

1991

## Part-time: 1991-92

City of Dublin Vocational Education Committee

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'91/92

DUBLIN INSTITUTE OF  
TECHNOLOGY

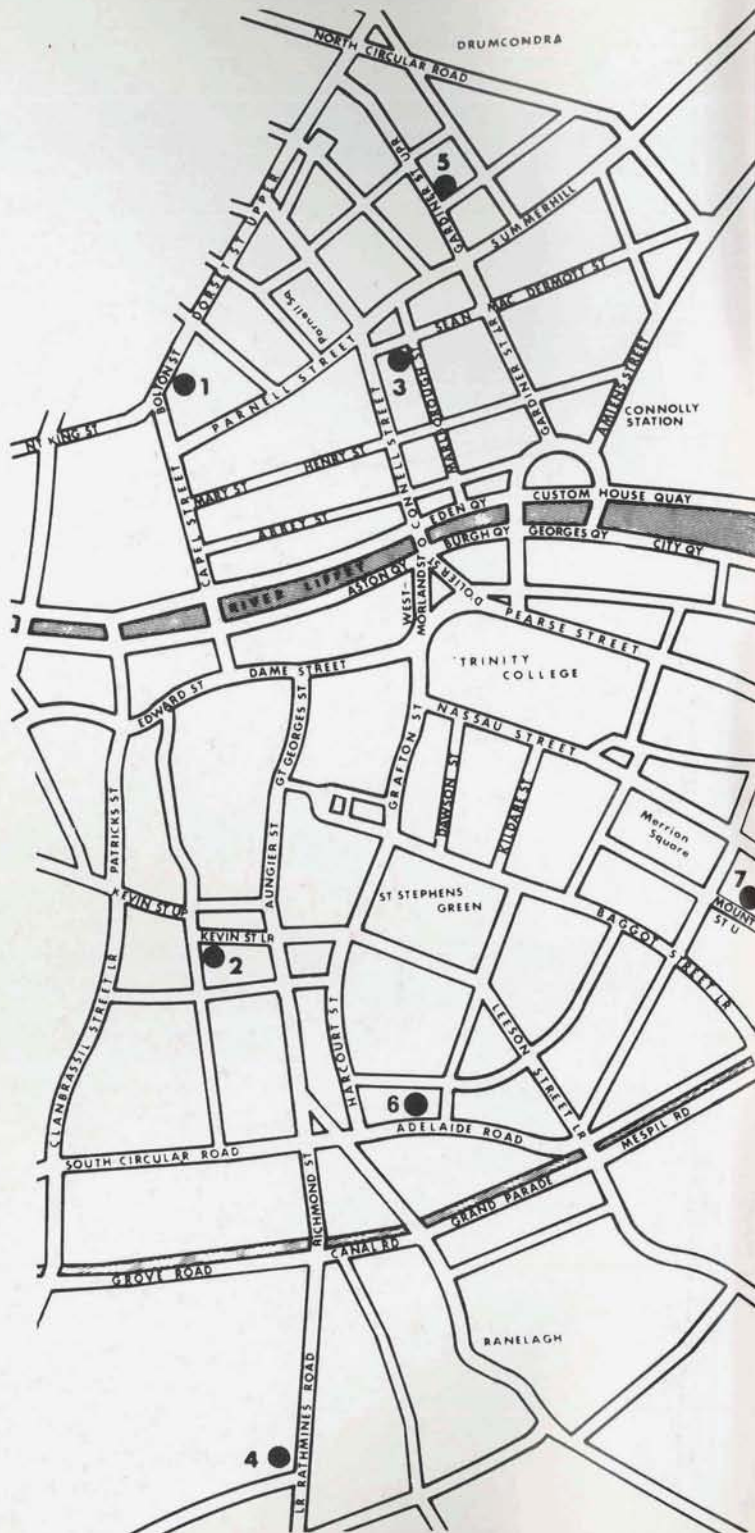


COLLEGE OF TECHNOLOGY  
BOLTON STREET

part-time



**COLLEGE OF TECHNOLOGY  
BOLTON STREET**





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Chief Executive Officer: W.J. Arundel, BComm, HDip.

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## PART-TIME DAY AND EVENING COURSES — CONTINUING EDUCATION AND PROFESSIONAL DEVELOPMENT

### INTRODUCTION

The College has a strong commitment to providing a wide range of part-time day and/or evening courses relating to its main specialisations in Construction Engineering and Printing disciplines and associated areas. The aim of these courses is to provide both young people, and the not so young with opportunities to achieve worthwhile qualifications and to enhance and broaden their existing qualifications base.

Some of the part-time courses offered by the College parallel those available on a whole-time basis and enable those who enrol in them to achieve the same qualifications as those pursuing them through full-time studies. Not surprisingly the part-time route takes a little longer and involves a considerable commitment on the part of those who combine their studies with full-time employment.

The part-time courses offered by the College have enabled many past students to advance in their careers by exploiting the educational ladders which they provide. In this way successive generations of craftspersons have progressed to supervisory and technician positions, technicians have moved on to professional levels, while professionals have advanced their status to managerial or other senior positions, all greatly assisted by the courses they have followed. Some have also used them to change their career path to another specialisation or by updating their expertise in the new technologies and other advances.

The College is anxious to respond in a flexible manner to the needs of its potential part-time students. It offers some courses on either a part-time day or evening basis on through a combination of these modes. It finds that many employers are very supportive of students pursuing relevant part-time courses, paying their tuition fees, releasing them and/or facilitating them when they have to undertake course work or study.

If you are interested in pursuing studies on a part-time basis you are encouraged to review carefully the range of programmes offered by the College in Construction, Engineering, Printing, Transport or related disciplines as described in this publication. If the College is not offering the course which you are looking for and you feel that there is a significant demand for it you are invited to bring it to the attention of the appropriate Head of Department or other senior college staff. In this context the College welcomes proposals from groups of potential students or employers regarding the establishment of new courses.

### TUITION FEES

The College offers most of its programmes at moderate tuition fees although in some areas for budgetary reasons they have to be set at an economic level. These fees are set out below and are payable in full on enrolment and before attendance at the first class. Fees are not refundable except where a class does not form due to a low level of enrolment, etc.

## ENROLMENT FEES FOR PART-TIME DAY AND EVENING COURSES IN THE 1991/92 SESSION

<b>Part-time Day and Evening Courses:</b>	D2B; D41; D43C; D43M; D43V; D47; D120; D132; D174; D2000 }	<b>£192</b>
<b>General Evening Courses</b>	E71; E72; E81; E82; E141G E141D; E141E; E141F; E195C Other Evening Courses	<b>£290</b> <b>£200</b> <b>£145</b>
<b>Graduate Post-Graduate and Other Courses</b>	D4A E5 E6; E7 D8	<b>£544</b> <b>£800</b> <b>£520</b> <b>£1,050</b>

### METHOD OF APPLICATION AND ENROLMENT

The week commencing Monday September 9, 1991 (6.30 p.m.-8.30 p.m. each evening) has been scheduled for enrolment for almost all the part-time day and evening courses offered by the College. Prior application or contact with the College is not necessary. Candidates are encouraged to bring with them evidence of existing qualifications and employment together with the specified tuition fee (or confirmation from an employer willing to pay it when invoiced) to enable them to complete the enrolment if they are acceptable and permitted to do so. Classes are generally scheduled to commence during the week commencing September 23 and those who have enrolled will be expected to report for classes in accordance with the schedule which will be available.



D2B

### CONSTRUCTION TECHNICIAN CERTIFICATE/ DIPLOMA PART-TIME

This day release course is similar to the wholetime Construction Technician Certificate/Diploma course (B114) and leads to the award of the Construction Technician's Certificate/Diploma. Classes are scheduled on one day and two evenings per week over a period of four years. Entry to this course is open to those holding:

- (a) The secondary schools Leaving Certificate in at least five subjects including Mathematics and English or an equivalent qualification.
- (b) Appropriate employment in the Construction Industry.

**Department in Charge**  
**Surveying and Building Technology.**

D4A

### DIPLOMA/DEGREE IN CONSTRUCTION ECONOMICS PART-TIME

This day release course is similar to the corresponding wholetime course (B111) and leads to the award of a Diploma/Degree in Construction Economics. Classes are scheduled on one day and two evening per week over a period of six years. The academic entry qualifications to the First Year of the course are similar to these for B111. Candidates holding relevant technician qualifications at an appropriate level may be eligible for exemptions from one or more years of the course. Candidates must be in appropriate employment in the Construction Industry.

**Department in Charge**  
**Surveying & Building Technology.**

E4

### PROFESSIONAL COURSE IN SURVEYING AND CONSTRUCTION STUDIES

This evening course assists, students who hold Intermediate Level qualifications in the construction and surveying fields, in progressing to full professional qualifications of appropriate institutions. Students may attend classes up to two evenings per week depending on their choice of subjects.

#### Entry Qualifications

N.C.E.A. Diploma in Construction Studies, C.T.D., Member 1 Examination of C.I.O.B. or R.I.C.S., Part 1 examinations.

**Department in Charge**  
**Surveying and Building Technology.**

E5

### GRADUATE DIPLOMA IN ARBITRATION LAW

The objectives of this one year part-time course are to provide participants with a better knowledge of the law and arbitration including the Arbitration Acts of 1954 and 1980. It has been developed at the request of and in co-operation with the Irish Branch of the Chartered Institute of Arbitrators. It is expected that the course will be offered in the 1991/92 session and that it will be repeated every second year subsequently.

#### Entrance Requirements

Relevant professional qualification (e.g. Law, Engineering, Architecture, Surveying, Accountancy, Insurance etc.) with exemptions from modules (a) and (b) for practising lawyers and those with a recognised law degree. Exceptionally, applications will be accepted from unqualified students who have appropriate training or experience. Selection will be subject to interview. Exempted students will be deemed to enrol in course E5A.

*A model  
of a design.*





#### Course of Study

The course comprises of three taught modules and two seminars. The taught modules are: (a) Legal Principles, Civil Procedure & Evidence (b) Contract & Tort and (c) Arbitration Law & Procedure, Alternative Methods of Dispute Resolution. The two seminars which are organised by the Irish Branch of the Chartered Institute of Arbitrators deal with: (i) Introduction to Arbitration and (ii) ADR and Award Writing. They are subject to a separate fee payable to the Irish Branch of the Institute.

#### Examinations & Awards

On successful completion of course students will be awarded the **Dublin Institute of Technology Graduate Diploma in Arbitration Law**. It is intended to seek exemption for holders of this Diploma from Parts I and II of the examinations of the Chartered Institute of Arbitrators.

**Department in Charge**  
**Surveying & Building Technology**

#### E6

### GRADUATE DIPLOMA IN INTERNATIONAL ARBITRATION LAW

The objectives of this one year part-time course are to provide a better knowledge of the practice of international arbitration law and procedures. It has been developed at the request of and in co-operation with the Irish Branch of the Chartered Institute of Arbitrators and will next be offered in the 1992/93 session.

#### Entrance Requirements

Application will be open to those holding the DIT Diploma in Arbitration Law, Fellows of the Chartered Institute of Arbitrators and those who have passed Parts I and II of the examinations of that Institute. Selection will be subject to interview.

#### Course of Study

The course comprises two taught modules and four special seminars. The taught modules are:  
(a) Comparative Law & Procedure; (b) International Arbitration, Practice & Procedure. The special intensive two day seminars are led and directed by visiting specialist lecturers and are organised by the Irish branch of the Chartered Institute of Arbitrators.

On successful completion of the course students will be awarded the **Dublin Institute of Technology Graduate Diploma in International Arbitration Law**.

**Department in Charge**  
**Surveying & Building Technology.**

#### E7

### GRADUATE DIPLOMA IN PLANNING AND DEVELOPMENT ECONOMICS

The objective of this part-time post-graduate course, which extends over two academic years, is to meet the educational requirements for practice as a Planning and Development Surveyor.

#### Entrance Requirements

- (1) (a) a recognised professional qualification in the fields of Planning, Architecture, Surveying, Engineering, Law, Accountancy  
or  
(b) an Honours Degree in an appropriate discipline viz. Surveying, Economics, Law, Geography, Business Studies.  
and
- (2) Employment in, or evidence of appropriate post-certification work experience in the Built Environment field.

#### Course of Study

The course consists of two parts:  
Part I subjects are Valuations, Law, Urban Land Economics, Taxation and Rating, Building Technology and Management, and Principles and Techniques of Planning.

Part II consists of one integrated subject area containing a number of elements under the general title 'Planning and Development Policies, Practice and Procedures'.

#### Examinations & Awards

Part I examinations in the subjects listed above will be held at the end of Year 1. Part II examinations will be held and a major planning and development case study presented at the end of Year II.

On successful completion of the course, students are expected to qualify for the award of a **Dublin Institute of Technology Graduate Diploma in Land Use Economics**. Exemption will be sought for holders of this Diploma from the Part II and III examinations of the Planning and Development Division of the Royal Institution of Chartered Surveyors.

**Department in Charge**  
**Surveying & Building Technology.**



## ARCHITECTURAL TECHNICIAN TRANSFER COURSE

This is a course for Technician members of the Royal Institute of the Architects of Ireland who wish to transfer from Architectural Technician Class of the RIAI to the study of Architecture via the RIAI examination system. Success in the course will give exemption from the Intermediate Examinations of the Institute.

The course extends over one year (26 weeks) and is not offered every year. Selection of students is made by the Royal Institute of the Architects of Ireland to whom application should be made in the first instance. It may be offered in the 1991/92 session if the demand justifies it.

### Course of Study

Subjects of the course are: Theory of Architecture; History of Architecture; Urban Studies; and Architectural Design.

### Entry

**Qualifications** Technician Membership of the RIAI and selection by the RIAI.

**Department in Charge**  
**Architecture & Town Planning.**

## SHORT COURSES

Short Courses in aspects of Building, Project Management and Computer Applications may be held during the session. Enquiries relating to these will be welcomed by the Department of Surveying and Building Technology.

**Department in Charge**  
**Surveying and Building Technology.**

## GRADUATE COURSES IN ENGINEERING

A day and/or evening course to prepare students for the Part II examinations of Professional Engineering Bodies including:—

- (i) Institution of Engineers of Ireland.
- (ii) The Engineering Council (UK) and its associated Professional Bodies such as:—
  - (a) The Institution of Mechanical Engineers;
  - (b) The Institution of Production Engineers;
  - (c) The Institution of Structural Engineers;
  - (d) Chartered Institute of Building Services Engineers.

Courses are offered for subjects in the Part II stage provided there are sufficient applicants of a suitable educational standard.

Depending on demand, the following Part II subjects may be offered: The Engineer in Society, Mechanics of Solids, Materials, Structural Analysis, Structural Design, Thermodynamics, Fuel and Energy, Construction Management, Geotechnical Engineering and possibly other subjects. Students are required to complete a Laboratory Programme as part of this course.

Details of the syllabus and examination regulations are available from the Institution of Engineers of Ireland, 22 Clyde Road, Dublin 4, or the Engineering Council, Examination Dept., Second Floor, Savoy Hill House, London WC2R 0BU, Tel: 01-379 7459.

### Entrance Requirements

Before entry, applicants must meet the requirements of the appropriate Institution for student membership. They are urged to make early applications to the Institutions because it may take several months to process and it is not possible to sit the examinations until this has been completed.

The requirement for students membership of the Institution of Engineers of Ireland is Leaving Certificate with Honours or GCE Advanced Level in Mathematics and a suitable Science subject together with four Ordinary Level subjects including English.

Certain Technician qualifications also meet the educational requirements for student membership and may give exemption from all or some subjects in Part I. Details are available from the Department of Engineering Technology.

**Department in Charge**  
**Engineering Technology**



## CIVIL ENGINEERING TECHNICIAN CERTIFICATE AND DIPLOMA COURSE

This part-time day and evening course prepares students for a Technician Certificate/Diploma in Civil Engineering. Students are expected to be already suitably employed in a Civil Engineering or Construction firm before commencing this course. It parallels the corresponding wholetime course B126 and follows the same core syllabus.

### Entrance Requirements

Leaving Certificate or equivalent with passes in Mathematics, a Science subject (preferably Physics), English and two other subjects or a Senior Trade Certificate with suitable endorsement subjects.

### Course of Study

**Stage I — First and Second Year Subjects:** Mathematics, Engineering Science, Mechanics, Drawing, Surveying, Construction Technology and Complementary Studies.

**Stage II — Third and Fourth Years (Certificate Stage) Subjects:** Structural Design and Detailing, Engineering Materials and Laboratory Work, Mathematics and Computing, Construction Services and Supplies, Surveying, Planning and Administration, and Complementary Studies.

**Stage III — Fifth and Sixth Years (Diploma Stage)** This stage offers options in Municipal Engineering and Structural Engineering. Candidates are expected to be employed and gaining suitable experience in the appropriate field and are required to have passed the Certificate Stage with Credit, or have one years suitable experience together with a Pass Certificate.

(Municipal Option): Mathematics, Road Engineering, Management Studies, Planning and Building Regulations, Hydraulics and Sanitary Services, Design and a Project.

(Structural Option): Mathematics, Management Studies, Theory of Structures, Structural Design (Concrete), Structural Design (Steel), Municipal Engineering and a Project.

### Examinations and Other Requirements

At the end of each session students take a College examination which is moderated by the National Council for Educational Awards and the Dublin Institute of Technology.

### Recognition by Professional Bodies

Those who have successfully completed the Certificate Stage of the course meet the academic requirements for Technician Status with the Institution of Engineers of Ireland, while those who have completed the Diploma stage meet the Technician Engineer level and can qualify for the non-Corporate Associateship grade of Membership after they have completed a suitable period of practical training.

**Department in Charge**  
Engineering Technology

## CIVIL ENGINEERING TECHNICIANS' CERTIFICATE COURSE

This is a four-year evening course to prepare students in suitable employment for a Civil Engineering Technicians' Certificate. It parallels Course D43C and Course B126 and follows the same syllabus.

### Entrance Requirements

The entrance requirement is Leaving Certificate in five subjects including Mathematics or equivalent qualification.

### Course of Study

**Stage I — First & Second Year Subjects:**

Mathematics, Mechanics, Engineering Science, Construction Technology, Drawing, Surveying and Complementary Studies.

**Stage II — Third & Fourth Year (Certificate Stage) Subjects:** Structural Design and Detailing, Engineering Materials, Surveying, Mathematics and Computing, Planning and Administration, Construction Services, Complementary Studies.

**Department in Charge**  
Engineering Technology.

## MECHANICAL ENGINEERING TECHNICIAN CERTIFICATE AND DIPLOMA COURSE

This part-time day and evening course prepares students for a Technician Certificate/Diploma in Mechanical Engineering. Students are expected to be already suitably employed in Mechanical Engineering before commencing the course. It parallels the corresponding wholetime course B128 and follows the same core syllabus.



**Entrance Requirements** Leaving Certificate or equivalent with passes in Mathematics, a Science subject (preferably Physics), English, and two other subjects or a Senior Trade Certificate with suitable endorsement subjects.

**Course of Study** **Stage I — First and Second Year** — Subjects: Mathematics, Engineering Science, Mechanics, Drawing, Instrumentation and Materials, Workshop Technology and Complementary Studies.

**Stage II — Third and Fourth Years (Certificate Stage):** At this stage three options are offered: Mechanical, Welding and Fluid Power.

**Common Subjects:** Mathematics, Thermal and Fluid Plant, Electrotechnology and Industrial Instrumentation, and Complementary Studies.

**Mechanical Option:** Mechanics, Drawing, Design and Engineering Materials, and Production Technology.

**Welding Option:** Design and Materials, Welding Technology, and Welding Inspection.

**Fluid Power Option:** Fluid Power I, Fluid Power Systems, and Machine Controls.

**Stage III — Fifth and Sixth Years (Diploma Stage)** At this stage an Instrumentation Option is offered on a part-time basis at present and candidates are expected to be employed in this field. Subjects: Mathematics, Mechanics, Complementary Studies, Electrotechnology and Electronics, Control Engineering, Industrial Instrumentation, Design, and Project Work.

Candidates are required to have passed the Certificate Stage with Credit (Merit) or to have at least one year's suitable experience together with a Pass Certificate.

**Examinations and Other Requirements** At the end of each of each session students take a College examination which is moderated by the National Council for Educational Awards and the Dublin Institute of Technology.

**Recognition by Professional Bodies** Those who have successfully completed the Certificate Stage of this course meet the academic requirements for Technician Status with the Institution of Engineers of Ireland, while those who have completed the Diploma stage meet the Technician Engineer level and can qualify for the non-Corporate Associateship grade of Membership after they have completed a suitable period of practical training.

**Department in Charge**  
**Engineering Technology.**

## **E43M MECHANICAL ENGINEERING TECHNICIANS' CERTIFICATE COURSE**

This is a four-year evening course to prepare students in suitable employment for Mechanical Engineering Technician Certificate. It parallels Course B128 and D43M and follows the same syllabus but specialised options may be available in both Fluid Power and Welding.

**Entrance Requirements** The entrance requirement is Leaving Certificate in five subjects including Mathematics and English, or the Senior Trade Certificate with endorsement, or equivalent qualification.

**Course of Study** **Stage I — First & Second Year Subjects:** Mathematics, Engineering Science, Drawing, Mechanics, Instrumentation and Engineering Materials, Workshop Technology, Complementary Studies.

**Stage II — Third & Fourth Year (Certificate Stage)** At this stage three options are offered, Mechanical, Welding and Fluid Power Engineering.

**Common Subjects:** Mathematics, Thermal and Fluid Plant, Electrotechnology and Industrial Instrumentation, Complementary Studies.

**Mechanical Option:** Mechanics, Drawing, Design and Engineering Materials, and Production Technology.

## **D43V BUILDING SERVICES ENGINEERING TECHNICIAN CERTIFICATE AND DIPLOMA COURSE**

This part-time day and evening course prepares students for a Technician Certificate/Diploma in Building Services Engineering. Students are expected to be already suitably employed in Building Services Engineering before commencing the course. It parallels the corresponding wholetime Course B127 and follows the same core syllabus.

**Entrance Requirements** Leaving Certificate or equivalent with passes in Mathematics, a Science subject (preferably Physics) and two other subjects or a Senior Trade Certificate with suitable endorsement subjects.



### Course of Study

**Stage I — First and Second Years** Subjects: Mathematics, Mechanics, Engineering Science, Drawing, Instrumentation, Building Construction and Services and Complementary Studies.

**Stage II — Third and Fourth Years (Certificate Stage):**

At this stage two options are available, **Building Services** and **Refrigeration Technology**.

**Common Subjects:** Mathematics, Thermal and Fluid Plant, Electrotechnology and Industrial Instrumentation, Complementary Studies.

**Building Services Option:** Environmental Engineering, Environmental Plant Design, Lighting, Acoustics and Water Services.

**Refrigeration Technology Option:** Refrigeration Plant, Refrigeration Design, Lighting, Acoustics and Water Services.

**Stage III — Fifth and Sixth Years (Diploma Stage):** Mathematics, Management Studies, Electrotechnology and Controls, Lighting and Acoustics, Environmental Engineering, Air Conditioning and Refrigeration, Heating and Combustion and a Project.

**Department in Charge**  
**Engineering Technology.**

E43V

### BUILDING SERVICES ENGINEERING TECHNICIAN CERTIFICATE COURSE

This is a four year evening course to prepare students in suitable employment for a Building Services Engineering Technician Certificate. It parallels Course B127 and Course D43V, and follows the same syllabus.

### Entrance Requirements

Leaving Certificate in five subjects including Mathematics or Senior Trade Certificate with endorsement or equivalent qualification.

### Course of Study

**Stage I — First & Second Years** Subjects: Mathematics, Mechanics, Engineering Science, Drawing, Instrumentation, Building Construction and Services, and Complementary Studies.

**Stage II — Third & Fourth Year (Certificate Stage) Subjects:** At this stage two options are available, Building Services and Refrigeration Technology.

**Common Subjects:** Mathematics, Thermal and Fluid Plant, Electrotechnology and Industrial Instrumentation, Complementary Studies.

**Building Services Option:** Environmental Plant Design, Lighting, Acoustics and Water Services, Environmental Engineering.

**Refrigeration Technology Option:** Refrigeration Plant, Refrigeration Design, Lighting, Acoustics and Water Services.

**Department in Charge**  
**Engineering Technology.**

D47

### MECHANICAL ENGINEERING TECHNICIAN COURSE

This part-time day and evening course is intended to prepare students for the City & Guilds of London examinations for Mechanical Engineering Technicians (255). The course is for technicians and draughtsmen engaged in the following types of employment:

Machine Tool Operation, Jig & Tool Design, Engineering Production and Design Draughtsmen.

### Entrance Requirements

Elementary Stage Technological Certificate of the Department of Education in Mechanical Engineering or Leaving Certificate or endorsement in Senior Craft Certificate.

### Course of Study

Workshop Processes and Practice, Engineering Drawing and Materials, Engineering Science, Mathematics, General Studies.

### Second Year

Science and Mathematics, Drawing and Materials, Production Technology and General Studies.

### Third Year

Production Technology, Mathematics and Statistics, Metrology and Management Studies.

### Examinations and Other Requirements

At the end of the first year students take the Part I examination of the City & Guilds of London Institute No. 255, Part II at the end of the second year, and Part III at the end of the third year.

**Department in Charge**  
**Engineering Technology**

E47

### MECHANICAL ENGINEERING TECHNICIAN COURSE

This is a three year evening course to prepare students for the Part I, Part II and Part III examinations of the City & Guilds of London Institute course for Mechanical Engineering Technicians (255) Students should have a suitable craft background and hold the Senior Craft Certificate with endorsement, Elementary Technological Certificate in Mechanical Engineering, GCE, Leaving Certificate or equivalent.

The course of study is as set out for Course D47 which is the parallel part-time day course.

**Department in Charge**  
**Engineering Technology.**



E54

## STRUCTURAL DESIGN COURSE

This is a one year advanced course intended for those who wish to prepare for the Part III Design examination of the Institution of Structural Engineers. Depending on demand, there may be options in Steel or Concrete Design.

### Entrance Requirements

A degree in Civil or Structural Engineering, or a pass in IEI/Engineering Council examinations, or equivalent, together with at least one year of suitable post-graduate experience in a structural design office.

**Department in Charge**  
Engineering Technology.

E57

## INDUSTRIAL MANAGEMENT CERTIFICATE AND DIPLOMA COURSE

This is a two year evening Certificate course intended for engineering technicians and trainee production and industrial managers who wish to take the certificate examinations of the Institution of Industrial Managers. The Diploma stage is intended primarily for those responsible for discharging management functions.

### Entrance Requirements

Students entering the Certificate course should have reached the Leaving Certificate standard of general education and be suitably employed as managers or supervisors in industry. Applicants holding an appropriate degree or professional qualification and substantial management experience may be admitted directly into the Third Year of Diploma Stage.

### Course of Study

**First Year** Subjects: Production and Operational Management, Industrial Environment, Industrial Management and Organisation, Microelectronics and Data Handling.

**Second Year** Subjects: Production and Operation Management, Industrial Finance, Personnel and Industrial Relations.

**Third Year (Diploma Stage)** Subjects: This involves a further one year period of study of Industrial Management Policy and Practice in which knowledge acquired during the Certificate course is applied to solve practical problems by an integrated approach using case studies, etc.

### Examinations and Other Requirements

Students must pass a College examination at the end of each year. The examination is moderated by the Institution of Industrial Managers. Those who successfully complete the Certificate course qualify for Associate Membership of the Institution of Industrial Managers. Successful students may continue their studies on the one year Diploma course, which leads to the Membership grade (MIIM).

Those who enrol are required to apply for student membership of the Institution prior to embarking on the course.

**Department in Charge**  
Engineering Technology.

E58

## REFRIGERATION ENGINEERING TECHNICIAN COURSE

This is a two year course for technicians employed in the refrigeration engineering industry. Suitable students are prepared for the City & Guilds of London Institute examinations in Science and Technology of Refrigeration (257). The subjects of instruction are:— Science, Refrigeration Processes and Machinery, and Drawing.

**Department in Charge**  
Engineering Technology.

D59

## SHORT COURSE PROGRAMME

A series of 1-5 day short courses on modern developments in Engineering Technology may be organised at different stages during the session. These may include:

- (a) Low Cost Automation;
- (b) Fluid Power;
- (c) Maintenance Management Techniques;
- (d) CAD/CAM
- (e) New Developments in Welding Technology;
- (f) Fuel Technology;
- (g) Fire Safety;
- (h) Structural Design Codes;
- (j) New Materials;
- (k) Water Pollution Control;
- (l) Energy Conservation;
- (m) Engineering Costing and Estimating.

**Department in Charge**  
Engineering Technology.



## E61 MAINTENANCE TECHNOLOGY CERTIFICATE COURSE

### AIMS OF THE COURSE

This course will provide participants with a knowledge of maintenance strategies and with the knowledge and skills to cope with the demands of modern maintenance requirements.

The course is organised on a modular basis and has considerable flexibility for craftspersons and other maintenance staff to enhance their qualifications.

### ENTRANCE REQUIREMENTS

Leaving Certificate in five subjects including English and Mathematics or appropriate Senior Trades Certificate with endorsements or equivalent qualifications or mature applicants. Participants should have at least three years experience performing plant maintenance duties.

### CERTIFICATION

Certification will be provided by the National Council for Educational Awards and the course is offered in the NCEA ACCS mode to allow participants to study for individual subjects, groups of subjects or the entire course programme.

Certification will be provided on a technology option basis. With the requisite technology option and core subjects satisfactorily completed this will lead to the award of National Certificate in Technology, Maintenance Technology.

### COURSE OF STUDY

The following technology options and core subjects are initially being offered subject to demand.

#### Common Core Subjects

Mathematics, Computer Science,  
Maintenance Organisation

#### Fluid Power Technology Option

Fluid Power Sciences,  
Fluid Power Plant 1

#### Refrigeration & Air Conditioning Option

Basic Heat, Fundamentals of Refrigeration

**Department in Charge**  
**Engineering Technology**

## E71 INTRODUCTORY COMPUTER PROGRAMMING

This is a one year evening course in COBOL to prepare students for the City and Guilds Examination 424 (Preliminary Certificate in Applications Programming).

### Entrance Requirements

- (a) Leaving Certificate or equivalent and
- (b) Commercial or Industrial experience related to Computing.

### Course of Study

Fundamentals of Data Processing, Computing and Computer Hardware, File Organisation and Processing, Introduction to Software, Program Writing and Documentation.

### Application Procedure

Applicants must present themselves at the College for interview between 6.30 p.m. and 8.00 p.m. during the week commencing September 9th. Only those with written evidence of (a) and (b) above will be considered for the limited number of places available.

### Other Information

The course involves attendance on two evenings a week throughout the session.

*At work in one of the  
College's Computing  
Laboratories.*

**Department in Charge**  
**Science, Mathematics and Computing.**





## E72 COMPUTER PROGRAMMING

This is a one year evening course in COBOL to prepare students for the City and Guilds Examination 425 (Applications Programming Certificate)

**Entrance Requirements** City and Guilds Preliminary Certificate in Applications Programming in COBOL or equivalent.

**Course of Study** Fundamentals of Data Processing, Computing and Computer Hardware, File Organisation and Processing, Introduction to Software, Computerised Database Systems, Transaction Processing, Program Writing and Documentation, Developing and Testing Programs, Completion of an Approved Programming Project, Amendment to an Existing Program, Program Development Aids.

**Application Procedure** Applicants must present themselves at the College between 6.30 p.m. and 8.00 p.m. during the week commencing September 9th. Proof of qualification for entry must be furnished by applicants.

**Other Information** The course involves attendance on two evenings a week throughout the session.

**Department in Charge**  
**Science, Mathematics and Computing.**

## E81 AUTOCAD

This is a one year evening course to prepare students for the City & Guilds of London Institute Examination 4351 'Introduction to AutoCAD' and to give them a working knowledge of PC software and hardware.

**Entrance Requirements** (a) Leaving Certificate or equivalent.  
(b) Students must be employed in a technical position with access to a CAD system running AutoCAD Release 11. Preference will be given to those with a third level technical qualification in a drawing related discipline.

**Course Content** Using a personal computer; operating MS DOS and simple application packages; setting up and configuring AutoCAD; entity creation and modification; saving and maintaining drawing files; hardcopy generation.

**Application Procedure** Entry to this course is NOT on a first come, first served basis. Applicants should present themselves for interview between 6.30 p.m. and 8.00 p.m. any evening (Mon. — Thurs.) of the week commencing Mon. 9th September. Only those with written evidence of (a) and (b) above will be considered for the limited number of places available for this course.

**Department in Charge**  
**Science, Mathematics and Computing**

## E82 ADVANCED AUTOCAD

This is a one year evening course to prepare students for the City & Guilds of London Institute Examinations 4352 'Customising AutoCAD' or 4353 'Three dimensional drafting'.

**Entrance Requirements** (a) Leaving Certificate or equivalent.  
(b) Students must be employed in a technical position with access to a CAD system running AutoCAD Release 11.  
(c) City & Guilds 4351 Introductory AutoCAD or equivalent. Prospective students may be required to undertake a short practical examination as an alternative to (c). Preference will be given to students with a third-level technical qualification in a drawing-related discipline.

**Course Content** Customising AutoCAD by altering the standard menus; the use of simple LISP command to create new commands; the use of font files; the creation, modification and presentation possibilities available with the three dimensional capabilities offered by AutoCAD Release 11.

**Application Procedure** Entry to this course is NOT on a first come, first served basis. Applicants should present themselves for interview between 6.30 p.m. and 8.00 p.m. any evening (Mon. — Thurs.) of the week commencing Mon. 9th September. Only those with written evidence of (a) and (b) above will be considered for the limited number of places available for this course.

**Department in Charge**  
**Science, Mathematics and Computing.**



## CRAFT & TRADE RELATED COURSES — EVENING

Enquirers seeking further information about trade and trade-related courses should contact Departments as follows:

**Department of Construction Trades 'A'**  
E101, E102, E104, E104B, E105, E106, E107, E111

**Department of Construction Trades 'B'**  
E119, D120, E120, E121, E122A, E122B

**Department of Metal Fabrication & Plumbing**  
E123A, E123B, E123C, E123D, E125A, E125B, E128, E129A&B, E130, E131, D132, E132

**Department of Engineering Trades**  
E139, E140, E141A, B, C, D, E, F & G, E142

**Department of Transport Engineering**  
E150, E151, E152, E153, E154A, E154B, E155, E156, E159, E160, E164, E165, E168, E169, E170, E173A, E173B, E173C, E174, E176.

### E101 BRICKWORK

This course is designed to assist students to prepare for the Senior Trade Certificate Examinations of the Department of Education and the Advanced Certificates of the City & Guilds of London Institute.

**Duration** One year, one evening per week.

**Subjects** Trade Theory & Drawing.

**Entry Requirements** Prospective students must have completed 3 years of apprenticeship and hold the Department of Education Junior Trade Certificate.

### E102 PLASTERING

This course is designed to assist students to prepare for the Senior Trade Certificate Examination of the Department of Education and the Advanced Certificates of the City & Guilds of London Institute.

**Duration** One year, one evening per week.

**Subjects** Trade Theory & Drawing.

**Entry Requirements** Prospective students must have completed 3 years of apprenticeship and hold the Department of Education Junior Trade Certificate.

## E104 CONSTRUCTION CRAFTS SUPPLEMENTARY STUDIES

### E104A Colour in Building Work

This course is designed to give craftspersons an opportunity to study colour, texture and pattern in building work.

**Duration** One year — 30 weeks at 3 hours per week.

**Course Content** The effects of colour, light, pattern and texture on building form and character.

**Entry Requirements** Senior Trade Certificate of the Department of Education in an appropriate construction trade or an equivalent qualification.

**Examination** City and Guilds of London Institute Certificate 600-1-09.

### E104B Design in Building Work

This course is intended to give craftspersons an opportunity to study structure, function and visual effects in buildings.

**Duration** One year — 30 weeks at 3 hours per week.

**Course Content** Design evaluation of structure, function and visual effects in buildings.

**Entry Requirements** Senior Trade Certificate of the Department of Education in an appropriate construction trade or an equivalent qualification.

**Examination** City and Guilds of London Institute Certificate 600-1-15.

## E105 PAINTING AND DECORATING

**Objective** This course is designed to assist students to prepare for the Senior Trade Certificate Examination of the Department of Education and the Advanced Certificate of the City & Guilds of London Institute.

**Duration** One year, one evening per week.

**Subjects** Trade Theory & Drawing.

**Entry Requirements** Prospective students must have completed 3 years of apprenticeship and hold the Department of Education Junior Trade Certificate.



## **E106 SIGNWORK — ADVANCED**

This course is intended to give painting and decorating craftspersons an opportunity to improve their knowledge and skill in the preparation of signwork.

**Duration** One year — 30 weeks at 3 hours per week.

**Course Content** Design, shape and form in signwork. Production of signs, Glass Gilding and Etching, Ornamental Gilding, Silk Screening.

## **E107 VEHICLE BODY BUILDING**

This course is designed to assist students to prepare for appropriate Advanced Certificate Examination of the City & Guilds of London Institute.

**Duration** One year, one evening per week.

**Subjects** Trade Theory & Drawing.

**Entry Requirements** Prospective students must have completed 3 years of apprenticeship and have passed the City & Guilds of London Institute Certificate Examination Part I Vehicle Body Building & Repair.

## **E111 CABINETMAKING/CHAIRMAKING**

This course is designed to assist students to prepare for the Senior Trade Certificate Examination of the Department of Education and the Advanced Certificates of the City & Guilds of London Institute.

**Duration** One year, one evening per week.

**Subjects** Trade Theory & Drawing.

**Entry Requirements** Prospective students must have completed 3 years of apprenticeship and hold the Department of Education Junior Trade Certificate.

## **E119 CONSTRUCTION TECHNICIAN COURSE**

This is a three year evening course in Building Construction and associated subjects in preparation for the Department of Education technological examinations.

**Course Duration** 3 years — 3 evenings per week.

**Objectives** Elementary level examination at the end of the first year.  
Intermediate level examination at the end of the second year.  
Advanced level examination at the end of the third year.

**Entry Requirements** Employment in the Construction Industry and possession of a Group or Intermediate Certificate with a Grade C in Mathematics and Mechanical Drawing, or better.

Exemption from First Year of the Course may be granted to an applicant who has achieved an acceptable level in Drawing and Building Subjects. Success in the Elementary Stage Examination is a requirement for entry into the Second Year of the Course.

Success in the Intermediate Stage Examination is a requirement for entry into the Final Year of the Course.

**Subjects** **1st Year** Building Construction, Mathematics and Geometry.

**2nd Year** Building Construction, Builders Quantities, Land Surveying and Setting-out, Plane and Solid Geometry.

**3rd Year** Building Construction, Builders Quantities, Plane and Solid Geometry.

## **D120 CRAFT TECHNICIAN COURSE IN BUILDING**

This course may be offered on a day-release and evening attendance basis in the 1991/92 session. See course E120 for further details.

## **E120 CRAFT TECHNICIAN CERTIFICATE COURSE IN BUILDING**

This is a three-year part-time course. The course has been designed to enable students on completion of their craft studies to further their career prospects in the Building Industry.

**Entry Requirements** Prospective students must have completed at least three years as an apprentice in a recognised building trade and hold a Department of Education Senior Trade Certificate or equivalent trade qualifications.



**Course of Study Stage I:**  
Building Construction I, Building Measurement, Estimating and Costing, Site Supervision and Building Science.

**Stage II:**  
Building Construction II, Building Quantities and Account Procedures, Surveying & Levelling, Structural Engineering and Site Management.

**Stage III:**  
Building Construction III, Building Quantities, Site Surveying and Setting-out, Building Services, Building Materials, Safety Legislation, Elements of Building Law and Human Resource Management.

**Award** **Craft Based Technician Certificate in Building (Dublin Institute of Technology)**

## **E121 CARPENTRY AND JOINERY — ADVANCED**

This course is designed to assist senior apprentices and craftsmen in preparing for the Senior Trade Certificate Examination of the Department of Education and the Advanced Certificate of the City & Guilds of London Institute.

**Duration** One year, two evenings per week.

**Subjects** Trade Theory, Trade Practice & Drawing.

**Entry Requirements** Prospective students must have passed the Junior Trade Certificate Examination in Carpentry and Joinery.

## **E122A WOODCUTTING MACHINISTS**

This course is designed to give students an appreciation of the practical use of woodcutting machines. Prospective students must be employed in a timber related trade. The course duration is one evening per week over one year.

## **E122B WOOD CUTTING MACHINISTS**

This course is designed to update the skills of Woodcutting Machinists in modern machining techniques including the use of a Computer based Numerically Controlled Router.

## **D123 SHORT COURSES IN WELDING PROCESSES — UPDATING OF SKILLS**

Short courses in various aspects of Welding may be held during the session in response to demands from industry. Enquiries should be directed to the Department of Metal Fabrication.

## **E123A COURSE IN WELDING — METAL ARC AND OXY-ACETYLENE**

This course is designed to meet the needs of craftsmen employed in the engineering or allied industries. The course covers both gas and electric-arc welding. Each course is of 22 weeks duration, meeting on two evenings each week from 7.00 p.m. to 10.00 p.m.

**Entrance Requirements** Employment as a craftsman in the engineering or allied trades.

## **E123B GAS SHIELDED ARC WELDING**

This is a special evening course designed to enable senior apprentices and craftsmen employed in engineering and allied trades to prepare for the IS200 Welding Certificate in low carbon steel and also for the BS 4872 Part II Certificate in aluminium (MIG and TIG process).





**Duration** One year. (One evening per week from 7.00 p.m. to 10.00 p.m.)

**Entrance Requirements** Employment in one of the engineering or allied trades.

### **E123C WELDING — ADVANCED (PIPE)**

This course is designed to assist craftsmen to prepare for the requirements of the I.S. 200 Irish Welding Certificate test. The course is of 26 weeks duration, meeting on two evenings per week from 7.00 p.m. to 10.00 p.m.

**Duration** One year (2 evenings per week).

**Entrance Requirements** Employment as a craftsman in the engineering or allied trades and have completed basic welding courses to an acceptable standard.

### **E123D WELDING ADVANCED (PLATE)**

This course is designed to assist craftsmen to prepare for the requirements of the I.S. 200 Irish Welding Certificate test. The course is of 26 weeks duration, meeting on two evenings per week from 7.00 p.m. to 10.00 p.m.

### **E125 CASTING TECHNOLOGY — MODERN DEVELOPMENTS**

**Objective** To provide Technician Engineers and Supervisors in the foundry industry with the skills applicable to new processes and production methods within the industry.

**Duration of Course** Two evenings per week for 8 weeks or other suitable arrangements.

**Entrance Requirements** Employment in the Foundry Industry.

### **E128 CRAFT TECHNICIAN CERTIFICATE COURSE IN METAL FABRICATION & WELDING**

This three-year evening course of study has been designed to enable senior apprentices and craftspersons to qualify as Craft Technicians and be capable of filling supervisory positions in the Metal Fabrication and Welding Industry.

**Course of Study** **Stage I:** Drawing, Materials & Process Technology, Mathematics and Engineering Science.

**Stage II:** Drawing, Process Technology and Testing, Mathematics, Engineering Science and Computer Studies.

**Stage III:** Plant Maintenance and Ancillary Services, Inspection Testing and Quality Control, Principles of Management, Mathematics, Computer-Aided Manufacture, Engineering Science.

**Entrance Requirements** Prospective students must have completed at least three years of an appropriate craft apprenticeship and have successfully completed the Senior Stage of the Department of Education Craft Certificate Examinations, written and practical, with at least one endorsement subject where such is offered.

**Examination and Other Requirements** At the end of each Stage, students will be required to sit a College examination in each subject, and pass it, before proceeding to the next Stage. A **DIT Craft Technician Certificate** will be awarded to students who have passed the Final Examinations in all subjects.

### **E129A SHEET METAL WORK**

This course is designed to assist Craftsmen to prepare for the Senior Trade Certificate Examinations of the Department of Education or the City and Guilds of London.

**Duration** One year, two evenings per week.

**Subjects** Trade Theory & Drawing.

**Entry Requirements** Prospective students must have completed 3 years of apprenticeship and hold the Department of Education Junior Trade Certificate.

### **E129B SHEET METAL WORK — UPDATING OF SKILLS**

This course is designed for the Sheetmetal work crafts person who require to update their practical skills.

**Duration of Course** Ten weeks, meeting on two evenings per week, Monday and Tuesday 7.00 p.m. to 9.30 p.m.

**Course Content** The use of numerical controlled Press Break and Modern Welding Processes as applied to the Sheet Metal Industry.

**Entrance Requirements** Employment in the Sheet Metal Industry.

### **E130 METAL FABRICATION**

This course is designed to assist Senior Apprentices and Craftsmen to prepare for the Senior Trade Certificate Examination of the Department of Education or City and Guilds of London.



<b>Duration</b>	One year, two evenings per week.
<b>Subjects</b>	Trade Theory & Drawing.
<b>Entry Requirements</b>	Prospective apprentices must have completed 3 years of apprenticeship and have passed the Junior Trade Certificate.

### E131 PLUMBING

This course is designed to assist Senior Apprentices and Craftsmen to prepare for the Senior Trade Certificate Examination of the Department of Education.

<b>Duration</b>	One year, two evenings per week.
<b>Subjects</b>	Trade Theory & Drawing.
<b>Entry Requirements</b>	Prospective apprentices must have completed 3 years of apprenticeship and have passed the Junior Trade Certificate.

### D132 CRAFT TECHNICIAN CERTIFICATE COURSE IN PLUMBING

This course may be offered on a day release and evening attendance basis in the 1991/92 session. See course E132 for further details.

### E132 CRAFT TECHNICIAN CERTIFICATE COURSE IN PLUMBING

This three-year course of study has been designed to prepare craftspersons as craft technicians in Plumbing. Attendance is on three evenings per week (or alternatively on one day and one evening per week).

<b>Course of Study</b>	<p><b>Stage I:</b> Hot and Cold Water Systems, Gas Installations, Sanitation and Drainage, Mathematics, Science, Drawing and Design.</p> <p><b>Stage II:</b> Mathematics, Science, Mechanics of Fluids, Heating Technology, Drawing and Design.</p> <p><b>Stage III:</b> Organisation and Management Techniques, Estimating and Quantities, Heating Technology, Welding Technology, Design Project.</p>
<b>Entry Requirements</b>	Prospective students must have completed at least three years of an appropriate craft apprenticeship and have successfully completed the Senior Stage of the Department of Education Craft Certificate Examination (Written and Practical) with endorsement where such is offered.

At the end of each stage, students will be required to be successful in a College examination in each subject before proceeding to the next stage. A **DIT Craft Technician Certificate** will be awarded to students who pass the final (Stage III) examination in all subjects. Students who are successful in the final examination may apply for corporate membership of the Institute of Plumbing and are also eligible for the Engineering Technician status of the Engineering Council.

### E139 ENGINEERING QUALITY CONTROL

This course provides a background for those who have responsibility for setting specifications for performance in manufacture or service industry and techniques for measuring their achievement.

<b>Objective</b>	The City & Guilds of London Institute Parts I & II, 743 Quality Control Certificate.
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<b>Course Duration</b>	One year.
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<b>Entrance Qualifications</b>	Craft, Technician and Supervisory personnel with suitable background.
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### E140 ENGINEERING SYSTEMS MAINTENANCE COMPETENCES

This course is designed for apprentices, craftsmen and technicians who already have a competence in General Maintenance Technology and Maintenance Organisation.

There is a choice of additional course elements available for City & Guilds Part II sub systems options as follows:

**E140C ENGINEERING SYSTEMS MAINTENANCE — PNEUMATICS**  
**E140D ENGINEERING SYSTEMS MAINTENANCE — HYDRAULICS**  
**E140F ENGINEERING SYSTEMS MAINTENANCE — ORGANISATION**  
**E140G ENGINEERING SYSTEMS MAINTENANCE — ELECTRICAL**

<b>Objective</b>	City & Guilds of London Institute Part II — 214 Certificate on Engineering Systems Maintenance Competences. Candidates who successfully complete each element will be issued with a record of achievement and will qualify for the Certificate when they have achieved success in the two core elements and any three sub systems.
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<b>Course Duration</b>	One evening per week for each element.
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## **E141 COMPUTER-AIDED ENGINEERING**

**Objective** A series of short courses for those requiring an understanding of new engineering technologies and their implications — City and Guilds 2302 scheme.

**E141A** Basic NC/CNC

**E141B** Basic CAD/CAM.

**E141C** Basic Robotics

**Course Duration** 10 weeks — one evening per week or an alternate daytime arrangement, depending on demand.

**Entrance Qualifications** Applicants should have a suitable engineering background as craftsmen, technicians or other technical positions.

### **E141D NC/CNC Machine Setting and Operation**

This is a one-year course to prepare mechanical engineering craftspersons for the City & Guilds 2303 Level III Certificate.

### **E141E NC/CNC — Part Programming**

**Objective** The City & Guilds of London Institute 2303 Level III Certificate.

**Course Duration** One year (one evening per week).

**Entry Qualifications** City and Guilds of London Institute 2303 Certificate (E141A).

### **E141F NC/CNC — Advanced Part Programming**

**Objective** The City & Guilds of London Institute 2304 Level IV Certificate.

**Course Duration** One year (one evening per week).

**Entrance Qualifications** City & Guilds of London Institute 2303 Level III Certificate. (E141A & B).

## **E141G COMPUTER AIDED DRAUGHTING**

**Objective** City & Guilds of London Institute 2304 Level III Certificate.

**Course Duration** One year (one evening per week).

**Entrance Qualification** Familiarity with conventional draughting skills.

## **E142 MECHANICAL ENGINEERING CRAFT STUDIES**

**Objective** The City & Guilds of London Institute Mechanical Engineering Craft Studies Certificate 205, Part II and Part III. Students take the appropriate Part II examinations at the end of the first year of the Course and Part III at the end of the second year.

**Course Duration** Two years (2 evenings per week)

**Subject Options** Two different options may be offered at Part II as follows:  
E142A Machining  
E142B Maintenance

Four different options may be offered at Part III as follows:  
E142C Factory Services (Maintenance)  
E142D Machining  
E142E Toolmaking  
E142F Inspection

*A First Prize  
winner at the  
Annual  
Prizegiving.*





**Entrance Qualifications** **First Year:** Department of Education Junior Trade Certificate or equivalent and current attendance on block or day release courses.

**Second Year:** City & Guilds of London Institute 205, Part II or equivalent.

## E150 **FLIGHT OPERATION OFFICER (DISPATCHER COURSE)**

This course provides instruction for flight operations officers in all operational aspects related to the preparation for commercial flights and the monitoring of all flights from a safety and efficiency viewpoint from the ground. It includes flight planning, aircraft loading, flight watch and operational considerations such as weight and runway limitations for the aircraft performance, weather, and ATC procedures.

The course follows the guidelines of ICAO standardised course 201.

**Duration** One year, two evenings a week.

**Entrance Requirements** A general knowledge of aviation appropriate to personnel employed in airlines or associated operations.

## E151 **PRODUCTION PLANNING COURSE (I.A.T.A.)**

This course provides instruction for personnel employed in the Planning Departments of the Aeronautical Industry. The course covers Aircraft Organisation and Practice, and Aircraft Operational and Maintenance Planning.

**Entrance Requirements** Personnel employed in Planning Departments in the Industry and holders of Part II Examinations of the City & Guilds of London Institute Certificate Course (258).

**Duration of Course** 1 year, 2 evenings per week.

## E152 **MAINTENANCE ENGINEERS' LICENCES OF THE DEPARTMENT OF TOURISM & TRANSPORT**

E152A 'A' LICENCE — B.A.C.1 — 11 AC LICENCE

E152B F27 MARK 050 AND P & W 125 ENGINE

E152C 'A' LICENCE — B737

E152D 'A' LICENCE — B747

E152E 'A' LICENCE — B727

E152G 'C' LICENCE — P & W JT8D

E152H 'C' LICENCE — P & W JT9D

E152J 'C' LICENCE — ROLLS ROYCE SPEY

E152M 'X' LICENCE — INSTRUMENTS

E152N 'X' LICENCE — ELECTRICAL

E152P 'X' LICENCE — RADIO

E152Q 'X' LICENCE — RADIO (RADAR ENDORSEMENT)

E152K SHORTS 360 AIRCRAFT AND PT6 ENGINE

E152R 'X' LICENCES — AVIONICS

E152S B 737 CONVERSION AND CFM 56 ENGINE.

E152T B737 — 200/300 DIFFERENCES COURSE.

E152U B737 — 400/500 DIFFERENCES COURSE.

The above courses provide instruction for Aircraft Maintenance Engineers wishing to take the appropriate licence examination of the Department of Tourism & Transport. The courses are of one year duration requiring attendance on two evenings per week.

**Entrance Requirements** Basic Aeronautical Engineering Certificate in appropriate Category.

## E153 **JET ENGINE OVERHAUL PROCEDURES**

This course provides instruction in Jet Engine design and overhaul procedures.

**Entrance Requirements** Employment in the Industry.

**Duration of Course** 1 year, 1 evening per week.

## E154 **AERONAUTICAL ENGINEERING CRAFT STUDIES**

### E154A **Stage 1**

This is a one year course requiring attendance for two evenings (6 hours) weekly per session. The course is designed to prepare students for Part I of the City and Guilds of London Institute Examinations in Aeronautical Engineering Industry.

**Entrance Requirements** Day Vocational Group Certificate or Intermediate Certificate and be employed in the Aeronautical Engineering Industry.

### E154B **Stage 2 (Mechanical)**

This one year course is designed to prepare students for Part II of the City & Guilds of London Examinations in Aeronautical Engineering Craft Studies (Course No. 208). Classes are held on three evenings per week from October to May.



**Entrance Requirements** Part II City & Guilds Aer Engineering Craft Studies or Aeronautical Engineering Occupational Competences.

**E155 BASIC AERONAUTICAL ENGINEERING CERTIFICATES**

**E155B** AIRFRAMES PRESSURISED (B.A.E.C.2)  
**E155C** PISTON ENGINES (B.A.E.C.3)  
**E155D** TURBO — PROP & TURBO — JET ENGINES (B.A.E.C.4)  
**E155E** HELICOPTERS (LESS ENGINES) (B.A.E.C.5)  
**E155F** ELECTRICAL (B.A.E.C.6)  
**E155G** RADIO (B.A.E.C.7)  
**E155H** INSTRUMENTS (B.A.E.C.8)

The above courses are one year duration, requiring attendance for two evenings (6 hours weekly per session). The courses are designed to prepare students for the Basic Aeronautical Engineering Certificate examinations of the Department of Tourism & Transport.

**Entrance Requirements** Not less than two years employment in the Aeronautical Engineering Industry.

**E156A PRIVATE AIRCRAFT PILOT'S LICENCE**

This course provides instruction in Meteorology, Navigation, Air Legislation, Theory of Flight and Aircraft Limitations, for personnel wishing to take the Department of Tourism & Transport Private Pilots Licence.

**Duration of Course** 1 year, one evening per week.

**E156B PRIVATE PILOTS LICENCE (INSTRUMENT RATING)**

This course provides instruction for personnel who already hold a Private Licence and wish to take the Department of Tourism and Transport Private Licence Instrument Rating.

**Duration of Course** 1 year, 1 evening per week.

**E165 MOTOR CYCLE MECHANICS**

**Objective** The City & Guilds of London Institute Craft Certificate 389.  
**Course Duration** 2 years of 30 weeks each year, 3 evenings (9 hours) each week.

**Subjects** Motor Cycle Technology, Electricity, Electronics, Engineering Science, Mathematics, Technical Drawing, Workshop Practice, General Studies.

**Entrance Requirements** Employment as a motor cycle mechanic.

**E168 CONSTRUCTION PLANT FITTERS**

**Objective** The City & Guilds of London Institute Full Craft Certificate 620, Part III.

**Course Duration** 1 year of 30 weeks, 2 evenings (6 hours) each week.

**Subjects** Power Units and Associated Systems, Vehicle Systems and Vehicle Recovery.

**Entrance Qualifications** The City & Guilds of London Institute 620, Certificate Part III.

**E170 MOTOR VEHICLE PARTS PERSONNEL**

**Objective** The City & Guilds of London Institute 384, Vehicle Parts Personnel, Part I.

**E173A MOTOR VEHICLE CRAFT STUDIES — DIAGNOSTIC TECHNIQUES**

**Objective** The City & Guilds of London Institute 381 Part III.  
**Course Duration** Four years, 30 weeks each year.

**Attendance** Three evenings (9 hours) each week.





<b>Subjects</b>	Diagnostic Techniques (engine), Diagnostic Techniques (transmission), Automatic Gearboxes.
<b>Entrance Qualifications</b>	City & Guilds of London Institute 381 Part II or equivalent.
<b>E173B</b>	<b>MOTOR VEHICLE CRAFT STUDIES — COMPRESSED AIR SYSTEMS; C.I. ENGINES; FUEL INJECTION EQUIPMENT</b>
<b>Objective</b>	The City & Guilds of London Institute 381 Part III.
<b>Course Duration</b>	One year of 30 weeks.
<b>Attendance</b>	Three evenings (9 hours) each week.
<b>Subjects</b>	Compressed Air Brakes, Compression Ignition Engines, Fuel Injection Equipment, C.I. Engines.
<b>Entrance Qualifications</b>	City & Guilds of London Institute 381 Part II or equivalent.
<b>E173C</b>	<b>MOTOR VEHICLE CRAFT STUDIES — ELECTRICITY/ELECTRONICS</b>
<b>Attendance</b>	Three evenings (9 hours) each week.
<b>Objective</b>	The City & Guilds of London Institute 381 Part III.
<b>Course Duration</b>	One year of 30 weeks.
<b>Subjects</b>	Motor Vehicle Electricity and Motor Vehicle Electronics.
<b>Entrance Qualifications</b>	City & Guilds of London Institute 381 Part II or equivalent.
<b>D174</b>	<b>AUTO-ENGINEERING TECHNICIANS</b>
<b>Objective</b>	Department of Education Advanced Motor Car Engineering Technological Certificate and the City & Guilds of London Institute Motor Vehicle Technicians Full Technological Certificate (390), Parts II and III.
<b>Duration of Course</b>	1 year part-time (7 hours) and 2 evenings (6 hours) each week for 38 weeks.

<b>Subjects</b>	Motor Car Engineering, Automobile Electricity/Electronics, Heat Engines, Applied Mechanics, Garage Organisation and Management and Computer Studies.
<b>Entrance Qualifications</b>	Department of Education Senior Trade Certificate with endorsement subjects and Department of Education Intermediate Motor Car Engineering Technological Certificate (2 subjects) or the City & Guilds of London Institute 390, Part I.
<b>D176</b>	<b>AUTOMOBILE ENGINEERING UPDATING COURSES — CONTINUING EDUCATION PROGRAMME</b>
<b>Objective</b>	Updating of trade personnel in modern developments relating to engines, transmission systems and electronics.
<b>Duration of Course</b>	Two days to a few weeks — day and/or evening.
<b>Entry Requirements</b>	Senior Trade Certificate in Motor Engineering.
<b>E176</b>	<b>AUTOMOBILE ENGINEERING UPDATING COURSE</b>
<b>Objective</b>	Continuing Education Programme. The City & Guilds of London Institute 381, Part III, Modular.
<b>Course Duration</b>	Short courses of 3 weeks duration, over two evenings per week, on modern developments and techniques in the industry.
<b>Entrance Qualifications</b>	Department of Education Senior Trade Certificate.



## **E177 AUTOMOBILE ENGINEERING COURSE**

**Objective** Department of Education Elementary, Intermediate and Advanced Technological Certificates in Motor Car Engineering.

**Duration of Course** 5 years of 30 weeks each year, 4 evenings (12 hours) each week.

**Subjects** Motor Car Engineering, Engineering Science and Mathematics, Automobile Electricity, Engineering Laboratory, General Studies including English, Drawing and Sketching, Garage Organisation and Management.

**Entrance Requirements** Day Vocational Group Certificate or Intermediate Certificate with Honours in certain specified subjects.

## **E178 MOTOR INDUSTRY MANAGEMENT STUDIES**

This three year course prepares students for membership examinations of the Institute of the Motor Industry.

**Subjects** Motor Industry Management, Motor Industry Law, Motor Industry Administration and Organisation, Accountancy, Computer Studies.

**Entrance Requirements** Leaving Certificate or equivalent qualification. Exemptions to stages of the course may be available to suitably qualified candidates.

## **E179 ROAD TRANSPORT STUDIES**

This three year course prepares students for the membership examinations of the Institute of Road Transport Engineers and Certificate of Professional Competence of the Department of the Environment.

**Subjects** Management Supervision and Practice, Financial and Commercial Aspects, Workshop Organisation and Administration, Legal Aspects of Motor Trade and Transport Legislation - Technical and Administrative, Transport Operational Principles, Computer Studies.

**Entrance Requirements** The Leaving Certificate or equivalent qualifications. Exemptions from stages of the course may be available to suitably qualified candidates.

## **PRINTING AND GRAPHIC COMMUNICATIONS**

### **E180 BOOK AND ARCHIVE RESTORATION**

The purpose of this one year course is to train students in the repair and presentation of books, documents, etc. It is of particular value to the staffs of hand bindaries, local record offices and those libraries concerned with the care of manuscripts and archives. Attendance is required on one evening per week. Students will be required to provide some of the materials used.

### **E182 PRINT FINISHING**

This one year course covers techniques and materials used in the production of books, magazines, and a wide range of miscellaneous work handled in the print finishing department. Stress is laid on hand and machine operations, e.g., wire stitching, sewing and folding, machine and hand feeding, gathering, glueing and mounting.

### **E183 INTRODUCTION TO PRINTING TECHNOLOGY**

A one year course to prepare students for the Introduction to Printing Technology examinations to be accepted as a candidate for the following:—

- Estimating examination of the British Printing Industries Federation.
- Printing Office Procedure examination of the British Printing Industries Federation.

### **E184 COST ACCOUNTANCY FOR PRINTERS**

A one year course designed to prepare students for the examinations of the British Printing Industries Federation.

**Entrance Qualifications** Royal Society of Arts Certificate in Accounting and Office Procedure, or equivalent.



### **E185 ESTIMATING FOR PRINTERS**

A one year course designed to prepare students for the examination of the British Printing Industries Federation.

**Entrance Qualifications** Leaving Certificate and Introduction to Printing Technology of the British Printing Industries Federation or equivalent.

### **E186 PAPER TECHNOLOGY**

A two-year course for personnel employed in Printing, Paper and Packaging Industries. Students are prepared for the examination of the National Association of Paper Merchants (London).

**Entrance Qualifications** Leaving Certificate or equivalent.

### **E187 GRAPHIC COMMUNICATIONS — DESIGN**

This is a one-year course to prepare students for the Design modules of the City & Guilds of London Institute 524 Certificate in Graphic Communications.

**Entrance Qualifications** Leaving Certificate or Department of Education Senior Certificate in a graphic arts subject or other equivalent qualification.



*President Robinson talks to some Graphic Design students during her visit to the College.*

### **E188 INTRODUCTION TO MANAGEMENT (GRAPHIC INDUSTRIES)**

**Duration of Course** A one year course to prepare students for the City & Guilds of London Institute Certificate in Introduction to Management (Graphic Industries).

**Entrance Qualifications** Department of Education Senior trade Certificate in a Printing discipline or an equivalent qualification.

### **E189 PACKAGING TECHNOLOGY**

This course is intended for management and administrative personnel engaged in packaging and related industries. Students are prepared for the examinations of the Institute of Packaging.

**Entrance Qualifications** Employment in the Packaging Industry.

### **E191 BOOKBINDING AND PRINT FINISHING RETRAINING**

This one year evening course for personnel employed in the Printing Industry provides instruction in the latest techniques, and covers the whole range of materials and technology used in print finishing processes.

### **E192 LITHOGRAPHY AND PHOTO-LITHOGRAPHY RETRAINING**

This is a one year course for personnel employed in the Printing Industry provides instruction in the latest techniques of lithographic plate making and press operation.

### **E195A ELECTRONIC COMPOSITION**

This one year evening course for suitably qualified personnel, deals with a wide range of electronic composition equipment.



**E195B**

## **SCANNING/PRINT PLANNING**

This is a one year course for suitably qualified personnel, covering aspects of scanning and print planning.

**E195C**

## **DESK TOP PUBLISHING**

This course is for personnel requiring training in Desk Top Publishing. Design is an important feature of the course. A second year course may be available for those wishing to pursue computer aided design.

**E196**

## **PRINT SALES**

A one year course to prepare students for the B.P.I.F. Sales Examination.

### **Entrance Requirements**

Employed in the Graphic Communication Industry.

**D200**

## **SCREEN PROCESS PRINTING**

This is a two year course involving attendance on two half days per week over the session. It trains students in the operation of screen printing presses and in stencil making techniques.

**E200**

## **GRAPHIC COMMUNICATIONS — SCREEN PRINTING**

This is a one year course which prepares students for the screen modules of the City and Guilds 524 Certificate in Graphic Communications.



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TEICNEOLAÍOCHTA  
BHAILE ÁTHA CLIATH



COLÁISTE  
TEICNEOLAÍOCHTA SRÁID  
BHOLTÚIN



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