


1960

## Prospectus Day and Evening Courses: Session 1960-61

City of Dublin Vocational Education Committee

Follow this and additional works at: <https://arrow.tudublin.ie/proskt>

 Part of the [Curriculum and Instruction Commons](#)

---

### Recommended Citation

City of Dublin Vocational Education Committee, "Prospectus Day and Evening Courses: Session 1960-61" (1960). *Prospectus: Kevin Street*. 11.  
<https://arrow.tudublin.ie/proskt/11>

This Book is brought to you for free and open access by the Kevin Street College at ARROW@TU Dublin. It has been accepted for inclusion in Prospectus: Kevin Street by an authorized administrator of ARROW@TU Dublin. For more information, please contact [arrow.admin@tudublin.ie](mailto:arrow.admin@tudublin.ie), [aisling.coyne@tudublin.ie](mailto:aisling.coyne@tudublin.ie), [vera.kilshaw@tudublin.ie](mailto:vera.kilshaw@tudublin.ie).

33 56 93,

COISDE SAIRIM OIDEACAIS CAÉAIR ÁTA CLÍAT

MATHEMATICS

SCIENCE

BAKERY PRACTICE

CONFECTIONERY  
DECORATION

FLOUR MILLING

OPHTHALMIC AND  
DISPENSING OPTICS



ELECTRICAL  
ENGINEERING

ELECTRICAL  
INSTALLATION



RADIO AND  
TELEVISION SERVICING

RADIO OFFICERS

RADAR

POST OFFICE  
ENGINEERING

AIR NAVIGATION

CINEMA PROJECTION



Phone: 51801 & 51987

# COLLEGE OF TECHNOLOGY

Kevin Street, Dublin

---

---

## PROSPECTUS

Day and Evening Courses

---

---

SESSION  
1960-61

## CALENDAR—SESSION 1960-61

---

- 1960—SEPT. 5 Monday - Whole-time and Part-time Day Courses open for enrolment. Entrance Examinations for these Courses will be held during the week. Day Apprentice Classes commence work.
- 12 Monday - Whole-time and Part-time Day Classes commence work. Evening Courses open for enrolment and Entrance Examinations for these will be held during the week.
- 19 Monday - Evening Classes commence work.
- DEC. 16 Friday - Final Class Meetings of Day and Evening Courses before Christmas vacation.
- 1961—JAN. 2 Monday - Day and Evening Classes resume work after Christmas vacation.
- 16 Monday - Mid-session Examinations will be held for all Evening Classes during this week, except where otherwise arranged.
- MAR. 28 Tuesday - Final Class Meetings of Day and Evening Courses before Easter vacation.
- APR. 10 Monday - Day and Evening Classes resume work after Easter vacation.
- 28 Friday - Final Class Meetings of Evening Courses except Examination Classes or where otherwise arranged.
- JUNE 30 Friday - Summer Term closes, except where otherwise arranged.

On Tuesday, November 1st, *All Saints' Day*; Thursday, December 8th, *Feast of the Immaculate Conception*; Thursday, May 11th, *Ascension Day*, and Thursday, June 1st, *Feast of Corpus Christi*, all Day Classes closed. Evening Classes will be held as usual on these days.

The College is closed on all Bank Holidays.

## ADVISORY COMMITTEES

---

THE PRINCIPAL and STAFF TEACHERS acting in collaboration with:—

### AIR NAVIGATION

- R. W. O'SULLIVAN and CAPT. L. SINNOTT, Department of Transport and Power, Civil Aviation Section.
- CAPT. T. P. McKEOWN, Aer Lingus, Dublin Airport.
- CAPT. J. C. DEVOY, Trans-World Airlines, Inc.
- CAPT. B. FLANAGAN, Chief Instructor, Air Navigation Courses.
- M. J. O'FLANAGAN, B.E., Chief Inspector, Department of Education.

### BAKERY

- Irish Bakers', Confectioners' and Allied Workers Union: J. SWIFT (Chairman), T. HARMON, J. KANE, J. FARNON, T. GOULDING and R. WALSH.
- Dublin Master Bakers' Committee: J. V. DOWNES, L. KENNEDY and G. RORKE.
- Guild of Irish Bakers: BRIAN KENNEDY and P. J. MACMAHON.
- Confectionery Trade Branch, F.U.E.: W. H. LONG.

### CINEMA AND THEATRE (PROJECTION)

- Theatre and Cinema Association (Ireland): J. BRENNAN, P. CLARKE, P. J. NOLAN, M. SCANLAN.
- Cinema Branch, I.T.G.W.U.: F. ROBBINS, R. CRAWFORD, and F. O'TOOLE.

### ELECTRICAL ENGINEERING

- A. HARKIN, M.E., M.I.E.E., M.I.MECH.E., M.I.C.E.I. (Chairman) and M. MACLONNRAIC, B.E., Electricity Supply Board.
- R. C. CUFFE, B.E., PH.D., M.I.E.E. and L. COLLINS, B.E., B.SC., A.M.I.E.E., The Institution of Electrical Engineers (Irish Branch)
- A. J. LITTON, B.E., B.SC., A.M.I.C.E.I., M.I.E.E., Department of Posts and Telegraphs.
- R. A. H. JACKSON, B.E., B.SC., A.R.C.S.C.I., A.M.I.E.E., A.M.I.C.E.I., Cumann na n-Innealtóirí.
- P. H. GREER, M.I.E.E., Unidare Ltd.
- J. A. McCONNELL, M.I.E.E., Messrs. Roche and McConnell.
- M. J. O'FLANAGAN, B.E., Chief Inspector, Department of Education.

## ELECTRICAL INSTALLATION WORK

Representatives of the following Bodies:—

ELECTRICITY SUPPLY BOARD, ELECTRICAL CONTRACTORS' ASSOCIATION, CORAS IOMPAIR EIREANN, MESSRS. A. GUINNESS, SON & CO. (DUBLIN) LTD., IRISH ENGINEERING, INDUSTRIAL AND ELECTRICAL TRADE UNION, ELECTRICAL TRADES' UNION, NATIONAL JOINT INDUSTRIAL COUNCIL FOR THE ELECTRICAL TRADES, SOCIETY OF IRISH ELECTRICAL TRADERS, DUBLIN PORT AND DOCKS BOARD, DEPARTMENT OF EDUCATION.

## OPHTHALMIC OPTICS

THE PRESIDENT AND TWO MEMBERS OF COUNCIL, ASSOCIATION OF  
OPHTHALMIC OPTICIANS, IRELAND.

## POST OFFICE ENGINEERING

A. J. LITTON, B.E., B.SC., A.M.I.C.E.I., M.I.E.E.; P. SULLIVAN and E. O'DUFFY,  
B.E., A.M.I.E.E., Department of Posts and Telegraphs.  
T. GOGGIN and K. O'HIGGINS, Irish Post Office Engineering Union.  
M. J. O'FLANAGAN, B.E., Chief Inspector, Department of Education.

## RADIO SERVICE WORK

REPRESENTATIVES OF THE IRISH TRANSPORT AND GENERAL WORKERS' UNION,  
THE WIRELESS DEALERS' ASSOCIATION, AND THE RADIO SERVICE  
BRANCH, F.U.E.

## SCIENCE

PROF. T. S. WHEELER, D.SC., F.R.I.C., F.I.C.I. (Chairman).  
MR. J. ANDREWS, B.SC., F.R.I.C., F.I.C.I.  
PROF. W. COCKER, SC.D., F.R.I.C., F.I.C.I.  
DR. A. G. G. LEONARD, F.R.I.C., F.I.C.I.  
PROF. T. E. NEVIN, D.SC.  
REPRESENTATIVE OF THE DEPARTMENT OF EDUCATION.

# COLLEGE OF TECHNOLOGY—KEVIN ST.

Phone Nos. 51801, 51987.

AND

RADIO SCHOOL, 51 HARCOURT STREET

Phone No. 51469

*Principal :*

MARTIN J. CRANLEY, M.Sc., F.I.C.I., F.R.I.C.

*Assistant Principal :*

HUGH DE LACY, B.E., B.Sc., A.M.I.E.E.

## DEPARTMENT OF PURE AND APPLIED SCIENCE

*Head of Department :* Francis Nolan, M.Sc., H.Dip.Ed.

*Lecturer-in-Charge, Chemistry and Biology :*

W. Broderick, M.Sc., H.Dip.Ed., D.P.A., M.I.C.I., M.R.I.P.H.H.

*Lecturer-in-Charge, Mathematics :* John M. Forde, B.E.

## DEPARTMENT OF ELECTRICAL ENGINEERING

*Head of Department :* Hugh de Lacy, B.E., B.Sc., A.M.I.E.E.

*Lecturer-in-Charge :* Brendan Scaife, B.Sc. (Eng.), Ph.D., A.M.I.E.E.

## DEPARTMENT OF ELECTRICAL INSTALLATION WORK

*Head of Department :* Liam Trundle, Full Technological Certificate (E.E.P.) (City and Guilds of London Institute).

*Lecturer-in-Charge :* J. J. Farrell, Full Technological Certificate (E.I.W.) (City and Guilds of London Institute).

## DEPARTMENT OF TELECOMMUNICATIONS ENGINEERING

*Head of Department :* Harold Hodgens.

---

*Spiritual Directors :*

Rev. L. M. Kearns, S.J.      Rev. P. Dunne, S.J.

*Stocktaker :* Francis Nolan, M.Sc., H.Dip.Ed.

*Clerical Staff :*

Robert J. Day, Senior Clerk.

Joseph Flynn, Miss P. Sheehan.

## STAFF TEACHERS

T. Ambrose, B.Sc.	J. V. Honan, A.M.Brit.I.R.E.
S. Anthony, City and Guilds, F.T.C.	W. S. E. Hickson, M.A., M.Sc., A.Inst.P., Hons.Dip.Ed.
J. Blennerhassett	R. Kelly
L. Breen, B.Sc., Dip.Chem.Tech.	D. McManus
D. T. Carey, City and Guilds, F.T.C.	E. J. McNamara
P. Connell	D. Naessens
B. Conway, B.A., H.Dip.Ed., T.T.G.	T. P. O'Brien, A.M.Brit.I.R.E.
T. Cronin, B.E.	B. J. O'Connor, Grad.Brit.I.R.E.
K. P. Culliton, Dip.Opt.	I. O'Reilly, B.Sc., A.M.I.E.E., H.Dip.Ed.
Miss Frances Doherty, B.Sc., B.A. (Mod.).	M. J. O'Rorke
T. A. G. Dowling, B.A., B.Comm., H.Dip.Ed.	M. J. Rice, Grad.Brit.I.R.E.
M. Farrell, City and Guilds, F.T.C.	E. J. Rothery, B.Sc., M.I.C.I., A.R.I.C.
P. O. Gallchobhair, B.Eol., A.T.O.	E. G. Seale, A.M.Brit.I.R.E.
N. F. Goulding	M. J. Sheehy, B.Sc., A.Inst.P.
D. Harley	T. Short, Grad.I.E.E., Grad.Brit.I.R.E.
	I. Tighe

## PART-TIME TEACHERS

W. McD. Armstrong, Ph.D.	T. J. Kelly
C. Barry, B.Sc.	J. M. Kennedy, A.M.I.E.E.
M. Beary	D. Kiely, A.M.I.E.E.
N. Boylan	T. Lawless
W. G. Brady	T. McCarthy, B.E., B.L.
J. Broe	J. J. McCowan
F. N. Byrne, B.Sc.	W. McGuinness, B.A.
W. J. Campbell, B.E.	P. G. McNamara, B.E.
J. E. Colbert, A.M.I.E.E.	J. P. Maguire, Grad.Brit.I.R.E.
J. Connell	T. P. Mahon
J. Cotter	P. Masterson
D. Cummins	D. Nolan, L.R.C.P. & S.I., D.P.H.
J. Daly, B.E.	R. O'Brien
R. A. D'Arcy, B.Sc., M.I.C.I., A.R.I.C.	F. M. O'Carroll, B.Sc., A.I.S.
W. de Lacy	J. O'Connor
T. Delaney	T. K. O'Donnell, M.Sc.
J. W. Devon	T. O'Halloran
E. D. Doyle, Grad.Brit.I.R.E.	J. O'Keeffe, A.M.I.E.E.
V. Duggan, A.M.I.E.E.	M. O'Sullivan
Capt. B. Flanagan	C. O'Toole, M.Sc.
A. Folan, Grad.Brit.I.R.E.	A. W. Patterson
E. C. Hanley, B.E.	J. Ring, B.A.
P. Harrington, A.M.I.E.E.	V. Roddy, A.M.I.E.E.
P. Haughey, Grad.Brit.I.R.E.	A. Ryan, B.E.
M. Hayes	T. J. Sheerin
F. Hill, M.Sc., M.I.C.I.	S. A. Slator, A.M.Brit.I.R.E.
D. Hogan	M. Smyth
R. Hooper, B.E.	P. A. Start, B.A., M.Sc.
R. Howley	K. F. Williams, M.Brit.I.R.E.
J. B. Kearns, B.Sc.	J. J. Woods, Grad.Brit.I.R.E., Grad.I.E.E.

## **REGULATIONS GOVERNING THE ADMISSION OF STUDENTS TO CLASSES AND COURSES**

The attention of all students is directed to the General Regulations for Schools and Classes operating under the authority of the City of Dublin Vocational Education Committee. These Regulations are displayed on the Notice Board in the Hall and they govern Admission and Enrolment, Fees, Transfers, Formation and Continuance of Classes, Discipline, etc.

### **ENROLMENT**

Intending students are required to show evidence of ability to profit by the instruction before being approved for admission to any stage of a particular Course. Acceptance for admission to any Course of Study must be certified on the standard enrolment form by the responsible Teacher-in-charge or by the Head of Department, Assistant Principal or Principal. The requisite Course Fees, together with the completed form of enrolment, must be lodged in the College office; the sole certification of enrolment in a Course is the official receipt for the Course Fees paid. Registration on Class Rolls and entry on the Course of Study provided by any Class may be made only on presentation to the Lecturer or Instructor in control of the Class of the appropriate official Course receipt and Class Ticket.

### **SESSIONAL EXAMINATIONS AND CLASS PROMOTION REGULATIONS**

Examinations are held at end of Session in respect of each class-subject; no student shall be admitted to the Examinations who has not made at least three-fourths of the possible attendance, except in very special circumstances and at the discretion of the Principal. Promotion to a Higher Stage of instruction in any subject is contingent on passing the Sessional Examinations in the Lower Stage. An Experimental Record Book is required to be maintained by each student of a Laboratory Class; an assessment shall be made at end of Session of each student's progress in laboratory technique and experimental ability.

### **TRADE CLASSES**

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. For admission to Trade Classes proof of actual employment in the several processes and operations of the trade will be certified to that effect from the Masters' Association and/or the official Trade Unions of the trade concerned.

Enrolment subsequent to Monday, 3rd October, 1960, may be made only on the authority of the Principal.

## WHOLE-TIME COURSES

### *Ref.:* W.R.S.      **Radio Service Work**

*Teacher-in-Charge:* J. V. HONAN, A.M.BRIT.I.R.E.

Course Fee: £8

(£4—September to December; £4—January to June).

Senior Students' Union Subscription, 10/-.

The Course, covering a period of two Sessions, is designed to meet the needs of students desiring full training and certification in Radio Service Work. Applicants should not be less than sixteen years of age and should hold the Primary School Leaving Certificate, and, in addition, have at least one year's satisfactory whole-time attendance at a technical or secondary school. They will be required to pass an entrance examination in English and Mathematics. Not more than fifteen students will be enrolled in any one year of the Course. The subjects of the Course and the allocation of hours to each subject are: **FIRST YEAR:** Magnetism and Electricity, 6; Radio Theory, 6; Practical Radio Service, 9½; Mathematics, 3; English, 3; Drawing, 1½; Religious Knowledge, 1. **SECOND YEAR:** Alternating Current and Electrical Calculations, 3; Radio Theory, 6; Practical Radio Service, 12½; Electronics and Tutorial, 3; Business Methods, 1½; Religious Knowledge, 1. In the third term of the second year, Radio Theory will be replaced by Television Theory and Practical Radio Service will include 6 hours per week of Practical Television Servicing.

Students sit for the examinations in Radio Service Work of the Department of Education and the City and Guilds of London Institute, held during the Summer Term each year.

### *Ref.:* W.R.O.      **Radio Officers Certificate Course** (Mercantile Marine)

*Teacher-in-Charge:* H. HODGENS.

Course Fee: £5 per term.

Senior Students' Union Subscription, 10/-.

This Course is conducted in the Radio School, 51 Harcourt Street, which is part of the College of Technology, Kevin Street.

The Course prepares students for the examinations for a certificate of competency in Radiotelegraphy and Radiotelephony conducted by the Department of Posts and Telegraphs. This Certificate confers eligibility for employment as a Radio Officer in the International Mercantile Marine Services.

## WHOLE-TIME COURSES

The instruction includes Lectures and Practical Work in Technical Electricity, Radio Communication and Direction Finding and training and practice in maintenance and servicing of Marine Radio equipment, in sending and receiving in the Morse Code, in operating procedures and traffic working, and in the Merchant Shipping Rules and the International Regulations. The College is equipped with approved types of Radio Apparatus as required by the Merchant Shipping Rules, 1953.

The duration of the period of training requisite for the acquirement of a First Class State Certificate of Competency is approximately two sessions. The Certificate Examinations are conducted in the College during December, March and June in each session by the Department of Posts and Telegraphs.

The Classes are held each week-day except Saturday from 9.30 a.m. to 12.30 p.m., and from 2 p.m. to 5 p.m., with one half-day each week.

The Syllabuses followed in the Course are those published by the Department of Posts and Telegraphs in conformity with the International Radio Regulations (Telecommunications) Convention, Atlantic City, 1947.

The subjects of the Course and the allocation of hours per week to each subject are as follows:—

FIRST YEAR : 1ST AND 2ND TERMS : Technical Electricity, 6; Morse, 17; International Regulations,  $1\frac{1}{2}$ ; Typewriting,  $1\frac{1}{2}$ ; Social Science, 1. 3RD TERM : Technical Electricity, 3; Radio Communication Theory,  $4\frac{1}{2}$ ; Practical Radio, 6; Morse, 10; Physical Geography and Navigation, 1; Rules and Regulations,  $1\frac{1}{2}$ ; Social Science, 1.

SECOND YEAR : Technical Electricity, 3; Radio Communication Theory,  $4\frac{1}{2}$ ; Practical Radio, 6; Tutorial,  $1\frac{1}{2}$ ; Morse, 10; Rules and Regulations, 1; Social Science, 1.

ENROLMENT AND ENTRANCE EXAMINATIONS : Enrolments will be accepted in the first week of September each year and further enrolments may be accepted in the first week of the spring and summer terms if accommodation is available. Prospective students should have at least the Intermediate Certificate of the Department of Education or equivalent and will be required to pass an Entrance Examination of this standard in English and Mathematics during enrolment week.

Prospective students will be interviewed in the Radio School, 51 Harcourt Street, on September 5th–7th, 1960; January 2nd–4th, 1961; April 10th–12th, 1961. Entrance examinations will be held in the College of Technology, Kevin Street, on September 8th, 1960; January 5th, and April 13th, 1961.

## WHOLE-TIME COURSES

### **Ref.: W.R.R. Marine Radar Maintenance Certificate Course**

*Teacher-in-Charge* : M. J. RICE, GRAD.BRIT.I.R.E.

Course Fee : £8.

Senior Students' Union Subscription, 10/-.

This Course is of approximately twelve weeks' duration and enrolments are accepted during the first week of the Autumn, Spring and Summer Terms. The Course is open to those who have obtained a Certificate of Proficiency in Radiotelegraphy. Examinations for the Radar Maintenance Certificate conducted by the Department of Posts and Telegraphs are held in the College at the end of each Course. The Classes are held each weekday, except Saturday, from 10 a.m. to 12.30 p.m. and from 2 p.m. to 5 p.m.

### **Ref.: W.S.U. Pre-University Course in Science**

*Teacher-in-Charge* : W. BRODERICK, M.SC., H.DIP.ED., M.I.C.I.

Course Fee : £15 per session or £5 per term.

Fee per single subject : £2 per term.

Senior Students' Union Subscription, 10/-.

This one-year Course provides instruction in the basic sciences for students who propose to pursue University Courses in Science, Engineering, Medicine, etc., or who wish to prepare for examinations such as College of Surgeons Entrance, the Preliminary examinations of the Pharmaceutical Society of Ireland, Association of Ophthalmic Opticians, Ireland, etc. The syllabuses are those prescribed for the Matriculation examination of the National University of Ireland. The subjects of the Course and the allocation of hours to each subject per week are : Physics, 8 ; Chemistry, 6 ; Biology, 6 ; Social Science, 1.

### **Ref.: W.S.S. Senior Science Course**

*Teacher-in-Charge* : M. J. SHEEHY, B.SC., A.INST.P.

Course Fee : £10 per session.

Senior Students' Union Subscription, 10/-.

This one-year Course provides education in the basic sciences for students who intend to pursue subsequent courses in Science or Electrical Engineering in the College. The subjects of the Course and number of hours allocated to each subject during each week are : Mathematics, 6 ; Applied Mathematics, 6 ; Physics, 6 ; Chemistry, 6 ;

## WHOLE-TIME COURSES

English, 8; Social Science, 1. Prospective students should be approximately 16 years of age and should have already obtained *as a minimum* the Day Vocational Certificate (Manual Training Group) of the Department of Education with passes in Irish, English, Mathematics, Mechanical Drawing, Mechanics and Heat or Magnetism and Electricity, and Metalwork or Woodwork or the Intermediate Certificate of the Department of Education. Only exceptionally good day junior technical school students or Intermediate Certificate secondary school students can enter on the Course with prospects of success. At the end of the session, students sit the General Certificate of Education (Ordinary Level) of the University of London in the subjects English, Additional Pure Mathematics, Applied Mathematics, Physics and Chemistry. The College is a recognised centre for this examination. Successful students who intend to follow a career in Science should continue to Course W.S.I. below and those who intend to follow a career in Electrical Engineering should continue to Course S.E.E. Courses in Civil and Mechanical Engineering are provided in the College of Technology, Bolton Street.

**SCHOLARSHIPS:** The City of Dublin Vocational Education Committee offers scholarships to this Course. For details, see page 45. of this Prospectus.

### **Ref.: W.S.I. Intermediate B.Sc. Degree Course**

*Teacher-in-Charge:* E. J. ROTHERY, B.Sc., M.I.C.I., A.R.I.C.

Course Fee: £15

(£7 10s.—September to December; £7 10s.—January to June).

Senior Students' Union Subscription, 10/-.

This one-year Course provides education in Mathematics, Applied Mathematics, Physics and Chemistry for the General Certificate of Education (Advanced Level) of the University of London. Passes in three of these subjects at Advanced Level, together with a pass in English at Ordinary Level, exempts from the Intermediate Examination in Science of the University of London (Inter.B.Sc.). The College is a recognised centre for these Advanced Level Examinations. Prospective students must have already obtained the General Certificate of Education at Ordinary Level in English, Additional Pure Mathematics, Applied Mathematics, Physics, and Chemistry or attained an approved equivalent standard.

The subjects of the Course and the number of hours per week allocated to each subject are: Mathematics,  $7\frac{1}{2}$ ; Applied Mathematics, 8; Physics, 9; Chemistry, 8; Biology (Ordinary Level), 6; Industrial Organisation,  $1\frac{1}{2}$ ; Philosophy, 1. Each student has the choice of taking *either* Applied Mathematics *or* Chemistry—the two subjects *cannot* be taken together. It is anticipated that successful

## WHOLE-TIME COURSES

students of the Course will obtain employment in industries which utilise scientific processes, and by subsequent attendance at appropriate evening classes in the College may proceed to the B.Sc. (External) Degree of the University of London.

### *Ref.:* W.S.O. Ophthalmic and Dispensing Opticians' Course

*Teacher-in-Charge:* K. P. CULLITON, DIP.OPT.

Course Fee: £20 per session.

Students' Union Subscription, 10/-.

This Course provides for the education and training of Ophthalmic and Dispensing Opticians. Consequent on the Opticians Act, 1956, it is now necessary for all Ophthalmic and Dispensing Opticians to be registered under the Act by Bord na Radharcmhastoiri. Future entrants to these professions must attend courses of training and pass examinations approved by Bord na Radharcmhastoiri. The first two years of the Course are common to both Ophthalmic and Dispensing Optician students. The third year of the Course is provided for Ophthalmic Optician students only. The Association of Ophthalmic Opticians, Ireland, and the Irish Association of Dispensing Opticians co-operate with the Vocational Education Committee in organising the Course, which is approved by Bord na Radharcmhastoiri. At the end of each year of the Course, students will sit examinations conducted or approved by the Bord. Prospective students must have passed the Matriculation or Leaving Certificate in Irish, English, Mathematics, and two other subjects, or possess an approved equivalent standard of general education. The subjects of the Course and the allocation of hours per week to each subject are:—

**FIRST YEAR:** Mathematics, 6; Physics, 7½; Chemistry, 6; Biology, 1 term, 9; Anatomy and Physiology, 2 terms, 9; Workshop Practice, 3; Social Science, 1½.

**SECOND YEAR:** Light and Optical Instruments, 1st and 2nd terms, 6; Geometrical Optics: 1st term, 9; 2nd term, 6; Anatomy and Physiology: 1st term, 9; 2nd term, 3; Physiological Optics: 2nd term, 9; 3rd term, 12; Workshop Practice, 3; Optical Dispensing: 1st and 2nd terms, 3; 3rd term, 10½; Optometry, 3rd term, 4½; Ethics, Law and Elementary Commerce, 1½; Social Science, 1½.

**THIRD YEAR:** Ophthalmic Optician students only—Optometry (Theory, Methods, Practice), 18; Physiological Optics, 3; Recognition of the Existence of Abnormal Conditions, 4½; Orthoptics, 3;

## SANDWICH COURSES

Ophthalmic Instruments,  $1\frac{1}{2}$ ; Environmental Optics,  $1\frac{1}{2}$ ; Social Science,  $1\frac{1}{2}$ .

Enrolments in the first year of this Course will be accepted only in alternate years, viz., September, 1961; September, 1963.

**Ref.: W.S.H. Health Inspectors' Diploma Course**

Not offered 1960-61.

**Ref.: W.R.E. Radio Engineering Course**

*Teacher-in-Charge:* H. DE LACY, B.E., B.SC., A.M.I.E.E.

Course Fee: £20 per session.

This is a one-year Course specially arranged for Officers of the Army Corps of Signals. The subjects and allocation of hours per week to each subject are: Mathematics,  $4\frac{1}{2}$ ; Physics, 3; Electrical Engineering, 9; Radio Engineering, 3; Radio Circuit Theory,  $1\frac{1}{2}$ ; Radio Measurements,  $1\frac{1}{2}$ ; Radio Propagation,  $1\frac{1}{2}$ ; Radio Laboratory, 9.

Not offered 1960-61.

## SANDWICH COURSES

**Ref.: S.E.E. Electrical Engineering Course  
College-based Sandwich Course**

*Teacher-in-Charge:* H. DE LACY, B.E., B.SC., A.M.I.E.E.

Course Fee: £15

(£7 10s.—September to December; £7 10s.—January to June).

Senior Students' Union Subscription, 10/-.

This Course conducted over four sessions prepares students for the examinations for Graduateship of the Institution of Electrical Engineers (Grad.I.E.E.). At the end of each of the first three sessions, students will be placed with engineering firms and organisations to acquire approved practical engineering training. Approximately 50 weeks will be spent in this manner and in nearly every case the firm will give a weekly allowance to the student. Attendance, conduct and progress while undergoing practical training are subject to the same disciplinary regulations as attendance at the course. Prospective students must have passed the General Certificate of Education at Ordinary Level in the subjects English, Additional Pure Mathematics, Applied Mathematics, Physics and Chemistry or have attained an equivalent standard in each of these subjects (see Course W.S.S.). The duration of each session, the subjects of the Course and the allocation of hours per week to each subject are:—

## SANDWICH COURSES

**FIRST YEAR :** Beginning of September to end of June. Mathematics ( $7\frac{1}{2}$  hours), Applied Mathematics (8 hours), Physics (9 hours), Workshop Practice (3 hours), Drawing (3 hours), Industrial Organisation ( $1\frac{1}{2}$  hours), Philosophy (1 hour). Students are required to pass the General Certificate of Education at Advanced Level in Mathematics, Applied Mathematics and Physics at the end of the session. Practical Engineering Training : Beginning of July to the end of September.

**SECOND YEAR :** End of September to mid-April. Mathematics ( $4\frac{1}{2}$  hours), Applied Mechanics ( $4\frac{1}{2}$  hours), Heat, Light and Sound (6 hours), Principles of Electricity ( $4\frac{1}{2}$  hours), Electrical Engineering (3 hours), Electronics ( $1\frac{1}{2}$  hours), Engineering Drawing (3 hours), Theory of Machines ( $1\frac{1}{2}$  hours), Properties and Strength of Materials ( $1\frac{1}{2}$  hours), Industrial Organisation ( $1\frac{1}{2}$  hours), Philosophy (1 hour). Students are required to pass the Part I Examination of the Institution of Electrical Engineers at the end of the session. Practical Engineering Training : Beginning of May to the end of August.

**THIRD YEAR :** Beginning of September to mid-April. Mathematics ( $4\frac{1}{2}$  hours), Engineering Physics (6 hours), Electrical Engineering : Machines (6 hours), Measurements ( $4\frac{1}{2}$  hours), Circuit Theory ( $1\frac{1}{2}$  hours), Field Theory ( $1\frac{1}{2}$  hours), Electronics (6 hours), Industrial Organisation ( $1\frac{1}{2}$  hours), Philosophy (1 hour). Students are required to pass the Part II Examination of the Institution of Electrical Engineers at the end of the session. Practical Engineering Training : Beginning of May to the end of September.

**FOURTH YEAR :** Beginning of October to the end of June. Mathematics (3 hours), Electrical Engineering : Measurements (6 hours), Machines and Utilisation of Electrical Plant (8 hours), Circuit Theory ( $1\frac{1}{2}$  hours), Field Theory ( $1\frac{1}{2}$  hours), Electronics (8 hours), Industrial Organisation (1 hour), Philosophy (1 hour). Students sit the Part III Examination of the Institution of Electrical Engineers at the end of the session.

**SCHOLARSHIPS :** The City of Dublin Vocational Education Committee offers scholarships to various years of this Course. For details, see page 45 of this Prospectus.

The attention of students of the final year of the Course is directed to the Mallin Memorial Prize, which is described on page 45 of this Prospectus.

**Ref. : S.E.T.                      Electrical Engineering  
    Technicians' Course**

*Teacher-in-Charge : H. DE LACY, B.E., B.SC., A.M.I.E.E.*

**Course Fee : £5 per session.**

This Course provides for the training of Electrical Engineering Technicians to meet the needs of Irish Industry. The Course is conducted over four sessions and each session consists of 15 weeks whole-

## SANDWICH COURSES

time instruction, supplemented by 15 weeks' attendance at evening classes for two evenings each week. The Course prepares students for the Department of Education's examination in Advanced Electrical Engineering Practice, and also the City and Guilds of London Institute's Final Examination in Electrical Engineering Practice. Students are expected to sit the City and Guilds of London Institute Electrical Technicians' Certificate Examination at the end of the third year.

Prospective students will be selected only from second year Electrical Apprentices who have made satisfactory progress during their first two years of apprenticeship or from other applicants who are deemed to possess an equivalent standard of general and technical or scientific education.

The subjects of the Course and the allocation of hours per week to each subject are :—

### DAY COURSE

**FIRST YEAR :** Magnetism and Electricity ( $7\frac{1}{2}$  hours), Installation Theory ( $1\frac{1}{2}$  hours), Electrical Measurements (3 hours), Mathematics (6 hours), Physics (6 hours), Drawing (3 hours), Workshop Practice (3 hours), Tutorial (1 hour), English (1 hour), Social Science (1 hour).

**SECOND YEAR :** Elementary A.C. Theory ( $4\frac{1}{2}$  hours), Electrical Machines ( $4\frac{1}{2}$  hours), Electrical Measurements (3 hours), Mathematics (6 hours), Physics (6 hours), Drawing (3 hours), Workshop Practice (3 hours), Tutorial (1 hour), English (1 hour), Social Science (1 hour).

**THIRD YEAR :** Electrical Machines (6 hours), Industrial Electronics (3 hours), Electrical Measurements (3 hours), Mathematics (6 hours), Physics (6 hours), Drawing (3 hours), Workshop Practice (3 hours), Tutorial (1 hour), English (1 hour), Social Science (1 hour). At the end of this year students are required to sit the City and Guilds of London Institute Electrical Technicians' Final Examination.

**FOURTH YEAR :** Electrotechnology ( $4\frac{1}{2}$  hours), Distribution and Utilisation of Electrical Energy ( $4\frac{1}{2}$  hours), Electrical Measurements (3 hours), Industrial Electronics (3 hours), Mathematics (6 hours), Physics (6 hours), Drawing (3 hours), Tutorial (1 hour), English (1 hour), Social Science (1 hour). At the end of this year students are required to sit the examinations indicated in the first paragraph above.

Arrangements for Evening Classes will be made during the session.

## SANDWICH COURSES

**Ref.: S.R.P.O. Post Office Engineering**

*Teacher-in-Charge* : T. P. O'BRIEN, A.M.BRIT.I.R.E.

Course Fee : £3 per stage.

This Course is conducted under a special scheme by arrangement with the Department of Posts and Telegraphs and provides technical instruction for all Post Office Youths-in-Training. The scheme has the co-operation of the Irish Post Office Engineering Union. Each stage of whole-time instruction occupies a term (10-15 weeks each) and the whole course consists of three such stages. Each stage is associated with a further course of instruction by correspondence carried on over an additional period of approximately 30 weeks. The subjects of the Course and the allocation of hours to each subject are : **FIRST YEAR** : Magnetism and Electricity, 12; Physics,  $4\frac{1}{2}$ ; Mathematics, 6; English,  $2\frac{1}{2}$ ; Irish, 1; Civics, 1; Drawing, 3; Tutorial, 3. **SECOND YEAR** : Alternating Current and Machines, 3; Physics, 3; Electronics,  $7\frac{1}{2}$ ; Telephony,  $7\frac{1}{2}$ ; Mathematics, 6; English, 3; Irish, 1; Civics, 1; Tutorial, 1. **THIRD YEAR** : Alternating Current and Machines,  $4\frac{1}{2}$ ; Physics, 3; Electronics,  $4\frac{1}{2}$ ; Telephony,  $7\frac{1}{2}$ ; Mathematics, 6; English, 3; Irish, 1; Civics, 1; Tutorial,  $2\frac{1}{2}$ . **EXTERNAL AREAS** : Youths-in-Training from external areas are admitted under special fees by arrangement with the Vocational Education Committees concerned.

The Department of Posts and Telegraphs and the Irish Post Office Engineering Union both offer prizes for students in each year of the course. See page 46 for details.

**Ref.: S.E.S.B. Electrical Installation Work**

*Teacher-in-Charge* : L. TRUNDLE, Full Technological Certificate (E.E.P.) (City and Guilds of London Institute).

Course Fee : £3 per stage.

This Course provides for the full technical training of Apprentice Electricians and has the co-operation of the Trade Unions and the Electricity Supply Board. Apprentices receive one term's instruction (10-15 weeks—33 hours per week) during each of the first four years of apprenticeship. Each stage of whole-time instruction is associated with a correspondence course carried on over an additional period of approximately 35 weeks. The syllabuses of instruction are based on those of the Department of Education for Electrical Installation Work and Electrical Engineering Practice. The subjects of the Course and the allocation of hours are as follows for each year of the Course : Practical Installation and Cable Jointing, 9; Electrical

## SANDWICH COURSES

Installation Technology, 6; Engineering Science, 3; Drawing, 3; Mathematics, 3; Workshop Practice and Technology,  $6\frac{3}{4}$ ; English,  $1\frac{1}{2}$ ; Religious Knowledge,  $\frac{1}{2}$ .

Students are required to sit the following examinations of the Department of Education: *At end of Second Stage*: Electrical Engineering Practice, Elementary D.C., and Junior Trade Certificate in Electrical Installation Work (Theory and Practical). *At end of Third Stage*: Electrical Engineering Practice, Intermediate D.C. *At end of Fourth Stage*: Electrical Engineering Practice, Elementary A.C. and Intermediate A.C., and Senior Trade Certificate in Electrical Installation Work (Theory and Practical).

**EXTERNAL AREAS**: Student Apprentices from External Areas are admitted under special fees by arrangement with the Vocational Education Committee concerned.

A special fifth-year course is provided for selected students. This course extends over five weeks full-time and includes theoretical and practical instruction in Motors and Switchgear, Metering, Earthing, Refrigeration and Special Appliances.

The Electricity Supply Board offers prizes for students of the Course. See page 46 for details.

### **Ref.: S.E.M.S.      Electrical Installation Work (Special Summer Course)**

*Teacher-in-Charge*: L. TRUNDLE, Full Technological Certificate (E.E.P.) (City and Guilds of London Institute).

A special summer Course of 4-5 weeks whole-time instruction is provided for apprentice electricians employed by Bord na Mona and Comhlucht Siuicre Eireann Teo. The Course consists of four such stages, the third and fourth of which are conducted in the College commencing early in July each year. The earlier stages of the Course may be conducted by the City of Dublin Vocational Education Committee in another area as may be arranged with the companies and the Vocational Education Committee for that area. At the end of the second stage of the Course, students sit the Department of Education's Junior Trade Certificate Examination in Electrical Installation Work (Theory and Practical) and at the end of the fourth stage they sit the Senior Trade Certificate Examination.

Fees for the Course are specially arranged with the companies and the Vocational Education Committees for the areas in which the students normally reside.

## PART-TIME DAY RELEASE COURSES

*Ref.:* P.E.I.      **Electrical Installation Work**

Course Fee : £3 per session.

This Course, conducted on one full day and two or three evenings per week, provides technical training for Electrical Apprentices.

### FIRST YEAR

*Teacher-in-Charge:* R. KELLY.

Day	Time	Subject	Room	Teacher
Monday	7.30-10.00	Engineering Science I - -	8a	R. Kelly
Wednesday	7.30- 9.00	Drawing - - - -	14	P. Connell
	9.00-10.00	Engineering Materials - -	14	P. Connell
Thursday	9.30-10.30	English and Technical Reports -	3	T. O'Halloran
	11.00-12.30	Practical Mathematics - -	3	R. Kelly
	2.00- 3.00	Practical Mathematics - -	3	R. Kelly
	3.00- 5.00	Electrical Installation Technology -	3	R. Kelly
Friday	7.30-10.00	Practical Installation I - -	33	I. Tighe

### SECOND YEAR

*Teacher-in-Charge:* M. FARRELL, Full Technological Certificate (E.E.P.) (City and Guilds of London Institute).

Day	Time	Subject	Room	Teacher
Tuesday	7.30- 9.00	Drawing - - - -	14	D. Naessens
	9.00-10.00	Engineering Materials - -	14	D. Naessens
Wednesday	9.30-10.30	Practical Mathematics - -	3	T. Cronin
	10.30-11.30	English and Technical Reports -	3	T. O'Halloran
	11.30-12.30	Electrical Installation Technology -	3	L. Trundle
	2.00- 3.30	Practical Mathematics - -	3	T. Cronin
	3.30- 5.00	Electrical Installation Technology -	3	L. Trundle
Friday	7.30-10.00	Practical Installation II - -	33	I. Tighe
	7.30-10.00	Engineering Science II - -	9	M. Farrell

At the end of the second year students are required to sit the Electrical Installation Work Junior Written and Practical and Electrical Engineering Practice D.C. Elementary examinations of the Department of Education, and may sit the City and Guilds of London Institute Electrical Technicians' Intermediate examination.

## PART-TIME DAY RELEASE COURSES

Students who successfully complete the second year of the Course and pass with honours in the day class examinations will be permitted to enrol in the Part-time Day Electrical Engineering Course (Apprentices)—see Course P.E.E. Students who do not reach this standard, but who are otherwise suitable, will be enrolled in the third year course hereunder.

### THIRD YEAR

*Teacher-in-Charge:* L. TRUNDLE, Full Technological Certificate (E.E.P.) (City and Guilds of London Institute).

Day	Time	Subject	Room	Teacher
Tuesday	9.30-10.30	Technical Reports and English -	4	B. Conway
	10.30-11.30	Industrial Electronics - -	4	L. Trundle
	11.30-12.30	Electrical Installation Technology -	4	L. Trundle
	2.00- 5.00	Electrical Installation Technology -	4	J. J. Farrell
	7.30-10.00	Practical Installation III - -	33	E. McNamara
Thursday	7.30- 9.30	Mathematics (3) - - -	8c	W. J. Campbell
Friday	7.30- 9.00	Engineering Science III - -	4	V. Duggan
	9.00-10.00	Electrical Installation III - -	4	V. Duggan

At the end of this year students are required to sit the Electrical Installation Work Senior Written and Practical and the Electrical Engineering Practice D.C. Intermediate and A.C. Elementary examinations of the Department of Education and are expected to sit the Electrical Installation Work Course B examination of the City and Guilds of London Institute.

### FOURTH YEAR

Day	Time	Subject	Room	Teacher
Monday	9.30-12.30	Special Technique - - -	4	J. J. Farrell
	2.00- 5.00	Industrial Electronics - -	4	T. Short
Wednesday	7.30-10.00	Electrical Power Equipment -	-	—
Thursday	7.30-10.00	Mathematics (4) - - -	4	J. Daly
Friday	7.30-10.00	Testing Methods (Power) - -	23	D. Kiely

At the end of this year of the Course students are required to sit the Electrical Engineering Practice, A.C. Intermediate Examination of the Department of Education and the Electrical Installation Work, Course C, Examination of the City and Guilds of London Institute. Students may also sit the City and Guilds of London Institute Electrical Technicians' Final examination.

### PART-TIME DAY RELEASE COURSES

**Ref.: P.E.E. Electrical Engineering  
(Apprentices)**

*Teacher-in-Charge*: L. TRUNDLE, Full Technological Certificate (E.E.P.) (City and Guilds of London Institute).

Course Fee: £3 per session

This Course, conducted on two whole days and two or three evenings per week, is provided for electrical apprentices who have attained an honours standard at the end of the second year of Course P.E.I. or who have attained an equivalent standard, to proceed further with the study of Electrical Engineering. The first year of the Course prepares students for the General Certificate of Education in English, Additional Pure Mathematics, Applied Mathematics and Physics. Passes in these subjects at Ordinary Level are the educational qualification for registration as a student of the Institution of Electrical Engineers. Students should obtain a copy of the Examination Regulations from the Institution of Electrical Engineers, Savoy Place, Victoria Embankment, London, W.C.2. The second and third years of the course prepare students for the Joint Part I examination of the Institution of Electrical Engineers.

The fourth year of the Course provides additional tutorial and laboratory instruction for students attending Part II and Part III Evening Courses Nos. 45 to 47.

FIRST YEAR

Day	Time	Subject	Room	Teacher
Monday	9.30-12.30	Physics - - - - -	8a	W. Broderick
	2.00- 3.30	Mathematics - - - - -	12	P. Gallagher
	3.30- 5.00	Applied Mathematics - - - - -	12	P. Gallagher
	7.00-10.00	English - - - - -	14	T. Dowling
Tuesday	7.00-10.00	Mathematics (10) - - - - -	11	P. Gallagher
Thursday	9.30-12.30	Physics - - - - -	8a, 8b	W. Broderick
	2.00- 3.30	Mathematics - - - - -	19	P. Gallagher
	3.30- 5.00	Applied Mathematics - - - - -	19	P. Gallagher

## SECOND YEAR

*Teacher-in-Charge:* T. SHORT, GRAD.I.E.E., GRAD.BRIT.I.R.E.

Day	Time	Subject	Room	Teacher
Monday	9.30-11.00	Mathematics - - -	24	T. Ambrose
	11.00-12.30	Principles of Electricity - -	24	T. Short
	2.00- 3.30	Mechanics - - -	24	T. Cronin
Tuesday	3.30- 5.00	Physics - - -	24	—
	9.30-11.00	Physics - - -	24	—
	11.00-12.30	Mathematics - - -	24	T. Ambrose
	2.00- 3.30	Mechanics - - -	24	T. Cronin
	3.30- 5.00	Principles of Electricity - -	24	T. Short
	8.00-10.00	Laboratory - - -	15	T. Cronin
Friday	7.00- 9.00	Drawing - - -	15	W. Hickson
			3	T. Short
			14	W. J. Campbell

## PART-TIME DAY RELEASE COURSES

### THIRD YEAR

*Teacher-in-Charge* : T. SHORT, GRAD.I.E.E., GRAD.BRIT.I.R.E.

Day	Time	Subject	Room	Teacher
Tuesday	7.00- 9.00	Drawing - - - -	14	W. J. Campbell
	9.30-11.00	Principles of Electricity - -	23	T. Short
Thursday	11.00-12.30	Mathematics - - - -	23	T. Ambrose
	2.00- 3.30	Mechanics - - - -	23	T. Cronin
Friday	3.30- 5.00	Physics - - - -	23	—
	9.30-11.00	Principles of Electricity - -	23	T. Short
	11.00-12.30	Mechanics - - - -	23	T. Cronin
	2.00- 3.30	Physics - - - -	23	—
	3.30- 5.00	Mathematics - - - -	23	T. Ambrose
	8.00-10.00	Laboratory - - - -	16	T. Cronin
			16	W. Hickson
				T. Short

### FOURTH YEAR

*Teacher-in-Charge* : B. SCAIFE, B.SC (Eng.), PH.D., A.M.I.E.E.

Day	Time	Subject	Room	Teacher
Friday	9.30-12.30	Tutorial - - - -	—	T. Short
	2.00- 5.00	Laboratory - - - -	13, 6, 18	B. O'Connor, B. Scaife

Students also attend appropriate evening classes of Courses Nos. 45-47.

**Ref.: P.E.H. Electrical Housecraft**

October—May.

Fee: £4 per session.

*Teacher-in-Charge* : L. TRUNDLE, Full Technological Certificate (E.E.P.) (City and Guilds of London Institute).

This Course is designed to meet the requirements of E.S.B. trainee demonstrators, and of other ladies, who wish to sit for the Electrical Housecraft Certificate Examination of the Electrical Association for Women, London. The Course will be conducted on one half-day (3 hours) per week during one session. Prospective students must hold approved qualifications in Domestic Science subjects or Hotel and Catering subjects or in Institutional Management.

**Ref.: P.R.C. Projection Science for Cinema  
Apprentice Operators**

(Session: October to May).

*Teacher-in-Charge* : J. V. HONAN, A.M.BRIT.I.R.E.

Course Fee: £2 per session.

The Course provides technical training for Cinema Apprentices employed in the Dublin Area, and is organised in co-operation with

## PART-TIME DAY RELEASE COURSES

the Irish Transport and General Workers' Union (Cinema Branch), and the Theatre and Cinema Association (Ireland). The Course extends over three Sessions and provides a minimum of five hours of instruction per week in English, Mathematics, General Science, Electricity, Light and Sound Equipment. An apprentice operator is permitted a maximum of five sessions to complete the Course satisfactorily.

**FIRST YEAR :** English, Mathematics, and General Science : Monday, 2.00-4.00; Wednesday and Saturday, 10.30-12.30.

**SECOND YEAR :** Electricity and Light : Tuesday and Friday, 10-12.30.

**THIRD YEAR :** Electricity and Sound Equipment : Tuesday and Friday, 10-12.30.

The Theatre and Cinema Association (Ireland) and the Irish Transport and General Workers' Union offer prizes for students of the Course. See page 46 for details.

*Ref. : P.S.B.*

### Bakery Practice

*Teacher-in-Charge :* S. ANTHONY, TECH.DIP. CITY AND GUILDS.

Course Fee : £2 per session.

The Courses provide instruction in Breadmaking and Flour Confectionery for Bakery Apprentices.

Day	Time	Subject	Room	Teacher
Monday	9.30-12.30	Bakery Practice II - - -	20	D. Carey
	2.00- 5.00			
	7.00- 8.00			
Tuesday	8.00-10.00	Bakery Science IV - - -	28	W. McGuinness
	9.30-12.30	Bakery Practice IVA - - -	20	S. Anthony
	2.00- 5.00			
	7.00- 8.00			
	8.00-10.00	English II - - -	20	T. O'Halloran
	7.00- 8.00	Bakery Science II - - -	20	D. Carey
Wednesday	8.00-10.00	English III - - -	24	W. McGuinness
	8.00-10.00	Bakery Science III - - -	24	R. A. D'Arcy
	9.30-12.30	Bakery Practice IVB - - -	20	S. Anthony
	2.00- 5.00			
	7.00- 8.00			
	8.00-10.00	English I - - -	5	W. McGuinness
Thursday	8.00-10.00	Bakery Science I - - -	5	D. Carey
	9.30-12.30	Bakery Practice III - - -	20	S. Anthony and D. Carey
	2.00- 5.00			
Friday	9.30-12.30	Bakery Practice I - - -	20	S. Anthony and D. Carey
	2.00- 5.00			

Students sit the Intermediate Examination in Breadmaking and Flour Confectionery of the City and Guilds of London Institute at the end of the second year and the Final Examinations in Breadmaking, Flour Confectionery and Bakery Science, at the end of the fourth year of the Course. The Irish Bakers', Confectioners' and Allied Workers' Union, the Dublin Master Bakers' Committee and the Guild of Irish Bakers, offer cups and prizes for students of the Course. See page 47 for details.

## PART-TIME DAY RELEASE COURSES

*Ref.:* P.S.L.      **Laboratory Technicians'  
Work**

*Teacher-in-Charge:* L. BREEN, B.SC., DIP.CHEM.TECH.

Course Fee: £2 per session.

This Course provides training for laboratory attendants and assistants who work in universities, research institutes, industrial firms and schools and is primarily intended for those working in chemical laboratories. Students sit the Intermediate examination of the City and Guilds of London Institute in Laboratory Technicians' Work at the end of the course. Classes are conducted on two half-days and two evenings per week over a period of three sessions of approximately 34 weeks each. Prospective students should be at least 16 years of age and have the Primary School Leaving Certificate. They should, in addition, have had at least one year subsequent whole-time education either in a technical school or secondary school and be able to furnish a Certificate of satisfactory progress in same. Applicants who do not possess these educational requirements will be required to attend satisfactorily at a Pre-Specialisation Science Course before they are admitted to this Course.

This Course is approved by the Institute of Chemistry of Ireland, and successful students of the Course will be eligible for enrolment as recognised Laboratory Technicians by the Institute of Chemistry of Ireland.

1ST TERM: September 12th—November 26th.

2ND TERM: November 28th—February 25th.

3RD TERM: February 27th—June 3rd.

### FIRST YEAR

Day	Time	Subject	Room	Teacher
Monday	7.00–10.00	Glassblowing (1st Term) - -	1	W. G. Brady
		Metalwork (2nd and 3rd Terms) -	1	P. Connell
Wednesday	2.00– 3.00	English - - - - -	8a	B. Conway
		Physics - - - - -	8a	L. Breen
Friday	7.00– 8.30	Mathematics - - - -	17	D. Naessens
		Drawing - - - - -	17	D. Naessens
Saturday	9.30–12.30	Chemistry - - - - -	22	L. Breen

# PART-TIME DAY RELEASE COURSES

## SECOND YEAR

Day	Time	Subject	Room	Teacher
Monday	2.00- 5.00	Chemistry (1st Term) -	22	L. Breen
		Electricity (2nd and 3rd Terms) -		L. Breen
Thursday	2.00- 3.00	English - - - -	—	B. Conway
	3.00- 5.00	Physics - - - -	—	L. Breen
	7.00-10.00	Maths. and Drawing (1st Term) -	—	D. Naessens
	7.00-10.00	Biology (2nd and 3rd Terms) -	—	—
Friday	7.00-10.00	Metalwork (1st Term) -	1	N. Goulding
		Woodwork and Plastics (2nd Term)	1	
		Glassblowing (3rd Term) -	1	W. G. Brady

## THIRD YEAR

Day	Time	Subject	Room	Teacher
Monday	7.00-10.00	Specialised Lab. Techniques -	22	L. Breen
Wednesday	9.30-12.30	Electricity (1st and 2nd Terms) -	15	F. Nolan
		Photography (3rd Term) -	15	F. Nolan
Friday	2.00- 5.00	Physics (Light) (1st Term) -	15	L. Breen
		Lab. Organisation (2nd Term) -	15	L. Breen
		Specialised Laboratory Techniques (3rd Term) - - - -	22	L. Breen
	7.00-10.00	Metalwork (1st Term) -	1	P. Connell
		Woodwork and Plastics (2nd Term)	1	
		Glassblowing (3rd Term) -	1	W. G. Brady

**Ref.: P.S.S.                      Senior Science Course**

*Teacher-in-Charge : M. J. SHEEHY, B.S.C., A.INST.P.*

Course Fee : £3 per session.

This one-year Course prepares students for the General Certificate of Education Examination at Ordinary Level in the subjects Additional Pure Mathematics, Physics and Chemistry. Conditions for entry to the Course are the same as for the Whole-time Senior Science Course W.S.S. as described on page 8.

Day	Time	Subjects	Room	Teacher
Wednesday	2.00-4.00	Physics                      } Alternate	17	
		Chemistry                    } weeks	22	
	4.00-5.00	Mathematics - - - -	17	

Students also attend the evening classes of Course No. 20.

## PART-TIME DAY RELEASE COURSES

**Ref.: P.S.I.      Intermediate B.Sc. Course**

*Teacher-in-Charge:* E. J. ROTHERY, B.Sc., M.I.C.I.

Course Fee: £3 per session.

This Course prepares students for the General Certificate of Education at Advanced Level in Mathematics, Physics and Chemistry. Passes in these subjects at Advanced Level exempt from the University of London Intermediate B.Sc. Examination. Prospective students must have passed in English, Mathematics, Physics and Chemistry at Ordinary Level or have attained an approved equivalent standard in these subjects.

Day	Time	Subject	Room	Teacher
Tuesday	2.00- 4.00	Physics	23, 16	W. S. E. Hickson
		Chemistry } Alternate	21	E. J. Rothery
	4.00- 5.00	Mathematics - - - -	23	T. Ambrose

Students also attend the evening classes of Course No. 21 or 22.

**Ref.: P.S.D.I.      Part 1, B.Sc. Course**

*Teacher-in-Charge:* E. J. ROTHERY, B.Sc., M.I.C.I.

Course Fee: £3 per session.

This one-year Course prepares students for the Part 1 Examination of the University of London External B.Sc. Degree in Mathematics, Physics and Chemistry. Prospective students must have satisfied the minimum entrance requirements of the University of London and have passed in Mathematics, Physics and Chemistry at Advanced Level in the General Certificate of Education Examinations. In certain circumstances, two passes at Advanced Level and one pass at Ordinary Level at an Advanced Level examination may be accepted.

Day	Time	Subject	Room	Teacher
Thursday	2.00- 3.30	Physics	15	F. Nolan
		Chemistry } Alternate	21	E. J. Rothery
	3.30- 5.00	Mathematics - - - -	15	T. Ambrose

Students also attend the evening classes of Course No. 23.

## PART-TIME DAY RELEASE COURSES

**Ref. : P.S.D.II. Part II (Final), B.Sc.  
Course**

*Teacher-in-Charge* : E. J. ROTHERY, B.Sc., M.I.C.I.

Course Fee : £3 per session.

This Course provides additional tutorial instruction for students attending the Part II (Final), B.Sc. Evening Course No. 24.

Day	Time	Subject	Room	Teacher
Thursday	2.00-3.30	Mathematics - - - -	24	T. Ambrose
	3.30-5.00	Chemistry - - - -	24	E. J. Rothery
Saturday	9.30-12.30	Chemistry - - - -	21	E. J. Rothery

Students also attend the evening classes of Course No. 24.

## EVENING COURSES

### GENERAL EDUCATION COURSES IN OTHER TECHNICAL INSTITUTES

The attention of prospective students who have not attained the appropriate educational entrance standard for admission to courses in this College is directed to the following courses offered in other Institutes :—

1. PRE-SPECIALISATION COURSES AT THE TECHNICAL INSTITUTES, CAPEL STREET, CLOHER ROAD, KILLESTER, AND MOUNT STREET for entry to trade courses.
2. PREPARATORY COURSE AT THE TECHNICAL INSTITUTE, MOUNT STREET, for entry to General Certificate of Education Courses (Nos. 20 and 42).

At the end of the above courses a qualifying examination will be held in this College for admission to the appropriate courses in this College next session.

3. MATRICULATION COURSE AT THE COLLEGE OF COMMERCE, RATHMINES.

### DEPARTMENT OF PURE AND APPLIED SCIENCE Mathematics

*Teacher-in-Charge* : J. M. FORDE, B.E.

**FEES** : Courses Nos. 1-9 —20/- each per session.

Courses Nos. 10-19—30/- each per session.

### MATHEMATICS FOR ENGINEERING PRACTICE AND TRADES

No. of Course	Subject	Day	Time	Room	Teacher
1	Practical Mathematics I	Friday	7.30- 9.30	20	W. McGuinness
2	Do. II	Wed.	7.30- 9.30	19	W. McGuinness
3	Do. III	Thursday	7.30- 9.30	8c	W. J. Campbell
4	Do. IV	Thursday	7.30-10.00	4	J. Daly

Students are required to sit the Department of Education Examinations in Mathematics, Elementary, at the end of Stage II and Mathematics, Intermediate, at the end of Stage IV

## EVENING COURSES

### MATHEMATICS FOR TELECOMMUNICATIONS (INCLUDING RADIO SERVICE WORK AND POST OFFICE ENGINEERING)

No. of Course	Subject	Day	Time	Room	Teacher
5	Mathematics for Telecommunications (Elementary) - - -	Wed.	7.30-9.30	8c	W. J. Campbell
6	Mathematics for Telecommunications IA -	Wed.	7.30-9.30	11	E. D. Doyle
7	Do. IB -	Tuesday	7.30-9.30	—	E. D. Doyle
8	Do. II -	Thursday	7.30-9.30	15	E. D. Doyle
9	Do. III -	Friday	7.30-9.30	28	—

Students are required to sit the City and Guilds of London Institute Examinations in Mathematics for Telecommunications A and B at the end of Stages I and II, respectively.

### MATHEMATICS FOR ENGINEERING

No. of Course	Subject	Day	Time	Room	Teacher
10	Mathematics for Engineering I - - -	Tuesday	7.00-10.00	11	P. Gallagher
11	Do. II - - -	Friday	9.00-10.00	14	P. G. McNamara
		Tuesday	7.00- 8.00	15	P. G. McNamara
12	Do. III - - -	Friday	7.00- 8.00	28	P. G. McNamara
		Tuesday	9.00-10.00	17	P. G. McNamara
13	Do. IV - - -	Monday	7.00- 8.00	11	J. M. Forde
		Wed.	7.00- 8.00	28	J. M. Forde
14	Do. V - - -	Monday	9.00-10.00	11	J. M. Forde
		Wed.	8.00- 9.00	13	J. M. Forde

Students are required to sit the General Certificate of Education Examination in Additional Pure Mathematics (Ordinary Level) at the end of the first stage. The Joint Part I Examination in Mathematics of the professional engineering institutions may be taken at the end of Stage III and the Part II Examination of the Institution of Electrical Engineers at the end of Stage V, by registered students.

The Department of Education Examinations in Mathematics Advanced may also be taken at the end of Stage III and the Higher Technological Examination at the end of Stage V.

### MATHEMATICS FOR SCIENCE

No. of Course	Subject	Day	Time	Room	Teacher
15	Mathematics I - - -	Friday	7.00-10.00	5	T. K. O'Donnell
16	Do. II - - -	Thursday	7.00-10.00	11	—
17	Do. III - - -	Wed.	7.00-10.00	15	T. Ambrose
18	Do. IV - - -	Tuesday	7.00-10.00	27	T. Ambrose
19	Do. V - - -	Friday	7.00-10.00	27	T. Ambrose

Students are required to sit the General Certificate of Education Examination in Additional Pure Mathematics, Ordinary Level, at the end of the first stage and the Advanced Level at the end of the third stage. (Advanced Level is equivalent to the Intermediate Examination for the B.Sc. Degree of the University of London). At the end of Stage IV students sit the Part I examination in Mathematics of the University of London External B.Sc. Degree.

## EVENING COURSES

### PURE AND APPLIED CHEMISTRY

#### B.Sc. DEGREE COURSE (UNIVERSITY OF LONDON)

This Course is provided for students who wish to sit for the University of London external B.Sc. Degree (General). Conditions for entry to the Course are the same as for the whole-time Senior Science Course (W.S.S.) as described on page 8. Students should arrange to comply with the regulations for registration as external students of the University of London as soon as possible and should obtain copies of the regulations relating to University Entrance Requirements from the Secretary to the University Entrance and School Examinations Council, University of London, Senate House, London, W.C.1.

The Course extends over at least seven sessions. At the end of the first year students are required to sit the General Certificate of Education Examination in Additional Pure Mathematics, Physics and Chemistry at Ordinary Level and at the end of the third year the General Certificate of Education in the same subjects at Advanced Level. Passes in these three subjects at Advanced Level, together with a pass in English at Ordinary Level, exempt from the Intermediate Examination for the B.Sc. Degree.

**September-May—Fee, £2 per Course.**

#### FIRST YEAR : GENERAL CERTIFICATE OF EDUCATION—ORDINARY LEVEL

*Teacher-in-Charge* : W. BRODERICK, M.Sc., H.DIP.ED., M.I.C.I.

No. of Course	Subject	Day	Time	Room	Teacher
20	Physics I - - -	Thursday	7.00-10.00	12-10	M. J. Sheehy
	Chemistry I - - -	Tuesday	7.00-10.00	25, 22	W. Broderick
	or				
	Chemistry IA - -	Wed.	7.00-10.00	25, 22	L. Breen
	Mathematics (15) - -	Friday	7.00-10.00	5	T. K. O'Donnell
	English (optional) - -	Monday	7.00-10.00	14	T. A. G. Dowling

#### INTERMEDIATE B.Sc. COURSE (GENERAL CERTIFICATE OF EDUCATION—ADVANCED LEVEL)

*Teacher-in-Charge* : W. BRODERICK, M.Sc., H.DIP.ED., M.I.C.I.

#### SECOND YEAR :

No. of Course	Subject	Day	Time	Room	Teacher
21	Physics II - - -	Wednesday	7.00-10.00	16, 17	C. O'Toole
	Chemistry II - - -	Monday	7.00-10.00	25, 24	W. Broderick
	Mathematics (16) - -	Thursday	7.00-10.00	11	—

## EVENING COURSES

### THIRD YEAR :

No. of Course	Subject	Day	Time	Room	Teacher
22	Physics III - - -	Tuesday	7.00-10.00	17, 16	W. S. E. Hickson
	Chemistry III - - -	Friday	7.00-10.00	21	F. Hill
	Mathematics (17) - - -	Wed.	7.00-10.00	15	T. Ambrose

For details of the Foy Scholarship in Applied Chemistry, see page 46.

### FOURTH YEAR : PART I B.Sc. COURSE

Prospective students must have satisfied the minimum entrance requirements of the University of London for the B.Sc. degree and have passed in Mathematics, Physics and Chemistry at Advanced Level. In certain circumstances, two passes at Advanced Level and a pass at Ordinary Level at an Advanced Level examination may be accepted.

*Teacher-in-Charge : E. J. ROTHERY, B.Sc., M.I.C.I., A.R.I.C.*

No. of Course	Subject	Day	Time	Room	Teacher
23	Physics IV - - -	Monday	7.00-10.00	23, 16	F. Nolan
	Chemistry IV - - -	Friday	7.00-10.00	21	E. J. Rothery
	Mathematics (18) - - -	Tuesday	7.00-10.00	27	T. Ambrose

### Part II (Final), B.Sc. Course

*Teacher-in-Charge : E. J. ROTHERY, B.Sc., M.I.C.I.*

This Course extends over three sessions and prepares students for the B.Sc. Degree (External) of the University of London in Chemistry and Mathematics.

**Course Fee : £3 per session.**

### SIXTH YEAR

No. of Course	Subject	Time	Day	Room	Teacher
24	Chemistry VI - - -	7.00-10.00	Monday	21	W. McD. Armstrong
	Statistics - - -	7.00-10.00	Tuesday	13	F. M. O'Carroll
	Mathematics (19) - - -	7.00-10.00	Friday	27	T. Ambrose

No fifth year of the Course will be provided in 1960-61.

The seventh year of the Course will be provided in the session 1961-2.

## EVENING COURSES

### GLASSBLOWING

**Fee : 30/- per session.**

No. of Course	Subject	Day	Time	Room	Teacher
25	Glassblowing - - -	Monday or Friday	7.00-10.00	1	W. G. Brady

### MICROBIOLOGY

#### Diploma Course

*Teacher-in-Charge* : MISS F. DOHERTY, B.SC., B.A. (MOD.).

**Course Fee : £3 per session.**

The Course in Microbiology has been substantially reorganised. The new Course extends over two years and will be held on two evenings per week. A Diploma will be issued to successful students. Details regarding entry standard, syllabus content, etc., may be obtained by applying in writing to the Principal. Students will be enrolled in the first year of the Course in alternate sessions.

### SECOND YEAR

No. of Course	Subject	Day	Time	Room	Teacher
26	Microbiology II - -	Tuesday Thursday	7.00-10.00	23, 28	Miss F. Doherty

## EVENING COURSES

### FLOUR MILLING TECHNOLOGY

*Teacher-in-Charge* : F. NOLAN, M.SC., H.DIP.ED.

Fee : 30/- per session.

#### FIRST YEAR

No. of Course	Subject	Day	Time	Room	Teacher
27	Flour Milling Tech- nology I - - -	Monday	7.00-9.30	27	W. de Lacy
	Flour Milling Tech- nology and Science I -	Thursday	7.00-9.30	27	W. de Lacy

#### SECOND YEAR

No. of Course	Subject	Day	Time	Room	Teacher
28	Flour Milling Tech- nology II - - -	Monday	7.00-9.30	27	W. de Lacy
	Flour Milling Tech- nology and Science II	Thursday	7.00-9.30	27	W. de Lacy

At the end of the second year students sit for the Intermediate Examination of the Department of Education and of the City and Guilds of London Institute.

#### THIRD YEAR

No. of Course	Subject	Day	Time	Room	Teacher
29	Flour Milling Tech- nology III - - -	Wed.	7.00-9.30	27	W. de Lacy
	Flour Milling Tech- nology and Science III	Thurs.	7.00-9.30	22	R. A. D'Arcy

#### FOURTH YEAR

No. of Course	Subject	Day	Time	Room	Teacher
30	Flour Milling Tech- nology IV - - -	Wed.	7.00-9.30	27	W. de Lacy
	Flour Milling Tech- nology and Science IV	Thurs.	7.00-9.30	22	R. A. D'Arcy

At the end of the fourth year students sit for the Final Examinations of the Department of Education and of the City and Guilds of London Institute.

## EVENING COURSES

### DEPARTMENT OF ELECTRICAL INSTALLATION WORK

Courses Nos. 31-35 are reserved to Trade Apprentices and Journeymen who pass the Entrance Examination. The attention of students who do not pass this examination is directed to the Courses described on page 24.

#### Electrical Installation Work

Fee : 30/- per Course.

#### JUNIOR TRADE CERTIFICATE COURSE

##### FIRST YEAR

*Teacher-in-Charge : M. FARRELL.*

No. of Course	Subject	Day	Time	Room	Teacher
31	Practical Installation I	Monday	7.30-10.00	33	I. Tighe
	Magnetism and Electricity - - -	Tuesday	7.30-10.00	12-10	J. Colbert
	Engineering Science I -	Friday	7.30-10.00	3	M. Hayes
32	Practical Installation I -	Wed.	7.30-10.00	33	I. Tighe
	Magnetism and Electricity - - -	Monday	7.30-10.00	12-10	J. Colbert
	Engineering Science I -	Tuesday	7.30-10.00	8a	R. Kelly

##### SECOND YEAR

*Teacher-in-Charge : I. TIGHE.*

No. of Course	Subject	Day	Time	Room	Teacher
33	Practical Installation II	Thursday	7.30-10.00	33	D. McManus
	Electrical Installation Technology IA - -	Monday	7.30-10.00	3, 6	E. Hanly
	Engineering Science IIA	Tuesday	7.30- 8.45	4	J. J. Farrell
	Electrical Installation IIA, Lecture - -	Tuesday	8.45-10.00	4	J. J. Farrell
34	Practical Installation II	Thursday	7.30-10.00	33	D. McManus
	Electrical Installation Technology IB - -	Monday	7.30-10.00	8c, 8b	V. Duggan
	Engineering Science IIB	Tuesday	7.30- 8.45	4	J. O'Keeffe
	Electrical Installation IIB, Lecture - -	Tuesday	8.45-10.00	4	J. O'Keeffe

Students are required to sit the Junior Trade Certificate Examinations, Written and Practical, and the Electrical Engineering Practice D.C. Elementary Examination of the Department of Education.

## EVENING COURSES

### SENIOR TRADE CERTIFICATE COURSE

**THIRD YEAR**

*Teacher-in-Charge : E. J. McNAMARA.*

No. of Course	Subject	Day	Time	Room	Teacher
35	Practical Installation III	Tuesday	7.30-10.00	33	E. J. McNamara
	Electrical Installation Technology II - -	Thursday	7.30-10.00	5	J. J. Farrell
	Engineering Science III	Friday	7.30- 8.45	19	J. O'Keeffe
	Electrical Installation III	Friday	8.45-10.00	19	J. O'Keeffe

Students are required to sit the Senior Trade Certificate Examinations, Written and Practical, and the Electrical Engineering Practice D.C. Intermediate and A.C. Elementary Examinations of the Department of Education and are expected to sit the Course "B" examination of the City and Guilds of London Institute.

Students in the above Courses may be permitted to take a class in Mathematics in lieu of Practical Installation.

### EXTRA ELECTRICIANS' CERTIFICATE IN ELECTRICAL INSTALLATION WORK, COURSE C—CITY AND GUILDS OF LONDON INSTITUTE

**FOURTH YEAR**

*Teacher-in-Charge : J. J. FARRELL.*

No. of Course	Subject	Day	Time	Room	Teacher
36	Electrical Installation Technology III - -	Wed.	7.30-10.00	4	J. O'Keeffe
	Electrical Engineering A.C.I - - - -	Tuesday	7.30-10.00	5	V. Duggan
	Mathematics (3) - -	Thursday	7.30- 9.30	8c	W. J. Campbell

This Course also prepares students for the Electrical Engineering Practice A.C. Intermediate examination of the Department of Education.

### CABLE JOINTING (CONFINED TO JOURNEYMEN AND ELECTRICIANS)

**Fee : £3 per Course.**

*Teacher-in-Charge : D. McMANUS.*

Prospective students must possess the Senior Trade Certificate in Electrical Installation Work of the Department of Education or satisfy the school authority that they have an equivalent standard of Technical Education.

#### FIRST YEAR

No. of Course	Subject	Day	Time	Room	Teacher
37	Cable Jointing I (Lecture and Practical) -	Tues. and Thursday	7.30-10.00	34	D. McManus

#### SECOND YEAR (commencing 1961-1962)

	Cable Jointing II -	Two evenings to be arranged.			
--	---------------------	------------------------------	--	--	--

## EVENING COURSES

### ELECTRONICS FOR ELECTRICIANS

Course Fee, £5.

*Teacher-in-Charge:* L. TRUNDLE, Full Technological Certificate (E.E.P.) (City and Guilds of London Institute).

This Course is provided for electricians who wish to acquire a knowledge of electronics as applied to industrial control equipment. The first year of the course provides instruction in the elementary principles of electronics and its application to motor speed control, oil firing equipment, counters and control of lighting circuits. A certificate will be issued to those who successfully complete the first year of the course and pass the appropriate examinations. The second year of the course provides theoretical and practical instruction in the construction of industrial electronic units, e.g., counting units, cut-off units, rapid and slow-acting relay units, amplifiers, triggering units, metal detectors, etc. Prospective students must be electricians who hold the Senior Trade Certificate in Electrical Installation Work of the Department of Education or who satisfy the College Authority that they have an equivalent standard of technical education.

No. of Course	Subject	Day	Time	Room	Teacher
38	Electronics for Electricians I - - -	Wednesday	7.30-10.00	3	P. Harrington
39	Electronics for Electricians II - - -	Thursday	7.30-10.00	1	T. Sheerin

### 40—MAINTENANCE AND TESTING OF ELECTRICAL EQUIPMENT

Course Fee, £5

*Teacher-in-Charge:* J. J. FARRELL

This Course is provided for electricians who wish to acquire a knowledge of testing methods and equipment.

The Course will be held during the day or the evening and at a time to suit the majority of the applicants.

Prospective students must be electricians who hold the Senior Trade Certificate in Electrical Installation Work of the Department of Education or who satisfy the School Authority that they have an equivalent standard of technical education.

## EVENING COURSES

### 41—REFRIGERATION (THEORY AND PRACTICE)

**Course Fee, £5**

*Teacher-in-Charge*: L. TRUNDLE, Full Technological Certificate (E.E.P.) (City and Guilds of London Institute)

This Course is provided for refrigeration mechanics. It includes theoretical instruction in the principles of electricity and of refrigeration and practical instruction in maintenance, fault-finding and repairs. Prospective students must have a standard of general and technical education acceptable to the College authority. Classes will be held on Tuesday evenings from 7.30-10.0 p.m. in Rooms 5 and 1. Teachers: A. Ryan and J. Broe.

## ELECTRICAL ENGINEERING

### Graduateship of the Institution of Electrical Engineers

The syllabi of this Course are designed to meet the requirements of evening students who wish to prepare for the professional examinations of the Institution of Electrical Engineers. The preliminary year of the Course prepares students for the General Certificate of Education in the subjects English, Additional Pure Mathematics, Applied Mathematics and Physics. Passes in these subjects at Ordinary Level are the educational requirement for registration as a student of the Institution of Electrical Engineers, provided they comply with other regulations of the Institution. Students should obtain a copy of the Examination Regulations from the Institution of Electrical Engineers, Savoy Place, Victoria Embankment, London, W.C.2. Extracts from the Bye-Laws of the Institution given under Appendix I in these Regulations indicate how a student may qualify for election to the class of Associate Member (A.M.I.E.E.).

Fee, 30/-, September-June.

### PRELIMINARY COURSE

*Teacher-in-Charge*: P. GALLAGHER, B.SC., H.DIP.ED.

No. of Course	Subject	Day	Time	Room	Teacher
42	Mathematics (10)	Tuesday	7.00-10.00	11	P. Gallagher
	Physics (Eng.) I	Wed.	7.00-10.00	8a-10	M. J. Sheehy
	English	Thursday	7.00-10.00	14	T. A. G. Dowling
	Applied Mathematics	Friday	7.00-10.00	11	P. Gallagher

Prospective students must pass an entrance examination in English and Mathematics. The attention of students who do not pass this examination is directed to the Preparatory Course described on page 24.

## EVENING COURSES

### GRADUATESHIP COURSE

Students entering this Course must have complied with all the educational requirements for registration as a student of the Institution of Electrical Engineers.

#### FIRST YEAR

#### PART I COURSE

*Teacher-in-Charge* : T. SHORT, GRAD.I.E.E., GRAD.BRIT.I.R.E.

No. of Course	Subject	Day	Time	Room	Teacher
43	Mechanics I - - -	Monday	7.00- 8.00	19	T. Cronin
	Physics for Engin- eering II - - -		8.00- 9.00	19	W. S. E. Hickson
	Principles of Electri- city I - - -	Tuesday	9.00-10.00	19	T. Short
	Mathematics (11) - -		7.00- 8.00	15	P. G. McNamara
	Laboratory - - -	Thursday	8.00-10.00	15	T. Cronin
				15	W. S. E. Hickson
				3	T. Short
	Principles of Electri- city I - - -		7.00- 8.00	19	T. Short
	Physics for Engin- eering II - - -				
	Mechanics I - - -	Friday	9.00-10.00	19	W. S. E. Hickson
	Drawing I - - -		7.00- 9.00	14	T. Cronin
	Mathematics (11) - -		9.00-10.00	14	W. J. Campbell
					P. G. McNamara

#### SECOND YEAR

*Teacher-in-Charge* : T. CRONIN, B.E.

No. of Course	Subject	Day	Time	Room	Teacher
44	Principles of Electri- city II - - -	Monday	7.00- 8.00	17	T. Short
	Mechanics II - - -		8.00- 9.00	17	T. Cronin
	Physics for Engin- eering III - - -	Tuesday	9.00-10.00	17	W. S. E. Hickson
	Drawing II - - -		7.00- 9.00	14	W. J. Campbell
	Mathematics (12) - -		9.00-10.00	17	P. G. McNamara
	Physics for Engin- eering III - - -	Thursday	7.00- 8.00	17	W. S. E. Hickson
	Mechanics II - - -		8.00- 9.00	17	T. Cronin
	Principles of Electri- city II - - -	Friday	9.00-10.00	17	T. Short
	Mathematics (12) - -		7.00- 8.00	28	P. G. McNamara
	Laboratory - - -		8.00-10.00	16	T. Cronin
				16	W. S. E. Hickson
					T. Short

## EVENING COURSES

### PART II COURSE

*Teacher-in-Charge* : B. SCAIFE, B.SC. (ENG.), PH.D., A.M.I.E.E.

#### FIRST YEAR

No. of Course	Subject	Day	Time	Room	Teacher
45	Mathematics (13) - -	Monday	7.00- 8.00	11	J. M. Forde
	Electrical Engineering IA		8.00- 9.00	11	B. Scaife
	Electronics I - -	Wednesday	9.00-10.00	13	B. O'Connor
	Mathematics (13) - -		7.00- 8.00	28	J. M. Forde
	Engineering Physics I -		8.00- 9.00	28	B. Scaife
	Electrical Engineering IB		9.00-10.00	28	H. de Lacy
	Laboratory - - -	Friday	7.00-10.00	16, 18	B. Scaife
				13	B. O'Connor

#### SECOND YEAR

No. of Course	Subject	Day	Time	Room	Teacher
46	Electrical Engineering IIA - - -	Monday	7.00- 8.00	15	B. Scaife
	Electronics II - -		8.00- 9.00	13	B. O'Connor
	Mathematics (14) -		9.00-10.00	11	J. M. Forde
	Electrical Engineering IIB - - -	Wednesday	7.00- 8.00	13	H. de Lacy
	Mathematics (14) - -		8.00- 9.00	13	J. M. Forde
	Engineering Physics II		9.00-10.00	13	B. Scaife
	Laboratory - - -	Friday	7.00-10.00	16, 18	B. Scaife
				13	B. O'Connor

### PART III COURSE

*Teacher-in-Charge* : B. SCAIFE, B.SC. (ENG.), PH.D., A.M.I.E.E.

#### FIRST YEAR

No. of Course	Subject	Day	Time	Room	Teacher
47	Electronics III - -	Monday	7.00- 8.00	13	B. O'Connor
	Electrical Measurements		8.00- 9.00	15	T. Short
	Electromagnetic Theory	Wednesday	9.00-10.00	15	B. Scaife
	Electric Circuit Theory		7.00- 8.00	23	B. Scaife
	Advanced Electrical Engineering - - -		8.00-10.00	23	—
	Laboratory - - -	Friday	7.00-10.00	18	B. Scaife
				13	B. O'Connor
					H. de Lacy

The second year of the Part III Course will be offered in the session 1961-62.

## EVENING COURSES

### DEPARTMENT OF TELECOMMUNICATIONS ENGINEERING

#### POST OFFICE ENGINEERING

*Teacher-in-Charge* : T. P. O'BRIEN, A.M.BRIT.I.R.E.

These Courses are designed to meet the requirements of employees of the Engineering Branch of the Department of Posts and Telegraphs and of others in similar industrial employment. The Courses have recently been re-organised in co-operation with the Post Office Engineering Advisory Committee. Applicants for admission to Course No. 48 will be required to sit an entrance examination in Mathematics and English of the same standard as that of the Department of Education (Technical Instruction Branch) Day Vocational Certificate. Applicants who fail to reach this standard will be required to attend a preliminary course to be held in another Technical Institute (see page 24).

**Course Fee : 30/- per session.**

#### FIRST YEAR

No. of Course	Subject	Day	Time	Room	Teacher
48	Magnetism and Elec- tricity - - -	Monday Friday	7.30- 9.30 7.00-10.00	4 8c & 10	J. J. Woods J. J. Woods
	Mathematics (6) - -	Wed.	7.30- 9.30	11	E. D. Doyle

Students sit the Department of Education Examination in Magnetism and Electricity and the City and Guilds of London Institute Examination in Mathematics for Telecommunications I.

#### SECOND YEAR

No. of Course	Subject	Day	Time	Room	Teacher
49	Telecommunications I -	Monday	7.30-9.30	5	T. P. O'Brien
	Line Plant Practice -	Tuesday	7.30-9.30	7H	J. M. F. Kennedy
	Mathematics (8) - -	Thursday	7.30-9.30	15	E. D. Doyle

Students sit the Department of Education Examinations in Telecommunications I and Line Plant Practice and the City and Guilds of London Institute Examination in Mathematics for Telecommunications II.

## EVENING COURSES

### THIRD YEAR

No. of Course	Subject	Day	Time	Room	Teacher
50	Telecommunications IIA	Thursday	7.30-9.30	5H	J. W. Devon
	or Telecommunications IIB				
	Electronics - - -	Friday	7.30-9.30	7H	T. P. O'Brien

Students sit the Department of Education Examination in Telecommunications IIA or IIB.

### FOURTH YEAR

No. of Course	Subject	Day	Time	Room	Teacher
51	Electronics for Telecommunications -	Thursday	7.30-9.30	7H	T. P. O'Brien
	Mathematics (9) - -	Friday	7.30-9.30	28	—

Students sit the Department of Education Examination in Electronics for Telecommunications. The fifth year of the Course will be offered in 1961-62 and will consist of Transmission and Lines or Radio Communication (2 evenings each).

## POST OFFICE FACTORY MECHANICS

A course has been arranged for Junior Mechanics employed by the Post Office Factory. Most of the classes are concurrent with those described above. **Course Fee: 30/- per session.**

### FIRST YEAR

No. of Course	
52	As Course No. 48 above

### SECOND YEAR

No. of Course	Subject	Day	Time	Room	Teacher
53	Telecommunications I -	Monday	7.30-9.30	5	T. P. O'Brien
	Telephone Repairs B -	Tuesday	7.30-9.30	8c	R. O'Brien
	Mathematics (8) - -	Thursday	7.30-9.30	15	E. D. Doyle

### THIRD YEAR

No. of Course	Subject	Day	Time	Room	Teacher
54	Telecommunications IIA	Thursday	7.30-9.30	5H	J. W. Devon
	or Telecommunications IIB				
	Telephone Repairs B -	Tuesday	7.30-9.30	8c	R. O'Brien
	Electronics - - -	Friday	7.30-9.30	7H	T. P. O'Brien

FOURTH YEAR: As Course 51 above.

## EVENING COURSES

### RADIO AND TELEVISION SERVICING

Applicants for admission to this Course should hold the Primary School Leaving Certificate and have, in addition, at least one year's satisfactory whole-time attendance at a technical or secondary school. They will be required to pass an Entrance Examination in Mathematics and English. Priority in enrolment is given to those apprenticed in the Radio Service Trade.

*Teacher-in-Charge* : E. G. SEALE, GRAD.BRIT.I.R.E.

**Fee : 30/- per session.**

#### FIRST YEAR

No. of Course	Subject	Day	Time	Room	Teacher
55	Magnetism & Electricity	Tuesday	7.30-10.00	19	J. J. Woods
		Thursday	7.30-10.00	8a, 8b	J. J. Woods
	Mathematics (5)	Wed.	7.30- 9.30	8c	W. J. Campbell

#### SECOND YEAR

No. of Course	Subject	Day	Time	Room	Teacher
56	Radio and Television Servicing I - - -	Tuesday	7.30-10.00	9	T. J. Kelly
		Friday	7.30-10.00	9	T. J. Kelly
	Mathematics (6) (Optional) - - -	Wed	7.30- 9.30	11	E. D. Doyle

At the end of this year of the Course students sit the examinations of the Department of Education in Radio Service Work (Junior).

#### THIRD YEAR

No. of Course	Subject	Day	Time	Room	Teacher
57	Radio and Television Servicing II - - -	Monday	7.00-10.00	9	E. G. Seale
		Thursday	7.00-10.00	9	E. G. Seale

At the end of this year of the Course students sit the examinations of the Department of Education in Radio Service Work (Senior) and may sit the City and Guilds of London Institute Intermediate Examination in Radio and Television Servicing.

## EVENING COURSES

### FOURTH YEAR

No. of Course	Subject	Day	Time	Room	Teacher
58	Radio and Television Servicing III - -	Monday	7.00-10.00	5H	J. V. Honan
		Wednesday	7.00-10.00	9	J. V. Honan

### FIFTH YEAR

No. of Course	Subject	Day	Time	Room	Teacher
59	Radio and Television Servicing IV - -	Wednesday	7.30-10.00	5H	T. Lawless
		or Friday	7.30-10.00	6H	T. Lawless

At the end of this year of the Course students may sit the City and Guilds of London Institute Final examination in Radio and Television Servicing.

## RADIO OFFICERS' CERTIFICATE COURSE

### (Mercantile Marine)

*Teacher-in-Charge* : H. HODGENS

**Course Fee : £5 per session**

This Course is conducted in the Radio School, 51 Harcourt Street, which is part of the College of Technology, Kevin Street.

The Course extends over three years for a 2nd Class Certificate and an additional year is necessary for a 1st Class Certificate. Prospective students should have a general education equivalent to that of Intermediate Certificate and will be required to pass an Entrance Examination in English and Mathematics.

TIMETABLE (September to June)

### FIRST YEAR

No. of Course	Subject	Day	Time	Room	Teacher
60	Morse - - - -	Tuesday	7.00-10.00	3H	J. J. McCowen
	Morse - - - -	Wed.	7.00-10.00	4H	J. J. McCowen
	Morse - - - -	Thursday	7.00-10.00	3H	J. J. McCowen
	Technical Electricity I -	Friday	7.00-10.00	8a, 8b	P. Harrington

## EVENING COURSES

### SECOND YEAR

No. of Course	Subject	Day	Time	Room	Teacher
61	Morse - - - -	Monday	7.00-10.00	3H	M. O'Rorke
	Technical Electricity II	Tuesday	7.30- 9.30	5H	P. Harrington
	Morse - - - -	Wed.	7.00- 9.00	3H	D. Harley
	International Regulations - - - -	Wed.	9.00-10.00	3H	D. Harley
	Radio Communication Theory I - - - -	Thursday	7.30- 9.30	5H	T. J. Kelly

### THIRD YEAR

No. of Course	Subject	Day	Time	Room	Teacher
62	Technical Electricity III	Monday	7.00- 8.30	4H	I. O'Reilly
	Morse - - - -		8.30-10.00	3H	M. O'Rorke
	Practical Radio - -	Tuesday	7.00-10.00	2H	J. Blennerhassett
	Morse - - - -	Wed.	7.00- 9.00	3H	D. Harley
	International Regulations	Wed.	9.00-10.00	3H	D. Harley
	Radio Communication Theory II - - - -	Friday	7.30- 9.30	4H	T. J. Kelly

FOURTH YEAR : Radio Communication, Theory and Tutorial; Practical Radio; Morse, Traffic Working and International Regulations (3 evenings).

This year of the Course will be offered during the session 1961-62 if there is sufficient demand.

Course No. 63	NOTE : Morse may be taken as a single subject, if accommodation permits, at a course fee of 30/- per Term.
------------------	--

For additional information, see pages 6 and 7.

## EVENING COURSES

### Air Navigation—Civil Aviation

*Teacher-in-Charge* : CAPT. B. FLANAGAN.

These Courses are conducted in the Radio School, 51 Harcourt Street, which is part of the College of Technology, Kevin Street.

#### **Courses in AIR NAVIGATION subjects in preparation for the State Examination for Pilot's and Navigator's Licences.**

The Courses offer specialised instruction based on the Syllabuses for the various Licence examinations conducted by the Department of Industry and Commerce. Applicants for admission to the Course for the Senior Commercial Pilot's Licence must have attained proficiency in Plane Trigonometry up to the general solution of triangles and in the use of six-figure logarithms ; applicants for admission to the Course for the Flight Navigator's Licence must have acquired, in addition, an elementary knowledge of spherical trigonometry.

The granting of Licences to successful examinees is contingent on submitting acceptable evidence of actual flying experience to the minimum extent laid down in Statutory Instrument No. 33 of Air Navigation (Personnel Licensing) Order, 1951.

The Courses are conducted on three evenings per week during the session.

#### **AIRCRAFT DISPATCHER COURSE**

This Course, which is conducted on three evenings per week, is officially recognised by the Civil Aeronautics Administration, United States Department of Commerce. Students who successfully graduate from this Course are eligible to sit for the C.A.A. Aircraft Dispatcher's Licence provided they are at least 23 years of age.

Subject	Teacher
Aircraft Dispatching, Navigation, Aircraft Instruments, Civil Air Regulations .....	Capt. B. Flanagan
Telecommunications and Radio Aids to Navigation .....	
Meteorology .....	J. Ring
Air Traffic Control .....	J. O'Connor
Aircraft (Airframes, Engines, etc.) .....	R. Howley
Link Trainer .....	M. Beary
	A. W. Patterson

## EVENING COURSES

No.	Course	Course Fee
64	Commercial Pilot's Licence .....	£6 per Session
65	Senior Commercial Pilot's Licence .....	£8 per Session
66	Flight Navigator's Licence .....	£12 per Session
67	Aircraft Dispatcher's Licence .....	£10 per Session
68	Flight Operations and Meteorology for Airline Transport Pilot's Licence .....	£3 for course of one term
69	Technical Examination for Instru- ment Rating .....	£2 for course of one term

## CIVIL AIRPORT CONTROL OFFICERS

The examination for Civil Airport Control Officers is similar in standard to the Senior Commercial Pilot's Licence examination.

### 70. PRIVATE PILOT'S LICENCE COURSE

Fee £5

The Course commences in November and provides a total of 75 hours instruction. It covers the theoretical portion of the syllabus of the Department of Industry and Commerce for the Private Pilot's Licence Examination as set out in Memorandum No. PEL/2 revised 1954. Classes are held on two nights each week from 7.30 to 10 p.m.

Subject	Teacher
Navigation, Aeronautical Charts, Magnetic Compass, General Meteorology .....	Capt. B. Flanagan
Synoptic Meteorology .....	J. O'Connor
Air Navigation Regulations, Rules of the Air, Air Traffic Control Procedures .....	R. Howley
Theory of Flight, Aircraft Characteristics and Limitations .....	P. Taylor, D. Tighe

The number of students enrolled will be limited to a maximum of twenty, and applicants for enrolment must have a minimum of twenty hours flying experience.

## EVENING COURSES

### BAKERY PRACTICE AND CONFECTIONERY DECORATION

*Teacher-in-Charge :* S. ANTHONY, TECH.DIP. CITY AND GUILDS

#### BAKERY PRACTICE (Journeyman)

Course Fee : 30/- per Session.

No. of Course	Subject	Day	Time	Room	Teacher
71	Bakery Practice - -	Wednes.	7.00-10.00	20	S. Anthony

#### CONFECTIONERY DECORATION

##### INTERMEDIATE COURSE

Course Fee : 30/- per Session.

No. of Course	Subject	Day	Time	Room	Teacher
72	Design, Icing, Piping -	Monday	7.00-10.00	20	D. Carey

##### ADVANCED COURSE

Course Fee : 30/- per Session.

No. of Course	Subject	Day	Time	Room	Teacher
73	Design, Icing, Piping -	Thursday	7.00-10.00	20	S. Anthony

## EVENING COURSES

### SPECIAL COURSES IN ENGINEERING AND SCIENCE AT GRADUATE OR POST-GRADUATE LEVEL

The College is prepared, subject to availability of accommodation and sufficient demand, to provide one or more Short Courses at Graduate or Post-Graduate Level on topics of Engineering and Scientific Interest during the current session. These Courses would be held on one evening per week, the day and time being arranged to suit the majority of those enrolled. A short list of typical courses, with the estimated number of lectures involved, is given below.

---

100	Introductory Electronics for Engineers, Part I	20	Lectures
101	Introductory Electronics for Engineers, Part II	20	„
102	Electronic Circuit Theory .....	10	„
103	Mathematics for Electrical Engineers .....	10	„
104	Transistors and Transistor Circuits .....	8	„
105	Radio Frequency Measurements .....	10	„
106	Transmission Lines and Aerials .....	8	„
107	Modern Physics for Engineers .....	6	„
108	Electronics for Chemists .....	10	„
109	Chromatography .....	6	„
110	Applications of Radio-Active Isotopes .....	6	„
111	Instrumental Analysis .....	8	„
112	Feed Back Control Systems .....	10	„
113	Statistics for Engineers and Scientists .....	20	„

---

FEEs : 6 or 8 Lectures—£2.    10 Lectures—£3.    20 Lectures—£5.

Further information may be obtained on application to the Principal, who would welcome suggestions for the inclusion of other subjects of a similar nature.

## SCHOLARSHIPS AND PRIZES

### SCHOLARSHIPS TO THE SENIOR SCIENCE COURSE

The City of Dublin Vocational Education Committee offers sixteen scholarships known as "Senior Science Scholarships" which entitle the holder to free admission to the Senior Science Course for one year *and to either* (a) the Intermediate B.Sc. Course for one year *or* (b) the first year of the Electrical Engineering Course. The scholarships are offered to boys between the ages of 15 and 17 years on 1st January, 1961. Ten scholarships will be awarded to students who have obtained the Day Vocational (Manual Training Group) Certificate (Department of Education—Technical Instruction Branch) by attendance at a Technical Institute or School under the jurisdiction of the Committee. Six scholarships will be awarded to students who have obtained the Intermediate Certificate (Department of Education—Secondary Branch) and who have ordinarily resided in the City of Dublin for the past three years.

Candidates who have entered for the examination for either the Day Vocational (Manual Training Group) Certificate or the Intermediate Certificate in the current year will be permitted to sit for the scholarship examination; however, the award of a scholarship will be contingent on a candidate's success in the former examination.

### SCHOLARSHIPS FOR THE ELECTRICAL ENGINEERING COURSE (Whole-time Day)

The City of Dublin Vocational Education Committee offers scholarships to the second and third years of the above course. The scholarships are awarded on the results of the sessional examinations held at the end of the first and second years of the course and consist of free tuition for the succeeding year of the course. One such scholarship will be awarded for each of the second and third years of the course and where the numbers of students sitting for a sessional examination is ten or more, two such scholarships may be awarded.

### MALLIN MEMORIAL PRIZE

Mr. Kevin Mallin, Vice-President of the Ampex Corporation, California, U.S.A., has presented to the City of Dublin Vocational Education Committee funds to endow an award to be known as the Mallin Memorial Prize in memory of his brother, Denis P. Mallin, B.A., late Headmaster of the Technical Institute, Marino, Dublin. The Prize, which is £50 in value, will be awarded to the best student of Electronics in the final year of the Electrical Engineering Sandwich Course S.E.E.

### GAELTACHT SCHOLARSHIPS

The City of Dublin Vocational Education Committee offers Gaeltacht Scholarships which entitle the holders to a Summer Course in the Gaeltacht, free of all expense. These Scholarships are open to competition amongst the students of the Whole-time Day Courses.

## THE FOY SCHOLARSHIP IN APPLIED CHEMISTRY

A former student of the Institute, Mr. W. P. Armstrong, has established a Scholarship in Chemistry to be called the "Foy Scholarship." The annual value of the Scholarship is about £14, being the proceeds of an investment of £500 in Dublin Corporation Stock.

The Scholarship is awarded each Session on the result of the sessional examination in Chemistry held at the end of the 2nd Year B.Sc. Degree Course. All students who have attended regularly during two Sessions in the Chemistry Department are eligible to compete, and the student to whom the Scholarship is awarded must pursue his studies in the Chemistry Department during the following Session.

## THE DUBLIN MECHANICS' INSTITUTE SCHOLARSHIPS

The Residuary Fund of the Dublin Mechanics' Institute has been made available for Industrial Scholarships under the management of the Vocational Education Committee.

One Scholarship will be awarded annually in the Electrical Engineering and Physics Group. The Scholarship is tenable for three years, and its value is about £3 per year.

Candidates must be engaged in an Operative Trade as Apprentices or Learners. They must be between the ages of 16 and 19, and must have attended a Technical Course during the preceding School Session and made 80 per cent. of the possible attendances in two of the subjects of the Course in which they are entered.

## POST OFFICE ENGINEERING

The Department of Posts and Telegraphs offers the following prizes to students of the Post Office Engineering Sandwich Course: 1st Year and 2nd Year—1st Prize £5, 2nd Prize £2; 3rd Year—1st Prize £7, 2nd Prize £3, 3rd Prize £1. The Irish Post Office Engineering Union offers a 1st Prize of £3 and a 2nd Prize of £2 in each of the three years of the Course.

## ELECTRICAL INSTALLATION WORK

The Electricity Supply Board offers prizes to a total value of £60 per annum for award to apprentices who secure 1st, 2nd or 3rd Place in the subjects Metalwork and Practical Installation in the Electrical Installation Work Sandwich Course.

## PROJECTION SCIENCE

The Theatre and Cinema Association (Ireland) and the Irish Transport and General Workers' Union (Cinema Branch) jointly offer the following Prizes to students attending the Projection Science

Course for Cinema Apprentices: 1st Year—1st Prize £3, 2nd Prize £2, 3rd Prize £1; 2nd Year—1st Prize £5, 2nd Prize £3; 3rd Year—1st Prize, Gold Medal and £5; 2nd Prize, Silver Medal and £3.

## BREADMAKING AND FLOUR CONFECTIONERY

Silver Cups are awarded by the Irish Bakers, Confectioners' and Allied Workers' Union and the Dublin Master Bakers' Committee, to the students who obtain 1st and 2nd Places in the sessional examinations of the Part-time Day Release Course.

The Dublin Master Bakers' Committee, the Guild of Irish Bakers and the Irish Bakers and Confectioners' and Allied Workers' Union jointly offer the following prizes to apprentices who pass the Final examinations of the City and Guilds of London Institute in the three subjects, Breadmaking, Flour Confectionery and Bakery Science:—

1st Class passes in the three subjects—£12.

1st Class passes in two subjects and 2nd Class pass in the third—£10.

1st Class pass in one subject and 2nd Class passes in the other two—£8.

2nd Class passes in the three subjects—£6.

Two Silver Cups are presented jointly by the same three organisations for Confectionery Decoration Classes. One is the Intermediate Confectionery Decoration Cup, confined to competition among apprentices, and the second is the Advanced Confectionery Decoration Cup for competition among apprentices and journeymen.

Messrs. John F. Renshaw & Co. (Ireland), Ltd., present a Silver Cup for competition among apprentices of the Part-time Day Release Course. Prizes of 5 guineas, 3 guineas and 2 guineas are awarded to the students who obtain 1st, 2nd and 3rd places in this competition.

## FLOUR MILLING TECHNOLOGY

The Irish Flour Millers' Association offers, annually, prizes to the value of £37 10s. for award to students attending the Courses who have attained successes in the Department of Education Examinations.

## ELECTRONICS FOR ELECTRICIANS

The Electrical Trades Union of Ireland offers prizes to a total value of £10 for award to members who secure 1st, 2nd and 3rd Place in the Certificate Examination set at the end of the Course.

---

Wm. Warren & Son Ltd.  
Printers   ✻   Dublin

---