications)
CERTIFICATE IN CLEANROOM MANUFACTURING PRACTICES

COURSE CODE
CR_ECLMP_6
(LEVEL 6)

Course & Module Information, visit go.mtu.ie/CRECLMP6

COURSE FEE
€1,000 (€500 per 5 credit module x 2 modules)

ENQUIRIES
Elaine McCarthy/Tammy Browne
T: 021 433 5150
E: PET.DeptCork@mtu.ie
E: Cert.CleanManuCork@mtu.ie

Duration & Delivery
The programme is delivered in one academic year. One module per semester, Mondays 6.00pm – 9.00pm.

Aim
This is an industrial relevant course specifically designed for existing employees to upskill and build on their professional experience as well as for potential new recruits in the Biopharmaceutical, Pharmaceutical, Medical Devices and Food industries who would like an accredited qualification. This course aims to develop skills, knowledge and confidence to work within these highly regulated manufacturing environments.

Contamination Control module’s key topics include
• Understand the importance of contamination control
• Sources, detection and identification of contamination within the manufacturing environment
• Contamination control strategies used and cleaning validation
• Effective sterilisation methods and the emergence of single-use-technology
• Facility design
• Practical skills using microbiological, sterilisation and detection methods
• Completion of GMP check sheets

On successful completion of the module, Cleanroom Management, you will gain an understanding of the following
• Identify and measure sources of cleanroom contamination
• Selection process and use of cleaning agents
• Classification of cleanrooms according to ISO14644
• Cleanroom design and construction
• Cleanroom garbing and behaviour
• Cleanroom, control and monitoring and validation
• Practical skills in environmental monitoring, interpretation of psychrometric charts, gowning practices

Admission Requirements
Leaving Certificate Grade O6/H7 (pre. 2017, D3 Ordinary Level) in five subjects to include Mathematics and English. Alternative Mathematics does not qualify applicants on this basis.

Applications are welcome from mature students over 23 years of age by 1st January of year of entry. Leaving Certificate is desirable but not essential. Relevant work experience; skills gained through experiential learning; and other qualifications, will be considered when assessing applications. Eligible candidates may be interviewed.

Further Studies
Students may seek to gain another industrial relevant short course certificate in MTU’s Science of Biotechnological Manufacturing Operations.

Completing this Special Purpose Award together with relevant industrial experience, students may have the opportunity to progress towards an Advanced Entry of MTU’s Bachelor of Science in Good Manufacturing Practices and Technologies).

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

Award
Special Purposed Award – Certificate in Cleanroom Manufacturing Practices (Level 6, 10 ECTs, on the National Framework of Qualifications).
CERTIFICATE IN BREWING & DISTILLING SCIENCE

COURSE FEE
€500 per module (includes course notes, and MTU exam fee)

ENQUIRIES
Ian O’Sullivan
T: 021 433 5888
E: brewing.distillingcork@mtu.ie

Course & Module Information, and to apply online, visit go.mtu.ie/CREBRDS7

*Candidates whose companies are eligible for support via the Taste4Success Skillnet may be eligible for a fee waiver or fee reduction. Please visit go.mtu.ie/CREBRDS7 for more details.

This programme provides candidates with the scientific background required to work in craft and traditional breweries and distilleries. The modules on the programme are closely aligned with the Institute of Brewing and Distilling (IBD) syllabi for the Diploma in Brewing and Diploma in Distilling examinations (specifically Diploma 1 and 2).

Delivery
The programme takes 1.5 years to complete. It is expected that classes will be conducted online and/or live streamed from campus and that laboratory practicals will take place in small groups in MTU Bishopstown Campus on two separate Saturdays (10am – 4pm). Therefore, it will be possible for students to take these modules and only have to attend campus for labs, the final exam, and any site visits.

Attendance at laboratories is mandatory whereas attendance at site visits is not. Lecture sessions will take place from 6.30pm – 8.30pm on Tuesday evenings. The programme is delivered over 3 Semesters.

Admission Requirements
Candidates are expected to have at least a Level 6 qualification in science or engineering on the on the National Framework of Qualifications.

Applications from students who have passed the
• IBD General Certificate in Brewing
• IBD General Certificate in Distilling or
• MTU Certificate in the Science of Biotechnological Manufacturing Operations are also eligible to join the programme.

Award
On successful completion of three modules, graduates will be awarded a MTU Certificate in Brewing & Distilling (Level 7 on the National Framework of Qualifications).

Content
Candidates may choose to take any number of modules on a stand-alone basis and will receive individual certification for each module completed. Lectures will be supplemented by industry relevant laboratory practicals, guest lectures, and visits to breweries, distilleries and maltings.

• Yeast & Beer module covers fermentation, maturation and cold storage, yeast and beer properties, spoilage and quality. The module considers aspects of brewing from the conversion of wort to the storage of beer.

• Raw Material & Wort Processing module covers barley, malting, malt preparation on site, mashing, wort, hops, quality management, and laboratory testing. The module covers aspects of cereal science, malt processing and fermentable extract production relevant to the brewing and distilling industry.

• Spirit Production module covers yeast & fermentation, pot distillation, continuous distillation, maturation, quality & hygiene. The module considers aspects of the distillation process from the conversion of wort to the maturation of whiskey.
HEAD OF SCHOOL
Dr Brendan O’Connell

The School consists of the following Departments

- Physical Sciences
- Biological Sciences
- Mathematics
- Computer Science
DEPARTMENT OF PHYSICAL SCIENCES

Courses

- Higher Certificate in Science in Industrial Measurement & Control (Level 6)
- Bachelor of Science (Honours) in Instrument Engineering (Level 8)
- Certificate in Advanced Industrial Automation (Level 8)
- Certificate in PLC based Automaton Systems (Level 7)
- Certificate in Introduction in PLC Based Automation Systems (Level 6)
- Certificate in Industrial Instrumentation and Calibration (Level 6)
- Certificate in Quality Assurance (Level 6)
- Diploma in Quality Management Part 1 (Level 7)
- Diploma in Quality Management Part 2 (Level 7)

- Short Courses for Industry
  Short courses in instrumentation, measurement and control, optics, sensors and cognate areas can be offered from the modules within our validated programmes. Costs, location of courses and scheduling are negotiable.

Enquiries
Nicola Byron  E: nicola.byron@mtu.ie  T: 021 433 5870

HEAD OF DEPARTMENT
Dr Donagh O’Mahony
T: 021 433 5595  E: donagh.omahony@mtu.ie

DEPARTMENT SECRETARY
Nicola Byron
Location: Room C229A
T: 021 433 5870  E: nicola.byron@mtu.ie

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

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

All programmes offered are subject to demand and places may be limited. All online applicants will receive an email confirmation. Details about eligibility, programme orientation, and timetable arrangements will be sent to all applicants in advance of programme commencement.
**Higher Certificate in Science in Industrial Measurement & Control**

**Course Code**
CR_SIMCT_6 (Level 6)

**Course Fee**
€250 per 5 credit module (inc. exam fee)

**Enquiries**
Conor O’Farrell
T: 021 433 5592
E: conor.ofarrell@mtu.ie

**Course & Module Information, and to apply online, visit go.mtu.ie/CRSIMCT6**

**ACCS Mode**
Year 1, Year 2 and Year 3 will be offered 3 evenings a week/semester subject to student numbers.

**Note:** This level 6 programme will be delivered over 3 academic years. All students holding a cognate craft qualification (Electrical, Instrumentation and Electrical & Instrumentation crafts) will gain advanced entry against Year 1 and therefore must only complete Year 2 and 3. All other students must complete Year 1, Year 2 and Year 3. Advanced entry may be gained against certain Year 1 modules.

**Aim**
This programme of 120 credits is designed to enable skilled craftspersons working in industry to upgrade their qualifications and skills. Applications are also invited from candidates who wish to take specific modules from the programme.

**Admission Requirements**
1. Leaving Certificate Grade O6/H7 (pre. 2017, D3 Ordinary or Higher Level) in five subjects to include Mathematics, and either English or Irish.
2. Mature and other special category applicants will be admitted according to MTU regulations for part-time enrolment;
3. Applicants holding a relevant FETAC (now QQI) Advanced Certificate, National Craft Certificate or equivalent, other relevant Level 6 (or higher) qualifications or having relevant industrial experience will be eligible for exemptions from certain modules.

**Content**
All applicants who do not hold an Electrical, Instrument or Electrical Instrumentation Craft Certificate must complete SIMCT Stage 1 before entering SIMCT stage 2.

**SIMCT Stage 1 Timetable**

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<tr>
<th>Year 1</th>
<th>Semester 1</th>
<th>Semester 2</th>
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<tbody>
<tr>
<td>Mon</td>
<td>Maths for Craftpersons</td>
<td>Signal Measurement</td>
</tr>
<tr>
<td>Tues</td>
<td>Introduction to Instrumentation Technology</td>
<td>Signal Conditioning</td>
</tr>
<tr>
<td>Wed</td>
<td>Technology</td>
<td>Fundamental Physics</td>
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<tr>
<td>Thurs</td>
<td>Overflow Lab sessions</td>
<td>Overflow Lab sessions</td>
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All applicants who hold an Electrical, Instrument or Electrical Instrumentation Craft Certificate enter the programme at SIMCT Stage 2.

**SIMCT Stage 2 Timetable**

<table>
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<tr>
<th>Year 2</th>
<th>Semester 1</th>
<th>Semester 2</th>
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</thead>
<tbody>
<tr>
<td>Mon</td>
<td>Industrial Automation</td>
<td>Instrument Calibration</td>
</tr>
<tr>
<td>Tues</td>
<td>Instrument Measurement</td>
<td>Process Control</td>
</tr>
<tr>
<td>Wed</td>
<td>Practical Computer Technology</td>
<td>Maths for Physical Sciences</td>
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<tr>
<td>Thurs</td>
<td>Overflow Lab Sessions</td>
<td>Overflow Lab Sessions</td>
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<tr>
<td>Day</td>
<td>Semester 1</td>
<td>Semester 2</td>
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<tr>
<td>Mon</td>
<td>Intro to Stats for Physical Sciences</td>
<td>Maths for Science 2.1</td>
</tr>
<tr>
<td>Tues</td>
<td>Applications of Automation</td>
<td>Graphics &amp; Engineering Design</td>
</tr>
<tr>
<td>Wed</td>
<td>Introduction to Utilities</td>
<td>Process Instrumentation</td>
</tr>
<tr>
<td>Thurs</td>
<td>Overflow Lab Sessions</td>
<td>Overflow Lab Sessions</td>
</tr>
</tbody>
</table>

**Note:** Exemptions from certain modules on this programme are automatically granted to holders of FETAC (now QQI) Advanced Certificates or equivalent, in a relevant craft and are not listed above. Other applicants may have to take additional modules.

**Award**

Single module certification within the Higher Certificate in Science in Industrial Measurement & Control.

The major award of the Higher Certificate in Science in Industrial Measurement & Control (Level 6 on the National Framework of Qualifications) will be received by students who successfully complete the course programme.

**Further Studies**

Graduates of the Higher Certificate in Science in Industrial Measurement & Control may proceed onto the Level 7 Bachelor of Science in Instrumentation and PLC Systems, subject to availability of places.
BACHELOR OF SCIENCE (HONOURS) IN INSTRUMENT ENGINEERING

COURSE CODE
CR_SINEN_8
(LEVEL 8)

Course & Module Information, and to apply online, visit go.mtu.ie/CRSINEN8

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

ENQUIRIES
James Barrett
T: 021 433 5596
E: james.barrett@mtu.ie

ACCS Mode
Modules will be offered on three evenings per week.

Note: This Level 8 course is delivered over two academic years. Each year consists of two semesters: the first semester runs from September to January; and the second semester runs from February to June.

Aim
This programme of 60 credits aims to meet the requirements of industry for professionally qualified personnel in instrumentation and to satisfy the demands of students for a qualification in Instrument Engineering to the highest undergraduate level.

Admission Requirements
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.

Content
• Cycle A Modules
  Engineering Project Management
  Networking and Computer Security
  Process Analytical Technologies
  System Modeling and Interfacing
  Project (Research Phase or Implementation phase as appropriate) (10 credits)

• Cycle B Modules
  Advanced Programming for Measurement
  Advanced Signal Processing
  Advanced Industrial Automation
  Advanced Process Control
  Statistics and Quality Methods
  Project (Research Phase or Implementation phase as appropriate) (10 credits)

Award
Bachelor of Science (Honours) in Instrument Engineering (Level 8 on the National Framework of Qualifications). Single module certification is possible.

Validating Body
Quality and Qualifications Ireland (QQI).

This degree is recognised by the Institute of Physics. Graduates of recognised degrees qualify for Associate Membership upon graduation and may apply for full Membership after appropriate work experience.

Further Studies
Graduates are eligible to apply for a postgraduate degree at Masters (MSc) or Doctoral (PhD) levels.
Aim
The aim of this programme is to provide learners with the advanced skills and knowledge necessary to become specialists in the application of state-of-the-art automation techniques across a range of industries. This is a specialised hands-on course that deals with essential topics for today's automation engineers. The module has a heavy emphasis on practical programming of a range of automated processes using a range of software tools such as DeltaV and SCADA.

Duration & Delivery
The course delivery will be two evenings per week, along with a significant individual project in advanced industrial automation.

Content
Modules
Introduction to Industrial Automation (5 ECTS) module provides a first level module in Programmable Logic Control and associated automation including its applications in process industry. The student requires no prior knowledge in this area.

Industrial Automation & SCADA (5 ECTS) module provides an intermediate level module in automation. The module includes some of the more advanced aspects of PLC utilisation in industry, the use of SCADA in providing process automation, and the use of DeltaV in automated environments.

Advanced Industrial Automation (5 ECTS) module is an advanced course in process automation and deals with essential topics for today's automation engineers. The module has a heavy emphasis on practical lab based activity in programing and automation of processes using a range of software tools including SCADA and DeltaV. It also covers the use of robots in modern automation.

Introduction – Process Control (5 ECTS) module introduces the student to the fundamental concepts of control for process and automation industries.

Advanced Industrial Automation Project (10 ECTS) module develops within the student the knowledge, know-how and skills, and competences required to successfully complete a project in accordance with an approved plan. The module requires the student to develop, implement and critically assess a detailed methodology to address a defined problem within a prescribed timeframe. The student is expected to work autonomously under direction of a project supervisor and to communicate the process and outcomes of their work in a style and manner appropriate for professional practitioners in the discipline.

Admission Requirements
Ordinary degree or equivalent in Science/Technology/Engineering. Equivalent recognition may be given through the Recognition of Prior Learning (RPL) process on an individual case-by-case basis to candidates who have not achieved this academic standard but who can demonstrate significant relevant professional experience. For more details, please click here.

Award
Certificate in Advanced Industrial Automation – Special Purpose Award (Level 8 on the National Framework of Qualification).
ENQUIRIES

Conor O’Farrell
T: 021 433 5870
E: conor.ofarrell@mtu.ie

Register with Springboard https://springboardcourses.ie

Springboard+ application procedure
You must register with Springboard https://springboardcourses.ie/ and apply for the Certificate in PLC based Automation Systems. Once your application on the Springboard website has been accepted, MTU Admissions office in Cork will be in contact with you to complete your registration.

Admission requirements
Target learners on this programme will include those who wish to reactivate their career to upskill and reskill from closely related disciplines as well as upskilling those already in employment in related industrial sectors with complementary qualifications. Each candidate will be assessed individually on their own merits.

Aim
Ireland’s economic output value is led by the Food, Chemical, Pharmaceutical and IT/Computing industries and each of these sectors underpinned by a globally recognised expertise in advance manufacturing. Key to maintaining quality and regulatory standards, in addition to maintaining manufacturing competitive advantage, is design, build, commission, and maintenance of industrial PLC-based automation processes and systems.

This one year part-time Special Purpose Award is designed to address the ongoing skills shortage in the area of industrial PLC-based automation processes and systems. Graduates will be equipped for the various roles currently available primarily in the manufacturing, pharmaceutical, biopharmaceutical and medical device sector.

The programme is aimed at individuals who have basic PLC programming and SCADA experience and are looking to upskill in these areas. A strong emphasis is placed on enabling learners to further develop all their key skill sets required to support career opportunities. Utilising Siemens PLC hardware and software (TIA and PLCsim Advanced) the learner will experience first-hand practical applications whilst enhancing the theory in order to expand their understanding of industrial PLC-based automation systems.

The course will be offered over one academic year and comprises four modules, two per semester.

1. Industrial Communications & Networks: Communications protocols such as Modbus, Ethernet, Profibus.
2. PLC SCADA Systems: HMIs, Subnet, trending, data historians.
3. PLC Kinematic Control Systems: Motion-based manufacturing systems

Award
Special Purpose Award, Certificate in PLC based Automation Systems (20 ECTS, Level 7, on the National Framework of Qualification)
CERTIFICATE IN INTRODUCTION IN PLC BASED AUTOMATION SYSTEMS

COURSE FEE
€325 per 5 credit module (incl. exam fees)

ENQUIRIES
Conor O’Farrell
E: conor.ofarrell@mtu.ie
T: 021 433 5870

Duration & Delivery
Part time blended learning - online theory and on campus practical work for one academic year over 2 semesters.

Admission requirements
Target learners on this programme will include those who wish to reactivate their career to upskill and reskill or cross-skill from non-related disciplines as well as upskilling those already in employment in related industrial sectors. While there will not be a specific qualification requirement, there is an expectation that candidates will have obtained a minimum of Junior Certificate Level (NFQ-QQI level 3) and experience in related industrial sectors would be beneficial for the student.

Applicants will be assessed individually on a case by case basis.

Aim
The course is designed to meet the industry skills shortage in the area of PLC based automation and to provide the fundamental skills required by a learner and thus provides an opportunity for
• companies to sponsor their employees whilst they upskill or
• allow people who are currently unemployed due to the current Covid-19 pandemic to reactivate their career to upskill, reskill and cross-skill from non-related disciplines

The 4 modules that make up this special purpose award cover the fundamental introductory skills required for a learner to be able to interact with PLC based automation.

• Introduction to PLC Digital Automation
• Introduction to PLC Analog Automation
• Introduction to PLC SCADA
• Introduction to PLC Kinematic Systems

On successful completion of this course graduates will be eligible to continue their studies on

1. The Level 6 120 ECTS credit Certificate in Science in Industrial Measurement & Control
2. The level 7 20 ECTS credit Special Purpose Award Certificate in PLC Based Automation Systems

Award
Special Purpose Award, Certificate in Introduction in PLC Based Automation Systems (20 ECTS, Level 6, on the National Framework of Qualification)
COURSE CODE
CR_SICAL_6
(LEVEL 6)

COURSE FEE
€250 per 5 credit module (incl. exam fees)

ENQUIRIES
Conor O’Farrell
E: conor.ofarrell@mtu.ie
T: 021 433 5870

Course & Module Information, and to apply online, visit go.mtu.ie/CRSICAL6

Duration & Delivery
1 academic year over 2 semesters (Mon, Tues & Wed evenings 7pm to 10pm)

<table>
<thead>
<tr>
<th>Semester 1 (Sept – Dec)</th>
<th>Semester 2 (Jan – May)</th>
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</thead>
<tbody>
<tr>
<td>Mon MATH6047 Math for Craftpersons</td>
<td>Mon PHYS6007 Instrument Calibration</td>
</tr>
<tr>
<td>Tues PHYS6008 Instrument Measurement</td>
<td>Tues PHYS6035 CAD for Instrumentation</td>
</tr>
<tr>
<td>Wed PHYS6015 Introduction to Utilities</td>
<td>Wed PHYS6031 Process Instrumentation</td>
</tr>
</tbody>
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Mode of Study
Part time blended learning (online theory and on-campus practical work)*

Online learning is via MTU’s Learning Management System called Canvas. More details can be found here.

Aim
This minor award of 30 ECTS credits is designed to meet the industry skills shortage in the areas of industrial instrumentation and calibration and thus provides an opportunity for companies to sponsor their employees whilst they upskill or allow people to reactivate their career to upskill, reskill and cross-skill from non-related disciplines.

Admission requirements
Target learners on this programme will include those who wish to reactivate their career to upskill and reskill or cross-skill from non-related disciplines as well as upskilling those already in employment in related industrial sectors.

While there will not be a specific qualification requirement, there is an expectation that candidates will have obtained a minimum of junior cert level (NFQ-QQI level 3) and experience in related industrial sectors would be beneficial for the student. Applicants will be assessed individually on a case by case basis.

Progression
On successful completion of this course graduates will be eligible to continue their studies on

• the Level 6, 120 ECTS credit Higher Certificate in Science in Industrial Measurement & Control

• The Level 6, 20 ECTS credit Special Purpose Award Certificate in Introduction to PLC Based Automation

Award
Certificate in Industrial Instrumentation and Calibration (Level 6 30 ECTS credits on the National Framework of Qualification)
CERTIFICATE IN QUALITY ASSURANCE

COURSE FEE
€400 per module, i.e. €800 overall (inc. registration exam fee)

ENQUIRIES
Dr Mary Lehane
T: 021 433 5866
E: mary.lehane@mtu.ie

Duration & Delivery
Monday or Tuesday or Wednesday, 7pm – 10pm (Usually Monday).

One evening per week for one academic year. Module 1 is delivered and examined during semester 1, and module 2 is then completed during semester 2.

The course consists of two modules, each worth 5 credits.

Admission Requirements
Applicants should normally have a technician level qualification, or work experience in the quality area together with an appropriate educational background. Other applicants will be considered on an individual basis.

Overview
This is designed as a first course in quality assurance and control. Graduates will have the ability to apply and maintain quality assurance/quality control systems in an industrial environment to support delivery of a quality product or service. The course emphasises everyday practical aspects concerning the use of basic quality techniques in industry, and will be useful both to those who require some basic methodology of quality, and those who hope to progress within the world of quality management.

Content
- **Module 1: Fundamentals of Quality Assurance**
  - The function of quality assurance in manufacturing and service
  - The role of quality control
  - Human aspects of quality
  - Regulatory requirements
  - 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

Award
Certificate in Quality Assurance – Special Purpose Award (Level 6 on the National Framework of Qualifications).

Awarding Body
Munster Technological University.

Closing Date for Application
DIPLOMA IN QUALITY MANAGEMENT
PART 1

COURSE CODE
CR_SQMAN_7_Y1
(LEVEL 7)

COURSE FEE
€700 (payable to MTU).
Exam fee:
Currently €150 (payable to the external examining body EIQA)

ENQUIRIES
Dr Ambrose Furey
T: 021 433 5875
E: ambrose.furey@mtu.ie

Course & Module Information, and to apply online, visit go.mtu.ie/CRSQMAN7Y1

Duration & Delivery
Monday or Tuesday or Wednesday, 7pm – 10pm (Usually Tuesday)

This course is not semesterised and runs for one evening per week for one academic year.

The course consists of one module, worth 10 credits.

Admission Requirements
Applicants are required to have the MTU Certificate in Quality Assurance Special Purpose Award or an equivalent qualification. Extensive experience in a wide variety of Quality Management, Quality Assurance and Statistical Techniques in lieu of formal qualifications may be taken into account when assessing suitability for entry onto the Diploma in Quality Management (Part 1). Each application will be considered on an individual basis.

As coursework on this programme involves a significant quantity of both oral and written reports, examinations, and presentations, applicants must be competent in spoken and written English.

Content
- Setting up a Quality System
- The Elements of a Quality System
- Basic Management Theory
- Auditing
- Problem Solving and Quality Improvement
- Product and Service Quality
- Quality Costs
- Implementing TQM and Documentation Control

The format of this course is that typical of a management course i.e. it involves discussion and background reading; essay type answers are required in the written examination, and the course is partially examined by project work.

Award

Awarding Body
Excellence Ireland Quality Association (EIQA).

Closing Date for Application
Friday 17th September, 2021.
Duration & Delivery
Monday or Tuesday or Wednesday, 7pm - 10pm
(Usually Wednesday)

This course is not semesterised and runs for one evening per week for one academic year.

The course consists of one module, worth 10 credits.

Admission Requirements
Applicants are required to have the Diploma in Quality Management – Part 1 (or the Certificate in Quality Management, which was the previous title of the course).

As coursework on this programme involves a significant quantity of both oral and written reports, examinations, and presentations, applicants must be competent in spoken and written English.

Content
• Introduction to Total Quality
• Quality Management Philosophies
• Managing for Quality
• Review of Quality Standards
• Quality Awards
• Leadership
• Human Resource Development
• Teamwork
• Process Management
• Strategic Information Management
• Developments in Total Quality

The format of this course is typical of a management course involving participation, discussion and background reading. The project constitutes a very important part of the year’s work and marks are awarded accordingly.

Award

Awarding Body
Excellence Ireland Quality Association (EIQA).

Closing Date for Application
Friday 17th September, 2021.
DEPARTMENT OF MATHEMATICS

Courses

- Higher Diploma in Science in Data Science & Analytics (Level 8)
- Certificate in Process Data Analytics (Level 8)

HEAD OF DEPARTMENT
Dr David Goulding
Location Room: C123A
T: 021 433 5123
E: mathematicsCork@mtu.ie

The courses offered are subject to demand and places may be limited. All online applicants will receive an email confirmation. Details about eligibility, programme orientation, and timetable arrangements will be sent to all applicants in advance of programme commencement.
HIGHER DIPLOMA IN SCIENCE IN DATA SCIENCE & ANALYTICS

COURSE CODE CR_SDAAN_8 (LEVEL 8)

COURSE FEE
Total: €4,200. €350 per 5 credit module, and €700 for the 10 credit module (inc exam fees)

ENQUIRIES
Dr David Goulding
T: 021 433 5123
E: mathematicsCork@mtu.ie

Course & Module Information, and to apply online, visit go.mtu.ie/CRSDAAN8

Duration
2 Years Part-time
September 2020 – May 2022 (subject to demand)

Admission Requirements
Applicants will already hold a primary degree, and must be highly motivated, interested in data science and capable of independent learning. Preference will be given to applicants with a background in cognate and analytical disciplines, who would benefit from an opportunity to gain expertise in ICT (data science) skills which are particularly relevant to industry.

All candidates with a Level 8 qualification or equivalent will be considered. Candidates with a Level 7 qualification and significant relevant experiential learning may be eligible through our recognition of prior learning processes. Please click here.

Aim
The importance of the field of Data Science has exploded in recent years with a growing demand for experts in a variety of different industries. With ever increasing growth in data generation and collection, the value of data to industries is highly dependent on appropriate analysis. Consequently, data science and analytics has become a core component of both government bodies and private industry wishing to maintain competitiveness and gain advantages.

The Higher Diploma in Science in Data Science & Analytics (NFQ Level 8) in MTU is a collaboration between the Department of Mathematics and the Department of Computer Science. The programme aims to develop highly skilled and competent graduates in the rapidly expanding field of Data Science. The programme has been designed and developed with industry experts to ensure that graduates develop core skills in programming, database management, statistical modelling, time series analysis, machine learning, data visualisation and interpretation.

Structure
This is a 60 credit programme, in which three core strands: Data Science, Statistics, and Computer Science, are developed over two semesters with an increasing specialisation on statistical analysis and machine learning. There will be significant opportunity throughout to apply theoretical knowledge and develop problem solving skills through practical and laboratory sessions. The learner will also undertake a capstone project, which will be a key opportunity to demonstrate the ability to synthesise the learning acquired in the programme, and to apply it to the solution of an authentic problem in Data Science and Analytics.

The graduate will gain significant practical experience, in software packages and programming languages including R, Python, Excel, SQL, NoSQL, Tableau, Spark and Hadoop for example.

Content
Mandatory
Intro to R for Data Science
Data Science and Analytics
Scientific Programming in Python
Applied Statistics and Probability
Data Management Systems
Mathematical Methods and Modelling
Regression Analysis
Distributed Data Management
Data Visualisation and Analytics
Data Science Analytics Project

Electives
Time Series and PCA
Machine Learning

Award
Higher Diploma in Science in Data Science & Analytics (Level 8 on the National Framework of Qualifications).
CERTIFICATE IN PROCESS DATA ANALYTICS

COURSE CODE
CR_SPRDA_8
(LEVEL 8)

Course & Module Information, and to apply online, visit go.mtu.ie/CRSPRDA8

Duration and Delivery
This part-time blended programme will run online over one academic year, for three evenings per week, providing a flexible learning environment for applicants.

Our online programmes are delivered online and are instructor led. You can attend live lectures or playback on demand. You log in at home but you join a virtual classroom where you can chat and support your classmates. You can participate fully in lectures through polls and activities. Our engaging and relevant courses reflect real world skills, give you access to MTU’s world class resources and encourage connections between you, your classmates and your lecturers.

Admission Requirements
Applicants must hold a Level 8 degree and must be highly motivated and capable of independent learning. Preference will be given to applicants with a background in cognate and analytical disciplines, who would benefit from an opportunity to rapidly and successfully convert their qualifications to industry-relevant skills. All candidates with a Level 8 qualification or equivalent will be considered.

Candidates with a Level 7 qualification and significant relevant experiential learning may be eligible through our recognition of prior learning (RPL) processes. MTU has an extremely well-established and supported RPL process (please click here).

Overview
Competitiveness is critical as manufacturing sites within networks globally compete to be selected to manufacture products. With advancements in manufacturing process technologies and the drive towards Industry 4.0, companies increasingly seek to make data-driven decisions about both their operations and supply chains to achieve this competitiveness.

Process data analytics refers to a combination of tools and techniques that are used to make inferences and process decisions based on measured system data. The field of data analytics has become progressively important due to the huge increases in the amount of data being collected, reductions in the cost of computer hardware, advances in data analytics algorithms, and the increased availability of powerful software tools.

This Certificate in Process Data Analytics has been designed, with significant industrial engagement, to provide learners with an opportunity to rapidly upskill in the ever-expanding field of data analytics. The programme will provide graduates with a theoretical underpinning of process data analytics, but more importantly, provide the practical skills required to meet the demands of the current and future data-driven industry. This course will enable learners to apply the transferable skills developed as part of their original degree to a specific expertise within data analytics.

Modules
Semester 1
- Process Data Analysis with R
- Introduction to Data Analytics

Semester 2
- Regression Analysis
- Data Mining and Visualisation
- Data Analytics Case Study

Award
Certificate in Process Data Analytics (Level 8, 30 ECTS on the National Framework of Qualifications)

Progression Route
On successful completion of this Certificate, you may progress to the Higher Diploma in Data Science & Analytics

COURSE FEE
€3,150

ENQUIRIES
Dr David Hawe
E: david.hawe@mtu.ie

Process data analytics refers to a combination of tools and techniques that are used to make inferences and process decisions based on measured system data. The field of data analytics has become progressively important due to the huge increases in the amount of data being collected, reductions in the cost of computer hardware, advances in data analytics algorithms, and the increased availability of powerful software tools.

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DEPARTMENT OF COMPUTER SCIENCE

Courses

- Master of Science in Artificial Intelligence (Level 9)
- Master of Science in Cloud Computing (Level 9)
- Master of Science in Software Architecture & Design (Level 9)
- Master of Science in Cybersecurity (Level 9)
- Master of Science in Cybersecurity Management (Level 9)
- Master of Science in Information Design & Development (Level 9)
- Higher Diploma in Science in Cloud Computing (Level 8)
- Higher Certificate in Science in Software Development (Level 6)
- Bachelor of Science in Software Development (Level 7)

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

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

All programmes offered are subject to demand and places may be limited. All online applicants will receive an email confirmation.
This programme is available part-time online and full-time on campus. In online mode, all classes are delivered over the Internet and all practical work is completed using MTU's cloud infrastructure.

Artificial intelligence (AI) is a field of computer science that enables computers and machines to perform tasks normally requiring human intelligence. Its many applications range from chess-playing robots and autonomous cars to speech, image, and language processing, robotic manufacturing, and surveillance systems. AI simulates human intelligence processes by combining large datasets, machine learning, and computational power with algorithms capable of solving problems.

In the 21st century, AI techniques have experienced a resurgence following concurrent advances in computer power, large amounts of data, and theoretical understanding. AI techniques have become an essential part of the technology industry, helping to solve many challenging problems in computer science.

This Master’s degree programme provides a technical deep-dive into the area of AI. The programme will produce AI graduates with a highly relevant skillset in AI topics. You’ll learn how to use and develop intelligent computer systems that can learn from experience, recognise patterns in vast amounts of data and reason strategically in complex decision making situations. The programme places significant emphasis on student learning by doing. It adopts a practical, hands-on approach to learning, where all modules are fully assessed using continuous assessment methods.

Duration of Online Delivery
This is a two-year part-time programme taught over 24 months (4 semesters). The programme is delivered and accessed fully online using state of the art Cloud based technologies. Lectures are delivered online by night, streamed live over the Internet and recorded to facilitate easy playback for students. This offers great flexibility for students who can access lectures and labs anytime, anywhere on any device that has a web browser.

Admission Requirements
Entry to the MSc in Artificial Intelligence will require a minimum of a Level 8 honours degree in Computer Science, Engineering, Computing or an honours degree in a cognate discipline. As this is an expert level programme, it is essential for applicants to have a strong proficiency in mathematics, including statistics, and an advanced level of coding competency in a modern high-level computer programming language such as Python or Java. Applicants who do not meet the above criteria will be considered on a case by case basis. Please see the Recognition of Prior Learning (RPL) by clicking here.

Aim
The aim of this programme is to produce expert AI developers. Successful completion of the programme will equip these graduates with the desired skills and provide them with the following benefits:
- Ability to deal with technically complex problems
- Support in making strategically important decisions within their profession
- Gain a qualification that is in high demand in the market place
- Attain expertise to carry out AI research in academic and R&D environments
- Provide intelligent solutions to IT problems in companies and organisations
- Pursue doctoral studies within the domain of AI and Machine Learning (ML)

Structure
The programme contains challenging and interesting modules delivered by lecturers who are experts in AI. Students will have the opportunity to study topics such as deep learning, natural language processing and machine vision. Students will also complete an AI research project that is either academic or industry focused.

The MSc in a 60 credit programme. The full-time programme is delivered over two 30 credit semesters. The part-time online programme is delivered over four 15 credit semesters. Each semester has a number of mandatory modules and a choice of electives (all electives may not be offered).

Award
Master of Science in Artificial Intelligence (Level 9 on the National Framework of Qualifications).
MASTER OF SCIENCE IN CLOUD COMPUTING

COURSE CODE
CR_KCLDC_9

COURSE FEE
€7,500 in total.
(payment by instalments is an option)

ENQUIRIES
Eoin O'Regan
T: 021 433 5525
E: eoin.oregan@mtu.ie

Duration of Online Delivery
24 months (4 semesters) is the minimum duration. This programme is available online only. All classes are delivered over the Internet and all practical work is completed using MTU’s cloud infrastructure.

Admission Requirements
Entry to the MSc in Cloud Computing will require a minimum of a Level 8 Honours Degree in Computing or in a cognate discipline. As this programme is designed specifically for computing professionals working in the IT industry only graduates with experience will gain direct entry into this programme.

Overview
Cloud Computing is considered a relatively new field in Internet computing where novel perspectives in internet-working technologies have emerged. To successfully deal with issues relating to this new paradigm the MSc in Cloud Computing programme aims to equip the graduate with the advanced conceptual understanding, detailed factual knowledge, and specialist architectural and technical skills required to design and implement cloud based solutions and services.

More recently the convergence of the cloud with big data has created additional opportunities for IT professionals to gain valuable insights into their business data. Such insights are critical for companies to maintain their competitive edge, increase their revenues and deliver new innovative services and solutions. The programme also aims to address the skills gap in this area so the graduate is equipped with not only the skills to store the data in the cloud but also to derive meaningful analytics from it to deliver true business value.

The content seeks to reflect current and likely future practice in cloud planning and management, the design and management of virtual environments, data analytics, the consolidation of data centres, security techniques in multi-tenant virtualised environments and related areas that contribute to the building of both private and public cloud environments.

Content
The MSc in Cloud Computing is taught online using Cloud based technologies, so students can learn about the cloud in the cloud. Learning technologies such as Canvas, Zoom, and virtualised lab infrastructures are just some of the systems that are used to deliver this innovative programme. Lectures, which are delivered at night are streamed live over the Internet and recorded to facilitate easy playback for students. This offers great flexibility to students as they can access their lectures and labs anytime, anywhere on any device that has a Web browser. It is a testament to the online delivery platform in MTU that students can participate in the programme irrespective of their physical location or working status.

Modules
Mandatory
Cloud Strategy Planning & Management
Computing Research & Practice
Managing Virtual Environments
Data Centre Networking
Cloud Storage Infrastructures
Distributed Ledger Technology
Research Project

Electives (choose 2)
Scripting for System Automation
Scalable Microservices
Data Analytics
Future Internet

Award
Master of Science in Cloud Computing (Level 9 on the National Framework of Qualifications).

Closing Date for Application
31st August 2021

Course & Module Information, and to apply online, visit go.mtu.ie/CRKCLDC9

www.mtu.ie
Duration of Online Delivery
24 months (4 semesters) is the minimum duration. This programme is available online only. All classes are delivered over the Internet and all practical work is completed using MTU’s cloud infrastructure.

Admission Requirements
Entry to the MSc in Software Architecture & Design requires a minimum of a Level 8 Honours Degree in Computing or in a cognate discipline with a minimum of 3 years post qualification experience. Particular attention will be paid to the applicant’s software development experience and motivation.

Aim
The aim of the Programme is to develop students’ knowledge and skills in Software Architecture & Design, Software Development Processes, Analysis and Design of Algorithms, Programming Language Design, Decision Analytics, Software Vulnerabilities, Microservices, and Data Analytics.

Students will develop advanced skills for analysing requirements and designing appropriate software solutions; creating complex software systems to solve real-world problems, evaluating and using advanced software environments, design methods and programming languages, and evaluating and responding to recent trends in interoperability and software development. Students will also complete a research project that is either academic or industry focused.

Content
The MSc in Software Architecture & Design programme is an advanced industry-focused programme that addresses the skills gap of software developers and/or architects in the face of evolving software development practices. It aims to provide students the opportunity for in-depth study of the advanced design and architectural and software development and process skills required for the successful design and development of complex software distributed systems. It provides students with the theoretical and practical knowledge necessary to advance their career in software development as a senior member of the development team or as a software architect.

Delivered exclusively online, the programme offers working professionals flexible opportunities to learn more about technological advances in the industry. The programme places a major emphasis on developing higher level software development skills. Students are exposed to current state-of-the art principles, methods and research of software design and architecture.

Mandatory
Software Architecture & Design
Software Process Engineering
Metaheuristic Optimisation
Scalable Microservices
Research Practice & Ethics
Research Project

Electives
Programming Language Design
Source Code Analysis
Fraud & Anomaly Detection
Natural Language Processing
Big Data Processing
Malware Investigations
Malware Reverse Engineering

Award
Master of Science in Software Architecture & Design (Level 9 on the National Framework of Qualifications).

Closing Date for Application
31st August 2021.
This programme is available part-time online and full-time on campus. In online mode, all classes are delivered over the Internet and all practical work is completed using MTU’s cloud infrastructure.

**Duration of Online Delivery**
24 months (4 semesters) is the minimum duration.

The MSc in Cybersecurity part-time offering is taught fully online and is designed specifically for computing professionals working in the IT industry. The modules are assessed by online continuous assessment. The programme is hands-on in nature and provides the learner with detailed working knowledge of the techniques and tools used in the field of Cybersecurity. Online lectures are delivered to students 2 evenings per week. Lectures are streamed live over the Internet and recorded to facilitate easy playback for learners.

The full-time offering is taught on campus over one academic year and some elective modules may be taken online.

**Overview**
Cybersecurity can be defined as the protection of information and information systems from unauthorised access, use, disclosure, disruption, modification, or destruction in order to provide confidentiality, integrity, and availability.

Today, Cybersecurity is becoming a function of increasing importance for the continued operation of commercial entities. The increasing level of interconnectedness of information networks and the reliance of business models on this interconnectedness has resulted in a network (currently the Internet) that has over a yottabyte of information stored, much of which is unsecured. This continuing trend is predicted to strongly increase the importance of Information Security within most multinational entities.

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

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

**Content**
- **Mandatory**
  - Incident Response and Digital Forensics
  - Networking Security & Forensics
  - Offensive Security
  - Security Risk and Compliance
  - Applied Cryptography
  - Scripting for Cybersecurity
  - Cybersecurity Research Project

- **Electives**
  - Malware Investigations
  - Malware Reverse Engineering
  - Threat Intelligence
  - Software Vulnerabilities
  - Fraud and Anomaly Detection
  - Distributed Ledger Technology
  - Free Choice Module

**Award**
Master of Science in Cybersecurity (Level 9 on the National Framework of Qualifications). (Single module certification is possible)

**Closing Date for Applications**
31st August 2021. However, please note that this programme has been full well in advance of this closing date in past years.
**Duration of Online Delivery**
Part-time online delivery 24 months (4 semesters). The MSc in Cybersecurity Management part-time offering is taught fully online. The modules are assessed by online continuous assessment. The programme helps to develop the management skills necessary to move into cybersecurity leadership roles. Online lectures are delivered to students 2 evenings per week. Lectures are streamed live over the Internet and recorded to facilitate easy playback for learners.

**Admission Requirements**
Entry to the MSc in Cybersecurity Management will require a minimum of a Level 8 Honours Degree. Applicants who do not hold a Level 8 degree but have significant industrial experience will be considered on a case by case basis.

**Overview**
The MSc in Cybersecurity Management is a 90 credit programme, consisting of 60 credits worth of taught modules and a 30-credit project.

The programme will prepare a broad range of graduates for roles as cybersecurity professionals with leadership responsibilities within industry. This programme is targeted at Business, Humanities and Arts graduates who would like to move into roles with cybersecurity responsibilities. The programme is also suitable for those from technical backgrounds who would like to develop the management skills necessary to move into a leadership role in cybersecurity.

In the event that a student completes the 60 taught credits and is unable to complete the project (30 credits), that student can opt to receive the Postgraduate Diploma (PGDip) in Cybersecurity Management. Indeed, it is possible to apply directly for the PGDip programme.

A student who receives a PGDip in Cybersecurity Management, and who, after some time, decides that (s)he wishes to complete the MSc, has the option of revoking their PGDip, completing the 30-credit project and then presenting themselves for the MSc in Cybersecurity Management.

**Content**
**Mandatory**
- Security Risk & Compliance
- Security Architecture
- Security Contingency Planning
- Security Management & Law
- Communications & Cybersecurity
- Research Project

**Electives**
- Scripting for Cybersecurity
- Strategic Thinking
- Security Group Project
- Security Work-Based Project
- Applied Cryptography
- People Management Strategies
- Fraud and Anomaly Detection
- Emerging Cyber Trends

**Award**
Master of Science in Cybersecurity (Level 9 on the National Framework of Qualifications).
(Single module certification is possible)
Duration of Delivery
24 months (4 semesters) is the minimum duration.

The MSc in Information Design and Development is delivered and accessed fully online using state of the art Cloud based technologies. Lectures are delivered online by night and streamed live over the Internet and recorded to facilitate easy playback to students. The programme offers great flexibility to students as they can access their lectures and labs anytime, anywhere on any device that has a Web browser.

Students may study the MSc in Information Design & Development in three stages and on successful completion will be awarded the following:

Stage 1: Certificate in Information Design & Development (30 ECTS)
Stage 2: Postgraduate Diploma in Information Design & Development (60 ECTS)

On successful completion of Stage 1 and Stage 2, students may proceed to Stage 3: Master of Science in Information Design & Development (90 ECTS).

Overview
Information Developers are individuals who bridge the gap between subject matter experts and that of the end user. The role of information developers is becoming increasingly important given that society is being driven by technology and information developers provide the voice in communicating how issues incorporating technology are framed and developed. The Society of Technical Communication (STC) define information developers or technical communicators as individuals that communicate using an instruction based focus on technical or specialised topics using technology. In essence, information development and technical communications ensures that designs, products, systems and methodologies are documented and conveyed to their target audience to maximise its business value to the organisation.

Admission Requirements
Applicants who hold a Level 8 degree in any discipline are eligible to apply. Applicants who do not hold a Level 8 degree but have significant industrial experience will be considered on a case by case basis.

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

Mandatory
Information Design & Development (10 ECTS)
XML in Technical Communications (10 ECTS)
Multimedia Production
Information Strategy
Research Practice & Ethics
Document Project Management (10 ECTS)
Information Experience (10 ECTS)
Info Dev Research Project (30 ECTS)

Electives
Design Thinking for Services
Scripting for System Administrators

Award
Master of Science in Information Design & Development (Level 9 on the National Framework of Qualifications). (Single module certification is possible)

Closing Date for Application
31st August 2021.
HIGHER DIPLOMA IN SCIENCE IN CLOUD COMPUTING

ENQUIRIES
Eoin O'Regan
T: 021 433 5040
E: eoin.oregan@mtu.ie

Register with Springboard https://springboardcourses.ie

Springboard+ application procedure
You must register with Springboard https://springboardcourses.ie/ and apply for Higher Diploma in Science in Cloud Computing. Once your application on the Springboard website has been accepted, MTU Admissions office in Cork will be in contact with you to complete your registration.

Delivery and Duration
Online. The course begins 13th September 2021 and ends 30th June 2023.
This two year part-time Higher Diploma in Cloud Computing aims to develop students both technically and personally and produce focused graduates of high academic and practical standards to match the needs of both the Irish and international IT industry. It will also meet the needs for IT infrastructure and support roles in a broad range of other sectors. The programme will be delivered exclusively online using MTU's eLearning system. Labs are hosted 24/7 on MTU’s world-class private cloud infrastructure.

Admission Requirements
Applicants will already hold a Level 8 degree and must be highly motivated and capable of independent learning. Preference will be given to applicants with a background in cognate and analytical disciplines, who would benefit from an opportunity to rapidly and successfully convert their qualifications to industry-relevant ICT skills. All candidates with a Level 8 qualification or equivalent will be considered.

Candidates with a Level 7 qualification and significant relevant experiential learning may be eligible through our recognition of prior learning (RPL) processes. MTU has an extremely well-established and supported RPL process.

In order to process your application you will need to submit the following supporting documentation:
• Up-to-date CV (include all information that may be relevant to your application in terms of qualifications, work experience)
• Academic Transcripts (this must include your degree qualification at a minimum and can also include any additional qualifications and/or certifications)
• Statement of Purpose (minimum 400 words)

Please note, your application will not be reviewed until the above documents are submitted.

Aim
This programme aims to develop students both technically and personally and produce focused graduates of high academic and practical standards to match the needs of both the Irish and international IT industry. It will also meet the needs for IT infrastructure and support roles in a broad range of other sectors.

During the first year, students will be immersed in a broad set of modules in the fundamentals of computing covering: Object Oriented Principles, Requirements Engineering, Network Systems, Operating Systems, Data Management Systems and Systems Scripting.

In the second year, the focus will be on developing Cloud Infrastructure skills. Students will learn about the Virtual Datacenter and the required composite skills to create a Virtual Datacenter of virtualisation, enterprise storage, networking & scripting as well as cloud architecture.

Uniquely to this course, the lab environment in MTU will enable students to build out a Virtual Datacenter giving them the practical skills desired by industry as well as the required theory.

Please note this is an intensive part-time programme run over two years. It will be very demanding and will require a significant commitment from all students. However, at the end of the course, you will have acquired an excellent, industry recognised qualification.

Award
Higher Diploma in Science in Cloud Computing (Level 8, 60 ECTS on the National Framework of Qualifications).
The programme provides students with the relevant skills and knowledge in the area of modern software development focusing on languages, techniques, tools and methodologies needed to pursue a career as a software or computer technician.

**Admission Requirements**
Non-Standard Applicants: Mature Students, FETAC (now QQI) Level 5 applicants are particularly welcome.

Standard Applicants: Leaving Certificate Grade O6/H7 (pre. 2017, D3 Ordinary Level) in five subjects to include Mathematics and either English or Irish.

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

**Overview**

The second stage of the Higher Certificate programme builds on the stage one foundation and has a deeper focus on software development with modules in Object-Oriented Programming, Requirements Engineering, Data Structures & Algorithms, OO Analysis & Design, Database Design, NoSQL Data Architectures, and many more.

**Progression**
Graduates of the Higher Certificate may progress to stage three of the Bachelor of Science in Software Development programme which is also offered part-time by night.

**Award**
(Single module certification possible)

**Career Opportunities**
Potential areas of employment include working as a Software Developer, Software Tester, Software Support Engineer or Database Developer, to name but a few career possibilities.
This 60 credit programme is designed as a follow on programme from the Higher Certificate in Science in Software Development.

**Admission Requirements**
To be eligible to undertake the programme you must hold a Higher Certificate in Science in Software Development or equivalent. The Department operates a policy of recognising prior learning (RPL) in compliance with the overall University policy of RPL. For details, click [here](#).

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

**Overview**
The BSc in Software Development is a level 7 degree programme designed to provide students with the theoretical and practical skills necessary to gain employment in the software development industry.

More specifically, the programme provides students with the relevant skills and knowledge in the area of modern software development focusing on languages, techniques, tools and methodologies, and their application to real-world problems.

**Content**
The first part of this 60 credit programme is comprised of 6 five credit modules. Two 30 credit elective groups are offered in the second part of this programme. The elective groups are:

1. Work Placement (RPL options)
2. Four taught modules.

The four taught modules are:
- Emerging Technological Trends (5 credits)
- Technical Communication Skills (5 credits)
- Open Source Projects (15 credits)
- Free Choice Elective (5 credits)

Among the areas you would be required to study are:
- Distributed Sys. Programming
- Group Project
- Client-side Web Development
- Agile Processes
- Programming for Data Analytics

**Further Studies**
Graduates from the programme may apply for the BSc (Honours) in IT Management or the BSc (Honours) in Software Development.

**Career Opportunities**
Potential areas of employment include working as a Software Developer, Software Tester, Software Support Engineer or Database Developer, to name but a few career possibilities.

**Award**
Bachelor of Science in Software Development (Level 7 on the National Framework of Qualifications).
(Single module certification possible)
The courses offered are subject to demand and places may be limited. All online applicants will receive an email confirmation. Details about eligibility, programme orientation, and timetable arrangements will be sent to all applicants in advance of programme commencement.

**NMCI also offers**

- Full-time degree programmes Level 7 and Level 8
- Professional Maritime Short Courses
- GAC Training & Service Solutions (GTSS)
- Offshore courses

**Courses**

- Bachelor of Business (Honours) in Global Supply Chain Management (Level 8)
- Bachelor of Business in Supply Chain and Transport Management (Level 7)
- Certificate in Biopharmaceutical Supply Chain Management (Level 8)
- Certificate in Customs and Global Trade Management (Level 7)

**LOCATION**

Ringaskiddy, Co. Cork.

**HEAD OF COLLEGE**

Cormac Gebruers

**HEAD OF DEPARTMENT**

Capt. Sinéad Reen

**ENQUIRIES**

T: 021 433 5607  
E: admissions@nmci.ie  
W: www.nmci.ie
Duration and Delivery
Location: National Maritime College of Ireland, Ringaskiddy, Co. Cork.

This one-year programme (delivered two evenings per week, and some Saturdays), is a production, distribution and service-focused Level 8 programme.

Integral elements of this programme are the blended delivery involving online delivery (at least 60%) of modules and supplemented with class tutorials. The programme is focused on continuing professional development (CPD), incorporating skills training in: effective interpersonal communication; teamwork; analytical thinking; creative problem solving; negotiation management; and business acumen.

The programme is delivered over three semesters with the third semester dedicated to a dissertation. Academic year: 13th September 2021 to 26th August 2022.

Overview
The programme is designed to broaden and deepen the knowledge and skill base of graduates of the NMCI/MTU L7 SCM degree. This programme will also appeal to Business, Engineering and IT graduates (L7/L8/L9) who have some experience in Logistics and Supply Chain Management. Supply chain graduates and their companies have shown particular interest in enhancing their knowledge of issues such as international customs regulations, strategic management of global logistics and supply chain and transport planning management (considering the implications of disruptor events such as Brexit and COVID-19).

Aim
Students gain valuable knowledge and skills in key subject areas, which are relevant to managing global logistics and supply chain networks for indigenous and multinational corporations in the medical device, pharmaceutical, biopharmaceutical, electronics, energy, sectors; and the third party and fourth-party logistics (3PL, 4PL) providers and service companies that support these sectors.

This programme is suited to those with a wide range of backgrounds, from engineering and science to business and the arts; those already in supply chain management careers; and those keen to join this dynamic and rewarding sector.

Admission Requirements
Ordinary Bachelor degree in Supply Chain or equivalent, at grade H2.2 or higher. (Examples of equivalence: a degree holder in business or engineering disciplines with experience in logistics/supply chain management in the industry).

Suitably qualified applicants who have been out of the work environment for a number of years due to childcare or other caring obligations and have a previous history of employment but may require upskilling, reskilling or cross-skilling to transition back to the workforce are most welcome.

Applicants will also be considered under MTU’s well-established RPL process. For details, click here.

Content
Semester 1
Global Supply Chain Sustainable Management
Advanced Financial Planning
Supply Network Optimisation
Research Project Proposal
Strategic Procurement Sustainable Management
Lean Sigma Fundamentals

Semester 2
Int’l Supply Chain in the Customs Environment
Transport Planning and Logistics
Enterprise Systems
Basic Stats and Lean Sigma Tools
Project Management (PM) in SCM
Port Operations Management

Semester 3
Research Dissertation Supply Chain

Closing date for application
10th September 2021

Award
Bachelor of Business (Honours) in Global Supply Chain Management (60 ECTS, Level 8 on the National Framework of Qualifications)
BACHELOR OF BUSINESS IN SUPPLY CHAIN AND TRANSPORT MANAGEMENT

COURSE CODE
CR_BSCTM_7
(LEVEL 7)

COURSE FEE
€2,950

ENQUIRIES
Dr Jane O’Keeffe
T: 021 433 5627
E: jane.okeeffe@mtu.ie

Course & Module Information, and to apply online, visit go.mtu.ie/CRBSCTM7

Springboard+ application procedure
You must register with Springboard https://springboardcourses.ie/ and apply for the Bachelor of Business in Supply Chain and Transport Management. Once your application on the Springboard website has been accepted, MTU Admissions office in Cork will be in contact with you to complete your registration.

Duration & Delivery
1 Year. The lectures take place at the National Maritime College of Ireland in Ringaskiddy, Co. Cork, on Saturdays and one night a week (after discussion with group).

Supply Chain Management has matured from a compelling method of deriving competitive advantage, to now being a baseline expectation for any organisation, both in the private and public sector, wishing to compete in the 21st Century, and with that the professions and occupations comprising Supply Chain Management are now firmly entrenched in the armoury of essential business executives.

Admission Requirements
This qualification is a one year step up degree for participants holding the Chartered Institute of Logistics and Transport (CILT); Logistics Associate Apprenticeship (LAA); or IIIPMM (Procurement and Supply Chain Management); Higher Certificate, Graduateship or degree in Supply Chain Management, or an equivalent Level 6 qualification in a relevant discipline.

Equivalent recognition may be given through the Recognition of Prior learning (RPL) process on an individual case-by-case basis to candidates who have not achieved this academic standard but who can demonstrate significant relevant professional experience in the discipline of Logistics and Supply Chain Management. For details, click here.

Benefits
You will be one of the elite few:
• who will possess a degree in Supply Chain and Transport Management;
• who, as a result, will secure challenging, better paid and more fulfilling positions in Logistics and Supply Chain;
• who will be empowered with the knowledge and skills to implement the latest best practices in Supply Chain Management in your organisation.

Content
• Quality and Lean Operations
• Managing Performance Measurement
• Warehousing and Inventory Management
• Business and Supply Chain Strategy
• Transport Management in the International Supply Chain
• Management Accounting and Managerial Finance
• Procurement in Supply Networks
• Organisational Structure and Human Resource Management
• Leadership and Communications in the Supply Chain
• Information Technology & Supply Chain Management
• Global Trade and Customs Law
• Advanced Operations Management

Closing Date for Application
Completed applications must be made online (see link above) with MTU before 5pm on 10th September 2021.

Award
Bachelor of Business in Supply Chain and Transport Management (Level 7 on the National Framework of Qualifications).

Further Studies
Suitably qualified graduates may progress to the Bachelor of Business (Honours) in Global Supply Chain Management which is run by NMCI on a part-time study mode basis.
Certificate in Biopharmaceutical Supply Chain Management, 20 ECTS (Level 8 on the National Framework of Qualifications).
CERTIFICATE IN CUSTOMS AND GLOBAL TRADE MANAGEMENT

ENQUIRIES
Dr Jane O’Keeffe
T: 021 433 5627
E: jane.okeeffe@mtu.ie

Springboard+ application procedure
You must register with Springboard https://springboardcourses.ie/ and apply for Certificate in Customs and Global Trade Management. Once your application on the Springboard website has been accepted, MTU Admissions office in Cork will be in contact with you to complete your registration.

Delivery and duration
Online. One Semester – September to December

Admission requirements
Level 6 qualification preferred. At least three years’ experience in a suitable working environment with logistics and supply chain exposure. Suitable for those engaging with freight forwarding and customs in regard to the movement of goods globally.

Equivalent recognition may be given through the Recognition of Prior Learning (RPL) process on an individual case-by-case basis to candidates who have not achieved this academic standard but who can demonstrate significant relevant professional experience in the discipline of Logistics and Supply Chain Management.

Suitably qualified applicants who have been out of the work environment for a number of years due to childcare or other caring obligations and have a previous history of employment but may require upskilling, reskilling or cross-skilling to transition back to the workforce are most welcome. Applicants will also be considered under MTU’s well-established RPL process.

Aim
This Special Purpose Award (SPA) affords a review of Customs Law on International Trade by providing a formal grounding in aspects of European Union Customs Law and Regulations that govern International Trade.

The role, functions and current challenges relating to Customs in an era of Globalisation are examined, having regard for the aims and functions of key influencers. These influencers include The World Trade Organisation (WTO); The World Customs Organisation (WCO); and trading alliances such as The Single Market, and the implications of Brexit.

The interaction between global trade, and how customs policies facilitate such trade is examined in the context of global trade facilitation initiatives and the role of customs and border control is examined in terms of Brexit implications and the US Presidential rulings. The programme critically analyses situations of potential difficulty and further examines appropriate legal remedies.

Award
Special Purpose Award - Certificate in Customs and Global Trade Management (Level 7, 10 ECTS on the National Framework of Qualifications).
HEAD OF SCHOOL
Aiveen Kearney

LOCATION
Union Quay, Cork
E: Csm.InfoCork@mtu.ie
T: 021 480 7310

The School consists of the following Departments

- Keyboard Studies
- Orchestral Studies
- Pop, Jazz, Trad, Voice & Theatre Studies
- Musicianship & Academic Studies
HEAD OF THE DEPARTMENT OF KEYBOARD STUDIES
Dr Gabriela Mayer
E: gabriela.mayer@mtu.ie

HEAD OF THE DEPARTMENT OF ORCHESTRAL STUDIES
Joan Scannell
E: joan.scannell@mtu.ie

HEAD OF THE DEPARTMENT OF POP, JAZZ, TRAD, VOICE & THEATRE STUDIES
John O’Connor
E: john.oconnor@mtu.ie

HEAD OF THE DEPARTMENT OF MUSICIANSHIP & ACADEMIC STUDIES
Maria Judge
E: maria.judge@mtu.ie

Choral Groups
Fleischmann Choir
Union

Instrumental Groups
Symphonic Wind Band
Jazz Big Band
Symphony Orchestra

Musicianship Skills for Adults
Sight-Singing Classes
Courses for Teachers
Concerts, Performances & Productions
Individual Tuition
Choral Groups

Fleischmann Choir
Rehearsals for this large, mixed-voice choir take place on Monday evenings 7.30pm - 10.00pm.

The conductor is Conor Palliser and the group specialises in singing large-scale works for choir and orchestra. It recent years, it has performed music by Beethoven, Brahms, Bruckner, Dvorák, Finzi, Fleischmann, Handel, Haydn, Jenkins, Mozart, Orff, Schubert, Saint-Saens, Stanford, Tchaikovsky, Vaughan Williams and Vivaldi to name but a few. The choir regularly works with internationally-renowned soloists and future concerts include a performance of music by Rheinberger and Fauré in Como Cathedral, Italy.

Membership is open to enthusiastic and committed choral singers; auditions are held when there are vacancies for certain sections in the choir. Applicants should complete the online application form which can be found at: https://csm.mtu.ie/performing-groups-application

Union
Union is an adult choir open to all performers who are interested in developing their vocal skills and musicianship through legit and contemporary musical theatre repertoire. Membership is open to all (there’s no need to be a current student or graduate of MTU) and all that’s expected from our members is a love for musical theatre and singing!

Instrumental Groups

Symphonic Wind Band
The Symphonic Wind Band rehearses on Wednesdays from 5.30pm to 7.30pm and is directed by Antony Neal and caters for students of senior and advanced standard.

Applications are welcome from external players who may be members of other bands, entry is subject to audition.

Applicants should complete the online application form which can be found at: https://csm.mtu.ie/performing-groups-application

Jazz Big Band
Rehearsals for this 20-piece ensemble take place on Wednesday lunchtime from 1.15pm – 3.15pm under the direction of Cormac McCarthy.

The Big Band repertory ranges from the classic scores of Duke Ellington and Count Basie right up to the most revolutionary contemporary works. The Band performs regularly and has toured England, France, Holland, Italy, and the USA. Musicians of a good standard between the ages of 16yrs and 25yrs are welcome to apply. The Jazz Big Band played at Jazz Standard Club in Mahattan, USA during Easter 2017, and has recently collaborated with Ariel Posen who is a world renowned singer/songwriter, internationally-renowned guitarist and producer.

Symphony Orchestra
Rehearsals take place on Tuesday nights from 7.30pm – 10.00pm. The conductor is Conor Palliser.

All the members are of at least Grade VIII standard and the orchestra performs the 19th- and 20th-century literature for large orchestra, regularly accompanies distinguished instrumental soloists, and performs the oratorio repertory with the School's Fleischmann Choir.

In recent seasons, the orchestra has performed Tchaikovsky’s Symphony No. 6 and Capriccio Italian Overture, Sibelius’ Symphony No. 5, Schumann’s Cello and Piano Concertos, Violin Concertos by Bruch, Barber and Brahms, Shostakovich’s Cello Concerto No. 1, Humperdink’s Prelude to Hansel and Gretel, and Bernstein’s Overture to Candide.

Applications are welcome from external players who may be members of other orchestras; entry is subject to audition. Applicants should complete the online application form which can be found at: https://csm.mtu.ie/performing-groups-application.

Musicianship Skills for Adults

Adults who wish to become musically literate may enrol for this weekly 1 hour long class. Participants are introduced to the elements of pitch and rhythm through music-making. Learners also are afforded the opportunity to perform class material on Percussion Instruments, Recorder and Keyboard in addition to Singing. Participants are also introduced to the use of Music Notation Software.

There are currently three levels of Musicianship Skills for Adults. Beginners (no experience necessary) may progress from Level 1 to 2 and then 3 where more advanced concepts are introduced. Classes take place after 6pm on Monday or Wednesday (2021-2022 fee to be confirmed).
Sight-Singing Class

This weekly class facilitates those who would like to develop their sight-singing skills in a group setting. This course is popular with those who are interested in choral singing and with parents wishing to support their children’s musicianship studies.

Courses for Teachers

We offer short courses aimed at pre-school, primary and post-primary teachers offering choral skills, musicianship and literacy development, music technology, classroom percussion, and curriculum support. Contact maria.judge@mtu.ie for more information.

Concerts, Performances and Productions

The MTU Cork School of Music hosts a wide-ranging series of productions, recitals and concerts throughout the year. The School also presents many performances by its own performing groups – most of which take place within the School’s premises, others of which take place in venues throughout both Cork city and the country as a whole.

Individual Tuition

A limited number of vacancies may arise for individual tuition in singing, speech, theory of music including diploma preparation, and certain instruments. Whilst enrolments normally take place in April and are subject to audition/interview, enquiries about vacancies are welcome at any time. Where possible, late applications will be considered.

Applicants should consult the School’s Enrolment Information Booklet and complete the relevant online application form.

For detailed information about concerts and events, please visit https://csm.mtu.ie/events If you wish to receive a regular concert bulletin please email: csm.info@mtu.ie

Further information may be obtained from the MTU Cork School of Music, Union Quay, Cork T: 021 480 7310 and also on the events section of the CSM website – https://csm.mtu.ie

Full details about the enrolment procedure is available from the General Office at MTU Cork School of Music. Students should also refer to the Information for Students & Staff booklet available at https://csm.mtu.ie and also available at the General Office, CSM.
HEAD OF COLLEGE
Catherine Fehily

LOCATION
Sharman Crawford Street, Cork
T: 021 433 5220
E: ccad.enquiriesCork@mtu.ie

The College consists of the following Departments:

- Arts in Health & Education
  (based in 46 Grand Parade)
- Fine Art & Applied Art
  (based in Sharman Crawford Street)
- Media Communications
  (based in MTU, Bishopstown Campus)

Queries to ccad.enquiriesCork@mtu.ie re programmes in the Department of Arts in Health & Education and the Department of Fine Art & Applied Art.

Queries to veronique.osullivan@mtu.ie re programmes in the Department of Media Communications. Each programme can be found under “Areas of Study” on the Crawford website – https://crawford.mtu.ie.

All programmes offered are subject to demand and places may be limited. All online applicants will receive an email confirmation. Where appropriate, details about eligibility, programme orientation, and timetable arrangements will be sent to applicants in advance of programme commencement.

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

https://crawford.mtu.ie
DEPARTMENT OF ARTS IN HEALTH & EDUCATION

Courses

- Master of Arts in Art Therapy (Level 9)
- Certificate in Creativity & Change (Level 9)
- Master of Arts in Arts and Engagement (Level 9)
- Certificate in Eco Arts Practice (Level 9)
- Certificate in Socially Engaged Theatre (Level 8)
- Certificate in Principles of Art Therapy (Level 8)
- Certificate in Arts in Group Facilitation (Level 8)
- Art Therapy Summer School
- Introductory Days – Art Therapy & Participatory Arts

Location

46 Grand Parade, Cork

HEAD OF DEPARTMENT
Louise Foott

ENQUIRIES TO
E: ccad.enquiriesCork@mtu.ie
T: 021 433 5220

All programmes offered are subject to demand and places may be limited. All online applicants will receive an email confirmation. Where appropriate, details about eligibility, programme orientation, and timetable arrangements will be sent to all applicants in advance of programme commencement.

All part-time courses will run subject to sufficient student numbers. Where a course cannot proceed, applicants will be contacted and advised on alternative study options.
The Master of Arts in Art Therapy is a taught Masters providing professional training in Art Therapy. Through theoretical studies, experiential learning and clinical placement, students develop an understanding of the theories and practices of art therapy necessary for safe therapeutic work. The MA in Art Therapy is a recognised Art Therapy qualification which, on completion, allows individuals to register with the professional body, Irish Association of Creative Arts Therapists (IACAT).

The course is delivered on a full time basis over two years (2 college days and 2 clinical placement days) or part-time over 3 years (1 college day and 1 clinical placement day).

Admission Requirements
Applicants normally require
• An Honours degree, or equivalent, in Visual Art. Where graduate qualifications are not in the visual arts, for example, Psychiatric Nursing, Social Work or Teaching, evidence of a substantial and developing body of current and recent art work is essential
• Minimum of one year, or equivalent, full-time clinical/care work in an area relevant to art therapy, paid or voluntary. This work may be, for example, in Health or Social Services, Special Education, Community Care or Day Centres, with clients who have a mental illness, learning or physical disability
• Strong portfolio of personal artwork showing an understanding of an appropriate art form, the art-making process showing the applicants relationship and connection to their creative process
• Two satisfactory references from clinical and professional persons who have knowledge of the candidate’s education, training and experience
• A good understanding of therapeutic and professional working of Art Therapy and the implications of working as a therapist
• Pre-course experience in personal therapy or counselling is preferred

Early Assessment
Because of the clinical placement component of this course, it is a condition of entry that all successful applicants will be subject to the National Vetting Bureau (NVB) procedure carried out by the NVB facilitator at MTU. Offers of a place on this programme will be provisional and contingent on the applicant’s satisfactory completion of MTU’s NVB procedure.

Overview
The programme aims to equip Art Therapy practitioners with a range of therapeutic skills and interventions to work with both individual and group clients in a variety of health and community settings. It follows three strands of learning:
• Theoretical Studies (25 Credits)
• Experiential Art Therapy Training (20 Credits)
• Clinical Placement and Professional Studies (45 Credits)*

* Students are encouraged to experience a number of differing placement situations over the course of their training. Please note that students must have their placements in a new setting and not at their workplace. Supervision of the clinical experience is central to the art therapy training and is provided in small groups at Crawford College and individually on placement.

Career Opportunities
Art therapists work in a wide variety of HSE and social care settings, including – adult and child psychiatry, education, palliative care, addiction services and community day centres. Many also work in private practice.

Award
Master of Arts in Art Therapy (Level 9 on the National Framework of Qualifications).
CERTIFICATE IN CREATIVITY & CHANGE

COURSE CODE
CR_ACRCH_9
(LEVEL 9)

COURSE FEE
€680*

ENQUIRIES
Chriszine Backhouse
T: 021 433 5220
E: chriszine.backhouse@mtu.ie
W: www.creativityandchange.ie

Course & Module Information, and to apply online, visit go.mtu.ie/CRACRCH9

*This course is supported by Irish Aid’s Development Education funds and is therefore offered at this subsidised rate.

Duration
Location: 46 Grand Parade
The course runs over 8 weekends September to May.

Admission Requirements
Applicants for this course should note that it is a Level 9 (normally postgraduate) course, so there is an expectation that they will have a first degree or equivalent experience. Applicants will be invited to attend an interview, to ensure that there is a good match between their aspirations and the course.

Overview
This accredited Special Purpose Award programme targets educators, change-makers, activists, artists, community workers, adult educators, youth workers, volunteers, and anyone who is interested in how creative engagement can nurture global citizenship and empathic action around local and global justice themes.

The programme is designed for people who can say ‘YES’ to the following questions
• Are you passionate about change?
• Do you believe that you can make a difference in the world?
• Do you believe that we need creativity to think in new ways about the challenges that face the world?
• Are you curious about how creative processes and learning environments can transform how people engage with the world around them?
• Do you want to build skills to bring others on a journey of transformation and growth as global citizens?

What you can expect from the programme
• Participate in a transformative learning experience
• Explore your place in our interconnected, rapidly-changing and unequal world
• Connect your passions for change
• Discover connections between the local to the Global
• Recognise that small actions can have big impacts
• Reflect on your values actions and behaviours of Global citizens
• Boost your confidence in your own creativity
• Innovate as you put your learning and passion into practice to engage others on a journey of transformation and growth as global citizens.
• Develop skills in facilitating meaningful dialogue, collaborative and transformative learning
• Build a tool kit of exercises to design learning processes to nurture global citizenship
• Apply design thinking to creating imaginative learning environments and opportunities in wide range of contexts, from a workshop setting to a festival to the street
• Plug into a network of people passionate about creativity learning and change in the world

Award
Certificate in Creativity & Change, 20 ECTS credits (Level 9 on the National Framework of Qualifications).
**MASTER OF ARTS IN ARTS AND ENGAGEMENT**

**COURSE FEE**

€6,000

**ENQUIRIES**

Avril O'Brien  
E: ccad.enquiriesCork@mtu.ie  
T: 021 433 5220

Course & Module Information, and to apply online, visit [go.mtu.ie/CRARAEN9](http://go.mtu.ie/CRARAEN9)

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**Duration & Delivery**

**Location: 46 Grand Parade**

Part-time. 2 academic years, 4 Semesters. The course will run part-time, one day a week over two years. Electives are timetabled in 2-day blocks once a month. Successful applicants who have completed the Certificate in Principles of Art Therapy can chose to be exempted from the year one elective.

Successful applicants who have completed the Certificate in Creativity & Change can chose to be exempted from the year two elective.

**Overview**

This Masters programme builds on a number of existing Special Purpose Awards all centred on learning through expressive meaning-making: Arts-based Facilitation Training, Creativity and Change-making, and Art Therapy. These programmes educate through and activate different modes of communication, promote learning through experiential and reflective practice, and engage with other perspectives and diverse intelligences.

Participants on the Masters will develop an understanding of the role of the arts within learning and engagement and will develop the skills to apply this to a range of contexts. Core modules over the two-year programme relate to the arts in engaged practices which recognise neurodiversity, equality, social justice, power and autonomy. Through research, reflection, group and practical work, participants will explore different ways of learning, investigating the transformational power of the arts in personal and societal activation or regulation through a broad scope of contemporary methodologies.

Through elective modules in year one, opportunities will be provided to broaden skill sets through Socially Engaged Theatre, Eco-Arts Practice, or Art Therapy. In the second year, opportunity will be given for students to develop their ongoing arts practice informed by, and in relation to, one of two strands of engagement – Health & Wellbeing or Global Citizenship.

**Admission requirements**

The MA in Arts & Engagement welcomes applicants from a range of backgrounds who are interested in

- Developing their own arts practice in relation to others
- Developing arts-based processes to incorporate into existing work place
- Developing arts engagement facilitation skills

Applicants normally require

- An Honours degree, or equivalent, in Visual Art/Theatre/Music or a relevant area, with a minimum of an Honours 2.2 (or equivalent) are eligible to apply for the programme.
- Where graduate qualifications are not in the Visual Arts, for example, Community Development, Social Work or Teaching, evidence of a developing body of current and recent art work is essential
- In certain circumstances mature applicants with professional experience will be considered for eligibility through recognition of prior and experiential learning. Please click [here](#).

**Award**

Master of Arts in Arts and Engagement (Level 9, 90 ECTS credits on the National Qualification of Ireland).
COURSE CODE
CR_AEAPR_9
(LEVEL 9)

Course & Module Information, and to apply online, visit go.mtu.ie/CRAEAPR9

COURSE FEE
€1,450

ENQUIRIES
Louise Foott
E: ccad.enquiriesCork@mtu.ie

Duration & Delivery
One academic year (part-time, 2-day blocks, once a month)

Overview
The Eco Arts Practice course is a Level 9 certificate 10 credit programme. Through experiential learning, this course provides an opportunity to explore Eco Arts Practice theory and application within a group setting.

The aim of the course is to provide participants with approaches to Eco Art Practice that could be applied in a range of different contexts, making it attractive to teachers, therapists, youth and community workers or artists looking to broaden the scope of their practice.

Explore nature and the environment within an art context, from ethical use of materials, to eco literacy through to the natural environment as a classroom, a therapeutic space, and a material that can be worked with.

Why do the course?
- Explore current and historical debates on the ethical, psychological and sociological underpinnings of Eco Arts Practice.
- Develop novel techniques to explore the interconnection between humans and the natural world
- Develop and apply advanced practical tools for engaging through the arts with groups in specific fields of practice.

Admission requirements
- An Honours degree, or equivalent, in Visual Art/Theatre/Music or a relevant area, with a minimum of an Honours 2.2 (or equivalent) are eligible to apply for the programme.
- In certain circumstances mature applicants with professional experience will be considered for eligibility through recognition of prior and experiential learning. Please click here.
- When you are applying online, please upload a CV, and a motivational statement detailing why you want to do the course

Award
Certificate in Eco Arts Practice (Level 9, 10 ECTS on the National Framework of Qualifications)
CERTIFICATE IN SOCIALLY ENGAGED THEATRE

COURSE CODE
CR_ASETH_8
(LEVEL8)

Course & Module Information, and to apply online, visit go.mtu.ie/CRASETH8

Duration & Delivery
One academic year (Part-time, 2-day blocks, once a month - Friday/Saturday)

Overview
The socially engaged theatre programme is a Level 8 certificate comprising of two 5 credit assessed modules. Through experiential learning, this course provides an opportunity to explore socially engaged theatre theory and application within a group setting. The learning environment will be a blended mix of indoor and outdoor locations. When we are outdoors, we will travel to nearby greenspaces including city parks. Outdoor environments enhance learning experiences by connecting us to nature, ourselves, and real-world applications.

The aim of the course is to introduce participants to the basic principles of socially engaged theatre. Graduates will learn how to effectively use theatre in both formal and non-formal contexts as a means for positive change.

The first module introduces students to a range of socially engaged theatre processes. Through experiential learning, students will explore the aesthetics, ethical considerations, and transformative potential of socially engaged theatre. In the second module, students will devise and perform socially engaged theatre pieces aimed to address social challenges.

Why do the course?
• Learn fresh ways to inspire participants to explore social issues
• Learn approaches to theatre which bring an ethical and aesthetic awareness of socially engaged practices
• Develop your ability to devise, perform and evaluate socially engaged theatre practices that effectively respond to social issues.

Admission requirements
• Demonstrated interest in Visual Art/Theatre/Music or a relevant area
• When you are applying online, please upload a CV, and a motivational statement detailing why you want to do the course

Award
Certificate in Socially Engaged Theatre (Level 8, 10 ECTS on the National Framework of Qualifications)

COURSE FEE
€1,450

ENQUIRIES
Chriszine Backhouse
E: chriszine.backhouse@mtu.ie

https://crawford.mtu.ie
CERTIFICATE IN PRINCIPLES OF ART THERAPY

COURSE FEE
€1,400

ENQUIRIES
Catherine Phillips
T: 021 433 5249
E: catherine.phillips@mtu.ie

Duration & Delivery
Location: 46 Grand Parade
One academic year. Part-time, once a month in 2-day blocks (Friday - Saturday) from October to April.

Admission Requirements
Applicants will be invited to attend an interview, with examples of their work, in order to ensure that there is a good match between their aspirations and the course.

Overview
The programme offers an introduction to the core principles of Art Therapy – boundaries, the image, self-inquiry, process and the triangular relationship. Through experiential workshops, lectures and seminars, the course aims to provide a deeper understanding of the art therapy process.

The course provides an opportunity to find out more about art therapy, exploring the history of Art Therapy and its theoretical underpinning through an extensive lecture programme. An opportunity is provided, through experiential workshops to experience and reflect on the process of Art Therapy within a group setting. Seminars, journaling and essay writing challenge participants to develop the practice of reflecting on their experiential learning and relating it to theory.

For many, this introduction may be a step towards training as a qualified Art Therapist, for others it may introduce them to a more sympathetic understanding of the role of art in rehabilitation and development work.

Aim
Upon successful completion of this programme the graduate will be able to demonstrate

- An understanding of the role of creativity as a therapeutic methodology
- An awareness of the core principles of the practice of art therapy
- Understanding and awareness of the variety of clinical areas where art therapy is practised
- Understanding of the theory of Art Therapy in practice through experiential workshops
- Ability to engage with and develop their own understanding of the creative process

Award
Certificate in Principles of Art Therapy, 10 ECTS credits (Level 8 on the National Framework of Qualifications).
CERTIFICATE IN ARTS IN GROUP FACILITATION

COURSE FEE
€1,400

ENQUIRIES
Jessica Carson
T: 021 433 5220
E: jessica.carson@mtu.ie

Duration & Delivery
Location: 46 Grand Parade
This course runs once a month from October to May in three-day blocks (Thursday - Saturday), from 10.00am - 5.00pm.

Admission Requirements
Applicants will be invited to attend an interview, in order to ensure that there is a good match between their aspirations and the course.

Overview
The Arts in Group Facilitation Certificate (Level 8, 10 credits) focuses on the practical skills of planning and running creative workshops with groups in a range of non-formal contexts. Participants learn these skills through experiential learning processes, taking part in visual arts, drama, dance and music workshops and reflecting on the experience. The focus is on acknowledging the individual within learning, recognising the importance of play and the need for learning to be engaging. There is a strong emphasis on engaging with diversity and learning to adapt a range of arts approaches to meet the varying needs within a group.

Why do this course?
• Learn approaches to group work that take the emphasis off words and place it on finding your own unique voice within the group through a range of possible arts-based media.
• Develop your creative skills to work with groups
• Develop and promote confidence and sense of belonging in a group
• Learn fresh ways to inspire learners in formal and informal learning
• Develop practical resources and training to work with a wide variety of groups in community and more specialised settings

Award
Certificate in Arts in Group Facilitation, 10 ECTS credits (Level 8 on the National Framework of Qualifications).

Course & Module Information, and to apply online, visit go.mtu.ie/CRAGRPAA8
**ART THERAPY SUMMER SCHOOL**

**COURSE FEE**
€499 (early bird and concession options available)

**ENQUIRIES**
Marianne Adams  
M: 087 061 6662  
E: marianne.adams@mtu.ie

To apply online, visit [https://crawford.mtu.ie/courses/art-therapy-summer-school/](https://crawford.mtu.ie/courses/art-therapy-summer-school/)  
To register for the accredited option, click on the ‘apply’ tab at [go.mtu.ie/ARTS9016](http://go.mtu.ie/ARTS9016)

**Duration & Delivery**
Location: MTU Crawford College of Art & Design, Sharman Crawford Street, Cork  
Saturday to Wednesday (usually last Saturday in June)

**Overview**
The Cork Art Therapy Summer School welcomes up to sixty participants annually, providing them with a unique opportunity to learn about and experience the Art Therapy process. Visiting art therapists, from Ireland and further afield, facilitate an immersive experience of the Art Therapy process over the five days.

Participants are offered the chance to explore the therapeutic potential of art through a series of themed experiential workshops. A series of related lectures and seminars during the week provide a context for the current practice of art therapy. Participants have the option (if they meet the academic requirements) to register and take this course as a Level 9, 5-credit module. For some, this summer school may be the first step on the road to a career in Art Therapy. For others, it may be an opportunity to re-engage with their creative identity. For trainee and qualified therapists, it may provide continuing professional development.

**Aim**
- Understand the role of creativity as a therapeutic methodology  
- Learn about the history of art therapy and some of the clinical contexts where it is practiced  
- Experience the theory of Art Therapy in practice through experiential workshops  
- Engage with and develop your own understanding of the creative process
INTRODUCTORY DAYS - ART THERAPY & PARTICIPATORY ARTS

COURSE FEE
€100 (€80 concession)
All materials are provided, no artmaking experience necessary

ENQUIRIES
T: 021 433 5220
E: ccad.enquiriesCork@mtu.ie

Location: 46 Grand Parade

The Introductory Days provide a taster opportunity to learn about and experience either the Art Therapy process or Participatory Arts Process.

Participants will explore the potential of art in different health or education contexts through an experiential workshop. This experience is grounded by some of the theory behind the practice of art therapy or participatory arts. Opportunity is provided to explore the role of art within health or learning through questions and discussion.

• The Art Therapy Introductory Day consists of an exploration of the theory and practice of Art Therapy, together with an opportunity to work experientially. It is intended as a way for individuals, new to Art Therapy, to gain an understanding and experience of the process. All materials are provided. Places are offered on first come first served basis.

• The Participatory Arts Introductory Day provides an opportunity to explore arts-based collaborative engagement. It is designed for those interested in incorporating the arts within formal/informal learning and community contexts to gain an understanding and experience of the process and its potential. The day is workshop based. All materials are provided. No previous art-making experience necessary.

To apply online, visit https://crawford.mtu.ie and click on the courses tab
DEPARTMENT OF FINE ART & APPLIED ART

Courses

- MA in Art & Process (Level 9)
- Portfolio Preparation
- Summer Portfolio Preparation Course
- Evening Classes – see Page 181

Location

Sharman Crawford Street, Cork

HEAD OF DEPARTMENT
Trish Brennan

ENQUIRIES TO
E: ccad.enquiriesCork@mtu.ie
T: 021 433 5220

All programmes offered are subject to demand and places may be limited. All online applicants will receive an email confirmation. Where appropriate, details about eligibility, programme orientation, and timetable arrangements will be sent to all applicants in advance of programme commencement.

All part-time courses at will run subject to sufficient student numbers. Where a course cannot proceed, applicants will be contacted and advised on alternative study options.
How to Apply
Online application opens in May for course commencing the following January. The MA in Art & Process operates a rolling closing date, the 31st October is the regular closing date after which offers are made to successful applicants. Late applications will continue to be accepted up until 30th December for course commencing in late January.

Admission Requirements
MA:AP welcomes applicants with diverse backgrounds. Those holding a Level 8 Honours Bachelor Degree in Fine Art or an associated discipline, with a minimum of an Honours 2.2 (or equivalent) are eligible to apply for the programme. Graduates from other subject areas are invited to apply provided they meet the entry requirements.

Applicants who hold a Level 8 award at pass level or a Level 7 award (or equivalent) may be considered on the basis of significant relevant experience.

In certain circumstances mature applicants with professional experience will be considered for eligibility through recognition of prior and experiential learning, policies for which are well established in MTU. For details, click here.

Duration and Delivery
Location 46 Grand Parade

12 months delivered full-time over 3 semesters, from January to December, and part-time over 2 calendar years.

Overview
The concept of process is understood in a variety of ways: as material exploration and the engagement with medium and technique; as theoretical investigation and systems of enquiry without resolved or object-based endpoints; as innovative models of art distribution, including the possibilities of working outside traditional sites of art production and reception. Process also refers to the progression each student achieves over the course of the MA, which involves the observation, critique, deconstruction, documentation, and rebuilding of individual practice.

MA:AP is an intensive and stimulating taught masters course. This research-intensive programme enables students to investigate, develop, and position their art practice in a rigorous learning environment. MA:AP offers innovative approaches to learning, individual studio spaces, access to college workshops and facilities, professional experience through collaborative projects, peer-to-peer exchange, and a bespoke visitor lecture series. Students engage in seminars, tutorials and lectures to strengthen their individual practice.

• Critique: The spring trimester opens the course with an intensive period of interaction and events, contextualising art practice within contemporary critical thinking through seminars, visiting lectures, and a study trip.

• Research: The summer trimester is defined by independent research. Having rehearsed research methodologies, this is a period to reflect on and consolidate practice.

• Presentation: The autumn/winter trimester is defined by intensive studio development with a high level of critical input, which builds towards an exhibition of work. This exhibition is then the object of further learning opportunities, through a final period of critical reflection, characterised by writing, documentation, and working with audience groups.

Award
Master of Arts in Art & Process (Level 9, 90 ECTS on the National Framework of Qualifications).
To apply online, visit [https://crawford.mtu.ie](https://crawford.mtu.ie)

**COURSE FEE**

€480

**ENQUIRIES**

T: 021 433 5200  
E: ccad.enquiriesCork@mtu.ie

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**Duration & Delivery**

**Location:** Sharman Crawford Street  
Time: Saturday morning 10.00am - 1.00pm commencing early October 2021.

**Admission Requirements**

No prior qualifications necessary

Classes are held on Saturday mornings over fifteen weeks commencing in October.

This course is suitable for those seeking art college entry and participants can have their portfolio assessed for Crawford College of Art & Design undergraduate courses on completion. Participants will be tutored in composition, observational drawing, life drawing, painting, and developing a sketchbook. Specialist lecturers take the students through a number of set projects including creative disciplines such as: drawing, painting, printmaking, photography, 3D construction and life drawing. The students create a well-balanced and individual portfolio with their personal career path in mind.

Early application is advisable as places are limited.
SUMMER ART COURSE
LOCATION: SHARMAN CRAWFORD STREET

Summer Portfolio Preparation Course
16th – 25th June 10am – 4pm
Price: €320

This course is designed to assist individuals to prepare & develop a portfolio of creative work for entry into third level art and design colleges. This preparatory programme is suitable for both mature and Leaving Certificate Students and provides a platform for creative ideas and skills to produce a diverse body of work.

Specialist lecturers will guide students through a number of artistic media such as: drawing, painting, printmaking, photography and 3D construction. Emphasis will be placed on the development of core drawing and observational skills through visual journals, sketchbooks and building evolving ideas through making.

Due to current public health regulations, please check our website for the most up to date information, visit https://crawford.mtu.ie
MTU Crawford College of Art & Design offers an exciting range of evening classes, beginning in September and January, in the following subjects:

- Ceramics: Processes and Techniques (Level 6)
- Ceramics: Bringing Your Ideas to Life (Level 7)
- Ceramics: Decorating Surfaces (Level 7)
- Ceramics: The Potter’s Wheel (Level 7)
- Drawing and Painting Processes (An Introduction) (Level 6)
- Drawing and Painting - Developing Visual Language (Level 7)
- Life Drawing: Media and Approaches (Level 7)
- Life Drawing: Advanced (Level 8)
- Darkroom Photography: Mastering the Basics (Level 6)
- Darkroom Photography Now (Level 7)
- Digital Photography: Beginning Image Making (Level 6)
- Digital Photography and Storytelling (Level 7)
- Introduction to Digital Video Techniques (Level 6)
- Digital Video and Storytelling (Level 7)
- Textiles: Techniques and Materials (Level 6)
- Creating 2D and 3D Textile Art (Level 7)

All of these are based in our Sharman Crawford Street Campus. Visit https://crawford.mtu.ie for up-to-date information on evening classes beginning in September 2021 and details of how to apply.
Module Title: Ceramics (Introduction)
Tuesday: 6.30pm - 9.00pm (Semester 1)

Admission Requirements
Students are not required to have any previous experience.

Overview
Lecturer: Luke Sisk

This course offers an introduction to ceramics and the ceramic facilities at the College. Students are introduced to different types of clay, their properties and uses, relevant terminology and functions. Students learn the techniques involved in the preparation of clay such as wedging and kneading along with procedures for forming, building and firing clay. Students learn how to build pots and sculptural work using pinching, coiling, slab building, mold work and extrusion. They also explore various decoration and glazing techniques to produce a series of finished pieces. Health and safety and environmental considerations as they apply to ceramics are also explored in detail i.e. use of appropriate equipment and tools, storage and disposal of materials. Employing a range of processes, students use clay as a material for creative exploration and development of ideas.

Students have an opportunity to submit their work for assessment (80% attendance is required to be eligible for assessment) should they wish to gain the MTU: Single Module Certification for this course.

Award
MTU: Single Module Certification, 5 ECTS credits at Level 6 on the National Framework of Qualifications.
CERAMICS: BRINGING YOUR IDEAS TO LIFE

Module title: Ceramics (Intermediate)
Tuesdays: 6.30pm - 9.00pm (Semester 2)

Admission Requirements
Students are not required to have any previous experience.

Overview
Lecturer: Luke Sisk
This course offers the student the opportunity to realise his/her ideas through the medium of clay. The student engages in the process of creative idea development and the production of selected pieces using handbuilding techniques. Students set their own project and develop their ideas using both their visual notebooks and practical handbuilding skills. Students are encouraged to engage with more self-generated projects that reflect their individual interests. The course explores the application of basic decoration using slips, underglazes and glazing. There will be a number of group analysis and discussion sessions to review progress throughout the year. The course explores the appropriate criteria and visual grammar for reading and interpreting ceramic artefacts and students are encouraged to apply these to their own work also.

Students have an opportunity to submit their work for assessment (80% attendance is required to be eligible for assessment) should they wish to gain the MTU: Single Module Certification for this course.

Award
MTU: Single Module Certification, 5 ECTS credits at Level 7 on the National Framework of Qualifications.
CERAMICS: DECORATING SURFACES

Module Title: Ceramics Surface Treatment
Wednesday: 6.30pm - 9.00pm (Semester 1)

Admission Requirements
Students are not required to have any previous experience.

Overview
Lecturer: Luke Sisk

This course familiarises the learner with surface treatment techniques and allows the learner to creatively develop and produce ideas with an emphasis on surface treatment and surface decoration. Throughout the course, students develop and experiment with various decoration and glazing techniques and processes most suited to their individual work. These include burnishing, scrafitto, plaster carving and lazertran. The course explores how different firing temperatures and processes impact on colouration and surface qualities.

Students have an opportunity to submit their work for assessment (80% attendance is required to be eligible for assessment) should they wish to gain the MTU: Single Module Certification for this course.

Award
MTU: Single Module Certification, 5 ECTS credits at Level 7 on the National Framework of Qualifications.

Course & Module Information, and to apply online, visit go.mtu.ie/CRACCXXE7

COURSE CODE
CR_ACCXXE_7
(LEVEL 7)

COURSE FEE
€240

ENQUIRIES
T: 021 433 5220
E: ccad.enquiriesCork@mtu.ie

T: 021 433 5220
E: ccad.enquiriesCork@mtu.ie
Module Title: Ceramics Throwing (Intermediate)
Wednesday: 6.30pm - 9.00pm (Semester 2)

Admission Requirements
Students are not required to have any previous experience.

Overview
Lecturer: Luke Sisk

This course introduces students to the experience of throwing as a means of creating ceramic forms and as a means of expression of ideas. Using earthenware students learn how to produce ceramic forms on the wheel and explore and gain skills in the areas of clay preparation, throwing, turning and firing. Students gain a comprehensive understanding of the various stages of drying clay and learn how to monitor and control the drying process. Students work with the shapes in leather hard stage, add applications where appropriate and finish shapes.

Students have an opportunity to submit their work for assessment (80% attendance is required to be eligible for assessment) should they wish to gain the MTU: Single Module Certification for this course.

Award
MTU: Single Module Certification, 5 ECTS credits at Level 7 on the National Framework of Qualifications.
Module Title: Drawing, Painting Introduction
Tuesdays and Thursdays 6.30pm - 9.00pm (Semester 1)
Applicants may choose which evening they prefer.

Admission Requirements
Students are not required to have any previous experience.

Overview
Lecturer: Eileen Healy

This course introduces the student to a range of drawing and painting techniques in portraiture and the full figure. The course begins with the essential practice of drawing and gradually leads to painting in acrylic or oil. Using a variety of mediums, students explore drawing and painting techniques with a life model as the subject. This course deals with improving visual concentration and students observe, perceive and express the visual characteristics of the subject. The course explores a wide range of experimental life drawing and painting processes as a means of creative investigation along with observation skills and form, line, tone, texture and composition. Students will be encouraged to explore a personal visual language through their chosen medium.

Students have an opportunity to submit their work for assessment (80% attendance is required to be eligible for assessment) should they wish to gain the MTU: Single Module Certification for this course.

Award
MTU: Single Module Certification, 5 ECTS credits at Level 6 on the National Framework of Qualifications.
Module Title: Drawing, Painting Intermediate
Tuesdays and Thursdays: 6.30pm - 9.00pm (Semester 2)
Applicants may choose which evening they prefer.

Admission Requirements
Students are not required to have any previous experience.

Overview
Lecturer: Eileen Healy

The module deals with the creative relationships between drawing and painting and how both are used within the context of studying the human figure. This course further advances visual concentration along with creative investigation. Students expand their ability to observe, perceive and express the visual characteristics of the subject. Through their chosen medium, students are encouraged to explore and develop a personal visual language (i.e. communication using visual elements). Students will produce a portfolio of completed studies of the human figure displaying their emerging individual style.

Students have an opportunity to submit their work for assessment (80% attendance is required to be eligible for assessment) should they wish to gain the MTU: Single Module Certification for this course.

Award
MTU: Single Module Certification, 5 ECTS credits at Level 7 on the National Framework of Qualifications.
Module Title: Life Drawing: Media and Approaches (Intermediate)
Wednesdays: 6.30pm - 9.00pm (Semester 1)

Admission Requirements
Students are not required to have any previous experience.

Overview
Lecturer: Holly Walsh

This course is suitable for a mix of beginners and for those who are more experienced with drawing. The course explores traditional and contemporary drawing. It aims to expand the students’ knowledge of drawing using the life model as subject along with other observational drawing exercises.

The course involves drawing with various media, including pencil, pastels, ink, and charcoal as well as basic techniques such as perspective, anatomy, proportion, tonal understanding and mark making. By a dual approach of improving one’s traditional and contemporary skills students can learn to create better likenesses as well as work towards their own processes. It also introduces the participant to visual research and to sketchbook practice. Life drawing is an opportunity to really connect with the world around you, and work with and respond to a live model, as well as take part in personalised as well as group feedback.

Students have an opportunity to submit their work for assessment (80% attendance is required to be eligible for assessment) should they wish to gain the MTU: Single Module Certification for this course. Some work outside of class-time is expected alongside classwork.

Award
MTU: Single Module Certification, 5 ECTS credits at Level 7 on the National Framework of Qualifications.
Module Title: Life Drawing (Advanced)
Wednesdays: 6.30pm - 9.00pm (Semester 2)

Admission Requirements
Students are not required to have any previous experience, however, experience is preferential.

Overview
Lecturer: Holly Walsh

This course is intended for artists and students who already have basic drawing skills and for those who wish to reconnect with their own studio practice. It is also suitable for anyone who is interested in transitioning from other art practices and professions.

The course will encourage participants to engage with the process of drawing and expand their drawing skills by experimenting with different drawing techniques and exploring various drawing media in a contemporary way. Concentrating on observational drawing, with a focus on the figure and life drawing, this course aims to encourage the development of the participant's own visual language and drawing abilities, as well as challenging them to make improvements and experiments. Traditionally in European culture studying the figure was core to drawing education and it has been taught at the Crawford College for over 100 years.

Uniquely, it continues to be an integral part of the Drawing curriculum. Many life rooms at the turn of the century were “up cycled” into computer rooms but all of us who teach drawing at third level know-if a student wants to learn analytic observation skills: Life draw. Life drawing is an opportunity to really connect with the world around you, and work with and respond to a live model, as well as take part in personalised as well as group feedback.

Students have an opportunity to submit their work for assessment (80% attendance is required to be eligible for assessment) should they wish to gain the MTU: Single Module Certification for this course. Some work outside of class-time is expected alongside classwork.

Award
MTU: Single Module Certification, 5 ECTS credits at Level 8 on the National Framework of Qualifications.
Module Title: Darkroom Photography: Introduction
Wednesday: 6.30pm - 9.00pm (Semester 1)

**Admission Requirements**
Students are not required to have any previous experience.

**Overview**
Lecturer: Darran McCrann

This course offers a comprehensive introduction to the art and techniques of traditional black and white film photography and to the darkroom techniques involved in film processing and making photographic prints. It is suitable for both beginners and for those with experience of using an analogue camera and darkroom equipment. The course is grounded in practical instruction to enable the student to make informed artistic choices when creating photographic images. Students are introduced to the single-lens reflex (SLR) analogue camera and lenses and explore how the camera operates. Students are expected to develop effective and appropriate work practices through practical experience in the darkroom. The course also explores the principles of photography within its contemporary and historical contexts. Students will be expected to give time to taking photographs outside of class hours for group analysis and discussion within class time.

Please Note: There will be a local field trip during the early stage of the course for approximately the duration of a class, two and a half hours. Details will be confirmed during the first week of the course.

Students have an opportunity to submit their work for assessment (80% attendance is required to be eligible for assessment) should they wish to gain the MTU: Single Module Certification for this course.

**Award**
MTU: Single Module Certification, 5 ECTS credits at Level 6 on the National Framework of Qualifications.
Module Title: Advanced Darkroom Photography
Wednesday: 6.30pm - 9.00pm (Semester 2)

Admission Requirements
Students are not required to have any previous experience.

Overview
Lecturer: Darran Mc Crann

This course is aimed at students who wish to advance their technical and creative skills through traditional black and white film photography and further develop darkroom techniques involved in film processing and making photographic prints. Students are required to approach their analogue photography practice in a creative, explorative and analytical manner. Students explore and develop their ideas through a chosen project and are required to make informed artistic choices when using analogue cameras and studio lighting, developing film and making prints in the darkroom. The module explores the appropriate criteria, metalanguage and visual grammar for reading and interpreting photographic images. The course also explores the principles of photography within its contemporary and historical contexts. Students will be expected to give time to taking photographs outside of class hours for group analysis and discussion within class time.

Students have an opportunity to submit their work for assessment (80% attendance is required to be eligible for assessment) should they wish to gain the MTU: Single Module Certification for this course.

Award
MTU: Single Module Certification, 5 ECTS credits at Level 7 on the National Framework of Qualifications.
Module Title: Photography and Image Capture
Tuesday: 6.30pm - 9.00pm (Semester 1)

Admission Requirements
Students are not required to have any previous experience.

Overview
Lecturer: Pádraig Spillane

This is an introductory course to fine art digital photography. Students explore the principles of photography within its contemporary contexts as well as its associated technologies. The course starts with an introduction to operating a DSLR camera and students learn to use image processing software. Presentations are given by tutors on the various fields of photography including; landscape, portraiture, abstraction, still life, contemporary and historical image-makers. Students will make images in response to set briefs outside of class time for group analysis and discussion within class time.

Students have an opportunity to submit their work for assessment (80% attendance is required to be eligible for assessment) should they wish to gain the MTU: Single Module Certification for this course.

Award
MTU: Single Module Certification, 5 ECTS credits at Level 6 on the National Framework of Qualifications.
Module title: Photographic Narrative  
Tuesday: 6.30pm - 9.00pm (Semester 2)

**Admission Requirements**  
Students are not required to have any previous experience.

**Overview**  
Lecturer: Pádraig Spillane

This course explores the concepts, practices and resources used in fine art digital photography with particular reference to narrative. It develops the student's knowledge and practice of visual storytelling through photography. Emphasis is on project work where students develop a topic or theme and apply a narrative approach to create a sequential series of photographic images.

Students are expected to develop their projects outside of class-time for group analysis and discussion within class time.

Students have an opportunity to submit their work for assessment (80% attendance is required to be eligible for assessment) should they wish to gain the MTU: Single Module Certification for this course.

**Award**  
MTU: Single Module Certification, 5 ECTS credits at Level 7 on the National Framework of Qualifications.
Module title: The Moving Image  
Tuesday 6.30pm - 9.00pm (Semester 1)

Admission Requirements
Students are not required to have any previous experience.

Overview
Lecturer: Colette Lewis

This course is an introduction to the art of digital video production across a range of moving image practices. The course is designed to facilitate a hands-on approach in mastering the basic skills and techniques required to proficiently shoot, edit, and share video content. Students are introduced to the use of camcorders and DSLR cameras for shooting video, smartphone apps and portable audio recorders for recording sound, and video editing techniques and software. Principles of the moving image language will be explored through storyboarding and camerawork. It is expected that students will work outside of class hours to create video content to develop a short video project for group discussion and analysis.

Students are required to have their own digital camera for this course.

Students have an opportunity to submit their work for assessment (80% attendance is required to be eligible for assessment) should they wish to gain the MTU: Single Module Certification for this course.

Award
MTU: Single Module Certification, 5 ECTS credits at Level 6 on the National Framework of Qualifications.
Module title: Video and Compositing
Tuesday: 6.30pm - 9.00pm (Semester 2)

Admission Requirements
Students are not required to have any previous experience.

Overview
Lecturer: Colette Lewis

This course offers students the opportunity to advance their skills in the creative and technical application of digital video production processes. It focuses on developing the students’ knowledge and practice of visual literacy principles in storytelling approaches used in documentary, fiction, and artists’ moving image practices. Students will research and develop their own video project and learn to critically reflect and evaluate their own work within the dynamic and expanded field of moving image culture. It is expected that students will work outside of class hours to create video content to develop a video project for group discussion and analysis.

Students are required to have their own digital camera for this course.

Students have an opportunity to submit their work for assessment (80% attendance is required to be eligible for assessment) should they wish to gain the MTU: Single Module Certification for this course.

Award
MTU: Single Module Certification, 5 ECTS credits at Level 7 on the National Framework of Qualifications.
TEXTILES: TECHNIQUES AND MATERIALS

COURSE CODE
CR_ACCXXD_6
(LEVEL 6)

COURSE FEE
€240

ENQUIRIES
T: 021 433 5220
E: ccad.enquiriesCork@mtu.ie

Module Title: Textiles (An Introduction)
Tuesday: 6.30pm - 9.00pm (Semester 1)

Admission Requirements
Students are not required to have any previous experience.

Overview
Lecturer: Caroline Smith

This course introduces students to a range of materials, techniques and equipment involved in textiles art making. Students study the art, techniques and processes involved in fibre manipulation. The fibres used are wool, flax, silk, and soya bean fibre amongst others. Students learn how to manipulate the fibre to make various types of felt including nuno felting (felting on fabric), needle felting and 3d manipulation. The course also introduces students to fundamental stitching techniques (both manual and machine stitching), basketry, fibre sculpture, vessels, wire and reed 3D construction techniques. Employing a range of textile processes, the student creatively explores and develops their ideas. Students also learn the art of papermaking with paper and silk fibres.

Students have an opportunity to submit their work for assessment (80% attendance is required to be eligible for assessment) should they wish to gain the MTU: Single Module Certification for this course.

Award
MTU: Single Module Certification, 5 ECTS credits at Level 6 on the National Framework of Qualifications.

Course & Module Information, and to apply online, visit go.mtu.ie/CRACCXXD6
Module Title: detailed information Textiles: Process/Research Tuesday: 6.30pm - 9.00pm (Semester 2)

Admission Requirements
Students are not required to have any previous experience.

Overview
Lecturer: Caroline Smith

This course explores the creative and expressive qualities of textiles materials and methods within 2D & 3D applications in art practices. Students utilise visual source material imaginatively to direct textile experimentation. The course explores the formal qualities of line, shape, colour, texture, pattern, as an expressive language through a range of textile processes. Students learn how to use dyes and paints and study various forms of printing including monoprinting, transfer printing, jelly printing and silk screen printing. Students also learn about dye techniques batik and shibori. The course emphasises machine stitching and hand stitching used to embellish the textile artwork. Construction techniques, including fabric construction, cast paper making, 3D felt making, heat forming with synthetics, weaving, basketry, off-loom construction, knitting, crochet, and lace are also explored.

Students have an opportunity to submit their work for assessment (80% attendance is required to be eligible for assessment) should they wish to gain the MTU: Single Module Certification for this course.

Award
MTU: Single Module Certification, 5 ECTS credits at Level 7 on the National Framework of Qualifications.
Courses

- Master of Arts in Journalism and Digital Content Creation (Level 9)
- Master of Arts in Public Relations with New Media (Level 9)
- Master of Arts in E-Learning Design and Development (Level 9)
- Certificate in Digital Media Design and Development (Level 8)
- Certificate in TV Production (Level 8)

Location

MTU Bishopstown Campus, Cork

HEAD OF DEPARTMENT
Rose McGrath
E: rose.mcgrath@mtu.ie

DEPARTMENT SECRETARY
Veronique O’Sullivan
T: 021 433 5810
E: veronique.osullivan@mtu.ie

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

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

Please Note: all programmes run by the Department of Media Communications take place at MTU Bishopstown Campus.
**MASTER OF ARTS IN JOURNALISM AND DIGITAL CONTENT CREATION**

**COURSE CODE**
CR_HJWNM_9 (LEVEL 9)

**COURSE FEE**
Part-time: €4,550

**ENQUIRIES**
Frank O’Donovan
T: 021 432 6117
E: frank.odonovan@mtu.ie

**Course & Module Information, and to apply online, visit go.mtu.ie/CRHJWNM9**

**Duration**
This is a full-time programme which can be studied part-time, over two years.

**Admission Requirements**
Entry requirements for this course will be in accordance with standard Institute admissions procedures. Entrants will be expected to hold minimum of a 2.2 honours degree.

Admission to the course will be on the basis of interview. **Recognition of Prior Learning** will be applicable for candidates entering from the workplace or applying for admission from other institutes.

**Overview**
This innovative MA programme produces graduates who can demonstrate essential skills in the fast-moving environment that is modern Journalism and Digital Content Creation. Graduates will acquire the knowledge, skills and competencies that will equip them to work as professionals in the communications industry with a solid grounding in the tools and practices of journalism and digital content creation.

The programme is a well-rounded, professional programme that prepares graduates for entry-level positions in the media/communications industry. It stresses a balance of academic and practical modules in print, broadcast, and digital content creation.

The programme has been modified to include a focus on marketing, advertising and general communications, and students will complete a mentorship programme in semester 3. Each student will work with a mentor who is highly experienced in the communications industry. This can also involve short placements in media/communications organisations.

This will enhance the skill set of students and open the door to a wider range of jobs and careers for them. The lecturing staff also plans to enhance the programme even further by adding data analytics and focusing more on live content creation, which will include desktop publishing skills and involve the department’s international student documentary film festival, ‘Story?’

There is a strong connection with industry, even as they learn, our students are producing work that is published in the national media. We’re equipping our students with all the skills that are requirements for today’s digital journalists and content creators: shooting and editing video, creating audio and podcasts, using social media, developing an online presence, and strong connections with industry.

**Stage 1/Semester 1**
- Audio Broadcasting
- Writing for Media
- Media History & Society
- Research Methods and Practice
- Multimedia Production
- New Media Workplace

**Stage 1/Semester 2**
- Visual Broadcasting
- Features and Web Writing
- Media and Communications Law
- Cybercultures
- New Media Production

**Elective**
- Studio Technology
- Free Choice Module
- Creative Thinking and Design
- Event and Project Management

**Stage 1/Semester 3**
- Journalism MA Project

**Award**
Master of Arts in Journalism and Digital Content Creation (Level 9 on the National Framework of Qualifications).

Please note this course takes place at MTU Bishopstown Campus.
MASTER OF ARTS IN PUBLIC RELATIONS
WITH NEW MEDIA

Course & Module Information, and to apply online, visit go.mtu.ie/CRBPRNM9

Duration
This is a full-time programme which can be studied part-time. Part-time students take modules on a phased basis and achieve the programme qualification over a number of academic years.

Admission Requirements
Entrants will be expected to hold minimum of a 2.2 honours degree. Admission to the course will be on the basis of interview. Recognition of Prior Learning (RPL) will be applicable for candidates entering from the workplace or applying for admission from other institutes. Please click here.

Overview
This innovative MA programme offers the opportunity to gain a comprehensive understanding of public relations as a form of communication and pays particular attention to the growing importance of digital and interactive media on the practice of public relations and professional communications.

By developing student's research, planning, managerial and multimedia skills the course aims to produce graduates who can display leadership and show the capacity for innovation within the dynamic and fast evolving professional communications industry. Course content focuses strongly on PR tools and techniques, particularly within the growing new media environment, and on the increasing globalisation and convergence of the media industries.

Through liaison with PR professionals and by working on ‘live’ industry projects, the course aims to equip graduates with the knowledge, skills and competencies required to effectively function as a public relations professional in an era of high-speed and interactive digital communications.

Mentorship Programme
Students will participate in the Public Relations Mentorship Programme which aims to prepare students for a career in the communications industry through a series of presentations and one-to-one contact with industry professionals. Students will prepare a career development plan, liaise with the MTU Careers Service, participate in professional networking, both on and offline, and develop important career oriented skillsets aimed at enhancing employability and career prospects.

Module Information
The elective modules afford the learner the opportunity to broaden his/her skills set in other disciplines or to deepen his/her skills set in the wider professional communications environment. The elective modules offered in any given year are delivered subject to demand and resource availability.

Stage 1/Semester 1
PR Theory & Application
Ethics & Social Responsibility
Multimedia Production
Media Writing
Research Methods and Practice
Elective
Brand Management
Direct Marketing Environment
Strategy Analysis

Stage 1/Semester 2
PR and New Media
New Media Production
Cybercultures
Business Communication & Online Writing
Public Relations Campaigns
Elective
Media Law, Ethics & Professional Practice
Event & Project Management
The Business Environment
Enterprise and Innovation

Stage 2/Semester 1
Public Relations MA Project

Award
Master of Arts in Public Relations with New Media (Level 9 on the National Framework of Qualifications).

Please note this course takes place at MTU Bishopstown Campus.

EU Applicants: €4,550
Non-EU Applicants: €12,000

now enquiries
Emmett Coffey
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E: emmett.coffey@mtu.ie

COURSE CODE
CR_BPRNM_9
(LEVEL 9)
Overview
E-learning as a field of study, as an approach to teaching and learning and as an industry, has evolved considerably over the last decade and a half. Governments and policy makers have made e-learning a central imperative of their political educational rhetoric and provide substantial funding initiatives to support its development and mainstreaming. Related policies, practices and requirements with regard to lifelong learning, and continuous education combine with the benefits and wider acceptance of e-learning as a delivery and support tool to make e-learning one of the most rapidly growing areas in both the worldwide education and training sector and the digital media sector today.

Programme Aim and Orientation
In the above context the programme seeks to produce developers of cutting edge, educationally effective e-learning solutions. Our graduates, subsequently, will go on to work as designers and developers either directly as part of the burgeoning e-learning sector or in support of in-house e-learning and learning technology departments which are becoming mainstream in a number of other areas and industries.

The programme is a Master of Arts and, as such, reflects a special orientation towards, variously, creativity, culture and design, rather than technology per se.

Admission Requirements
Direct entrants to this 60 credit award would typically require a Level 8 qualification in fields such as multimedia, digital media, media applications or a relevant area of design. Applicants without such qualifications will also be considered if they can show an equivalent level of learning gained through practice or any other means (see MTU’s policy for Recognition of Prior Learning here).

Level 8 graduates with qualifications in other fields are invited to undertake an initial 30 credit Certificate in Digital Media Design and Development. Please see go.mtu.ie/CRHDMTE8 for more information.

In all cases, final admission to the course will be on the basis of interview.

Delivery
The programme is delivered entirely online using many of the same e-learning tools and technologies which also form the course curriculum. This means the programme may appeal to those who, for whatever reasons, cannot commit to attending regular face-to face lectures and labs or who simply find the flexibility and convenience of studying at a distance attractive.

Semester 1
E-Learning Instructional Design
Education Research & Proposal
New Media Workplace
Narrative & Games for Learning
E-Learning Authoring

Semester 2
E-learning Thesis
E-learning Project

Award
Master of Arts in E-learning Design and Development (Level 9 on the National Framework of Qualifications).
CERTIFICATE IN DIGITAL MEDIA DESIGN AND DEVELOPMENT

Course & Module Information, and to apply online, visit go.mtu.ie/CRHDMTE8

Aim
The programme will provide students with a broad and practical introduction to the world of digital media design and development. Graduates will leave equipped with fundamental skills and knowledge with regard to a wide range of modern digital media technologies and design solutions and will have a systematic understanding of the design and development process and of related job roles and industries.

As such, this two semester online programme may appeal to those lacking a background in the above but with an interest in either:

a) enriching their own work practices with key digital media skills and a deeper understanding of this field.
b) taking the first steps in beginning an actual career in the broad digital media industry. In this latter context the award is accepted as a bridging route for applicants who are interested in undertaking the Department’s 60 credit Master of Arts in E-learning Design & Development but who do not possess the pre-requisite digital media experience or qualifications.

The programme will draw from extensive in-house expertise and facilities within the Department of Media Communications with regard to digital media production and post-production, programming and application development, user experience research, interaction design etc.

Delivery
The programme is delivered entirely online using many of the same tools and technologies which also form the course curriculum. This means the programme may appeal to those who, for whatever reasons, cannot commit to attending regular face-to-face lectures and labs or who simply find the flexibility and convenience of studying at a distance attractive.

Admission Requirements
Candidates are required to have already completed a Level 8 degree or equivalent. Basic computer, web and keyboard skills are essential. Familiarity with social media and media sharing platforms and services are desirable also, as well as an interest at the very least in video production, graphic design, and/or interactive media.

If there are high levels of interest, admission to the course may be on the basis of interview. Recognition of Prior Learning (RPL) will be applicable for candidates with existing skills or knowledge in any of the programme modules (please click here).

Content
Semester 1
MMED6011 Moving Image & Sound
MMED8006 Creative Strategies
Elective
MMED8007 Digital Culture
MMED6025 Interpreting Sound & Music

Semester 2
MMED8025 Multimedia Production
MMED7004 E-Learning
COMP6001 Web Design Basics

Award
Certificate in Digital Media Design and Development (Level 8 on the National Framework of Qualifications).

Further Studies
MA in E-learning Design & Development (Level 9 on the National Framework of Qualifications).

COURSE CODE
CR_HDMTE_8
(LEVEL 8)

COURSE FEE
€1,800 (€300 per module)

ENQUIRIES
Dr Jessica Shine
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CERTIFICATE IN TV PRODUCTION

Aim
The Certificate in Television Production is aimed at those wanting to launch a career in TV programme making, as well as those already in the industry wanting to upskill. It combines study of the media market, both domestic and international, with specialised training in craft and production. Lectures will introduce students to the current industry environment with in-depth knowledge of media ownership, funding models and programme formats. Students will develop the professional skills required to launch a career within the television production sector.

What will you be doing?
TV Production, audio visual production, researching, directing, camera operating, sound recording and video editing, live programming and documentary making.

Why do this course?
• All participants will get work experience in RTE and TVM.
• Students will be introduced to experienced and senior speakers working in TV production both in Ireland and internationally.
• Annual seminar organised by students on current and emerging trends within programme production will provide further networking opportunities.
• The programme is delivered in a blended format, combining both online delivery and face-to-face placement activities. Blended learning will offer you the opportunity to study part of the programme within your own schedule and at your own location.

Admission Requirements
Entry to the course is through either a formal qualification or industry experience. Candidates applying with a formal qualification are required to have already completed a level 7 degree or equivalent. Familiarity with digital media, and media sharing platforms and services are desirable. Qualifications can be in a range of areas including media production, sound production, journalism, or graphic design.

Recognition of Prior Learning (RPL)/advanced entry will be applicable for candidates with existing prior experiential learning (please click here).

Shortlisted candidates will be invited for interview.

Duration & Content
1 Year part-time

Semester 1
TV Production Careers
TV Industry Environment

Semester 2
TV Industry Placement*

*The TV Industry Placement module provides students with valuable experience of both initial on site industry practice as well as specialised training. Participants will have an opportunity to work in a wide range of television production areas including live studio programming, outside broadcasting, research and concept development, camera and sound. Industry partners will collaborate in identifying appropriate skillsets that students can develop and in which they will receive hands-on experience.

Award
Certificate in TV Production (Level 8 on the National Framework of Qualifications).
MTU Part Time Programmes – Kerry

**School of Business, Computing and Humanities**
- Certificate in Culinary Skills *Springboard+ Funded*
- Higher Certificate in Arts in Culinary Arts *Springboard+ Funded*
- Certificate in Retail Food Service Operations *Springboard+ Funded*
- National Trainee Manager Development Programme – Bachelor of Arts in Hotel Management
  Philosophy
- Certificate in Leadership and Transformational Change *Springboard+ Funded*
- Certificate in Software Testing
- Higher Diploma in Science in Computing (Cloud Infrastructure) *Springboard+ Funded*
- Master of Science in Fintech Innovation

**School of Science, Technology, Engineering & Mathematics**
- Certificate in Building Information Modelling (BIM) with Revit *Springboard+ Funded*
- Certificate in Industrial Instrumentation and Automation *Springboard+ Funded*
- Certificate in Mechatronics
- Certificate in Quality Management Tools and Techniques in Practice
- Certificate in Industry 4.0 and Industrial Internet of Things *Springboard+ Funded*
- Certificate in Validation *Springboard+ Funded*
- Bachelor of Science in Pharmacy Management and Practice *Springboard+ Funded*
- Certificate in Circular Economy *Springboard+ Funded*
- Postgraduate Diploma in Bioeconomy with Business *Springboard+ Funded*
- Postgraduate Diploma in Sustainable Agriculture and Land Use with Innovation *Springboard+ Funded*

**School of Health and Social Sciences**
- Certificate in Irish Sign Language
- Certificate in the Practice of Aistear in the Early Years
- Certificate in Inclusive Early Years Practice
- Teastas Gairmiúil sa Ghaeilge do Chleachtóirí
- Bachelor of Arts in Outdoor Learning
- Bachelor of Arts (Honours) in Counselling with Addiction (add-on)
- Pool Instructor, Fitness Training and Continuing Professional Development Programmes
- Fitness Instructor Courses
- Pool Instructor Courses
- Continuing Professional Development Programmes

For further information, please contact
**Lifelong Learning Office** T: 066 719 1701 E: parttimekerry@mtu.ie
NOTE: Every effort has been made to ensure that the information herein is accurate. However, this Handbook does not infer or impose any legal obligations on Munster Technological University to provide courses or other services to students. It does not constitute an offer to supply modules, courses or subjects. Syllabi, fees, regulations or other information may be altered, cancelled or otherwise amended at any time. This Handbook does not confer any rights on any student registered with the University.

N.B. Fees quoted relate to the academic year 2021/2022 only and may be subject to change.

E&OE

The development of Munster Technological University has been supported by the European Union. This support has contributed to staffing, running costs, and student grants, allowing the University to play a major role in the social and economic development of the country.

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