

1974

## College of Technology, Bolton Street Prospectus 1974-75

City of Dublin Vocational Education Committee

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# college of technology

bolton street dublin 1

tel 749913

## prospectus

1974/75

# 1974-75 Prospectus

## COLLEGE OF TECHNOLOGY

**Bolton Street  
Dublin 1**

**City of Dublin  
Vocational Education Committee**

**School of Architecture, Surveying+Building  
School of Engineering  
School of Printing+Book Production  
School of Trades**

### Offices

College of Technology Bolton Street Dublin 1 Phone 749913 (6 lines)  
School of Trades Yarnhall Street Dublin 1 Phone 749873/4  
Annex Longford House Little Longford Street Dublin 2 Phone 751183

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## COLLEGE COUNCIL

Mr Patrick Donegan 121 Shanard Road Santry Dublin 9

Dr John D Barry Principal

Mr T Breen Students' Union Representative

Alderman K Byrne 62 St Mary's Road East Wall Dublin 3

Mr D Fay 23 Harcourt Street Dublin 2

Mr A Harkin 52 Farney Park Dublin 4

Councillor M Keating 44 Cowley Place Lr North Circular Rd Dublin 7

Mr John C O'Grady 18 Greenmount Road Dublin 6

Mr Michael Scott FRIAI 19 Merrion Square Dublin 2

Professor W Wright Trinity College Dublin 2

Representative of the Dublin Council of Trade Unions

Representative of Teaching Staff



<b>Principal</b>	John D Barry PhD MSc BE CEng FIMechE FIEI
	<b>School of Architecture Surveying and Building</b>
<b>Head of School</b>	Kevin Fox BArch MRIA
	<b>School of Engineering</b>
<b>Head of School</b>	Vacant
	<b>School of Printing and Book Production</b>
<b>Head of School</b>	Vacant
	<b>School of Trades</b>
<b>Head of School</b>	J B Hickey BA
<b>Senior Chaplain</b>	Rev Dermot McKenna SJ
<b>Librarian</b>	Miss Moira Fennell BA DiplLibTi
<b>Secretary/Registrar</b>	M J Marnane BComm DPA

## ACADEMIC STAFF

### School of Architecture, Surveying and Building

Head of School : Kevin Fox BArch MRIA

#### Department of Architecture and Town Planning

Head of Department : John J O'Keeffe MRIA BArch

Assistant Head : Liam Carlin MRIA ARIBA

Senior Lecturer : Anthony Johnson BArch MRIA ARIBA

#### Whole-time Staff

Albert J Brady BArch MRIA  
 Niall Brennan DipArch MRIA  
 Francis Ford MArch and UD DipArch MRIA  
 Sean Gaynor DipArch MRIA  
 William Gilligan BArch MRIA  
 Fergus A Hogan MRIA DipArch  
 Dermot Healy DipArch MRIA  
 Peter S Manning BArch MRIA  
 Dr Brendan Murphy BE MA PhD  
 Eamonn O'Doherty BArch MRIA  
 Desmond G O'Dwyer DipArch  
 Terence O'Neill BE MICE  
 Sean Rothery BArch MRIA ARIBA  
 Martin Ridge DipArch MRIA

#### Part-time Staff

M Brogan ARIBA MRIA  
 Angel Bruton BArch MRIA ARIBA  
 J Cripwell BSc  
 P Doris BE  
 Neil Downes BArch MRIA  
 C P Ferguson MRIA ARIBA  
 R J Fowler DipArch MRIA  
 A Fortune  
 Arden Gantly  
 Alice Hanratty NCA  
 Charles Harpur NCA  
 M L Jordan BE AMICE  
 Piaras MacCionnaith BArch MRIA  
 Desmond McConville DipArch MRIA  
 Raymond MacDonnell BArch MRIA  
 Desmond McMahon DipArch MRIA  
 B Millar DipArch MRIA  
 Gerard Mitchell BArch MLA ARIBA  
 Eamonn Murphy MRIA

## Academic Staff

T O'Beirne BArch MRIA  
John O'Gorman  
Michael Phillips BArch MRIA  
P Pigott BE MSc MIEI  
J Scuffins MIAAT  
Duncan Stewart BArch MRIA  
J Twomey AIAS  
Pascal Wynne IAS  
Stewart Young DipArch ARIBA

### Extern Examiners

Eoin McVeigh DipArch ARIBA MRIA  
Dr W A Gibbon MA FRIBA  
M Jean Paul Lesterlin (Paris)

## Department of Surveying + Building Technology

Head of Department : Eanna de Burca FRICS  
Assistant Head : Vacant  
Assistant Head (Urban Economics) : Laurence Liddle MA FRICS  
Senior Lecturers : Joseph P Davis BComm MSc(Econ) CertEd DipStats  
Joseph P O'Byrne FCSI

### Whole-time Staff

John Barnett ARICS MIMinE FGS  
Seamus Cunningham MI(Hons) ACSI  
J A Dixon BSc FRICS  
Brendan Dunne FCSI  
Patrick Egan MIOB  
John Keegan MHIA DipH1 (Seconded from the Dept of Health)  
Daniel Kelly BE MIEI CEng FCSI  
Sean Loftus Barrister-at-Law  
Fergus McCarthy LLB  
Michael Moore MHIA DipH1 (Seconded from the Dept of Health)  
Patrick Mulhern BSc PhD  
Kevin Murnane ARIBA MRIA  
Dominic J O'Brien BComm ARICS  
Liam O Dulachain FCPA FICA  
William D O'Sullivan AIQS  
Jon Patrick ARMIT DipSur  
Rory Walsh ARICS

### Part-time Staff

Robert P Brown MD DCH  
C J Byrne BE MIEI

## Academic Staff

Bernard Le Cesne Byrne BE AMICE AMIstructE  
Thomas Carroll  
Peter Collins MA  
Patrick J Conroy  
Norman Cross  
Paul Elliott  
Seamus Fagan  
Dr Derek Goodhue BSc  
Cornelius Healy MHIA  
F Richard Morrison BSc FRICS  
Bernard Muckley  
Michael A Nugent MHIA DipH1  
Mannix O'Boyle MRCVS  
John A O'Donohoe  
John P O'Reilly MHIA DipSocSc  
Liam Owens MSc AIAS  
P Pigott BE MSc  
Patrick Reilly MHIA DipH1  
Bruse Russell MSc  
John Shelley MHIA DipH1  
Damien Turley  
Staf Van Velthoven MRIA

### External Examiners

Gerald Louis Burke MC MSc FRICS FAI AMTPI  
Patrick J Carmody MA FRICS  
Robert Hedges FIOB FIQS AMBIM  
Robert Francis Lane BSc FRICS  
J H McFarlane FRICS  
Aidan Williams FRICS



**School of Engineering**

Head of School : Vacant

Assistant Head : Vacant

**Department of  
Engineering  
Technology**

Acting Head : Michael O'Donnell MEconSc BE BComm CEng MIProdE MIEI

Senior Lecturers: James Daly CEng MIEI  
Matthew Russell CEng MIProdE MInstBE**Whole-time Staff**

Liam Archer CEng MIMechE

Patrick S Benson MIHVE

Patrick Broy BE BSc CEng MICE FIEI

John A Butler DipEng AMInstF CEng MIMechE

Daniel Byrne CEng AMInst MIHUE MIEI

John Cash BE MS CEng MIMechE

J Kieran Coyne BE MSA

Patrick Doyle AMIEE DipIE

Kenneth Eng MA AIM MInstW MIEI

Neil Gillespie CEng MIMechE GIHVE

Raymond Hughes MSc CEng MIERE

John Kelleher BE

Oliver McNulty CEng MIEI ARTCS AMIStructE

John McQuillan CEng MIMechE

Donal Murphy GradIED

Michael Murphy DipEng MSc

Andrew O'Hanlon MIED

Henry J O'Neill CEng FIProdE

John Peelo BE CEng MIEI MIMechE

Henry F Taylor CEng FIMechE

**Part-time Staff**

A J Berry

M J Carew CEng MIStructE

Patrick J Carpenter

Terence W Churcher

James F Coll

Thomas Collier

Patrick Collins

Thomas Comerford

Robert Couchman

Sean Curry

Edward Devery

Edward P Dunne CEng MIMechE MIEI

Vincent Duffy

Edward J Edge DipEng

Eugene Farrell

Derek Fee

Sean F Furlong DipEng

Sean Greene DipEng MSc

John Gribben HonsMI

Matt Harton DipEng MSc

John J Haughey

Brian Hayden

Douglas Hyde

Michael J Irvine

N D Joseph

Eamonn J Kearney

T Keogh DipEng MSc

J F Lawless

Murtagh Lowery

Ultan G Lyons

Hugh Maguire

William Martin

Brendan Masterson

Raymond Meskill

Daniel Mooney AMIHVE

Brian Murphy

D J Murphy

Daniel O'Brien

A O Dunlaing BE MEngSc

Sean O'Farrell

Richard F O'Leary

Captain Eoghan O'Regan

Colin Pearce

Francis J Pelly

Patrick Reilly

Cecil Rowden

Oliver A Russell

Don Rylands

Ciaran Smith

Alfred Trebble DipEng

J R Wormald

**Extern Lecturers & Examiners—Professional Courses**

Professor F Koenigsberger DSc FIMechE MemASME FIProdE

Professor of Machine Tool Engineering University of Manchester

## Academic Staff

Professor P Grootenhuys Department of Mechanical Engineering  
Imperial College of Science and Technology  
Professor Z S Makowski PhD DIC CEng FICE MASCE  
Professor of Civil Engineering University of Surrey

### Department of Science + Mathematics

Head of Department : James A Nunan BSc HDipEd  
Assistant Head : Gerard Lawlor MSc  
Senior Lecturer : Jeremiah T Cotter MSc

#### Whole-time Staff

John Boland BSc  
Patrick Carroll MSc  
Elizabeth T Clancy BSc  
John J Doherty BA  
Jane N Horgan MA MSc (Lon)  
Dr John O McBride PhD  
Donal A McCarthy DipEng  
William McCarthy BA BComm HDipEd  
Patrick J McCormack BSc  
Thomas Mullins BSc  
Marguerita O'Kelly BA BSocSc DipSocSc HDipEd  
Dr Con O'Sullivan PhD  
Louis R Purton BSc HDipEd  
Michael Swords BSc

#### Part-time Staff

Liam J Cummins  
Patrick J Daly  
Deirdre Nunan  
Cornelius O'Shea  
Elizabeth Ryan  
Michael Shouldice DipEng

### Department of Engineering Trades

Head of Department : Robert L Eustace BSc (MechE)  
Assistant Head: Joseph Shiels

#### Whole-time Staff

Desmond Aungier  
David Cox  
Martin Dunne C & G (Mech & Aero)  
Peter Flood  
Charles T Hurley

## Academic Staff

Denis McGrath Final C & G  
James McKenna TEng(CEI) AssocProDE  
William Mowlds  
Charles B O'Brien TEng(CEI) AssocProDE  
Andrew O'Hanlon MIED  
H A O'Neill CEng FIProDE

#### Part-time Staff

John Adams  
James Barker  
Christopher Canavan  
Peter Deane  
Paul Kennedy Final C & G  
William Kelly  
Kevin O'Malley  
Alan Stewart

### Department of Aeronautical Engineering

Head of Department : Thomas McInerney FSLAET ACD & X Licences  
Assistant Head : Michael Forde A & C Licences

#### Whole-time Staff

William J Brazil

#### Part-time Staff

Peter Berry  
James Coleman X Licence PMG  
Liam F Costelloe  
Alberic T J Doody TEng(CEI) AFSLAET AME  
Charles Dowdall  
William Guilfoyle  
Thomas Higgins AME  
James S Hogan AME  
Edwin Homan  
Cornelius Hunter  
Rev John McAvoy  
Patrick O'Connell  
Patrick J O'Connell  
Edwin T O'Connor  
Cornelius O'Mahony  
Donal O'Meara  
Andrew O'Neill AME  
Sean Staunton  
Desmond Walsh  
Frank J Walshe  
Douglas Wilson



## Academic Staff

### Department of Automobile Engineering

Head of Department : John Guirke AMIMI Manual Instructor's  
Certificate (Honours) AMBIM

Assistant Head : Richard Dowling MIMI

#### Whole-time Staff

John A Butler DipEng AMInstF CEng MIMechE MBIM  
Enda Fagan FTC(C&G)  
Timothy Giblin FTC(C&G)  
Alan Harbron SIMT TechDip  
T J Kernan FTC (C&G) FIMH  
Michael Kelly SIMT TechDip MIMH  
Arthur McDermott AMIMI MIWM DipSocSc AMBIM  
James McGauran SIMT TechDip  
John Monaghan MIEI GradIMI  
Paul Purcell SIMT TechDip  
Niall O Cearbhaill BE  
John Wilcox SIMT TechDip

#### Part-time Staff

Thomas F Boland  
John Bracken  
Alan Buckowski  
David M Byrne  
Thomas Carroll AMIMI  
Vincent Conaghan  
William J Doherty  
Francis Dougan  
H B Early MA BComm DPA FCII ACCA PC  
Martin J Egan BSc  
George Fitzgerald  
Thomas A Flood  
Patrick Kenny  
Thomas Maguire  
Joseph Meehan  
Edward Nolan  
John W O'Byrne  
John O'Gorman TEng CEI MIMI MIMS  
David I Butler-Rees  
James St Leger  
Dominick Tuite  
Michael Tuthill

## Academic Staff

### Department of Metal Fabrication

Head of Department : John G Bolton MWeldI FTC (C&G)

Assistant Head : Brendan Rooney, Final C&G AWeldI

#### Whole-time Staff

James F Bartley Final C&G  
Joseph N Bernie Final C & G  
Albert Byrne Final C&G  
Patrick Carpenter FTC (C&G)  
Thomas Colley Final C & G  
Edward Donohue  
Brian Gilbert Final C & G  
Wm Jackson Final C & G  
Denis Lynch  
Gabriel McGreer Final C&G  
Seamus Murrain Final C & G  
Nicholas Murray Final C&G  
Joseph Quinn Final C & G AWeldI  
Daniel Rooney FTC C&G MRSH  
Joseph K Walsh FTC C & G MInstSME

#### Part-time Staff

Patrick Bolton Final C&G  
James Bryan Final C&G  
Francis Byrne  
William F Carroll  
Robert Couchman FIDHE  
Joseph Cross Final C & G  
Noel Dunne Final C&G  
Michael C Foran  
Henry Greagsbey  
Henry Higgins Final C&G  
John Lavelle Final C & G  
George Mackie MWeldI  
Hugh Maguire FIHVE  
Noel Mullen AWeldI  
Vincent Robinson SJ FTC C&G

### School of Trades

Head of School : J B Hickey BA

#### Department of Building Trades 'A'

(Bricklaying and Masonry, Furniture, Plastering, Painting and Decorating, Vehicle Building, Vehicle Trimming and Vehicle Painting)

Head of Department : Michael C Murray Hons C&G

Assistant Head : Vacant

#### Whole-time Staff

James Burns  
Charles Costello  
James P Doyle  
Frederick Hosford Final C&G  
Joseph Lawlor BA HDipEd FIBD  
Patrick McNally  
Gerard O'Toole

#### Part-time Staff

John Kenny  
Patrick Lawlor  
Sean Mac Conaill

#### Department of Building Trades 'B'

Head of Department : Thomas Bridgeman FCSI FTC(Hons)

#### Whole-time Staff

Michael Bridgeman  
Thomas Byrne  
Donal Cooper Final C & G  
William Edwards  
Aidan Halpin ABICC Final C & G  
James Kelly Final C & G  
Patrick Kelly Final C & G  
Thomas Kiernan FTC (C & G)  
Michael McDonnell  
Robert McShane  
John McGuirk  
James Wall

#### Department of Metal Fabrication

As in School of Engineering.

### School of Printing+Book Production

Head of School: Vacant

Assistant Heads of Department :

Prionsias O hEifearnain BA HDipEd FTC (C&G)  
Joseph Reddin Lic in Printing (C&G) AMIPtgM

#### Whole-time Staff

John Bennett BA FTC (C & G) FTC (Design)  
Patrick Daly BA FTC (C & G)  
John M Foley BA(Econ) FTC C & G  
Peter A Foley  
J P Brian Kennedy BA FTC (C & G)  
Brendan Quinn Final C & G  
Kenneth Richards Final C & G  
Robert Sharpe Final C & G

#### Part-time Staff

Brian Allen  
Kenneth Devitt  
Ciaran Donaghy BA BComm  
Kevin Dunne BComm  
W Dunne  
F Dowling  
John Fagan  
Joseph Fagan  
W J Fitzpatrick MIOP  
Michael Grehan Final C&G  
Frederick Hannan  
Bartholomew Hempton  
Maria Hernandez  
William Kelly  
Leo Levins  
G A Lynch  
L McConkey  
Stanley McDonald  
John McGettigan  
Allan M'Leod Martin ACIS  
Joseph Murphy ACC (C&G)  
Hazel Ni Ogain  
Bairbre O'Muire  
Patrick Smyth  
John Whelan



## CHAPLAINS

**Senior Chaplain** Rev Dermot McKenna SJ

Rev John Fitzpatrick CSSP  
Rev Ronan Geary SJ  
Rev S Ward SJ

Rev Bernard Coleman OFM  
Rev Kevin Egan OFM  
Rev Peter O'Neill OFM  
Rev Patrick Power OFM

School of Trades

## PHYSICAL EDUCATION

Michael C Doogan

## GENERAL INFORMATION & REGULATIONS

General regulations for Colleges and Classes operating under the Authority of the City of Dublin Vocational Education Committee are displayed in the Entrance Hall. All students are subject to these regulations.

### Whole-time + Part-time Courses

Students are admitted at the commencement of the session in September. Applications for admission to wholtime courses should be submitted not later than 31st August on the form obtainable from the Secretary. Candidates awaiting results of examinations may make provisional application. Documentary evidence of qualifications should accompany all applications. Results should be forwarded in support of applications as soon as they become available to the applicant.

### General Information

Day Classes will normally be held from 9 am to 12.30 pm and 2 pm to 5 pm each week-day except Saturday unless special arrangements are made in specific cases. Evening Classes will normally be held from 7 pm to 10 pm except where otherwise arranged. Office Hours : 9 am to 12.45 pm and 2.15 to 5 pm Monday to Friday, and at special periods of the year at times which will be posted on the Notice Board. Except during enrolment periods members of the teaching staff will not be available for interviews except by prior appointment.

### Attendance

The College Authorities may exclude any student from the College without refund of fees for irregular or unpunctual attendance or misconduct, or for any other reason which in the opinion of the College justifies exclusion. Three successive absences in any one class subject may lead to suspension from the complete course unless the Principal is informed in writing of the reason.

### Changes in Class

The College may change any or all of the syllabus, the day and time of meeting of any class and may cancel classes where the enrolment or attendance is considered inadequate. If for some urgent reason a teacher cannot attend or arrange for a deputy, classes may be cancelled without notice.

### Sessional Examinations

Examinations are held at the end of each Stage, term or Session. No student shall be admitted to the Examinations who has not made at least three-fourths of the possible attendance except in special circumstances and at the discretion of the Head of Department. Promotion to a Higher year or Stage in any subject is contingent on reaching the required standard in Sessional Examination in the Lower grade.

### Examinations

An Examination fee of £5.00 is payable in respect of College sessional examinations.



- Closing date for receipt of College Examination fees is **28th February 1975**. In exceptional circumstances and at the discretion of the College Examination Board a candidate may be allowed to enter for a College Examination up to the 31st March, 1975, subject to the additional payment of a late fee of £5.00.
- A candidate may be permitted to sit for one College supplementary examination without payment of a further fee.
- Closing dates and fees for examinations conducted by the College, Department of Education, the City and Guilds of London Institute and other bodies are displayed on the College Notice Board as they occur.
- National Council for Educational Awards** The NCEA was established by the Government in 1972 for the purpose of awarding qualifications to technicians and technologists attending non-university institutions. Already some Engineering students have been awarded National Certificates and Diplomas and submissions have been made by the College seeking NCEA recognition in respect of a number of other Courses up to and including those at degree level.
- Fees** Fees are payable on enrolment and no student will be permitted to attend any class until the proper fees have been paid. Guarantees may be accepted from local authorities, education establishments or employers.
- Fees will not be refunded except where a course does not form or where a student, with the consent of the Head of his department, withdraws his application before the commencement of the course. The sessional fees are shown under the headings for the various courses.
- Higher Education Grants** Local Authorities are empowered to make Higher Education grants to eligible students to enable them to pursue courses of higher education at universities and comparable institutions.
- The following courses offered by the College qualify for these grants: **Architecture, Engineering, Construction Economics, Environmental Economics and Geo-Surveying.**
- Application for these grants should be addressed to the Secretary of the Local Authority in whose area the student's parents normally reside.
- VEC Scholarships** Vocational Education Committees are empowered to award scholarships to students from their area, attending Technician and other third-level courses at the College. Applications for these scholarships should be directed to the VEC of the area where the student's parents normally reside.
- Foreign Students** Applications from Foreign Students must be accompanied by a letter of recommendation from the diplomatic representative of the country of origin in Ireland or where there is no such representative, from the Ministry of Education in the country of origin.

- Canteen** The College Canteens are open throughout the session for lunches, teas and morning and afternoon snacks.
- Discipline** A member of the academic staff issuing a directive to any student misconducting himself on the College premises is authorised to enforce disciplinary measures, and the Principal may immediately suspend the student(s) pending a hearing of the charges by the College Council. The full co-operation of each student is invited in order to maintain the dignity and discipline of the College.
- Damage to Equipment and Premises** The cost of the repair or replacement of College property damaged by a student shall be payable to the College Authority by the student responsible for such damage.
- Projectwork** Students are required to submit regularly such projectwork and coursework as may be prescribed by members of the academic staff and this will be taken into account in the assessment at the end of the Session.
- Laboratory Record** An Experimental Laboratory notebook must be maintained by each student of a Laboratory Class: an assessment will be made at the end of Session of each student's progress in laboratory techniques and experimental ability which will count in the sessional examination in that subject.
- Loss of, or Damage to Personal Property** Whilst every reasonable precaution is taken, the College cannot accept responsibility for damage to or loss of students' property. Bicycles and motor cycles brought to the College premises by students should be locked and placed in the appropriate parking area. Coats, books, etc., should be clearly marked with the owner's name.
- Trade Courses** These classes are provided for the sole purpose of supplementing the practical trade training of persons actually employed at and engaged in the various operations of the trade. The College realises that it is impossible for a person to learn a trade solely by attendance at these classes and is further of the opinion that the admission to the classes of persons not actually engaged in the trades would be not only of little use to such persons but would prejudicially affect the instruction of those for whom the classes have been organised. Accordingly, the College reserves the right to restrict enrolment in the trade practical classes to those persons who are actually employed in the several processes and operations of the trade. For admission to these classes proof of actual employment in the several processes and operations of the trade will be certificates to that effect from the Masters' Associations and/or the official Trades Unions of the trade concerned.



**Change of Classes** Change of classes or courses may be made only with the consent of the Head of Department.

**Change of Address** Change of address or place of employment should be reported to the Office immediately.

**The Library** The Library plays a vital part in the academic structure and programmes of the College. It provides a comprehensive information service, and study facilities for students and staff. While the book collection emphasis is on the major college disciplines, there is a gradual build-up of other subject areas. A phased development plan at present under way will increase the total book stock from the existing 10,000 volumes to 25,000 volumes by 1976. A media resource centre to contain non-book material including slides, films, micro-film and tapes is envisaged. The Library has a current periodicals file of 400 titles.

Centrally situated on the second floor of the main College building, it contains three physically distinct but closely related areas, the general library area, the periodical and reference area and the reading area. Seating is provided for 200 readers.

The Library maintains close links with the City of Dublin Public Library system of which it forms part, and with the Libraries of An Foras Forbartha, the Institute for Industrial Research and Standards, the Universities, and other Research Institutes both here and abroad. Through these links photo-copied material and books on inter-library loan may be very quickly obtained. By arrangement, facilities may also be provided for staff and senior students to use these Libraries for research purposes.

A lending scheme is in operation for all books. There is a coin-operated photo-copying machine in the Library for the use of readers.

First-year students are given introductory lectures on the use of the Library by the Librarian. Library publications include a current list of periodicals and a monthly accessions list.

#### Hours of Opening :

In Term :	Monday to Friday 9.30-21.30	Saturday 9.30-13.00
Summer Term :	Monday to Friday 9.30-21.30	Saturday 9.30-17.00
In Vacation :	Monday to Friday 9.30-17.30	

### The Students' Union

The Students' Union is the students' representative body in the College. Every student becomes a member of the Union on enrolment.

The Union is democratically based and it is dependent for its effectiveness on the involvement of its members. It is administered by an executive which is elected by the student body.

The Union President is a full-time sabbatical officer with a wide range of tasks and responsibilities.

Each class in the College elects a representative to the Students' Union Council. In addition College Societies and the Union Executive are represented on the SUC and it is a forum for discussion and decision making.

The ultimate decision-making body of the Union is the General Meeting which is a meeting of the whole student body.

General Meetings are usually held three times per annum and at other times when major issues are put to the student body.

#### Functions of the Union :

1. To represent the views of its members.

This the Union does at College level by representing the students on the College Council, Library and Canteen Committee and other bodies.

It represents its members' views at national level through the Union of Students in Ireland.

2. To provide recreational and social facilities for its members.

These include lunchtime concerts, parties, dances, and guest speakers. The Union also maintains a comfortable Common Room where students may meet, have discussions or just relax.

The College Societies are also under the umbrella of the Union and, as well as parties, they organise trips, lectures and concerts. The Sports' Council acts as the co-ordinating body for the many sporting activities in the College.

3. To provide services for members.

The Student Shop (D1) provides stationery, newspapers, sweets, drawing equipment and textbooks. It also issues International Student Identity Cards and provides information on student travel. Union Offices : Room A51.



## GUIDE TO COURSES

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<b>Technological + Technician Courses (Day)</b>	
<b>Architecture, Surveying + Building</b>	
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D/10. Planning Technicians' Certificate Course. Whole-time.	31
<b>Engineering</b>	
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D/42. Diploma Course in Mechanical, Production & Structural Engineering. Whole-time.	40
D/43C. Civil Engineering Technicians' Course. Whole-time/Part-time.	42
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D/46C. Civil Engineering Higher Technicians' Course.	46
D/46H. Environmental Engineering Technician Certificate and Diploma Course	47
D/46M. Mechanical Engineering Higher Technicians. Sandwich	48
D/47. Metallurgical Technicians' Course. Part-time.	49
D/127. Motor Vehicle Technicians. Part-time.	50
D/135. Auto Engineering Technicians. Part-time.	50
<b>Printing</b>	
D/81. Higher Printing Education.	58
D/82. Training for Administrative Staff. Part-time.	58
D/83. Printing Administration.	59
D/86. Design for Printing.	60
D/88A. Printing Technology. Composing.	59
D/88B. Printing Technology. Letterpress Machine Printing.	59
D/88C. Printing Technology. Lithography and Photo Lithography.	59
D/88D. Printing Technology. Bookbinding and Print Finishing.	59
D/181B. Book Production.	60
<b>School of Trades</b>	
D153/A. Plumbing Technicians. Part-time.	64

<b>Technological + Technician Courses (Evening)</b>		
<b>Architecture, Surveying and Building</b>		
E/2. Short term Course for the Construction Industry.		67
E/3. Timber Technology.		67
<b>Engineering</b>		
E/40. General Certificate in Education.		69
E/41. Graduate Courses in Engineering.		68
E/42. Certificate Engineering Technicians' Course.		70
E/43C. Civil Engineering Technicians' Course.		70
E/43M. Instrumentation Technicians' Course.		71
E/43S. Structural Engineering Draughtsmanship Course.		71
E/43V. Heating, Ventilating and Airconditioning Technicians' Course.		72
E/44. Motor Industry Management Course.		72
E/45. Aeronautical Engineering Technicians.		73
E/47. Mechanical Engineering Technicians' Course		73
E/49. Automobile Engineering Technicians.		74
E/50. Computer Programming.		74
E/54. Structural Design Course.		69
E/57. Works Managers' Course.		73
E/58. Refrigeration Engineering Technicians.		74
E/60. Domestic Heating Engineer's Course.		75
E/63. Fire Engineering Course.		75
E/135. Advanced Automobile Engineering Technicians.		76
E/139. Materials Handling.		76
<b>School of Trades</b>		
E/1. Building Technicians.		88
<b>Printing</b>		
E/81. Higher Printing Education.		80
E/82. Training for Administrative Staff.		80
E/83. Applied Printing.		80
E/83A. Printing Office Procedure		80
E/84A. Costing.		81
E/84B. Estimating.		81
E/84C. Advanced Letterpress and Litho Estimating.		81
E/85. Paper Technology and Marketing.		81
E/86. Design for Printing.		82
E/88A. Composing.		82
E/88B. Letterpress Machine Printing.		82
E/88C. Lithography and Photo Lithography.		82
E/88D. Bookbinding and Print Finishing.		82
E/88E. Graphic Reproduction.		82
E/89A. Printing Production Management (Departmental).		82
E/89B. Printing Production Management (Works).		83



**Short Courses**

Each session, short courses are held consisting typically of eight to twelve lectures relating to special aspects of Building, Engineering or Printing Technology. Details of these are advertised in the newspapers.

**Trade Courses  
(Day)****Engineering**

D/126. Automobile Engineering. Block release.	51
D/128. Automobile Engineering. Part-time.	51
D/129. Automobile Engineering. Part-time.	52
D/130. Motor Vehicle Parts (City & Guilds). Part-time.	52
D/131. Motor Vehicle Electricians (City & Guilds). Part-time.	52
D/132. Motor Mechanics. Part-time.	53
D/133. Motor Vehicle Body Repair (City & Guilds). Part-time.	53
D/134. Motor Vehicle Mechanics (City & Guilds). Part-time.	53
D/141. Fitting and Turning. Block release.	54
D/143. Gas and Electric Welding. Part-time.	54
D/149. Sheet Metal.	54
D/150. Metal Fabrication. Part-time.	54
D/151. Heating Fitting. Part-time.	54

**Printing**

D/183. Letterpress Machine Work. Block release.	61
D/188. Stereotyping and Electrototyping. Part-time.	61
D/184. Photo Processes for Graphic Reproduction. Block release.	61
D/190. Compositors' Work. Block Release.	61
D/191. Bookbinding and Warehouse Work. Block Release.	62
D/192. Lithography and Photo-Lithography. Block Release.	62
D/195. Film Make-up. Block release.	62
D/196. Advanced Linotype, Intertype and Teletypesetting.	62

**School of Trades**

D/101. Bricklaying. Part-time.	64
D/102. Plastering. Part-time.	64
D/105. Painting and Decorating. Part-time.	64
D/107. Vehicle Building. Part-time.	64
D/108. Vehicle Trimming. Part-time.	64
D/111. Cabinet Making. Part-time.	64
D/112. Upholstery. Part-time.	64
D/113. Woodfinishing. Part-time.	64
D/121. Carpentry & Joinery. Part-time.	64
D/122. Woodcutting Machinists' Work. Part-time.	64
D/145. Foundry Craft. Part-time.	64
D/151. Plumbing/Heating Fitting. Part-time.	64

**Trade Courses  
(Evening)****Engineering**

E/133. Motor Vehicle Body Repair.	77
E/134. Compression Ignition Engine Maintenance.	77
E/136. Fork Lift Truck Maintenance.	78
E/137. Warehouse Supervisors' Course.	78
E/138. Fork Lift Truck Operators' Course.	78
E/140. Refresher Course for Motor Mechanics	79
E/141. Fitting and Turning. Part-time.	79
E/142. Motor Mechanics' Work (Advanced). Part-time.	79
E/143. Gas and Electric Welding. Part-time.	77
*E/144. Patternmaking. Part-time.	77
*E/145. Foundry Work. Part-time.	77
*E/149. Sheetmetal Work. Part-time.	77
*E/151. Heating Engineering Fitters. Part-time.	77
*Located in School of Trades.	

**Printing**

E/181. Artistic Book Finishing.	83
E/181B. Book Production Course.	84
E/182B. Printing Finishing (Female Employees).	84
E/183. Letterpress Machine Printing (Retraining)	84
E/185. Linotype, Intertype and Teletypesetting. Part-time.	84
E/186. Monotype Casting. Part-time.	85
E/187. Monotype Keyboard. Part-time.	85
E/190. Composing (Retraining).	85
E/191. Bookbinding and Print Finishing (Retraining)	85
E/192. Lithography and Photo-Lithography (Retraining).	85
1/195. Film Make-up. Part-time.	86
E/195A. IBM Keyboard Conversion and Make-up.	86
E/196. Diploma Course in Private Presswork.	86
E/197. Graphics Workshop.	87

**School of Trades**

E/101. Bricklaying. Part-time.	88
E/105. Painting & Decorating. Part-time.	88
E/107. Vehicle Building. Part-time.	88
E/111. Cabinetmaking & Design. Part-time.	88
E/112. Upholstery. Part-time.	88
E/113. Wood Finishing. Part-time.	88
E/121. Carpentry & Joinery. Part-time.	88
E/122. Woodcutting Machinists' Work. Part-time.	88
E/143A. Welding. Short Courses.	88
E/148. Smith & Art Iron Work.	88
E/151. Plumbing/Heating Fitting. Part-time.	88





## DAY COURSES

## School of Architecture Surveying and Building

The School provides courses at technological and technician levels for occupations within the building industry, and brings together in the process of education those who will work together professionally in later careers.

The Architect is responsible for the design and supervision of building projects. The Construction Economist, according to his specialisation, may be concerned, as quantity surveyor, with projects, economics or with the management of the building operation.

The Environmental Economist has a similar role in the wider range of urban development and planning, or in estate management.

The Geo-Surveyor is concerned with the land itself, its nature, its resources, and the measurement and definition of these. Employment opportunities in all cases exist in a range from personal professional consultancy to employment in architectural and building organisations and in State or municipal departments.



## TECHNOLOGICAL AND TECHNICIAN COURSES

D/1.

### DIPLOMA COURSE IN ARCHITECTURE

This is a five-year whole-time course leading to the Diploma in Architecture. Graduates from the course become eligible for membership of the Royal Institute of the Architects of Ireland after they have completed the requirements relating to practical experience and professional practice. Students are required to have not less than 75% attendance at lectures and studio work in each session before being eligible to take the sessional, or other examinations.

**Entrance Standard** The minimum preliminary educational qualifications required for direct entry, subject to interview and suitability assessment by the Interview Board, are:—

- (a) The Department of Education Leaving Certificate with not lower than Grade D in a minimum of four subjects and at least two other subjects at Grade A, B or C on the Higher Level Course or
- (b) equivalent qualifications (i.e. Matriculation of the National University of Ireland) or
- (c) The General Certificate of Education with not lower than Grade D in four subjects and at least two other subjects at Advanced Level.

Note: Subjects must include Mathematics and English.

**Subjects of instruction are**

#### First Year

Studio Work; Building Construction and Materials; History of Architecture; Theory of Architecture; Mathematics and Statistics; Mechanics; Physics; Chemistry; Geometry; Craftwork.

#### Second Year

Studio Work; Theory of Architecture; Irish Art and Architecture; Art and Civilisation; Building Construction and Materials; Building Services I; Theory of Structures; Physics; Chemistry.

#### Third Year

Studio Work; Theory of Architecture; History of Town Planning; Interior Design; Building Construction; Building Practice; Building Services II; Building Materials; Structural Engineering; Surveying and Levelling.

#### Fourth Year

Studio Work; Theory of Architecture; History of Architecture; Building Construction; Structural Engineering; Professional Practice; Interior Design (including Furniture design); Town Planning Theory; Urban Design (including Sociology); Economics and Cost Control; Landscape Design.

#### Fifth Year

Studio Work; Structural Engineering; Professional Practice; Town Planning (Theory); Specifications and Materials; Economics and Cost Control; History of Architecture.

**Note**

Studio Work includes Architectural Drawing, Architectural Design, Building Construction, Drawing, Graphics and in the case of the First Year only, Geometrical Drawing, and in the case of the Fourth and Fifth Years Landscape Design.

Fee £53.00 per annum.

D/8.

### CERTIFICATE COURSE FOR ARCHITECTURAL TECHNICIANS

This is a three-year whole-time course designed to train Architectural Technicians and leading to the Architectural Technicians' Certificate. The Final examination of the course is accepted as a qualification for Associate membership of the Institute of Architectural and Associate Technicians, and for membership after two years of practical experience. The course extends from mid-October to mid-May and during the Summer vacation students are required to gain approved practical experience in professional offices. This vacation work is optional between 1st and 2nd year and mandatory between the 2nd and 3rd year.

**Entrance Standard** The Secondary Schools' Leaving Certificate in five subjects which must include Mathematics and English.

**Subjects**

#### First Year

Maths, Building Science, Mechanics, Surveying & Levelling, Geometry, Building Construction, Free Drawing, History of Architecture, Architectural Drawing.

#### Second Year

Building Construction, Building Materials & Specifications, Building Science, Structures, Surveying & Levelling, Building Services, Architectural Drawing.

#### Third Year

Building Construction, Building Materials, Structures, Building Services, Surveying & Levelling, Structure of the Building Industry, Architectural Practice and Procedure.

Fee £33.00 per annum.

D/10

### CERTIFICATE COURSE FOR PLANNING TECHNICIANS

Commencement date not yet arranged.



### D/3. DIPLOMA COURSE IN ENVIRONMENTAL ECONOMICS

This is a four year course leading to a Diploma in Environmental Economics and is designed for those who wish to work as Valuers, Estate Agents, Property Advisers, Developers and Planners in either private or public employment. Holders of this Diploma are exempted from all academic examinations leading to Corporate Membership of the Royal Institute of Chartered Surveyors, General and Town Planning Sections, and from the Intermediate examination of the Royal Town Planning Institute. The course is also recognised by the Irish Auctioneers' and Valuers' Institute.

<b>Subjects</b>	<p><b>First Year</b> Mathematics; Science; Principles of Accounts; Economics; Construction Technology I; History of Property Rights and Introduction to Valuations; Communications; Structure of the Building Industry and an Introduction to Measurement.</p> <p><b>Second Year</b> Principles of Valuation; Town and Country Planning; Applied Economics; Local Government Social Services; Construction Technology; Law (Principles of Law, Law of Contract, Law of Property); Land Surveying; Applied Statistics; Computer Appreciation.</p> <p><b>Third Year</b> Applied Valuations; Urban Economics; Management and Maintenance of Buildings; Law (Landlord and Tenant Law, Law of Obligations; Planning Law); Town and Country Planning.</p> <p><b>Fourth Year</b> Land Taxation; Applied Valuation II; Urban Economics II; Arbitrations and Administrative Law. Applied Town and Country Planning.</p>
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**Practical Experience** Students are required to gain Industrial and Professional experience during the extended summer vacations.

**Entry Qualifications**

- (a) The Secondary Schools Leaving Certificate in at least five subjects with a minimum Grade C in two subjects at higher level, or
- (b) The Matriculation Certificate of a recognised University, or
- (c) The General Certificate of Education with a minimum of two subjects at Advanced level.

Fee £53.00 per annum.

### D/4. DIPLOMA COURSE IN CONSTRUCTION ECONOMICS

A course leading to a diploma in either **Building Management** or **Quantity Surveying**. The course is of four years' duration and designed to prepare students for Corporate Membership of the Royal Institution of Chartered Surveyors, The Institute of Building, The Building Surveyors' Institute, The Institute of Quantity Surveyors and the Incorporated Association of Architects and Surveyors.

<b>Subjects</b>	<p><b>First Year</b> Mathematics; Science; Principles of Accounts; Economics; Construction Technology; History of Property Rights and Introduction to Valuations; Communications. Structure of the Building Industry and an Introduction to Measurement.</p> <p><b>Second Year</b> Construction Technology II; Law; Applied Economics; Land Surveying; Cost Accountancy; Quantities; Applied Mathematics and Statistics; Computer Applications.</p> <p><b>Third Year</b> Construction Technology III; Quantities; Law; Management &amp; Work Study; Principles of Structural Design.</p> <p><b>Fourth Year</b> (Quantity Surveying) Quantities and Economic Analysis; Financial Administration; Site and Production Management; Computer Applications; Arbitration and Building Contract.</p> <p>(Building Management) Financial Management and Commercial Practice; Personnel Management and Human Relations; Site and Production Management; Computer Applications; Arbitration and Building Contracts.</p>
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**Practical Experience** Students are required to gain Industrial and Professional experience during the summer vacations.

**Entry Qualifications**

- (a) The Secondary Schools Leaving Certificate with a minimum of Grade C in two subjects at higher level, or
- (b) The Matriculation Certificate of a recognised university, or
- (c) The General Certificate of Education with a minimum of two subjects at Advanced level.

Fee £53.00 per annum.



## D/5. DIPLOMA COURSE IN GEO-SURVEYING

This is a four year course leading to a Diploma In Geo-Surveying and is designed for those who wish to work as Mineral Surveyors in the fields of Mining and Quarrying and as Land Surveyors in Commercial, National, and Local Government organisations.

### First Year

Mathematics and Statistics; Physics and Electronics; Plane Surveying; Engineering and Surveying Drawing; Geology; Law; General Studies.

### Second Year

Mathematics and Statistics; Physics and Electronics; Topographical Surveying; Geology; Astronomy; Mineral Surveying; Photogrammetry; Law; Map Production.

### Third Year

Numerical Analysis and Digital Computing; Geodetic Surveying; Law; Minerals Surveying; Photogrammetry; Astronomy; Engineering Surveying; Soil and Rock Mechanics.

### Fourth Year

Geodesy; Minerals Surveying; Photogrammetry; Professional Practice; Dissertation.

**Practical Experience** Field camps are conducted as part of the course in each of the first three years. In addition students are required to gain field experience during the summer vacation.

**Entry Qualifications** (a) The Secondary Schools Leaving Certificate in at least five subjects with Mathematics and Science (preferably Physics) at higher level, or  
(b) The Matriculation Certificate of a recognised University, or  
(c) The General Certificate of Education with a minimum of two subjects at Advanced level.

Fee £53.00 per annum.

## D/7. DIPLOMA COURSE IN HEALTH INSPECTION

A course of three years' duration organised in consultation with the Department of Health and the Health Inspectors' Training Board. The Department of Health is responsible for the selection of students. Enquiries regarding this course should be addressed to Health Inspectors' Training Board, Customs House, Dublin.

### Subjects

#### First Year

Biology; Micro Biology; Anatomy and Physiology; Chemistry; Physics; Building Construction I; Local Government Law and Administration; Food Hygiene; Public Health Law; Entomology and Parasitology; Meat Inspection; Sewage and Sewage Disposal; Philosophy I; Tutorial.

#### Second Year

Vital Statistics; Micro Biology; Food and Food Inspection; Port and Airport Sanitation; Pest Control; Heating, Lighting and Ventilation I; Atmospheric Pollution; Offensive Trades; Building Construction II; Public Health Law and Administration (Housing Law); Drainage; Water Supplies; Meat Inspection; Infectious Diseases; Public Cleansing; Philosophy II; Tutorial.

#### Third Year

Radiation; Health Education; Food and Food Inspection; Specifications and Quantities; Public Health Law and Administration; Water Supply; Atmospheric Pollution; Building Hygiene and Housing Administration; Heating, Lighting and Ventilation II; Building Construction III; Philosophy III; Tutorial.

### Practical Experience

Students spend the periods of the summer vacations in the field.

### Entry Qualifications

(a) The Secondary Schools Leaving Certificate, or  
(b) The Matriculation Certificate of a recognised University, or  
(c) The General Certificate of Education.

Fee £53.00 per annum.



**D/2. HIGHER BUILDING TECHNICIANS' CERTIFICATE COURSE**

This is a three year course leading to a Certificate in Building Technology and is designed for those who wish to work at middle management level in the building industry. The course is recognised by the City & Guilds of London Institute for purposes of the award of their Higher Construction Technicians' Diploma. Holders of this Certificate qualify for Licentiatehip of the Institute of Building and Building Surveyors' Institute and Technician Membership of the Incorporated Association of Architects and Surveyors.

**Subjects****First Year**

Applied Mathematics; Construction Science; Principles of Accounts; Structure of the Industry; Construction Technology; Measurement & Costing; Elementary Surveying & Setting Out.

**Second Year**

Construction Technology and Services I; Structures and Concrete Technology; Mechanical Plant and Equipment; Applied Mechanics (Hydraulics of Soils) I; Site Surveying and Setting Out; Specifications and Quantities; Work Study I; Site Organisation and Administration I.

**Third Year**

Construction Technology and Services II; Structures and Concrete Technology II; Mechanical Plant and Equipment II; Applied Mechanics (Hydraulics and Soils) II; Estimating and Costing; Work Study II; Measurement of Site Work; Site Organisation and Administration II.

**Practical Experience**

Students are required to gain Industrial experience during the summer vacations.

**Entry Qualifications**

- (a) The Secondary Schools Leaving Certificate in at least five subjects, or
- (b) The Matriculation Certificate of a recognised University, or
- (c) The General Certificate of Education.

Fee £43 per annum.

**SHORT-TERM COURSES**

Short-term Courses in the Building and Project Management area will be held during the session. These will be advertised in the National Press.

**D/4C & D/4D TECHNICIANS IN THE CONSTRUCTION INDUSTRY****Objectives**

The Course is designed to prepare students for the Construction Technician's Certificate and the Licentiatehip examinations of the various professional bodies in the Building Industry.

**Entry Qualifications**

- (a) Senior Trade Certificate, Leaving Certificate or equivalent and
- (b) Appropriate employment in the Construction Industry.

**Duration**

The Course is of four years duration involving attendance on one full day and two evenings each week.

Fee £11.00 per annum.

**Course Content, etc.****First Year**

Construction Technology and Services, Construction Science and Calculations, Principles of Structural Design, Safety Regulations. Examination: Part I City & Guilds of London Construction Technician's Certificate (626).

**Second Year**

Construction Technology and Services, Land Surveying and Setting Out, Measurement and Price Build-up. Examination: College based.

**Third Year**

Construction Technology and Services, Land Surveying and Setting Out, Measurement and Price Build-up, Site Organisation and Administration. Examination: Part II (Final) City & Guilds of London Construction Technician's Certificate (626).

**Fourth Year**

Construction Technology and Principles of Design of Structural Elements, Site Organisation and Administration, Services and Equipment, Measurement and Economics. Examination: Licentiatehip of professional bodies.

**General**

Students entering the Course should realise that a considerable amount of private study must be undertaken by them if they are to maintain progress in the various subjects. In particular, they will be required to prepare, for external assessment, a number of projects dealing with Construction Technology, Measurement and Price Build-up, and Site and Land Surveying. From four to six projects will be expected under each heading in second and subsequent years.

## School of Engineering

The School of Engineering encompasses six departments within the College—Engineering Technology, Automobile Engineering, Aeronautical Engineering, Mathematics and Science, Metal Fabrication and Engineering Trades.

The academic work engaged upon within the school ranges from craft to full professional level. It is the School's policy to provide an integrated system, horizontally in the range of technologies and vertically in their levels. In this way it is hoped that all students will find courses suitable to their needs and abilities. Opportunities for transfer or promotion to related disciplines are provided.

The School maintains close links with industry through direct contact with employers, through vacation training, project work and research activities. The links with professional institutions are strong and there is a conscious awareness of modern needs in technological education and training.

Most of the professional engineers who graduate annually enter employment in Irish manufacturing or process industries where their thorough preparation enables them to make a useful contribution immediately. Some continue to post-graduate work at home, or abroad in Britain, Canada, or the United States.

The College is aware of the growing need for technicians in Ireland and in recent years has developed a number of new courses to meet the deficiencies which existed. The demand for technician graduates continues to expand and such courses offer very attractive prospects to young people in search of interesting careers.

The Evening School continues to form an important part of the Engineering School's activities. Programmes are kept under review and every attempt is made to assist technical personnel to keep abreast of the latest advances and new technological developments.



## TECHNOLOGICAL AND TECHNICIAN COURSES

## Technological and Technician Courses

**D/40.**

### PRELIMINARY ENGINEERING COURSE

This is a one-year whole-time course commencing each year about mid-September. Its purpose is to prepare suitable students for entry to the Professional Engineering Courses D42M or D42S or for positions as trainee technicians in the Engineering industry.

#### Entrance Requirements

Leaving Certificate of the Department of Education with good passes in Mathematics, English, and three other subjects ; or equivalent.

#### Course of Study

The subjects studied are : Mathematics, Mechanics, Engineering Technology, Physics, Chemistry, Engineering Drawing, and Liberal Studies.

#### Examinations and Other Requirements

Students are required to :  
(a) take a College examination at the end of the session ;  
(b) present laboratory notebooks and project work reports to the satisfaction of the College authorities.

#### Fees

Tuition fee : £33 per academic year payable on enrolment.  
Examination fee : £5 per annum payable in January.

**D/42M.**

### PROFESSIONAL COURSE IN ENGINEERING MECHANICAL AND PRODUCTION ENGINEERING

This is a four-year full-time course which prepares young people with a suitable aptitude and educational background for a career in Mechanical or Production Engineering and particularly for employment in manufacturing and process industries.

#### Entrance Requirements

(a) Leaving Certificate of the Department of Education with Grade C or better in the higher course in Mathematics and a Science subject, preferably Physics ; OR  
(b) Such other qualifications as the College may deem to be equivalent. Students who fail to meet the above entrance requirements may be considered for entry to the Preliminary Engineering Course (D40).

#### Course of Study

First Year—Mathematics, Applied Maths, Engineering Drawing, Engineering Technology, Experimental Physics, Chemistry, General Studies.

Second Year—Mathematics, Principles of Electricity, Applied Mechanics, Thermodynamics, Fluids, Engineering Drawing, Physics, Production Processes, Complementary Studies, Workshop and Laboratory Work.

Third Year (Final Year)—Mechanics of Materials, Mechanics of Machines, Engineering Design, Electrotechnology and Controls, Mathematics and Computer Applications and Management Studies, together with two other subjects Thermodynamics and Fluids (Mechanical options) and Production Technology, an Analysis of manufacturing systems (Production options).  
In the Final Year, students are also required to carry out an individual design or research project and to submit a thesis on the work undertaken.

#### Examination and Other Requirements

Progress to successive years of the course is decided on the basis of the student's work during the session, and success in the College sessional examination. It is an essential requirement of the course that the student completes a 2-3 month period gaining suitable practical experience during each Summer and submits a report on it. At the completion of the course students who have been successful in the Final examination and who have satisfactorily completed their project will be eligible for the award of the College Diploma in Engineering.

#### Recognition by Professional and Other Bodies

Students holding this Diploma meet the academic requirements for Membership of the Institution of Engineers of Ireland. It is also widely accepted by Universities in Ireland and abroad as meeting their academic requirements for entry into post-graduate courses. Application has been made to the National Council for Educational Awards for a degree award for those who successfully complete the course.

#### Fees

Tuition fee : £53 per academic year payable on enrolment.  
Examination fee : £5 per annum payable in June.

**D/42S.**

### PROFESSIONAL COURSE IN ENGINEERING STRUCTURAL ENGINEERING

This is a four-year full-time course which prepares young people with a suitable aptitude and educational background for a career as Structural Engineers. Structural Engineering is branch of Civil Engineering related to the design of buildings, bridges, dams and other construction projects.

#### Entrance Requirements

(a) Leaving Certificate of the Department of Education with Grade C or better in the higher course in Mathematics and a Science subject, preferably Physics ; OR  
(b) Such other qualifications as the College may deem to be equivalent. Students who fail to meet the above entrance requirements may be considered for entry to the Preliminary Engineering Course (D40).



<b>Course of Study</b>	<p>First Year—Mathematics, Applied Maths, Engineering Drawing, Engineering, Technology, Experimental Physics, Chemistry, General Studies.</p> <p>Second Year—Mathematics, Physics, Fluids, Mechanics, Structural Drawing and Design, Building Technology, Surveying, Complementary Studies, and Laboratory Work.</p> <p>Third Year—Mathematics, Mechanics of Materials, Theory of Structures, Design of Structures, Civil Engineering Materials, Building Services, Surveying and Management Studies.</p> <p>Fourth Year—Mathematics, Mechanics of Materials, Specifications, Quantities and Cost Control, Theory of Structures, Design of Structures, Road and Municipal Engineering, Management Studies, and a Project.</p>
<b>Examination and Other Requirements</b>	<p>Progress to successive years of the course is decided on the basis of the student's work during the session, and success in the College sessional examination. It is an essential requirement of the course that the student completes a 2-3 month period gaining suitable practical experience during each Summer and submits a report on it.</p> <p>At the completion of the course, students who have been successful in the Final Examination and who have satisfactorily completed their project will be eligible for the award of the College Diploma in Engineering.</p>
<b>Recognition by Professional and Other Bodies</b>	<p>Students are encouraged to apply for Student Membership and later for Corporate Membership of the Institution of Engineers of Ireland and the Institution of Structural Engineers. Application is being made to the National Council for Educational Awards for a degree award for those who successfully complete the course.</p>
<b>Fees</b>	<p>Tuition fee : £53 per academic year payable on enrolment.</p> <p>Examination fee : £5 per annum payable in January.</p>

#### D/43C **CIVIL ENGINEERING TECHNICIANS' CERTIFICATE COURSE**

This is a one-year wholtime course followed by two years of part-time studies, to prepare students for Civil Engineering Technician National Certificate. At the end of the first year successful students take up suitable employment and in the subsequent two years they attend the College on one day and two evenings per week. They may also transfer to Course D/46C which enables them to continue their studies on a wholtime basis.

<b>Entrance Requirements</b>	<p>Leaving Certificate or equivalent, with Mathematics, and preferably Drawing and a Science subject.</p>
<b>Course of Study</b>	<p><b>First Year</b></p> <p>Mathematics, Engineering Science, Mechanics, Drawing, Surveying, Building Construction and Materials, and General Studies.</p> <p><b>Second &amp; Third Years</b></p> <p>Seven subjects from the following: Structural Design and Detailing, Engineering Materials and Laboratory Work, Mathematics and Computation, Construction Services and Supplies, Surveying, Planning and Administration, and General Studies.</p>
<b>Examinations and Other Requirements</b>	<p>At the end of each year students take a College Examination which is moderated by the National Council for Educational Awards.</p> <p>Fee 1st year £38.00 per annum; 2nd and 3rd years £16.00 per annum.</p>

#### D/43V. **HEATING, VENTILATING + AIRCONDITIONING TECHNICIANS' COURSE**

This is a part-time day and evening course intended to prepare suitable students for the City & Guilds of London examinations for the Heating, Ventilating & Airconditioning Technicians' Certificate (No. 632).

<b>Entrance Requirements</b>	<p>(a) Satisfactory completion of the first year of Course D43M or</p> <p>(b) Dept. of Education Intermediate Technological Certificate or</p> <p>(c) Leaving Certificate with Honours in Mathematics, Physics and Drawing or</p> <p>(d) GCE "O" Level in Mathematics, Physics, Drawing, and English.</p>
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<b>Course of Study</b>	<p><b>First Year</b></p> <p>Heating &amp; Hot Water Services, Drawing &amp; Design, Principles of Electricity, Mechanics &amp; Mechanics of Fluids, Ventilation &amp; Air Conditioning.</p> <p><b>Second Year</b></p> <p>Heat Generation and Boilerhouse Practice, Ventilation &amp; Air Conditioning, Heating &amp; Hot Water Services.</p>
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**Examinations and Other Requirements** At the end of the first year students take the Part I examination (No. 632) of the City & Guilds of London Institute, and they take Part II at the end of the second year.

Fee £16.00 per annum.

#### D/44. DIPLOMA COURSE IN MOTOR INDUSTRY MANAGEMENT

This three-year wholtime course prepares students for entry into the many and varied responsible positions in the Motor Industry. Classes begin in mid-September and end in May. Weekly attendance at lectures and practical work is approximately 30 hours.

**Entrance Requirements** The entrance standard is Leaving Certificate or equivalent preferably with passes in Mathematics, Physics and English. Candidates will be called for interview before being finally accepted for admission to the course.

**Course of Study** First Year—Automobile Engineering, Heat Engines, Applied Mechanics, Drawing, Mathematics, Chemistry, and Management Studies.  
Second Year—Automobile Engineering, Heat Engines, Applied Mechanics, Drawing, Mathematics, and Management Studies.  
Third Year—Automobile Engineering, Mathematics, Motor Industry Management, Fleet Transport Management, Industrial Sociology, Accountancy, and a Project.

**Examinations and Other Requirements** Progress to successive years of the course will be on the basis of the student's work during the session and success in the College sessional examinations. An essential requirement of the course is that students spend 2-3 months of each Summer Vacation in suitable employment in the Motor Industry gaining appropriate experience. Where students are unable to arrange Summer employment, the Graduate Society of the Institute of the Motor Industry and the College Authorities will assist in their placement for this purpose.

**Recognition by Professional Bodies** Success in this course qualifies applicants for full exemptions from the examination requirements of the Institute of Motor Industry.

**Fees** Tuition fee : £38 per academic year payable on enrolment.  
Examination fee : £5 per annum payable in January.

#### D/45. AIRCRAFT TECHNICIANS' COURSE

This course is a three-year sandwich course to train Aircraft Technicians for the ICAO Licensed Maintenance Engineers' Licences issued by the Department of Transport and Power. Students attend the College from September to May inclusive and spend the remainder of the year in the Aircraft Industry.

**Entrance Requirements** (a) Intermediate Certificate of the Department of Education in suitable subjects.

(b) Day Group Certificate of the Department of Education in suitable subjects.

**Course of Study** **First Year**  
French, English, Social Science, Physics, Mechanics, Mathematics, Drawing, Chemistry, Workshop Technology, Workshop Practice, Aero-Laboratory and PT.

**Second Year**  
As above except Heat Engines instead of Physics.

**Third Year**  
As above together with Materials.

**Examination and Other Requirements** Students are required to pass examinations as follows :  
(a) At the end of the first year the Department of Education Junior Trade Group Certificates and Elementary Stage Technological Examinations in Mechanical Engineering.  
(b) At the end of the second year—the Department of Education Senior Trade Group Certificate, Intermediate Stage Technological Examinations in Mechanical Engineering and City and Guilds of London Institute Examination in Aeronautical Engineering Practice Part I.  
(c) At the end of the third year—the Department of Education Senior Turning and Senior Workshop Technology and the Department of Transport & Power basic L.M.E. Certificate.

Fee £33.00 per annum.



**D/46C. CIVIL ENGINEERING TECHNICIAN CERTIFICATE AND DIPLOMA COURSE**

This course prepares students for a Technician Certificate award in Civil Engineering at the end of two years and for a Technician Diploma award at the end of a further year of study. The students attend the College from the end of September until the end of May each year and they spend the Summer months gaining practical experience in approved Civil or Structural Engineering design offices, construction sites, etc.

**Entrance Requirements**

First Year—Leaving Certificate or equivalent with good passes in Mathematics, a Science subject (preferably Physics), English and two other subjects.

Third Year (Diploma Stage)—Students are expected to reach a high standard in the Certificate Examination at the end of the second year to qualify for admission to the third year of the course leading to the Diploma award.

**Course of Study**

First Year—Mathematics, Engineering Science, Mechanics, Drawing, Building Technology, Surveying and General Studies.  
Second Year (Certificate Stage)—Structural Design and Detailing, Mathematics and Computation, Engineering Materials and Laboratory Work, Surveying, Construction Services and Supplies, Planning and Administration and General Studies.  
Third Year (Diploma Stage)—Theory of Structures, Structural Design, Municipal and Road Engineering, Mathematics and Data Processing, and Management Studies. It is also necessary for each student to complete an individual design or investigation project during this year of the course.

**Examination and Other Requirements**

(a) Students take a College examination at the end of each session which is moderated by the National Council for Educational Awards.  
(b) They are required to submit a report on their Summer vacation training each year and also reports on their project and laboratory work.

**Recognition by Professional Bodies**

Those who have successfully completed the Certificate Stage of this course are deemed to meet the academic requirements for Technician status by the Institution of Engineers of Ireland, while those who have completed the Diploma Stage are at Technician Engineer level. They can qualify for the non-Corporate Associateship grade of membership after they have completed a suitable period of practical training. Similar recognition has been given to the course by some of the British professional engineering institutions and technician bodies.

**Fees**

Tuition fee : £38 per academic year, payable on enrolment.  
Examination fee : £5 per annum, payable in January.

**D/46H. ENVIRONMENTAL ENGINEERING TECHNICIAN CERTIFICATE AND DIPLOMA COURSE**

This course prepares students for a Technician Certificate award in Environmental Engineering at the end of two years and for a Technician Diploma award at the end of a further year of study. The students attend the College from the end of September until the end of May each year and they spend the Summer months gaining practical experience in Heating, Ventilating and Air Conditioning design in Consulting Engineers' offices.

**Entrance Requirements**

First Year—Leaving Certificate or equivalent, with good passes in Mathematics, a Science subject (preferably Physics), English and two other subjects.

Third Year (Diploma Stage)—Students are expected to reach a high standard in the Certificate Examination at the end of the second year to qualify for admission to the third year of the course leading to the Diploma award.

**Course of Study**

First Year—Maths, Mechanics, Engineering Science, Drawing, Workshop Technology, Mechanical Services and Complementary Studies.  
Second Year—Mathematics, Mechanics, Energy Utilisation, Instrumentation and Controls, Environmental Plant, Environmental Engineering Design, Lighting Acoustics and Water Services, and Complementary Studies.  
Third Year (Diploma Stage)—Mathematics and Data Processing, Energy Utilisation, Instrumentation and Controls, Environmental Engineering Design, Environmental Plant, Lighting Acoustics and Water Services, Management Studies and a Project.

**Examination and Other Requirements**

(a) Students take a College examination at the end of each session, which is moderated by the National Council for Educational Awards.  
(b) They are required to submit a report on their Summer vacation training each year and also reports on their project and laboratory work.

**Recognition by Professional Bodies**

Those who have successfully completed the Certificate Stage of this course are deemed to meet the academic requirements for Technician status by the Institution of Engineers of Ireland, while those who have completed the Diploma Stage are Technician Engineer level. They can qualify for the non-Corporate Associateship grade of membership after they have completed a suitable period of practical training. Similar recognition has been given to the course by some of the British professional engineering institutions and technician bodies.

**Fees**

Tuition fee : £38 per academic year, payable on enrolment.  
Examination fee : £5 per annum, payable in January.



**D/46M. MECHANICAL ENGINEERING TECHNICIAN CERTIFICATE AND DIPLOMA COURSE**

This course prepares students for a Technician Certificate award in Mechanical Engineering at the end of two years and for a Technician Diploma award at the end of a further year. The students attend the College for eight months each year commencing in September, and they spend the Summer period getting practical experience in industry, design offices, etc.

**Entrance Requirements**

First Year—Leaving Certificate or equivalent with good passes in Mathematics, a Science subject (preferably Physics), English and two other subjects.

Third Year (Diploma Stage)—Students are expected to reach a high standard in the Certificate Examination at the end of the second year to qualify for admission to the third year of the course leading to the Diploma award.

**Course of Study**

First Year—Mathematics, Applied Physics, Drawing, Mechanics, Engineering Materials, Workshop Technology and Complementary Studies.

Second Year—Mathematics, Mechanics, Energy Utilisation, Production Technology, Drawing and Design, Instrumentation and Controls, Engineering Laboratory and Complementary Studies.

Third Year—Mathematics and Data Processing, Mechanics, Energy Utilisation, Production Technology, Instrumentation and Controls, Engineering Design, Management Studies and a Project.

**Examinations and Other Requirements**

- (a) Students take a College examination at the end of each session, which is moderated by the National Council for Educational Awards.
- (b) They are required to submit a report on their industrial training each year and also reports on their Project and laboratory work.

**Recognition by Professional Bodies**

Those who have successfully completed the Certificate Stage of this course are deemed to meet the academic requirements for Technician status by the Institution of Engineers of Ireland, while those who have completed the Diploma Stage are at Technician Engineer level. They can qualify for the non-Corporate Associateship grade of membership after they have completed a suitable period of practical training. Similar recognition has been given to the course by some of the British professional engineering institutions and technician bodies.

**Fees**

Tuition fee : £38 per academic year, payable on enrolment.  
Examination fee : £5 per annum, payable in January.

**D/47. PART-TIME MECHANICAL ENGINEERING TECHNICIANS' COURSE**

This part-time day course is intended to prepare suitable 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 examinations in Mechanical Engineering, Leaving Certificate or full endorsement in Final Craft Certificate with suitable craft background.

**Course of Study****First Year**

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 third year, and Part III at the end of the fourth year.

Fee £16.00 per annum.

**D/47A METALLURGICAL TECHNICIANS' COURSE**

This is a part-time course to prepare students for the City & Guilds of London Examination for Metallurgical Technicians (154) Part I.

**Duration of Course**

One day and one evening per week over two years.

**Entrance Requirements**

Leaving Certificate.

**Subjects**

Metal production ; Melting and Casting ; Alloying ; Heat treatment ; Working of Metals ; Joining of Metals ; Structures and properties of Industrial Alloys.

**Fee**

£16 per annum.



# **D/127. MOTOR VEHICLE TECHNICIANS. PART-TIME**

This part-time course prepares students for

- (1) The Department of Education Technological Certificate (Motor Car Engineering) and
- (2) The 390 City & Guilds of London Institute Motor Vehicle Technicians Certificate Parts I and II.

**Duration of Course** 38 weeks each year over 4 years.

**Attendance** 1 day (7 hours) and 2 evenings (6 hours) per week.

**Subjects** Motor Car Engineering, Engineering Science, Automobile Electricity, Mathematics, Machine Drawing and Construction, General Studies including English, Garage and Motor Workshop Practice, Laboratory (Engineering).

**Entrance Qualifications** Day Vocational Group Certificate or Intermediate Certificate with Honours in Mathematics, Science and one other subject.

Fee £11.00 per annum.

# **D/135. AUTO-ENGINEERING TECHNICIANS**

Department of Education Advanced Motor Car Engineering Technological Certificate and the 390 Part III City & Guilds of London Institute Motor Vehicle Technicians' Full Technological Certificate.

**Duration of Course** 1 year part-time day (7 hours) and 2 evenings (6 hours) each week for 38 weeks.

**Subjects** Motor Car Engineering, Automobile Electricity, Heat Engines, Applied Mechanics, Garage Organisation and Management.

**Entrance Qualifications** Department of Education Intermediate Motor Car Engineering Technological Certificate (3 subjects) or the 390 City & Guilds of London Institute Parts I and II Certificate.

Fee £11.00 per annum.

# **TRADE COURSES**

These courses are for apprentices and young journeymen in the Engineering Trades. Every facility is given to students who wish to enter for the Trade Certificate Examinations of the Department of Education or of the City & Guilds of London Institute.

These examinations are conducted in the College at the end of the session. The courses are based on the examination syllabuses of these bodies. Generally, students take the Junior Stage of the Trade Certificate Examinations of the Department of Education after two years' instruction and the Senior Stage after a further two years.

Fee £6.00 per annum except in the case of designated trades where admission is free.

# **D/126**

# **AUTOMOBILE ENGINEERING**

The Department of Education Group Trade Certificates, Block Release Course, with link correspondence course.

**Duration of Course** 11 weeks of 35 hours each week.

**Subjects** Garage Practice, Motor Workshop Practice, Motor Vehicle Theory, Motor Vehicle Science and Electricity, Mathematics and Craft Calculations, Technical Drawing, General Studies, Physical Education.

**Entrance Qualifications** Day Vocational Group Certificate or Intermediate Certificate.

# **D/128**

# **AUTOMOBILE ENGINEERING**

The Department of Education Group Trade Certificate, Junior Stage, and  
The City and Guilds of London Institute Motor Vehicle Mechanics Certificate (375) Part I.

**Duration of Course** 2 years of 38 weeks each year.

**Attendance** 1 day (7 hours) and 2 evenings (6 hours) each week.

**Subjects** Motor Vehicle Technology, Motor Vehicle Electricity, Engineering Science, Mathematics, Technical Drawing, Garage and Motor Workshop Practice, General Studies.

**Entrance Qualifications** Day Vocational Group Certificate or Intermediate Certificate.



**D/129 AUTOMOBILE ENGINEERING**

The City and Guilds of London Institute Motor Vehicle Mechanics' Certificate (375) Part II.

**Duration of Course** 2 years of 38 weeks each year.

**Subjects** A more advanced treatment of the subjects included in the Part I (375) course (D/128).

**Entrance Qualifications** (375) Part I of the Certificate.

**D/130 AUTOMOBILE ENGINEERING**

The City and Guilds of London Institute Motor Vehicle Parts Department Practice Certificate (376).

**Duration of Course** 2 years part-time day and evening course (9 hours per week).

**Subjects** Parts Merchandising, Commercial Practice and Office Procedures, Stores Administration, Motor Vehicle Knowledge, General Studies including English.

**Entrance Qualifications** (375) Part I of the Certificate.

**D/131 AUTOMOBILE ENGINEERING**

The City and Guilds of London Institute Motor Vehicle Electricians' Course (375).

**Duration of Course** 2 years part-time day and evening course (9 hours per week).

**Subjects** Motor Vehicle Technology; Motor Vehicle Electricity; Engineering Science and Mathematics; Technical Drawing; Electrical Workshop Practice; General Studies.

**Entrance Qualifications** (375) Part I of the Certificate.

**D/132 AUTOMOBILE ENGINEERING**

The Department of Education Group Trade Certificate, Senior Stage.

**Duration of Course** 3 years of 38 weeks each year.

**Attendance**  $\frac{1}{2}$  day (3 $\frac{1}{2}$  hours) and 2 evenings (6 hours) each week.

**Subjects** Garage Practice; Motor Workshop Practice; Motor Vehicle Theory; Motor Vehicle Science and Electricity; Mathematics and Craft Calculations; Technical Drawing; General Studies.

**Entrance Qualifications** The Department of Education Group Trade Certificate, Junior Stage.

**D/133 AUTOMOBILE ENGINEERING**

City and Guilds of London Institute Motor Vehicle Body Repair Endorsement—375 Part III.

**Duration of Course** 1 year part-time day and evening (9 hours per week).

**Subjects** Motor Body Technology; Drawing and Sketching; Motor Body Workshop Practice; Materials used in Motor Body Construction; Refinishing Practice.

**Entrance Qualifications** City and Guilds of London Institute Motor Vehicle Mechanics Certificate, 375 Parts I and II.

**D/134 AUTOMOBILE ENGINEERING**

The City and Guilds of London Institute Compression Ignition Engine Maintenance Work Endorsement on 375 Certificate—375 Part III.

**Duration of Course** 1 year part-time day and evening course (9 hours per week).

**Subjects** Compression Ignition Engine Technology; Compression Ignition Engine Maintenance; Fuel Injection System Maintenance.

**Entrance Qualifications** City and Guilds, Motor Vehicle Mechanics Certificate 375 Parts I and II.

D/141

**FITTING AND TURNING**

Junior and Senior Trade Certificates, Department of Education.

**Duration of Course**

Four year block release course (11 weeks duration).

**Subjects**

Workshop Practice and Theory, Mathematics, Engineering Science, Technical Drawing, Physical Training, General Studies.

\*D/143

**GAS+ELECTRIC WELDING**

A five-year Course requiring attendance on one day per week. This Course meets the requirements of the Irish Welding Association qualification tests for Welders.

\*D/149

**SHEET METAL**

A four-year course requiring attendance on one day and two evenings per week.

\*D/150

**METAL FABRICATION**

A four-year course requiring attendance on one day and one evening per week.

\*D/151

**PLUMBING/HEATING FITTING**

A four-year Course requiring attendance on one day per week.

\*Conducted in the School of Trades.

**SHORT COURSE PROGRAMME**

A series of 2-5 day short courses on modern developments in Engineering Technology will be organised at different stages during the session. These will include:—

- (a) Low Cost Automation;
- (b) Fluid Power;
- (c) Maintenance Management Techniques;
- (d) Modern Production Methods;
- (e) New Developments in Welding Technology.

**LITHOGRAPHY AND PHOTO LITHOGRAPHY**

The Lithography Department covers the requirements of the Department of Education syllabus up to Senior level and of the City and Guilds Advanced Certificate syllabus. The course provides a sound training in lithographic printing, and the use of the lithographic printing process in the design and production of a wide variety of artwork, including booklets, brochures, posters, and other printed matter. The course includes instruction in Theory, Practice, Applied Science, Library Studies and Art.

**BOOKBINDING AND PRINT FINISHING**

The Bookbinding Department covers the requirements of the Department of Education syllabus up to Senior level and of the City and Guilds Advanced Certificate syllabus. The course provides a sound training in bookbinding, and the use of the bookbinding process in the design and production of a wide variety of artwork, including booklets, brochures, posters, and other printed matter. The course includes instruction in Theory, Practice, Applied Science, Library Studies and Art.



## School of Printing + Book Production

The School provides courses at technological, technician and apprentice level in the following disciplines :

### COMPOSING

The Composing Department covers the requirements of the Department of Education Syllabus up to Senior level and of the City and Guilds Advanced Certificate Syllabus. The curriculum includes instruction in Theory, Practice, Typographic Design, Mechanical Composition, Photo-composition including filmsetting and make-up, Applied Science, Liberal Studies and Irish.

### PHOTOTYPOGRAPHY

Courses in this section are for re-training compositors in the latest composing techniques in Film Assembly and Photo Headliner display setting.

There are also keyboard conversion courses on the IBM Composition System, combined with Photo Headliner display setting and paper make-up techniques.

### LETTERPRESS MACHINE PRINTING

The Letterpress Department covers the requirements of the Department of Education Syllabus up to Senior level and of the City and Guilds Advanced Certificate Syllabus. The equipment includes a wide variety of handfed and automatic platens, automatic cylinder presses and a two-colour sheet-fed-rotary. Various types of anti set off spray are in use and a wide variety of ancillary aids and measuring instruments are provided, including pre-make ready equipment, mechanical overlays, a precision proofing press and a duplex register table. The curriculum includes instruction in Theory, Practice, Applied Science, Liberal Studies and Irish.

### LITHOGRAPHY AND PHOTO LITHOGRAPHY

The Lithographic Department covers the requirements of the Department of Education Syllabus up to Senior level and of the City and Guilds Advanced Certificate Syllabus. The course provides a sound training in Photolithographic platemaking, step and repeat work and offset printing. It includes instruction in the Theory and Practice of Platemaking and Press operation, Applied Science and Liberal Studies.

### BOOKBINDING AND PRINT FINISHING

The Bookbinding Department covers the requirements of the Department of Education Syllabus up to Senior level and of the City and Guilds Advanced Certificate Syllabus. The course provides experience in hand and mechanised bookbinding, finishing and print finishing processes and includes instruction in technical Theory and Practice, Applied Printing, Applied Science, Design and Liberal Studies.



## TECHNICIAN COURSES

D/81

### HIGHER PRINTING EDUCATION

This is a two-year block release course of 12 weeks each year for selected students to prepare them for positions of responsibility in the industry. Candidates for this course will be of senior or post apprenticeship status in the age group 20-25 years and a maximum number of twelve will be enrolled each session. Selection will be based on a satisfactory result to interview and the minimum qualification is the Senior Certificate of the Department of Education—or its equivalent—in the various disciplines. The field of study will be concentrated mainly on Technology, Management and Science. Students will be required to prepare and submit, under supervision, projects in each of these areas. The course will be supplemented by visits to industry, paper and ink laboratories and by lectures on particular topics from external lecturers.

Fee £21.00 per annum.

D/82

### TRAINING FOR ADMINISTRATIVE STAFF

This course is intended for those engaged in the administrative side of printing with a view to preparing them for higher administrative posts in the industry.

The age group for trainees is between 18 and 24 years, and the minimum educational qualification required is the Department of Education Leaving Certificate.

To secure optimum results the numbers enrolled for the course will be limited to a maximum of twelve each year.

The course occupies three years and attendance for one day and two evenings each week is required.

#### Year One

Principles of Accounts, Structure of Commerce, Economic History. Practical appreciation of the techniques of the work of hand and mechanical composing; Bookbinding and Print Finishing; Graphic Reproduction; General Technical Knowledge.

#### Year Two

Principles of Economics, Printing Office Procedure, Practical appreciation of the techniques of letterpress machine printing, photo-litho platemaking and offset lithographic printing; photo-composition, typewriter composition, film and paper make-up; Cost Accountancy for Printers, Estimating for Printers, Production Planning.

#### Year Three

Industrial Law, Work Study, Communications in Industry, Principles of Management, Financial Accounting, Cost Accountancy for Printers, Estimating for Printers, Business Organisation, Production Planning.

Fee £16.00 per annum.

D/83

### PRINTING ADMINISTRATION

This course is intended for those who wish to seek a professional career in the graphic arts industry. The course will be organised so as to allow students during the Summer vacation to obtain direct contact experience with administration and production techniques in the industry.

Duration of Course

Three years' full-time attendance.

Entrance Requirements

Leaving Certificate of the Department of Education or such other qualifications as the College may deem to be appropriate.

Subjects

Design for Printing, Graphic Reproduction, Letter Assembly, Machine Printing, Bookbinding and Print Finishing Processes, Structure of Industry, Work Study, Legal Aspects of Business, Statistics, Industrial Administration, Production Management, Economics and Finance, Costing and Estimating.

Fee

£38 per annum.

D/88A.

### PRINTING TECHNOLOGY—COMPOSING

D/88B

### PRINTING TECHNOLOGY—LETTERPRESS MACHINE PRINTING

D/88C

### PRINTING TECHNOLOGY—LITHOGRAPHY AND PHOTO LITHOGRAPHY

D/88D

### PRINTING TECHNOLOGY—BOOKBINDING AND PRINT FINISHING

Duration of Courses

One year part-time day (7 hours) and 2 evenings (5 hours) each week for 34 weeks.

Entrance Requirements

Department of Education Senior Trade Certificate.

Fee

£11 per annum per course.



<b>Objective of Courses</b>	City & Guilds of London Institute Advanced Certificate.
<b>Subjects</b>	<p>Course D/88A General printing theory ; safety and welfare ; science ; compositors' work/film assembly; line composition; monotype composition; monotype caster; computer composition; design.</p> <p>Course D/88B General printing theory; safety and welfare; science; machine printing techniques : cylinders, sheet-fed rotary, multi-colour presses; pre-make ready.</p> <p>Course D/88C General printing theory; safety and welfare; science; plate-making; step and repeat; machine printing techniques : multi-colour, perfecting, sheet-fed and web-offset.</p> <p>Course D/88D General printing theory; safety and welfare; science; bookbinding materials; guillotines; folding and sewing machines; blocking; departmental management; design.</p>

<b>D/86</b>	<b>DESIGN FOR PRINTING</b>
<b>Duration of Course</b>	This course shall occupy two years part-time day (7 hours) and 2 evenings (5 hours).
<b>Object</b>	The course is intended for those engaged in printing and publishing houses, advertising agencies and studios. The aim of the course is to enable the student to execute a wide variety of different practical design problems in the field of design ; projects are set relating to the many different aspects of typography.
<b>Entrance Requirements</b>	Leaving Certificate or equivalent.
<b>Objectives of Course</b>	City & Guilds of London Institute Design for Printing Certificate.
<b>Fee</b>	£11.00 per annum.

<b>D/81B</b>	<b>BOOK PRODUCTION</b>
<b>Entrance Requirements</b>	A one-year part-time (6 hours) course for students studying for the book production examination of the Librarians' Association. Department of Education Leaving Certificate or equivalent qualifications.
<b>Fee</b>	£8.50 per annum.

## TRADE COURSES

These courses are for apprentices and young journeymen in the Printing, Bookbinding and Process Engraving Trades. Every facility is given to students who wish to enter for the Trade Certificate Examinations of the Department of Education or of the City & Guilds of London Institute. These examinations are conducted in the College at the end of the session. The courses are based on the examination syllabuses of these bodies. Generally, students take the Junior Stage of the Trade Certificate Examinations of the Department of Education after one year's instruction, the Intermediate stage after two years' instruction, and the Senior Stage after three years.

Fee £6.00 per annum except in the case of designated trades where admission is free.

### D/183

#### LETTERPRESS MACHINE PRINTING (Block-release course)

Consecutive courses of 12-13 weeks' duration for apprentices. During each course the apprentices attending complete a stage of the Department of Education's syllabi for the Junior, Intermediate and Senior Trade Certificate Examinations in Letterpress Machine Work. An examination in each stage is set by the Department of Education at the conclusion of each course.

### D/184

#### PHOTO PROCESSES FOR GRAPHIC REPRODUCTION

A block-release course of 12-13 weeks' duration for first and second year apprentices.

A school examination is set at the end of the first period.

Apprentices sit for the Basic Craft examination of the City & Guilds of London at the end of the second year.

### D/188.

#### STEREOTYPING AND ELECTROTYPING

A 4-year part-time course for first, second, third and fourth year apprentices of 4½ hours day instruction.

### D/190

#### COMPOSING (Block-release Course)

Consecutive courses of 12-13 weeks' duration for apprentices. During each course the apprentices attending complete a stage of the Department of Education's syllabi for the Junior, Intermediate and Senior Trade Certificate Examinations in Composing. An examination in each stage is set by the Department of Education at the conclusion of each course.



D/191

# **BOOKBINDING**

(Block-release Course)

A block-release course of 12-13 weeks' duration for apprentices. During each course, the apprentices attending complete a stage of the Department of Education syllabi for the Junior, Intermediate and Senior Trade Certificate examinations in Bookbinding. An examination in each stage is set by the Department of Education at the conclusion of each course.

D/192

# **LITHOGRAPHY AND PHOTO-LITHOGRAPHY**

(Block-release Course)

Consecutive courses of 12-13 weeks' duration for apprentices. During each course the apprentices attending complete a stage of the Department of Education's syllabi for the Junior, Intermediate and Senior Trade Certificates Examination in Lithography and Photo-Lithography Work. An examination in each stage is set by the Department of Education at the conclusion of each course.

D/195

# **FILM ASSEMBLY AND PHOTOCOMPOSING THEORY**

This is a full-time course of 7 weeks duration for trainees from industry, at the end of which a certificate examination is taken.

The course covers all aspects of Film Assembly both practical and theory, also complete theoretical breakdown of the Linofilm System of Photocomposition.

D/195A

# **FILM ASSEMBLY AND PHOTO HEADLINER DISPLAY TECHNIQUES**

Course for nightworkers (compositors and senior apprentices).

Duration of course is 26 weeks with attendance for 2½ hours on one afternoon per week. Course content is the same as E/195.

Fee £6.00 per annum.

D/196

# **ADVANCED LINOTYPE, INTERTYPE AND TELETYPESETTING**

An intensive post-apprenticeship course in practical training for craftsmen. Held on Monday, Tuesday, Wednesday and Thursday from 3.30 to 7.30 p.m.

Course commences on 6th January and terminates on 28th March, 1975.

Fee £16.00

## **School of Trades**

Part-time day and evening classes for apprentices, craftsmen, and technicians actually engaged in the construction, furniture, vehicle building, and metal fabrication industries.

### **DAY CLASSES**

Part-time day courses (D/101 - D/153) are organised for apprentices in the industries referred to above. The students are released from work, by their respective employers, to attend classes on one full day weekly. The various courses lead, over a period of four years, to the Senior Trade Tests (Theory & Practice) of the Department of Education and the relevant examinations of the City and Guilds of London Institute. Opportunities are available for students to proceed to further courses on completion of their apprenticeship.

Technician courses, involving attendance on one full day and two evenings weekly, are offered to suitably qualified persons engaged in the Construction Industry. These courses, D/4C & D/153A, prepare students for the Construction Technicians' Certificate (Parts I & II) No. 626 and the Plumbing Technician's Certificate (Parts I & II) No. 631 of the City and Guilds of London, respectively.

### **EVENING COURSES**

Evening Trade Courses, mainly at the more advanced levels, are organised on the basis of attendance of two evenings weekly. Provision is made for students to take the relevant trade tests. The School also provides a comprehensive course in Building Construction and associated subjects for those engaged in the Construction Industry. The course content is based on the syllabus of the Department of Education Technological Examinations in Building at Elementary, Intermediate and Advanced levels.



## DAY COURSES

### PART-TIME DAY RELEASE CLASSES FOR APPRENTICES

- D/101. Bricklaying.
- D/102. Plastering.
- D/105. Painting and Decorating.
- D/107. Vehicle Building.
- D/108. Vehicle Trimming.
- D/111. Cabinetmaking.
- D/112. Upholstery.
- D/113. Woodfinishing.
- D/121. Carpentry and Joinery.
- D/122. Woodcutting Machinists' Work.
- D/143. Welding.
- D/145. Foundry Work.
- D/149. Sheetmetal Work.
- D/150. Metal Fabrication.
- D/151. Plumbing/Heating Fitting.

### D/153A

### PLUMBING TECHNICIANS

Subjects of the course include Hot and Cold Water Systems, Domestic Central Heating, Gas Supply Installations, Sanitation and Drainage, Roofwork and Weathering, Plumbing Drawing and Design, Mechanics of Fluids, Measurements and Specifications, Site Procedures.

#### Entry Qualifications

- (a) Senior Trade Certificate, Leaving Certificate or equivalent and
- (b) Appropriate employment in the Construction Industry.

**Tuition Fee** £11.00 per annum.

## School of Architecture, Surveying + Building

### CONSTRUCTION INDUSTRY (SHORT TERM COURSE)

A one year Course to prepare students for the final examinations of the Royal Institution of Chartered Surveyors, the Institute of Quantity Surveyors and the Institute of Building.

**Fee** £15.00 per annum

### TECHNICAL TECHNOLOGY

### EVENING COURSES

**Fee** £15.00 per annum

## DAY COURSES

### PART-TIME DAY WEEKEND CLASSES FOR APPRENTICES

D/100. Bookbinding

D/101. Plastering

D/102. Painting and Decorating

D/103. Vehicle Bodying

D/104. V-tails Tailoring

D/105. Carpentry

D/106. Upholstery

D/107. Woodfinishing

D/108. Carpentry and Joinery

D/109. **EVENING COURSES**

D/110. Welding

D/111. Foundry Work

D/112. Sheetmetal Work

D/113. Metal Fabrication

D/114. Plumbing/Heating Fitting

### PLUMBING TECHNICIAN

Subjects of the course include Hot and Cold Water Systems, Domestic Central Heating, Gas Supply Installations, Ventilation and Ducting, Sanitary and Wastewater, Plumbing Drawing and Design, Mechanical or Fluid, Measurement and Specifications, The Trade Union.

(a) Senior Trade Certificate, Leaving Certificate or equivalent and  
(b) Appropriate employment in the Construction Industry.

Tuition Fee £11.00 per annum.

## School of Architecture, Surveying + Building

E/14.

### STRUCTURAL DESIGN

E/2

### CONSTRUCTION INDUSTRY (SHORT TERM COURSE)

A one year Course to prepare students for the final examinations of the Royal Institution of Chartered Surveyors, the Institute of Quantity Surveyors and the Institute of Building.

Fee £16.00 per annum.

E/3.

### TIMBER TECHNOLOGY

A three-year evening course to prepare students for the final examinations of the Institute of Wood Science.

Fee £11.00 per annum.



## TECHNOLOGICAL AND TECHNICIAN COURSES

### E/41. GRADUATE COURSES IN ENGINEERING

A 4/5-year course to prepare students for the examination of the following Professional Engineering bodies:

- (1) Institution of Engineers of Ireland.
- (2) Council of Engineering Institutions (CEI).

Courses will be offered if there are sufficient applicants of a suitable educational standard for the following:

- (a) Council of Engineering Institution (CEI), Institution of Engineers of Ireland.

Some or all of the following subjects may be offered: Mathematics, Mechanics, Thermodynamics, Electrotechnics, Properties of Materials and Presentation of Engineering Information. Some of these subjects may also be offered by the College of Technology, Kevin Street, Dublin 8.

- (b) Council of Engineering Institutions/Institution of Engineers of Ireland Part II. Depending on demand the following subjects may be offered: The Engineer in Society; Mechanics and Properties of Materials, Fluid Mechanics, Structural Analysis, Structural Design, Thermodynamics, Mathematics and possibly other subjects.

Full details of the syllabus and examination regulations are contained in CEI Statement No. 10 available from the Council of Engineering Institutions, 2 Little Smith Street, London SW1. Price 50p.

Before entry applicants must meet the requirements of the appropriate Institution for Student Membership. Generally the requirements for the CEI are Advanced Level GCE in Mathematics and Physics and Ordinary Level GCE in English and two other subjects.

The requirements for the student membership of the Institution of Engineers of Ireland are Leaving Certificate with Honours or GCE Advanced Level in Mathematics and one other subject and three Ordinary Level subjects including English.

Fee £11.00 per annum.

### E/54.

### STRUCTURAL DESIGN

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

Fee £11.00 per annum.

### E/40.

### GENERAL CERTIFICATE OF EDUCATION (GCE) COURSE

These are intended for students who have not reached the required standard of entry into Professional and Higher Level Technician Courses.

#### Ordinary Level

The following subjects may be offered:

English, Pure Mathematics, Additional Pure Mathematics, Physics, Chemistry and Technical Drawing. The entrance standard is Leaving Certificate or Department of Education Elementary Technological Certificate in Mechanical Engineering including Mathematics or equivalent.

#### Advanced Level

The following subjects may be offered:  
Pure Mathematics and Physics.

The entrance standard is Leaving Certificate Honours or GCE Ordinary level in the appropriate subjects.

Fee per annum:

£8.50 for four subjects.

£1.50 for each additional subject.

**E/42. TECHNOLOGICAL CERTIFICATE COURSE IN MECHANICAL ENGINEERING**

A 5/6-year course to prepare students for the Certificate examinations of the Department of Education in Mechanical Engineering as follows :

At the end of the Second year—Elementary Stage. Subjects: Maths, Mechanics, Heat, Drawing.

At the end of the Third year—Intermediate Stage. Subjects: Maths, Mechanics, Heat Engines, Drawing.

At the end of the Fourth year—Advanced Stage. Subjects: Maths, Mechanics, Heat Engines, Drawing.

At the end of the Fifth/Sixth year—Higher Technological Stage in selected subjects.

The entrance requirements are Department of Education Intermediate Certificate or Day Group Certificate with passes in Mathematics, English and a Science Subject.

Fee £11.00 per annum.

**E/43C. CIVIL ENGINEERING TECHNICIANS' CERTIFICATE COURSE**

This is a four-year evening course to prepare students in suitable employment for a College Civil Engineering Technicians' Certificate. Entrance requirements are Leaving Certificate or GCE equivalent.

**Subjects**

**First & Second Years**

Maths, Mechanics, Engineering Science, Drawing, Construction Technology, Surveying and General Studies.

**Third & Fourth Years**

Structural Design and Detailing, Engineering Materials, Surveying, Mathematics and Computation, Planning and Administration, Construction Services. General Studies.

Fee £11.00 per annum.

**E/43 M. INSTRUMENTATION TECHNICIANS COURSE**

This is a four-year evening course to prepare students employed as Instrument Technicians for the Part II 275 City & Guilds Instrumentation Technicians Certificate. The entrance requirements are Leaving Certificate (including Maths and Physics) or Department of Education Elementary Technological Certificate or equivalent.

**Subjects**

**First & Second Years**

Workshop Processes and Drawing, Mathematics and Instrument Science.

**Third & Fourth Years**

Instrument Technology, Automatic Control, Electronic and Electrical Instrumentation.

Fee £11.00 per annum.

**E/43S. STRUCTURAL ENGINEERING DESIGN/DETAILING**

This is a two-year course intended for those who have experience in structural drawing offices and are preparing for Parts I and II of the City & Guilds Structural Engineering Courses No. 630. The entrance requirement is Leaving Certificate or equivalent.

**Subjects**

**First Year**

Mathematics, Science and Mechanics, Materials, Structural Detailing, Construction Practice.

**Second Year**

Structural Theory, Design and Detailing of Structural Elements, Construction Practice.

Fee £11.00 per annum.



**E/43V. HEATING, VENTILATING AND AIRCONDITIONING**

This is a two-year evening course to prepare students for the Part I and Part II examinations of the City & Guilds of London Institute—Heating, Ventilating and Airconditioning Technicians (632).

It is a supplement to Course D/43V but may also be attended by students unable to obtain day release.

Fee £11.00 per annum.

**E/44. MOTOR INDUSTRY MANAGEMENT COURSE**

Final Associate Membership Examinations (External) of the Institute of the Motor Industry.

**Duration of Course** 2 years evening (6 hours per week) for 26 weeks each year.

**Subjects** Motor Industry Practice.  
Motor Industry Management.  
Motor Industry Accountancy.  
Motor Industry Administration and Organisation (Services Department, Parts Department or Vehicle Sales).

**Entrance Qualifications** Department of Education Advanced Motor Car Engineering Technological Certificate or the City and Guilds of London Institute Motor Vehicle Technicians' Certificate Parts I and II.

Fee £11.00 per annum.

**E/57. ENGINEERING WORKS MANAGERS' COURSE**

This two-year evening course is intended for engineering technicians and trainee engineering works managers.

**Entrance Requirements** Students should have reached the Leaving Certificate standard of general education and be suitably employed as managers or supervisors in industry.

**Course of Study** **First Year**  
Production Analysis, Economic Analysis, Psychology and Sociology, Statistics.  
**Second Year**  
Accountancy, Industrial Law, Management Techniques, Personnel Management.

**Examination and Other Requirements** Students must pass at college examinations at the end of each year. Those who successfully complete the course will be exempt from the Certificate Examination requirements of the Institution of Works Managers and hence can qualify for Graduate Membership of that body. Students are required to apply for student membership of the Institution within one month of enrolling for the Course.

Fee £11.00 per annum plus an examination fee of approx. £15.00 payable to the I.W.M.

**E/45. AERONAUTICAL ENGINEERING TECHNICIANS**

This course provides instruction for aircraft maintenance engineers who desire to take the Licence Examinations of the Department of Transport and Power.

Fee £11.00 per annum.

**E/47. MECHANICAL ENGINEERING TECHNICIAN COURSE**

This is a four-year evening course to prepare students for the examinations of the City & Guilds Institute for Mechanical Engineering Technicians Course (255). Students should have a suitable craft background and hold the Elementary Technological Certificate in Mechanical Engineering, GCE, Leaving Certificate or equivalent.

Fee £11.00 per annum.

**E/49. AUTOMOBILE ENGINEERING COURSE**

Department of Education Technological Certificate  
(Motor Car Engineering).

**Duration of Course** 5 years evening (9 hours per week).

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

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

Fee £11.00 per annum.

**E/50 COMPUTER PROGRAMMING**

This is a two-year course in which students are prepared for the City & Guilds Examination No. 746,  
(Basic Certificate Computer Programming.)

**Entrance Requirements** Leaving Certificate with Commercial or Industrial experience.

Fee £11.00 per annum.

**E/58 REFRIGERATION ENGINEERING TECHNICIANS**

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

Fee £11.00 per annum.

**E/60****DOMESTIC HEATING ENGINEERS' COURSE**

This two-year evening course prepares students for the examination of the Institute of Domestic Heating Engineers. Successful candidates will be eligible for entry to the Institute as Associate Members. The course is available only to those who are employed at a suitable level in the heating industry.

**Duration of Course**

Two evenings per week over two years.

**Entrance Requirements**

- (a) Senior Trade Certificate in Plumbing ; or
- (b) City & Guilds Plumbing (No. 617) ; or
- (c) Heating and Ventilating Craft Certificate (No. 597 or 618).
- (d) Leaving Certificate or equivalent including Mathematics and Physics.

In appropriate cases applicants with approved practical experience may enrol at the discretion of the College.

Those who fail to satisfy the above requirement may be admitted to a Preliminary Course of one year's duration.

Students who complete the Preliminary Year and pass the College examination will be admitted to Design Course.

**Subjects**

Heat Transfer ; Combustion and Controls ; Heating Systems and Equipment.

Fee £11.00 per annum.

**E/63****FIRE ENGINEERING COURSE**

This is a one-year course which prepares students for the Graduateship examinations of the Institution of Fire Engineers.

**Entrance Requirements**

Leaving Certificate or equivalent standard and employment as a Fire Officer.

**Subjects**

Science, Fireground Operations and Equipment,  
Fire Prevention and Protection.

Fee £11.00 per annum.



### E/135. AUTOMOBILE ENGINEERING

Department of Education Advanced Motor Car Engineering Technological Certificate and the 390 City & Guilds of London Institute Motor Vehicle Technicians' Full Technological Certificate (Part III).

**Duration of Course** 2 years evening (9 hours per week) for 26 weeks each year.

**Subjects** Motor Car Engineering.  
Automobile Electricity.  
Heat Engines.  
Applied Mechanics.  
Garage Organisation and Management.

**Entrance Qualifications** Department of Education Intermediate Motor Car Engineering Technological Certificate (3 subjects) or 390 the City & Guilds of London Institute Parts I and II Certificate.

Fee £11.00 per annum.

### E/139. MATERIALS HANDLING COURSE

Graduate Membership of the Institute of Materials Handling.

**Duration of Course** 3 years evening of 6 hours per week.

**Subjects** Materials Handling Technology.  
Materials Handling Equipment.  
Materials Management.  
Industrial Engineering.

**Entrance Qualifications** Department of Education Leaving Certificate or an equivalent qualification.

Fee £11.00 per annum.

## TRADE COURSES

The following evening courses are provided for Engineering Trade apprentices. Students are prepared for appropriate examinations conducted by the Department of Education and the City & Guilds of London Institute

Course E/141. Fitting & Turning.  
Course E/143. Gas+Electric Welding.  
Course E/144. Patternmaking.  
Course E/145. Foundry Work.  
Course E/149. Metal Plate Work.  
Course E/151. Heating Engineering Fitters.

Fee £5.50 per annum.

### E/133. MOTOR VEHICLE BODY REPAIR COURSE

375 City & Guilds of London Institute Motor Vehicles Body Repair Endorsement Part III.

**Duration of Course** 2 years evening (6 hours per week).

**Subjects** Motor Body Technology.  
Drawing and Sketching.  
Motor Body Workshop Practice.  
Materials used in Motor Body Construction.  
Refinishing Practice.

**Entrance Qualifications** 375 City & Guilds of London Institute Motor Vehicle Mechanics Certificate, Parts I and II.

### E/134. COMPRESSION IGNITION COURSE

375 City & Guilds of London Institute Compression Ignition Engine Maintenance Certificate, Part III.

**Duration of Course** 2 years evening (6 hours per week).

**Subjects** Compression Ignition Engine Technology.  
Compression Ignition Engine Maintenance.  
Fuel Injection System Maintenance.

**Entrance Qualifications** 375 City & Guilds of London Institute Motor Vehicle Mechanics' Certificate, Parts I and II.

**E/136. FORK LIFT TRUCK MAINTENANCE COURSE**

**Duration of Course** 6 weeks of 5 hours each week (30 hours).

**Subjects** Electro-Hydraulic Equipment,  
i.e. Engine Overhaul and Maintenance.

**Entrance Qualifications** Senior Group Trade Certificate of the Department of Education.

**E/137. WAREHOUSE SUPERVISORS (MATERIALS HANDLING) COURSE**

**Duration of Course** 6 weeks of 5 hours each week (30 hours).

**Subjects** Type of Equipment used in Materials Handling.  
Warehouse Layout.  
Safety in the Warehouse.

**Entrance Qualifications** In employment as a warehouse supervisor or with a firm offer.

**E/138. FORK LIFT TRUCK OPERATORS' COURSE**

**Duration of Course** 6 weeks of 5 hours each week (30 hours).

**Subjects** Fork Truck Knowledge.  
Loading and Stability.  
Daily Check and Inspection of Truck.

**Entrance Qualifications** In employment as a warehouse supervisor or with a firm offer.

**E/140 MOTOR MECHANICS' WORK**

**Refresher course for Motor Mechanics**

**Duration of Course** 6 weeks of 5 hours each week (30 hours).

**Subjects** Fault Diagnosis and the use of Diagnostic Service Equipment and Instruments on :  
Petrol Engines.  
Petrol Injection Units.  
Automatic Transmission Units.  
Front End and Power Steering.  
Brakes and Suspension Units.  
Automobile Electrical Units.

**Entrance Qualifications** Senior Group Trade Certificate of the Department of Education.

**E/142A MECHANICAL ENGINEERING CRAFT PRACTICE**

City & Guilds of London Mechanical Engineering Craft Practice (Course 155 Part I).

**Duration of Course** 1 year—2 evenings per week (5 hours weekly).

**Entry Qualifications** Junior Trade Certificate, Department of Education.

**E/141 FITTING AND TURNING**

Junior and Senior Trade Certificate of the Department of Education.

**Duration of Course** 4 years—evening (5 hours weekly).

**Entry Qualifications** Confined to Mechanical Engineering Apprentices.  
2nd & 4th Year classes only available.



# School of Printing + Book Production

Technician Courses

## TECHNICIAN COURSES

E/81

### HIGHER PRINTING EDUCATION

This is a two-year course to prepare students for the Department of Education Technological Certificate in Printing. The Course requires attendance at the College for three evenings (9 hours) per week during the academic year.

**Entrance  
Requirements**

The City & Guilds of London Institute Advanced Certificates in Composing; Letterpress Machine Printing; Lithography and Photo-Lithography; Bookbinding and Print Finishing.

Fee £8.50 per annum.

E/82.

### TRAINING FOR ADMINISTRATIVE STAFF

This course is a continuation of the Day Course for Administrative Staff (see Course D/82).

E/83.

### APPLIED PRINTING

A course requiring attendance for 2 evenings each week designed to provide those engaged in the Clerical and Administrative side of Printing with a general knowledge of the crafts involved in modern printing and of the materials and appliances used. Students who complete the course may enter the General Technical Knowledge examination of the British Printing Industries Federation. It is necessary to have passed the General Technical Knowledge examination to be accepted as a candidate for the following:

- (a) Estimating examination of the British Printing Industries Federation.
- (b) Printing Office Procedure examination of the British Printing Industries Federation.

Fee £6.00 per annum.

E/83A.

### PRINTING OFFICE PROCEDURE

**Object**

This course, requiring a minimum attendance for two evenings each week, is aimed at preparing printing administrative personnel for the Printing Office Procedure Examination of the British Printing Industries Federation.

**Entrance  
Qualifications**

It is recommended that those entering the course should possess the General Technical Knowledge Certificate of the British Printing Industries Federation or equivalent qualification.

Fee £6.00 per annum.

E/84A.

### COST ACCOUNTANCY FOR PRINTERS

A course requiring attendance for two evenings each week designed to prepare students for the examination of the British Printing Industries Federation.

**Entrance  
Qualifications**

Royal Society of Arts Certificate in Accounting and Office Procedure.

Fee £6.00 per annum.

E/84B.

### COST ESTIMATING FOR PRINTERS

A course requiring attendance for two evenings each week designed to prepare students for the examination of the British Printing Industries Federation.

**Entrance  
Qualifications**

Leaving Certificate and General Technical Knowledge Certificate of the British Printing Industries Federation.

Fee £6.00 per annum.

E/84C

### ADVANCED LETTERPRESS OFFSET AND LITHOGRAPHY COST ESTIMATING FOR PRINTERS

A one-year course requiring attendance for two evenings each week. Students are prepared for the British Printing Industries Federation examinations in Advanced Letterpress Estimating and Advanced Offset Lithography Estimating examinations.

**Entrance  
Requirements**

Only students who have successfully completed course E/84A will be eligible for this course.

Fee £6.00 per annum.

E/85.

### PAPER TECHNOLOGY AND MARKETING

A 2-year course for employees of Paper Mills and Paper Merchants' and Printers' employees engaged in the handling of paper transactions. Students are prepared for the examinations of the National Association of Paper Merchants and the City & Guilds of London Institute.

**Entrance  
Qualifications**

Leaving Certificate.

Fee £6.00 per annum.



E/86

## DESIGN FOR PRINTING

This is a three-year course to prepare students for the City & Guilds of London Institute examinations in Design for Printing. Classes are held on two evenings per week.

### Entrance Requirements

Department of Education Leaving Certificate or Department of Education Senior Certificate in a graphic arts subject or other equivalent qualifications.

Fee £6.00 per annum.

E/88A  
E/88B  
E/88C  
E/88D  
E/88E

## PRINTING TECHNOLOGY COMPOSING LETTERPRESS MACHINE PRINTING LITHOGRAPHY AND PHOTO-LITHOGRAPHY BOOKBINDING AND PRINT FINISHING GRAPHIC REPRODUCTION

These are courses requiring attendance at the College for three evenings (9 hours) weekly per session. The courses are aimed at preparing students for the Advanced Examination of the City & Guilds of London Institute.

Fee £8.50 per annum.

E/89A

## PRINTING PRODUCTION MANAGEMENT (DEPARTMENTAL)

### Duration of Course

A one-year course requiring attendance at the College for three evenings per week (9 hours).

### Entrance Requirements

City & Guilds of London Institute Advanced Certificate in one of the following : Composing; Letterpress Machine Printing; Lithography and Photo Lithography; Bookbinding and Print Finishing. Mature students with experience in the industry but who do not possess any of the foregoing qualifications may be in exceptional cases, admitted to the course.

### Subjects

Aspects of departmental management; human relations and communications in industry; production organisation; production processes.

### Objectives of Course

City & Guilds of London Institute Certificate in Printing Production Management (Departmental).

Fee £8.50 per annum.

E/89B

## PRINTING PRODUCTION MANAGEMENT (WORKS)

### Duration of Course

A two-year course requiring attendance at the College for three evenings (9 hours) weekly.

### Entrance Requirements

City & Guilds of London Institute Certificate in Printing Production Management (Departmental), or Full Technological Certificate in Printing, or Certificate in Supervisory Studies.

### Subjects

Financial Aspects of Management; personnel management; production management.

### Objectives of Course

City & Guilds of London Institute Certificate in Printing Production Management (Works).

Fee £8.50 per annum.

E/181

## ARTISTIC BOOK FINISHING

This evening course is open to craftsmen and others who are interested in the design of fine bindings. The lectures and practical exercises in the application of design will cover the history of book design and designers, blind and gold tooling, the use of plastic colour and foils, the preparation and treatment in finishing and binding of the various leathers and binding materials. The selection of non-craftsmen will depend on a satisfactory result to interview.

Fee £6.00 per annum.

E/181A

## BOOKCRAFT

A course for students of the College of Art. The lectures and practical exercises will cover all aspects of book production and bookbinding techniques. Particular emphasis will be laid on design and its application to the make-up and finishing of the book. Use will be made of inlays and outlays, gold, foils, plastic colour, lino cuts and marbling. Subject to satisfactory attendance students will sit for the G.C.E. A level examinations in Bookbinding at the termination of the course.



**E/181B BOOK PRODUCTION COURSE**

This is intended for those involved in the care of books particularly librarians, librarians under training, record office staff etc. It will cover mechanised book production, hand bookbinding and book repair. Particular emphasis will be laid on the advantages and/or disadvantages of the various materials and binding styles used and their alternatives which may be used in the interest of economy. The techniques and terminology of forwarding, finishing and decoration will be dealt with.

Fee £6.00 per annum.

**E/182B PRINT FINISHING FOR FEMALE EMPLOYEES OF THE PRINTING INDUSTRY**

This course covers techniques and materials used in the production of books, magazines and the wide range of miscellaneous work handled in the print finishing department. Lectures on the economies of efficient production, welfare, safety, hand and machine operations will be given. Stress will be laid on hand and machine operations, e.g., wire stitching, sewing and folding, machine and hand feeding, gathering, folding, glueing, mounting, etc.

Duration of course, 12 weeks, one evening per week.

Fee £6.00 per annum.

**E/183 LETTERPRESS MACHINE PRINTING, RETRAINING**

This is an evening course for post apprenticeship students with instruction in the latest letterpress techniques. The curriculum includes practical work on vertical presses, stop-cylinders, two revolution presses and sheet fed wraparound rotary printing, also the use of modern lining up, plate mounting and registering equipment.

Fee £6.00 per annum.

**E/185 LINOTYPE, INTERTYPE, AND TELETYPESETTING**

This course is for composing apprentices (4th and 5th year) and young journeymen who wish to become proficient in the operation of either keyboard. It covers daily maintenance routine and minor adjustments to the machines. It can be of one or two years' duration.

Fee £6.00 per annum.

**E/186 MONOTYPE CASTER OPERATION**

A course for Monotype Caster Operators who are already employed as such in the printing industry. It covers all aspects of Monotype Casting including adjustments, alignment etc.

Fee £6.00 per annum.

**E/187 MONOTYPE KEYBOARD OPERATING**

A course for composing apprentices (fourth and fifth year) and young journeymen who wish to become efficient operators. The course covers table, tabular and bookwork setting and includes machine adjustments. It can be of one or two years' duration.

Fee £6.00 per annum.

**E/190 COMPOSING RETRAINING**

This is an evening course for post apprenticeship students with specialist instruction in bookwork and advanced display, composing techniques, using modern make-up and registration equipment.

Fee £6.00 per annum.

**E/191 BOOKBINDING AND PRINT FINISHING, RETRAINING**

This is an evening course for post apprenticeship students with instruction in the latest techniques, and covers the whole range of materials and technology used in print finishing processes.

Fee £6.00 per annum.

**E/192 LITHOGRAPHY AND PHOTO LITHOGRAPHY, RETRAINING**

This is an evening course for post apprenticeship students with instruction in the latest techniques of lithographic plate making and press operation. Craftsmen having completed apprenticeship to other printing processes, undergo retraining in lithographic printing.

Fee £6.00 per annum.



E/195

# **FILM ASSEMBLY AND PHOTO HEADLINER DISPLAY TECHNIQUES**

This course is of 26 weeks duration with attendance of 3 hours on one night per week. It is open to compositors and senior composing apprentices.

The course gives both practical and theoretical coverage of all aspects of Film Assembly including correcting, proofing, display and bookwork make-up, colour separation and finalisation.

E/195A

# **IBM KEYBOARD CONVERSION AND PAPER MAKE-UP COURSE**

Entrance  
Qualifications

At present this course is only open to compositors and senior apprentices who have completed a 'Sight and Sound' touch typing course.

Object

The course enables operators to convert to the IBM 'Golfball' System and covers all aspects of IBM Composer usage, with reference to both justified and unjustified setting. Training is also provided in Paper make-up methods and materials along with Photo Headliner setting. Duration is 13 weeks with attendance for 3 hours on one night per week.

Fee £6.00 per annum.

E/196

# **DIPLOMA COURSE IN PRIVATE PRESSWORK**

This is a one-year course requiring attendance on two evenings per week. This course is intended specifically for qualified persons who can show evidence of their involvement in the private press movement. The course will include a study of Printing History/Type Design/Typography/Hand Composition/Paper/Hand illustration techniques/Inks/Handpress proofing and other relevant print techniques and materials.

Entrance  
Requirements

Leaving Certificate or equivalent.

Fee £6.00 per annum.

E/197

# **GRAPHICS WORKSHOP**

For art teachers, designers, creative artists and art students wishing to produce lithographs from stone and plate. Reproduction facilities are also available for lino and woodcuts, wood engraving, etching and silk screen.

One evening (2½ hours) per week for 26 weeks.

Entrance  
Requirements

Leaving Certificate (including Art) or equivalent.

Fee £11.00 per annum.



# School of Trades

## EVENING COURSES

### TECHNICIAN COURSES

E/1

#### CONSTRUCTION TECHNICIANS

The subjects of the course include: Building Construction, Geometry & Calculations, Plane & Solid Geometry, Builders' Quantities, Structural Engineering, Land Surveying & Setting Out. Course objectives include the Department of Education Technological Examinations in Building at Elementary, Intermediate, and Advanced Stages.

Entrance  
Qualifications

Employment in the Construction Industry.

Fee £11.00 per annum.

#### TRADE COURSES

Evening courses, mainly at advanced level, leading to the examinations conducted by the Department of Education, etc. are provided in:

- E/101. Brickwork.
- E/105. Painting and Decorating.
- E/107. Vehicle Building.
- E/108. Vehicle Trimming.
- E/111. Cabinetmaking and Design.
- E/112. Upholstery.
- E/113. Wood-finishing.
- E/121. Carpentry and Joinery.
- E/122. Woodcutting Machinist's Work.
- E/143. Welding.
- E/143A. Welding (Short Courses).
- E/144. Patternmaking.
- E/145. Foundrywork.
- E/148. Smith & Art Ironwork.
- E/149. Metal-plate work.
- E/151. Plumbing/Heating Fitting.

Entrance  
Qualifications

Employment in the relevant trade.

Fee £5.50 per annum.

Apprentices attending appropriate evening courses are not required to pay a tuition fee.

## EXAMINATIONS

At the end of each session internal examinations are held in connection with the courses. Promotion of students depends on success in these examinations. Students who have not the required attendances at the courses will not be permitted to take these examinations. Students are required to acquaint themselves with the examination and promotion regulations of the course which they take.

External  
Examinations

The courses relate to the Examinations of the following bodies:

#### 1. Department of Education

##### (a) Technological Certificate Examinations in :

- (i) Building.
- (ii) Mechanical Engineering.
- (iii) Motor Car Engineering.
- (iv) Mathematics.

##### (b) Technician Certificate Examinations in Engineering

##### (c) Trade Certificate Examinations in :

- (i) Bricklaying and Masonry.
- (ii) Brass Finishing.
- (iii) Cabinetmaking.
- (iv) Carpentry and Joinery.
- (v) Compositors' Work.
- (vi) Letterpress Machine Work.
- (vii) Lithography & Photo Lithography.
- (viii) Bookbinding.
- (ix) Metalplate Work.
- (x) Motor Car Engineering.
- (xi) Painting and Decorating.
- (xii) Plasterers' Work.
- (xiii) Plumbing.
- (xiv) Fitters' Work.
- (xv) Turners' Work.
- (xvi) Metal Fabrication.
- (xvii) Sheet Metalwork.

## Examinations

### 2. Professional Institutions

- (i) Construction Surveyors' Institute.
- (ii) Council of the Engineering Institutions.
- (iii) Institution of Engineers of Ireland.
- (iv) Institution of Mechanical Engineers.
- (v) Institution of Works Managers.
- (vi) Institution of Structural Engineers.
- (vii) The Institute of Building.
- (viii) Institute of Quantity Surveyors.
- (ix) Royal Institution of Chartered Surveyors.

### 3. Other Bodies

- (i) British Federation of Master Printers.
- (ii) City & Guilds of London Institute.
- (iii) Department of Industry and Commerce.
- (iv) Licence in Aeronautical Engineering).
- (v) Institute of Clerks of Works in Ireland.
- (vi) Institute of the Motor Industry.
- (vii) National Association of Paper Merchants.
- (viii) Associated Examining Board (GCE).
- (ix) London University (GCE).

### Note

In connection with the examinations of professional and other external bodies, students are advised to note the following :

1. Admission to a course in the College may not of itself entitle students to sit for examinations of external bodies. Students are themselves responsible for ensuring that they satisfy all the requirements of the examining body concerned.
2. Students are expected to acquaint themselves with the current regulations for the examinations which they propose to take.
3. Students must make all the necessary applications and provide all documents that may be required. In this connection any documents and certification (e.g. statements of attendance, etc.) required from the College authorities should be applied for at the earliest opportunity.
4. The College Authorities will give the fullest assistance and advice in the above matters.

## ADVISORY COMMITTEES

### Structural Engineering

P J Carroll ME MStructE MICE MIEI  
S F Dunleavy BE CEng MStructE MICE MIEI  
R T Holloway BE CEng MStructE MICE MIEI  
J J Harrington BE CEng MStructE MIEI

### Architectural Technicians

Denis J McGloughlin MIAAT  
John M McCarthy MSAAT MIAAT

### Mechanical Engineering Trades

J Cassidy General Secretary National Engineering Union  
H T Hanlon Irish Engineering Industrial & Electrical Trade Union  
P J Buckley Irish Engineering Industrial & Electrical Trade Union  
F Gray Personnel Officer Coras Iompair Eireann  
O McLoughlin Messrs Tonge & Taggart  
S O'Flaherty Managing Director Messrs Motor Distributors Ltd  
John Watt 57 Ranelagh Road Dublin 6  
T W Bamford Managing Director Universal Fabricators  
H Farrelly District Secretary United Society of Boilermakers and Iron and Steel Shipbuilders

### Heating and Ventilating Engineering

Eoin O Cionna BE MICEI AMIEE MIHVE MASHRAE MConSE  
Noel Traynor AMIHVE  
Seamus Homan AMIHVE  
Eamonn O'Brien  
Reginald Keating GIHVE



**Surveying+  
Building  
Technology**

**Royal Institution of Chartered Surveyors**

N McDonagh FRICS  
F Shanley ARICS  
D Bailey FRICS FAI  
T L Sudway ARICS

**Institute of Quantity Surveyors**

T Clear FIQS  
B McManus ARICS AIQS

**Institute of Building**

K Kelly AIOB  
N Cross AIOB

**Construction Surveyors' Institute**

J Culliton FCSI  
N Shortall ACSI

**Incorporated Association of Architects and Surveyors**

Stanley J Coggin FIAS FIARb

**Bricklaying**

Denis Murray Master Builders' Association

**Brick+Stonelayers' Society**

Francis O'Connor  
James Farrell

**Carpentry  
Joinery and  
Woodcutting  
Machinists'  
Work**

**Amalgamated Society of Woodworkers**

James Carroll

Gerard Wall Secretary Irish Society of Woodcutting Machinists

J G McCormack Master Builders' Association

H R Armstrong Messrs Brooks-Thomas & Co

**Furniture Trades**

D McCarthy O'Dea & Co Ltd  
P F McGrath Irish National Union of Woodworkers  
J Carroll Amalgamated Society of Woodworkers  
G L Wall Irish Society of Woodcutting Machinists  
J R Hunter J R Hunter & Co Ltd  
W Robinson National Union of Furniture Trade Operatives  
52 Peter's Hill Belfast 13 Northern Ireland  
P Marrey Furniture Manufacturer 20a St Joseph's Parade Dublin 7

**Plastering**

**Operative Plasterers' Trade Society**

Gerard Doyle  
T Byrne M Creedon Ltd 3 Ardee Road Dublin 6

**Plumbing**

**Association of Master Plumbers Heating & Ventilating Engineers of Ireland**

P J Clonan  
J B Doherty  
P J Duffy  
C Jones  
J N Traynor  
T Harrington

**Plumbing Trades' Union**

M Brennan  
D McKeag  
W Russell  
A Mullins

**Vehicle Building**

**National Union of Vehicle Builders**

M Jackson  
H Samway  
G J Roberts Coach and Motor Body Builder 3A Lower  
Grangegorman Dublin 7  
M F Gavigan

**Aeronautical  
Engineering**

Comdt M Winterson Army Air Corps Baldonnel  
M C McGovern Aer Lingus Teo Dublin Airport  
Capt P G McCabe Aeronautical Officer Aviation Division Department  
of Transport & Power

## Advisory Committees

<b>Motor Engineering</b>	A McAuley BSc Assistant Mechanical Engineer (Road) CIE
	<b>Society of Irish Motor Traders</b> Charles Warren
	<b>Automobile General Engineering and Mechanical Operatives' Union</b> B Leonard General Secretary P Thewlis
	<b>Irish Engineering Industrial and Electrical Trade Union</b> J Drennan M Geoghegan Robert J Porter Messrs R W Archer & Co Ltd Patrick Flanagan Messrs McCairns Motors Ltd John Keeney LSE Motors Ltd Maurice Foley Institute of the Motor Industry
<b>Structural Steelwork</b>	<b>P Dunne Irish Transport &amp; General Workers' Union</b> J D Pearson Smith & Pearson Ltd A Davidson Kennan & Sons J D Purdy J & C McLoughlin Limited
	<b>National Engineering &amp; Electrical Trade Union</b> J A Coffey L O'Neill
<b>Printing+Book Production</b>	<b>Irish Printing Federation</b> C W Warren R R Yates-Hale P Hill S Mooney
	<b>Irish Master Printers' Association</b> W D Britton M Kavanagh
	N C McGrath Irish Graphical Society
	B O Cearbhaill BA LLB Irish Graphical Society
	E Dignam Stereotypers' Society
	J Cullen Irish Bookbinders' & Allied Trades' Union
	P. Murphy Lithographic Artists' and Process-Workers' Society
	J Jeffers Photo Engraving Group
	W R Trulock National Graphical Association



## Advisory Committees

### Motor Engineering

A McAuliffe BSc Assistant Mechanical Engineer (Road) CIE

Society of Irish Motor Traders

Charles Warren

Automobile General Engineering and Mechanical Operators' Union

B Leonard General Secretary

P Threlkeld

Irish Engineering, Mechanical and Electrical Trade Union

J Dringon

M Gallagher

Robert J Parker Motors R W Archer & Co Ltd

Patrick Flanagan Motors McGilchrist Motors Ltd

John Kavanagh LSE Motors Ltd

Harold Foley Institute of the Motor Industry

### Structural Steelwork

P Deane Irish Institute of Structural Steelwork

J D Pearson Esq

WM. WARREN & SON LTD, DUBLIN

A Davidson Engineer & Joiner

J D Purdy J & C McLoughlin Limited

National Engineering & Electrical Trade Union

J A Caffry

L O'Neill

### Printing & Book Production

Irish Printing Federation

C W Warren

J A Yates-Hale

P Hill

J Murray

Irish Master Printers' Association

W D Ireland

M Kierough

N C McGrath MBE Graphical Society

B D Carroll BA L.B. Irish Graphical Society

E Dignan Typesetters' Society

J Coffey Irish Bookbinders' & Allied Trades' Union

P. Murphy Lithographic Artists' and Printers-Workers' Society

J Jeffery Photo Engraving Group

W A Trickett National Graphical Association