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Curriculum and Time Table: Session 1947-48

City of Dublin Vocational Education Committee

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City of Dublin
Vocational Education Committee

Foras na Saois nDéantúsach

Seisiún 1947-48

Institute of Science and Technology
KEVIN STREET

CURRICULUM AND TIME-TABLE

CALENDAR — SESSION 1947-48.

1947—SEPT. 1	MONDAY	Wholetime Day Schools open for enrolment and Day Apprentice Schools resume work.
„ 8	MONDAY	Part-time Day Classes open for enrolment, and Whole-time Day Classes commence work.
„ 15	MONDAY	Evening Courses open for enrolment, and Part-time Day Classes commence work.
„ 22	MONDAY	Evening Classes commence work.
NOV. 1	SATURDAY	*All Saints' Day.* Whole-time Day Schools, excepting Day Apprentice Schools and Special Classes, closed.
DEC. 8	MONDAY	*Feast of the Immaculate Conception.* Whole-time Day Schools, excepting Day Apprentice Schools and Special Classes, closed.
„ 20	SATURDAY	Close of Christmas Term.
1948—JAN. 5	MONDAY	All Classes resume work after Christmas Vacation.
„ 6	TUESDAY	*Feast of the Epiphany.* Whole-time Day Schools, excepting Day Apprentice Schools and Special Classes, closed.
MAR. 17	WEDNESDAY	*St. Patrick's Day.* Schools closed.
„ 23	TUESDAY	Close of Easter Term.
„ 26	FRIDAY	*Good Friday.*
„ 28	SUNDAY	*Easter Sunday.*
„ 31	WEDNESDAY	Evening Classes resume work after Easter Vacation.
APR. 5	MONDAY	All Day Classes resume work after Easter Vacation.
„ 30	FRIDAY	Evening Classes close, excepting where otherwise arranged.
MAY 6	THURSDAY	*Ascension Day.* Whole-time Day Schools, excepting Day Apprentice Schools and Special Classes, closed.
„ 17	MONDAY	*Whit Monday.* Schools closed.
„ 27	THURSDAY	*Feast of Corpus Christi.* Whole-time Day Schools, excepting Day Apprentice Schools and Special Classes, closed.
JUNE 12	SATURDAY	Irish Proficiency Entrance Scholarship Examinations.
„ 26	SATURDAY	Summer Term closes, except where otherwise arranged.
„ 29	TUESDAY	*Feast of Saints Peter and Paul.*

Schools closed on all Bank Holidays not specified in above Calendar.

INSTITUTE OF SCIENCE AND TECHNOLOGY

PROGRAMME

for

SESSION 1947-48

AUTUMN TERM:

Monday, 1st September, to Saturday, 20th December, 1947.

Full-time Day Course Enrolments: Week commencing September 1st.

Part-time Day Course Enrolments: Week commencing September 8th.

Evening Course Enrolments: Week commencing September 15th.

Autumn Term Examinations commence December 8th.

LENT TERM:

Monday, 5th January, to Friday, 30th April, 1948.

Term Course Enrolments: Week commencing January 5th

Lent Term Examinations commence March 22nd.

SUMMER TERM:

Monday, 3rd May, to Friday, 23rd July, 1948.

Term Course Enrolments: Week commencing May 2nd.

Sessional Examinations: June 13th to June 30th.

CITY OF DUBLIN VOCATIONAL EDUCATION COMMITTEE

Alderman Martin O'Sullivan, T.D., P.C. (Chairman), 74 Ballymun Road, Glasnevin.

Rev. J. Fitzpatrick, D.D. (Vice-Chairman), 1 Frankfort Avenue, Rathgar.

Alderman Bernard Butler, B.A., T.D., 16 Healthfield Road, Terenure.

Alderman John McCann, T.D., 68 Fortfield Road, Terenure.

Councillor John Breen, 1 Arran Quay Terrace, Dublin.

Councillor Cormac Breathnach, T.D., LL.D., 384 Clontarf Road, Dublin.

Councillor Michael O'Higgins, 11 St. Mary's Road, Ballsbridge.

Councillor James P. Trainor, 2 Dawson Street, Dublin.

The Rt. Hon. Councillor P. J. Cahill, P.C. (Lord Mayor), Mansion House, Dublin.

Padraig T. Breathnach, Ph.D., M.A., F.C.P., 66 Iona Road, Glasnevin.

Mrs. M. Mulvey, P.C., Readsdale, Main Street, Dundrum.

Mr. Maurice F. O'Connell, B.A., H.Dip.Ed., 17 Oakley Road, Ranelagh.

Mr. John Swift, 37 Lower Gardiner Street, Dublin.

Mr. Hilary Williams, 46 Lambay Road, Drumcondra.

Offices:—The Technical Institute, Bolton Street, Dublin.

MARTIN M. GLEESON, M.A., B.Comm., H.Dip.Ed.
Chief Executive Officer.

LOCAL SUB-COMMITTEE.

INSTITUTE OF SCIENCE AND TECHNOLOGY.

Alderman M. O'Sullivan, T.D., 74 Ballymun Road, Dublin.

Rev. M. Geraghty, C.C., The Presbytery, High Street, Dublin.

Mr. W. J. Whelan, 61 Lower Beechwood Avenue, Dublin.

Mr. J. W. Kelly, 16 St. Joseph's Parade, Nelson Street, Dublin.

Mr. J. Andrews, B.Sc., Messrs. A. Guinness, Son & Co., James's Street, Dublin.

Mr. John Swift, 37 Lower Gardiner Street, Dublin.

Alderman J. McCann, T.D., 68 Fortfield Road, Terenure.

The Rt. Hon. Councillor P. J. Cahill, P.C., Lord Mayor, Mansion House, Dublin.

Mr. Thomas J. Conway, 31 Connolly Gardens, Inchicore, Dublin.

Mr. M. P. Rowan, 52 Capel Street, Dublin.

CONTENTS

	PAGE
CALENDAR	(Inside Front Cover)
ADVISORY AND EDUCATION COMMITTEES	6
GENERAL REGULATIONS	8
FEES: DAY AND EVENING COURSES	13
DEPARTMENTAL ADMINISTRATION	17
TEACHING STAFFS	18

Day Courses: Applied Science and Technology:

Programme and Regulations	20-21
Junior Course: Science and Electrotechnology ...	22
Preparatory Course: Electrical and Radiotechnology ...	23
Preparatory Course: Science	23
Preliminary Science for Opticians	24
Preliminary Science for Radiography	24
Preliminary Science for Pharmaceutical Chemists ...	25
Pre-University Courses	25
Applied Science (Univ. of Lond.; Professional Institutions)	28
Industrial Bacteriology and Food Technology ...	29
Engineering and Chemical Technology: Manufactures	29
Certification Courses for Ophthalmic Opticians ...	31
Instrument Making and Laboratory Arts	32
Testing, Maintenance and Servicing of Radio Equipment	33
Certification Courses for Radio Officers (Aircraft and Marine)	35
Radio Engineering and Electronics: Diploma Course ...	40
Electrical Installation Work and Technology	43
Projection Science	45
Practical Chemistry and Pharmacy	46
X-Ray Physics and Apparatus	47
Single Subjects	47
School of Bakery: Breadmaking and Flour Confectionery	81

PUBLIC, PROFESSIONAL INSTITUTE AND UNIVERSITY OF LONDON EXAMINATIONS	48

PAGE

Evening Courses: Pure and Applied Physics and Mathematics:

Physics: Preliminary, Intermediate, Advanced Stages ... 52
Mathematics: Preliminary, Intermediate, Advanced Stages 52
Illumination and Photometry, Diploma Course ... 54
Ophthalmic Opticians' Diploma Course 53
Electronics 52
Oscillographs (Summer Course) 52
Television Principles (Summer Course) 52
Instrument Making and Glass Blowing 54
Matriculation and Preliminary Professional 55

Evening Courses: Pure and Applied Chemistry and Biology:

Applied Chemistry: Certificate Course 58
Physical Chemistry (Summer Term) 58
Technical Chemical Analysis 59
Pharmaceutical Chemistry: Certificate Courses ... 61
Materia Medica, Botany: Certificate Courses ... 62
Pharmacy 62
Botany: General Courses 58
Biochemistry 58
Technical Entomology 58
Industrial Bacteriology: Certificate Course 59
Food Technology: Certificate Course 59
Brewing: Certificate Course 60
Cereal Chemistry and Milling Technology: Certificate Course 60
Milk Processing 61
* Paints and Varnishes 61
* Dyeing and Cleaning 61
* Gas Manufacture and Supply 61
* Paper Manufacture 61
Textile Technology 61

* Tutorial Courses

PAGE

Evening Courses: Electrical Engineering Technology:

Electrical Engineering Practice 66
Electrical Installation Work (Dept. Ed.) 68
Electrical Installation Technology (Course C) 67
Electrotechnical Draughtsmanship 68
Drawing Office Tracing (Women) 68
Institution of Electrical Engineers (Part I) 67
Institution of Electrical Engineers (Part II) 67
Electrical Trades 68

Evening Courses: Radio Engineering; Telecommunications:

Post Office Engineering 72
Technical Telegraphy, Telephony, Transmission ... 72
Telecommunications Engineering (Radio) 73
Radio Service Work 73
British Institution of Radio Engineers (Parts I, II, III) 74
Institution of Electrical Engineers: Associate Membership 75
Radio Officers' Certification Courses (Aircraft and Marine) 76

Air Navigation: Licence Courses 77

Art and Art Crafts 79

Miscellaneous:

Boot and Shoe Manufacture 82
Languages 83
Introductory Courses 84

SCHOLARSHIPS AND PRIZES 84

GENERAL CURRICULUM OF SCHOOLS ADMINISTERED BY COMMITTEE 87-88

ADVISORY AND EDUCATION SUB-COMMITTEES.

SCHOOL OF BAKERY

J. Swift (Chairman) J. Byrne P. Flanagan P. O'Neill G. Lawler J. Halpin	Irish Bakers', Confectioners' and Allied Workers' Union.
L. Kennedy H. E. O'Donohoe G. Rorke	Dublin Master Bakers' Committee.

FLOUR MILLING

George Shackleton -	Geo. Shackleton & Sons, Ltd., Lucan.
E. A. Spratt - -	Dublin North City Milling Co., Ltd.
William Fowler -	Dock Milling Co., Ltd.
W. J. De Lacy - -	Johnston, Mooney & O'Brien, Ltd.
Robert MacQuillan -	National Flour Mills, Ltd., Cork.

CINEMA AND THEATRE (PROJECTION)

T. J. Gogan P. O. Farrell	Theatre and Cinema Managers' Association.
F. Robbins R. Tait P. Clarke	Cinema Branch, I.T.G.W.U.

RADIO SERVICE WORK

W. B. Dalton T. R. Kent J. A. Kearney W. B. Farmer	Wireless Dealers' Association.
F. Brownlee J. Joyce B. Golding R. Wynne	Irish Radio Manufacturers' and Wholesalers' Association.

OPHTHALMIC OPTICS

THE PRESIDENT AND TWO MEMBERS OF COUNCIL,
ASSOCIATION OF OPTICIANS, IRELAND.
PRINCIPAL AND TEACHING STAFF (Applied Optics).

ELECTRICAL INSTALLATION WORK

Principal and Departmental Staff members acting with representatives of the following Bodies :—

ELECTRICITY SUPPLY BOARD.

IRISH ENGINEERING AND INDUSTRIAL UNION.

ELECTRICAL CONTRACTORS' ASSOCIATION.

ELECTRICAL TRADES' UNION.

BOOTMAKING AND MANUFACTURE

A. SMALLEY : Jas. Winstanley, Ltd.

H. SMITHSON : S. A. Wiltshire & Co., Ltd.

C. CRONIN
T. B. HEALY
L. DONOHOE
C. ENGLISH
} Handicraft Trade.

THE PRINCIPAL.

CITY OF DUBLIN VOCATIONAL EDUCATION COMMITTEE

GENERAL REGULATIONS FOR THE SCHOOLS AND CLASSES OPERATING UNDER THE AUTHORITY OF THE COMMITTEE

1. ADMISSION AND ENROLMENT

(*a*) In general, applicants for admission to the Classes and Courses must be not less than 14 years of age, but admission to a whole-time Day Course may be granted where the applicant is over 13 years of age and has been enrolled for at least one year in the Sixth Standard of a Primary School. This Regulation does not apply to the School of Music.

(*b*) The Committee in accordance with the means and facilities at their disposal, have provided classes for the sole purpose of supplementing the practical trade training of persons actually employed at and engaged in the various operations of the trade and whose employment as such is accepted by the recognised Unions of the trades concerned.

(*c*) In determining whether an applicant for admission to one of these practical trade classes complies with the above conditions the Committee is guided, where necessary, by the evidence supplied by the Masters' Associations and the official Trade Unions of the trade concerned.

(*d*) Admission to a particular class or course is subject to the published regulations relative to that class or course.

(*e*) One month after the opening date of classes or courses students will be permitted to enrol only with the special permission of the School Authority.

(*f*) Pupils in attendance at Primary and Secondary Schools are not eligible for enrolment except by special permission of the School Authority.

(*g*) The educational fitness of a student to enrol in a particular course may be decided by an examination or other means considered necessary.

(*h*) A student is not entitled to enrol in a class or course which the School Authority decides is too advanced for his/her standard of knowledge.

(*i*) Enrolment procedure :—

(*i*) Intending students must enter on the Enrolment Form supplied all the information required by the School Authority.

(*ii*) The classes or courses to be taken are decided in interview with a member of the School Staff.

(*iii*) The appropriate fee is then paid to an officer of the Committee and a receipt issued therefor. A student who pays a fee must insist that he receives an official receipt for the amount of the fee paid.

(*iv*) The appropriate class ticket/tickets is then issued to the student.

(*j*) (*i*) No student may attend a class until he/she has received a class ticket.

(*ii*) On first attendance at each class the student must tender to the teacher in charge his/her appropriate class ticket, together with the receipt for fee paid.

(*k*) Students will be enrolled during the period and at the times stated in the Committee's publications.

(*l*) The School Authority is authorised to refuse an enrolment, pending a decision thereon by the Committee.

2. FEES

(*a*) The fees payable for the several classes and courses included in the Scheme of Instruction are stated in the publications of the Committee, and must be paid in full on enrolment unless otherwise stated.

(*b*) Where a course includes subjects of different stages, the total fee will be computed on the basis that the initial fee is that of the highest stage.

(*c*) For enrolments in subjects ancillary to the original enrolment, in the same or another School or Department, the additional fee will be computed on the basis that all the classes have been selected on first enrolment. Where the additional subjects are deemed not to be ancillary, the fee payable will be as for a separate enrolment.

(*d*) The School Authority is authorised to decide if the additional enrolment is ancillary to the original enrolment.

(*e*) For fee purposes, Irish and/or Physical Training will be regarded as additional subjects to any class or course.

(*f*) Fees will not be refunded except where a class does not form.

(*g*) Cheques should be crossed and made payable to the City of Dublin Vocational Education Committee.

3. TRANSFERS

An enrolment is not transferable from one student to another. Transfer from one class to another, from one School to another, from Day Classes to Evening Classes, or from Evening Classes to Day Classes, with allowance for the fees paid, will be permitted only for a satisfactory reason and by special permission of the School Authority.

4. PRODUCTION OF ORIGINAL RECEIPT

Where applications are made for additional enrolments, or for transfers, the original receipt must be produced.

5. FORMATION AND CONTINUANCE OF CLASSES

The Committee reserves the right at any time to add or delete classes or courses to or from its Scheme of Instruction; to extend the period of a class; and to close a class, or to alter the day or times of a class meeting.

6. DISCIPLINE

The School Authority may suspend any student for breach of rules and regulations; absence from classes; irregular or unpunctual attendance; disorderly conduct in the School or within the School precincts; disobedience to a member of the staff; or for any other reason deemed sufficient. The Committee reserves the right to confirm such suspension and to cancel the enrolment without refund of fee. Where immediate action is required because of indiscipline on the part of the students, any member of the School Staff has authority to take appropriate measures, pending report to the School Authority.

7. SMOKING

Smoking is not permitted in the Schools.

8. INJURY TO STUDENTS

The Committee does not accept responsibility for injury to students resulting from careless conduct or neglect or disregard of regulations.

9. STUDENT PROPERTY

The Committee does not accept any responsibility for loss or damage to any student property—bicycles, hats, coats, books, etc.

10. SCHOOL PROPERTY

Where School property is damaged wilfully or through careless conduct on the part of students, such students (or their parents or guardians) may be required, on the order of the Committee, to pay for such repairs or replacements as may be necessary.

11. CHANGE OF ADDRESS

Students should notify the School Authority of any change of address.

12. BOOKS, STATIONERY, EQUIPMENT, DRESS

Students are expected to provide themselves with such books, stationery, equipment and dress as may be required.

13. INFECTIOUS AND NOTIFIABLE DISEASES

The head of the household must inform the School Authority immediately of any infectious or notifiable disease which may occur in the house in which a student is residing. Such a student must not resume attendance until permitted to do so by a medical officer.

14. EXAMINATIONS

Permission to sit for Scholarship, Sessional or other Examinations held under the authority of the Committee, will be governed by the conditions relevant to the examinations.

15. SCHOOL AUTHORITY

The term "School Authority," as used in these Regulations, indicates the Chief Executive Officer, or an officer delegated to act on his behalf.

The above Regulations have been adopted by Resolution of the Vocational Education Committee for the City of Dublin and approved by the Minister for Education.

REGULATIONS GOVERNING ADMISSION TO TRADE COURSES

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

REGULATIONS IN REGARD TO ENROLMENT, PAYMENT OF FEES AND CLASS REGISTRATION

1. Acceptance for admission to any Course of Study must be certified on the standard enrolment form by the responsible Lecturer or Instructor, or by the Principal.

2. The requisite Course Fees, together with the completed form of enrolment must be lodged in the office of the Institute; the sole certification of enrolment in a Course is the official receipt for the Course Fees paid.

3. 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.

Refund of Fees

Refund of Fees will not be made except in cases where Classes or Courses for which the student has enrolled do not form.

DAY COURSE FEES: SCIENCE AND TECHNOLOGY

WHOLE-TIME DAY COURSES:		£	s.	d.
Junior Course: Electrotechnology and Engineering Science	per Session	1	0	0
Electrical Installation Work (Apprentices)	Per Term	1	0	0
Preparatory Course: Electrical and Radiotechnology	per Session	3	0	0
Preparatory Course: Science	do.	3	0	0

DAY COURSE FEES—Continued		£	s.	d.
Testing, Maintenance and Servicing of Radio Equipment	per Session	6	0	0
Radio Engineering	Per Term	3	0	0
Preliminary Science Course :				
Opticians	do.	3	0	0
Radiography	do.	3	0	0
Pharmaceutical Chemists	do.	3	0	0
Pre-University : Physics, Chemistry, Biology	do.	3	0	0
Pre-University : Mathematics, Engineering Science	do.	3	0	0
Applied Science (Univ. of Lond., B.Sc.) ...	do.	3	0	0
Applied Biology and Food Technology ...	do.	3	0	0
Engineering and Chemical Technology for Manufactures	per Session	18	0	0
RADIO OFFICERS' CERTIFICATION COURSES :				
Marine Radio Officers' 1st Class Certificate	Per Term	4	0	0
Aircraft Radio Officers' 1st Class Certificate	do.	4	0	0
Radiotechnology (Part Course) ...	do.	4	0	0
SUMMER COURSES FOR OPTICIANS :				
Part I—Practical		3	0	0
Parts II and III—Practical		3	0	0
One subject only		1	10	0
PART-TIME DAY COURSES :				
Bakery Practice (Apprentices) ...	per Session		7	6
Certificate Course in Breadmaking and Flour Confectionery	per Session	1	0	0
Cinema Projection Technology (Apprentices)	per Session		10	0
Electrical Installation Work	per Session	1	0	0
Practical Pharmacy	per Term	1	0	0
X-Ray Physics and Apparatus ...	do.	1	0	0
Practical Chemistry (Pharmaceutical) ...	do.	1	0	0
Single subjects (see list page 47) ...	do.	1	0	0

EVENING COURSE FEES: SCIENCE AND TECHNOLOGY

Applied Chemistry			1	0	0
Physical Chemistry			1	0	0
Bio-Chemistry			1	0	0
Technical Entomology	Summer Term only		1	0	0
Technology of Foods			3	0	0
Technology of Foods	Summer Term only		1	0	0
Brewing			1	10	0
Industrial Bacteriology			1	10	0
Milk Processing			1	10	0
Specialised Technical Analysis			1	10	0
Pharmaceutical Chemistry (Lec. and Lab.)			2	5	0
Ditto, ditto (Lectures)			1	10	0
Ditto, ditto (Lab. Certificate)			1	0	0
Ditto, ditto (Practice)	per Term		1	0	0
Medical Chemistry (Lec. and Lab.)			2	5	0
Ditto, ditto (Lectures)			1	10	0
Ditto, ditto (Practice)	per Term		1	0	0
Pharmacy (Practical)	do.		1	0	0
ELECTRICAL TECHNOLOGY AND ENGINEERING PRACTICE; ELECTRICAL INSTALLATION WORK (COURSE C.); RADIO SERVICE WORK; TELECOMMUNICATIONS ENGINEERING; ELECTROTECHNICAL DRAUGHTSMANSHIP; FLOUR MILLING TECHNOLOGY; PHYSICS; MATHEMATICS:				
Intermediate Courses				10	0
Final Courses			1	0	0
Flour Confectionery Decoration			1	0	0
DRAWING OFFICE TRACERS' COURSE			1	0	0
ASSOCIATE MEMBERSHIP COURSE (I.E.E.):					
Part I			1	0	0
Part II			1	0	0

EVENING COURSES—Contd.		£	s.	d.
CERTIFICATION COURSES FOR OPTICIANS:				
Part I	per Session	3	0	0
Part II	do.	3	0	0
Part III	do.	3	0	0
One subject only		1	10	0
Technical Physics: Special Courses		1	0	0
Illuminating Engineering	per Session	2	0	0
CERTIFICATION COURSES FOR RADIO OFFICERS:				
Marine Radio Officers' 1st Class Certificate	per Session (3 terms)	4	0	0
Aircraft Radio Officers' 1st Class Certificate	do.	4	0	0
Radiotechnology (Part Course)	do.	2	0	0
Telegraphy Practice (Morse)		1	0	0
GRADUATESHIP (B.I.R.E.):				
Part I		0	10	0
Part II		0	10	0
Part III		1	0	0
AIR NAVIGATION COURSES:				
Full Course—Navigator's Licence (2nd Class)	per Session (2 terms)	6	0	0
Navigator's Licence (1st Class)	per Session (2 terms)	8	0	0
Part Courses—Section A (D.R. and D.F.)	do.	2	0	0
Section B (Maps, Charts, etc.)	per Session (2 terms)	2	0	0
Section C (Meteorology)	do.	2	0	0
Section D (Astronomical Navigation)	per Session (2 terms)	2	0	0
Revision Course—Summer Term		3	0	0
All other Evening Courses (Each Stage)			7	6

Institute of Science and Technology
Kevin Street

(Telephone 51801)

Principal: E. MORTON, B.SC., A.R.C.SC.I.

DEPARTMENTAL ADMINISTRATION:

Department of Pure and Applied Science

Head of Department and Senior Lecturer, School of Applied Chemistry and Biology: WILLIAM J. LOOBY, D.SC., A.R.C.SC.I., H.DIP.ED.

SCHOOL OF APPLIED PHYSICS AND MATHEMATICS

Lecturer-in-Charge, Physics Division: FRANCIS NOLAN, M.SC.

Lecturer-in-Charge, Mathematics Division: JOHN M. FORDE, B.E.

SCHOOL OF BAKERY

Chief Instructor: SAMUEL ANTHONY, DIP.NAT.ASSOC., Master Bakers, Confectioners and Caterers; Full Technological Diploma, City and Guilds.

Department of Electrical Engineering Technology

Head of Department and Senior Lecturer: WILLIAM FEGAN, A.M.I.E.E.

Senior Instructor, Installations and Technology: WILLIAM TRUNDLE, Tech. Dip., City and Guilds.

Instructor-in-Charge, Workshops: RICHARD HOWARD, Teaching Certificate (Hons.), Dept. Education.

Department of Telecommunications Engineering

Head of Department and Senior Lecturer: HAROLD HODGENS, GRAD.I.E.E.

Senior Lecturer, Radio Engineering and Electronics: HUGH DE LACY, B.E.

Stocktaker: FRANCIS NOLAN, M.SC.

Clerical Staff: MISS CARMEL SMITH.

TEACHING STAFFS:

Applied Chemistry and Biology

W. J. LOOBY, D.SC., A.R.C.SC.I., H.DIP.ED.; B. G. FAGAN, B.A., B.SC., F.R.I.C., A.R.C.SC.I.; P. J. HURLEY, M.SC.; H. D. THORNTON, F.R.I.C., B.SC., A.R.C.SC.I.; F. J. BARRAGRY, M.P.S.I.; M. J. GORMAN, B.SC., A.R.C.SC.I.; JOHN SHIEL, M.D., B.L., PH.C.; D. W. MORRISSEY, B.SC., M.A., H.DIP.ED.; DR. N. MCNALLY; DR. BRENDAN J. SENIOR; MISS FRANCES DOHERTY, B.SC.; W. DE LACY (Milling); MISS MARY T. LUCEY, B.SC.; E. MCMAHON, M.SC., B.AGR.SC.; M. ARTHURS.

Applied Physics and Mathematics

FRANCIS NOLAN, M.SC.; J. M. FORDE, B.E.; HENRY C. CLIFTON, B.A.; P. J. O'CALLAGHAN, B.SC., A.R.C.SC.I.; R. W. RYDER, B.E., B.SC.; H. FLOOD, B.SC., A.R.C.SC.I.; P. WHELAN, B.SC., A.R.C.SC.I.; B. J. DIXON, B.SC., A.R.C.SC.I.; T. SHIEL, M.A., H.DIP.ED.; J. G. COLEMAN, DIP.OPT.A.O.I., F.I.O.; H. HAND, A.I.E.E.; T. S. MASON, F.B.O.A.; O. MCDERMOTT, A.M.I.E.E.; J. J. KYNE, B.SC., A.M.I.E.E.; E. V. CLEARY, B.E.; A.M.I.E.E.; W. KAVANAGH, B.E., B.SC.

Electrical Engineering Technology

WILLIAM FEGAN, A.M.I.E.E.; GEO. K. RING, B.E., A.R.C.SC.I.; H. N. WROE, B.SC., PH.D., A.M.I.E.E.; A. D. WHELAN, B.E.; W. TRUNDLE, Tech. Dip., CITY & GUILDS, LOND.; J. CRONIN, B.E.; E. V. CLEARY, B.E., A.M.I.E.E., H.DIP.ED.; O. MCDERMOTT, A.M.I.E.E.; MESSRS. J. WILLIAMS AND J. G. MOORE (Electrotechnical Draughtsmanship).

Radio Engineering: Telecommunications

HAROLD HODGENS, ASSOC.I.E.E.; HUGH DE LACY, B.E.; A. FOLAN, A.B.I.R.E.; T. P. SHERIDAN, B.E.; J. HONAN, A.M.B.I.R.E.; T. J. CARROLL, Tech. Dip., CITY & GUILDS, LOND.; P. SULLIVAN, Tech. Dip., CITY & GUILDS, LOND.; H. J. BARRISCALE, B.E.; J. W. DEVON; W. O'CONNOR, B.E.; B. MANGAN, B.E.; MESSRS. M. J. O'RORKE, B. BRENNAN, V. P. RODDY, A.M.I.E.E., Certified Radio Officers.

Air Navigation

HAROLD HODGENS, ASSOC.I.E.E.; M. J. O'RORKE; LIEUT. B. M. FLANAGAN; CAPT. M. HIGGINS; CAPT. P. SWAN; CAPT. T. C. WALSH.

Languages

F. NOLAN, M.SC.	Technical German.
W. LOOBY, D.SC., A.R.C.SC.I., H.DIP.ED.	Technical Irish.
J. MOYNIHAN	Irish; English; General Subjects.

Trades and Handicrafts

R. HOWARD, Teaching Cert. (Hons.), Dept. Education	Instrument Making; Metal Work.
W. J. BRADY, TECH. DIP. ...	Glass Blowing.
E. J. MCNAMARA	Electrical Installation Work.
M. O'KEEFE	Electric Cable Jointing.
A. MULVANEY, TECH. DIP., CITY & GUILDS	Do.
K. ENGLISH	Boot Manufacture.
S. ANTHONY, TECH. DIP., CITY & GUILDS	Breadmaking and Flour Confectionery.
W. CLARKE	Confectionery.
W. FRANEY, TECH. DIP., CITY & GUILDS	Breadmaking.

SCHOOLS OF PHYSICS AND MATHEMATICS, APPLIED CHEMISTRY AND BIOLOGY, ELECTRICAL ENGINEERING, RADIO TECHNOLOGY AND TELECOMMUNICATIONS.

PROGRAMME OF DAY COURSES.

SESSION 1947-48

(i) JUNIOR AND PREPARATORY COURSES :

Electrical; Radio Communication; Science.

(ii) PRELIMINARY AND PRE-UNIVERSITY COURSES :

Optics; Radiography; Pharmacy; Matriculation.

(iii) ADVANCED SCIENCE AND ENGINEERING COURSES :

University of London (B.Sc.).

(iv) TECHNOLOGICAL COURSES :

Applied Biology and Food Technology.
Ophthalmic Optics.
Radio Engineering.
Radio Officers (Marine and Aircraft).
Radio Service Work.

(v) APPRENTICE COURSES (Electrical : Projection).

ADMISSION TO DAY COURSES

In general, applicants for admission to all Day Courses in Applied Science or Technology, other than the Junior Course in Electro-technology and Engineering Science, must not be under sixteen years of age.

ENTRANCE STANDARDS AND EXAMINATIONS

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.

ENROLMENT PERIODS

Whole-time Day Courses

Week commencing Monday, 1st September, 1947.

Part-time Day Courses

Week commencing Monday, 8th September, 1947.

Enrolment subsequent to Monday, 29th September, 1947, may be made only on the authority of the Principal.

DAY COURSE FEES: Enrolment and Registration

The requisite Sessional Course Fees, or Term Course Fees, where these are arranged, must be paid in the Office of the Institute on enrolment, and subsequent registration in any Class may be effected only on presentation of the appropriate official Course Fee Receipt.

SESSIONAL EXAMINATIONS AND COURSE 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 Year of instruction is contingent on passing the Sessional Examinations in the Lower Year.

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.

SCHOOLS OF PHYSICS AND MATHEMATICS, APPLIED CHEMISTRY AND BIOLOGY, ELECTRICAL ENGINEERING, RADIO TECHNOLOGY AND TELECOMMUNICATIONS.

DAY COURSES.

JUNIOR AND PREPARATORY.

1D. Full-time Junior Course—Electrotechnology and Engineering Science.

(Session—September to July).

The Course provides a pre-apprenticeship training of a high standard suitable for those who intend to enter Electrical Trades or the Offices of Consultant Engineers or Electrical Contractors.

The Course is designed to cover two Sessions and provides approximately 28 hours of instruction per week in Mathematics, Physics, Chemistry, Mechanics, Electrical Technology and Workshop Practice, and in Irish and English and Religious Instruction.

Intending students should not be over sixteen years of age and should have attained a minimum standard of general education equivalent to that of the Second Year of the Intermediate Course in Secondary Schools.

Applicants for admission to the Course are required to pass the entrance examination in Mathematics prior to enrolment. Students accepted for enrolment must provide themselves with the following requisites :

(i) Drawing instruments of specified quality.

(ii) Engineer's overalls and certain specified tools.

(iii) Stationery and Text books.

Sessional Fee, £1.

DAY COURSES.

2D. Full-time Preparatory Course—Electrical and Radio Technology

(Session—September to July).

The Course provides a preparatory training for students who intend later to take a specialised Course in (*a*) Radio Engineering or (*b*) Radio Telegraphy (Radio Officers), or who intend to take up Radio Service Work.

The subjects of the Course include Mathematics, Physics, Chemistry, Electrotechnology, Principles of Radio Communication, Workshop Practice, and Telegraphy.

The requisite Entrance Standard of general education is equivalent to that connoted by the Intermediate Certificate (Secondary Schools).

Sessional Fee, £3.

3D. Full-time Preparatory Course—General Science and Mathematics.

(Session—September to July).

The Course provides preparatory instruction for students who intend later to take more advanced courses in Science or Engineering.

The Course subjects include Mathematics, Mechanics, General Physics, Heat, Light, Magnetism and Electricity and Inorganic Chemistry.

Sessional Fee, £3.

DAY COURSES.

PRELIMINARY, PROFESSIONAL, AND PRE-UNIVERSITY.

4D. Full-time Course—Preliminary Science for Opticians

(October—June: Three Terms).

The Course is approved by the Association of Ophthalmic Opticians, Ireland, in relation to the requirements of the Preliminary Examination Syllabuses; the Course Certificate awarded on the results of the Sessional Examinations held in the month of June in each Session is accepted by the Association in fulfilment of the educational conditions governing admission to Registration and to enrolment in the Professional Courses.

The Course provides full-time instruction over one Session of approximately 39 weeks in General Science, Heat, Light, Sound, Magnetism and Electricity, Chemistry, Elementary Physiology and Biology and Mathematics.

Intending students should not be less than 17 years of age and should have attained a suitable standard of general education. Application for admission should be made to the Principal, accompanied by full information in regard to age and educational standard.

Per Term, £3; Three Terms, £9.

5D. Full-time Course—Preliminary Science for Radiography

(October—June: Three Terms).

The Course is offered as a preparatory scientific training for women students who subsequently intend to enter on a hospital Course of Training leading to Certification in Radiography; a preliminary course of scientific instruction is essential.

DAY COURSES.

The general description of the Instruction is as for the preceding Course, with the addition of lectures on the Electron Theory, Conduction of Electricity through Gases, Ionic Emission, Thermionic Valves, X-Ray and Vacuum Tubes and accessory X-Ray plant equipment.

Intending students should have attained the Matriculation or Leaving Certificates.

Per Term, £3; Three Terms, £9.

6D. Full-time Course—Preliminary Science for Pharmacy

(October—June: Three Terms)

The Course provides a minimum of 15 hours per week of instruction in Theoretical and Practical Physics and in Theoretical and Practical Chemistry, in preparation for the Pharmaceutical Preliminary Examinations (Pharmaceutical Society of Ireland). Intending students should consult the Regulations of the Pharmaceutical Society of Ireland for particulars of Examination Syllabuses, Educational qualifications, etc.

Per Term, £3; Three Terms, £9.

7D. Full-time Courses—Mathematics and Science Subjects

PRE-UNIVERSITY AND HIGHER COURSES.

(October—June: Three Terms).

COURSE A—Specialising in Physics, Chemistry, Biology.

COURSE B—Specialising in Mathematics, Engineering Science Subjects.

COURSE C—Specialising in subjects for the Preliminary and Professional Examinations of the Association of Ophthalmic Opticians (Ireland) and of the British Optical Association.

DAY COURSES.

COURSE D—Specialising in subjects for the Preliminary and Membership Examinations of the Society of Radiographers (women students only).

The Courses provide a thorough general scientific training suited to the requirements of students who intend to enter scientific occupations as **Pharmaceutical Chemists, Opticians, Radiologists, Meteorological Assistants,** etc., or who desire to train for entrance to some branch of Chemical or Engineering Industry having a scientific basis.

Intending Students should consult the Principal.

The Courses also serve to provide a specialised pre-University course of instruction for students who already have matriculated or who are preparing for University Entrance, Matriculation or higher Examinations.

Day Courses to suit individual students may be arranged by options made from the following schedule of studies:

Mathematics (Geometry, Co-Ordinate Geometry, Algebra, Trigonometry, Calculus Elements); Applied Mathematics (Statics, Dynamics, Hydrostatics); Physics (Heat, Sound, Light, Magnetism and Electricity); Chemistry; Metallurgy; Botany; Biology; Workshop Practice; Descriptive Geometry; Technical Drawing; Irish; English; French; German.

The Syllabuses of instruction generally conform with those of the Department of Education (T.I.B.), and with those for the Matriculation and First University Examination of the National University.

Per Term, £3; Three Terms, £9.

Day Science & Mathematics Classes, providing "options" for special Courses

(Pre-University, Optical, Radiography, Pharmaceutical, London University, etc.)

(SEPTEMBER — JULY)

SUBJECT	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	TEACHERS
Mathematics, S.1	3.30—5.0	—	3.30—5.0	—	3.30—5.0	J. Deignan
Applied Mathematics, S.2.	—	3.30—5.0	—	3.30—5.0	—	G. Bernfeld
Physics, S.3, Section A.	—	9.30—12.30	9.30—12.30	—	—	Miss F. Doherty
Physics, S.3, Section B.	9.30—12.30	—	—	9.30—12.30	—	Dr. W. Looby
Chemistry, S.4, Section A.	9.30—12.30	—	—	9.30—12.30	9.30—12.30	Miss Doherty
Chemistry, S.4., Section B.	—	—	9.30—12.30	—	9.30—12.30	Dr. W. Looby
Dietetics Science, S.6.	—	—	—	—	2.30—5.30	Miss Doherty
Biology, S.7.	—	5.0—6.30	—	5.0—6.30	—	Dr. W. Looby
Bacteriology, S.8.	—	5.0—7.0	—	5.0—7.0	—	M. Arthurs
Botany, Advanced, S.9.	—	—	—	—	5.0—7.30	Dr. W. Looby
X-Ray Physics, S.11.	—	4.0—6.0	—	4.0—6.0	—	H. Hand
Pharmacy	—	—	2.30—5.30	—	—	F. J. Barragry
Pharmaceutical Chemistry—Practical	2.30—5.30	2.30—5.30	—	—	—	Miss Doherty
Medical Chemistry	—	—	—	3.30—6.30	—	D. W. Morrissy

ADVANCED SCIENCE AND ENGINEERING.

8D. Full-time Courses—Applied Science (Univ. of Lond., B.Sc.)

(October—June : Three Terms).

For Matriculation Courses, see Pre-University Courses A & B.

The Intermediate Science Course provides full-time instruction in Pure Mathematics, Applied Mathematics, Physics, Chemistry, Botany, Biology, Engineering, Drawing, and Languages.

Students may make their own options within the range of the Curriculum.

Final B.Sc. Course : Students requiring instruction for the Degree of the University of London are requested to consult the Principal, who will indicate suitable established Day and Evening Courses, from which the desired options may be made, in :

Advanced Physics, Applied Heat, Chemistry (Inorganic, Organic and Physical), Botany, Biology, Mechanics and Strength of Materials, Electrical Technology, Pure and Applied Mathematics, Generation, Transmission and Utilisation of Electrical Energy, etc.

Per Term. £3; Three Terms, £9.

DAY COURSES.

APPLIED SCIENCE AND TECHNOLOGY.

9D. Applied Biology and Food Technology: Diploma Course

The purpose of the Course is to give a training and qualification specially adapted to the needs of the Food, Bio-Chemical and Fermentation Industries.

The Full Course of Instruction is designed to cover a period of Three Sessions.

The First and Second Years of the Course are devoted to the study of Inorganic, Organic and Physical Chemistry, with Biology, Botany and Engineering Science as ancillary subjects.

The Third Year of the Course is allocated to Applied Biology, including Bio-Chemistry, Industrial Bacteriology and Fermentation Industries; Technical Entomology; Food Conservation Principles; Food Poisons and Adulterants; Foods and Water Analysis.

Intending students holding approved qualifications may be admitted directly to the Third Year of the Course.

It may be noted that the Syllabuses of Instruction and Content of Laboratory Work constitute a suitable Course for students intending to sit for the Institute of Brewing Examination for Associate Membership.

Per Term, £3; Three Terms, £9.

10D. Full-time Courses—Engineering and Chemical Technology: Manufactures.

The Courses are intended to meet the needs of students of good secondary education requiring a thorough practical basic training preparatory to entering positions in Manufacturing Industry as student-apprentices and where the ultimate aim is technical supervision and management.

DAY COURSES.

It should be noted that while the advantages of such a course of training are generally obvious and would be conducive to achieving entry to employment in Industry on the basis of student-apprentice, the field of opportunity is restricted. It is advised therefore that students and parents or guardians should explore, where no intimate contacts with Industry already exist, the possible avenues of employment in relation to any specific Industry or Manufacture before deciding to enrol; if possible, definite entry to employment should be assured prior to commencing a course of study.

The Course is designed to cover two years; a third year of wholly specialised instruction may be arranged to suit individual needs.

The First Year of instruction will concentrate on basic Physical, Chemical and Electrical Science and applications. In the Second Year the instruction will deal with Electrical Installations and Motive Power, Factory Lay-out and Organisation, Industrial Chemistry and Technology and Technical Analysis.

Liaison will be established throughout the instruction and in accordance with the objective of the individual student, with specialised instruction in association with one or more of the following *technological Courses* :—

> Brewing, Flour Milling, Breadmaking, Flour Confectionery, Milk Processing, Canning and Food Preservation, Technical and Mineral Analysis, Paper, Fertilisers, Oils, Fats and Waxes, Soaps, Pharmaceutical Preparations, Fuels, Cements and Building Materials, etc.

Application for admission to the Course should be made to the Principal, stating age, educational standard and individual aim.

Sessional Fee, £18.

DAY COURSES.

Certification Courses for Ophthalmic Opticians: Diploma in Optometry.

The Courses are organised in conjunction with the Examinations of the Association of Ophthalmic Opticians, Ireland. Intending students are advised in the first instance to apply to the Association for full particulars relating to Syllabuses, Registration and Conditions of Admission to the professional examinations for the Diploma in Optometry (inquiries should be directed to the Hon. Secretary, Association of Ophthalmic Opticians (Ireland), 10 Lower Abbey Street, Dublin, C.8).

Applicants for admission to the Professional Courses should have acquired the Matriculation or Leaving Certificate, or show evidence of an equivalent standard of general education or, alternatively, pass the Preliminary Examination of the Association in the subjects: Physics, Chemistry, Mathematics, and Essay in a modern language (Irish or English may be chosen).

PRELIMINARY EXAMINATION:

Details of the approved full-time Day Course preparing for the Preliminary Examination are outlined on page 24.

PROFESSIONAL EXAMINATIONS:

See page 53 for Time-table and other information relative to the approved Courses preparing for Parts I, II and III of the Professional Examinations.

Full-time Summer Courses of Practical Instruction.

In order to facilitate registered students who are not resident within the City Borough Area and who are following approved theoretical courses of instruction, short full-time intensive courses are organised, each course affording approximately 60 hours of *practical* instruction in Physical Optics, in Anatomy and Recognition of Abnormal Conditions and in Practical Sight Testing and Dispensing.

The Course for Part I and that for Parts II and III will be organised in the month of May in each Session and will be conducted over a full-time period of two weeks.

DAY COURSES.

Students of the Practical Sight Testing Classes are expected to provide themselves with Trial Cases and Test Charts.

FEES.

PRELIMINARY COURSE (DAY). See page 24 ...	£9 0 0
PROFESSIONAL COURSES (EVENING). See page 53.	
Part I	£3 0 0
Part II	£3 0 0
Part III	£3 0 0
SUMMER COURSES (DAY):	
11D. Practical—Part I	£3 0 0
12D. Practical—Parts II and III	£3 0 0

* 13D. Full-time Course—Instrument Making and Laboratory Arts.

(Session—September to July).

The general Course will be conducted over a period of one Session and will mainly be devoted to practical work and the associated technology: a second Session will be assigned to work of a specialised character.

Intending students must have completed attendance at the two-year Day Course in Engineering Science and Electrotechnology or alternatively show evidence of having undergone an adequate training in Workshop Practice and in the elements of Physics (Heat, Light, Sound, Magnetism and Electricity).

It is intended that the Course should provide training for occupations in Industrial, College or Government laboratories and workshops as Laboratory or Instrument Technicians.

The practical work and associated technology will include the following:—

Materials, tools, processes; Lathe work; design and construction of Instruments; Electrical measuring instruments; optical instruments; weighing scales and balances; common laboratory apparatus;

* Will not be held in present Session.

temperature control instruments; electrodeposition of metals; silvering of glass; glass blowing of technical apparatus.

The work of the Course will entail attendance at the Institute for approximately thirty hours per week.

A general Course Certificate will be awarded on the assessment of the practical work completed in the first year and on the results of the theoretical examinations. A special Course Certificate will be awarded similarly at the conclusion of the second year specialised Course.

Course students may attend related evening classes on two evenings per week.

Inclusive Sessional Fee, £6.

14D. Full-time Course—Testing, Maintenance and Servicing of Radio Equipment.

(Session—September to July).

The Course, covering a period of one Session, is designed to meet the needs of students desiring full training and certification in Radio Service Work.

Not more than twenty students will be accepted for enrolment.

Applicants must show evidence of having acquired a fundamental knowledge of the principles of Magnetism and Electricity (direct and alternating current). Prior consideration will be given to applications from students possessing qualifications as follows:—

(i) Certificates of satisfactory attendance and progress at the Preparatory Day Course of this Institute or other Course of similar standard. (See page 23, Course 2D.)

Or (ii) City and Guilds Certificate in Radiocommunication.

Or (iii) State Certificate of Proficiency in Radiotelegraphy (Eire or Britain).

DAY COURSES.

Equipment.

Adequate and modern Radio Service and test equipment includes Signal Generators, Universal Test Meters, Circuit and Component Analysers of various types, Valve Voltmeters, Audio Oscillators, Output Meters and Cathode Ray Oscillographs; a wide range of Broadcast Receivers of representative types, including Press Button tuning, for battery, AC mains or DC/AC mains operation; various components and units, including Vibrators, Speakers, Pick-ups, etc., are available for instruction.

Course of Instruction.

The Course provides approximately twenty-five hours instruction per week in subjects including Radio Theory, Circuits, Servicing Equipment and Instruments, Use of Oscilloscope, Location of Faults, etc., Ancillary Mathematics and Electrotechnology, Workshop Repairs and Assembly, Business Methods and Office Routine.

Students are expected to sit for the City and Guilds Examination in Radio Service Work held in the month of May in each year.

Course students may attend related Evening Classes on two evenings per week.

Inclusive Sessional Fee, £6.

DAY COURSES.

Testing, Maintenance and Servicing of Radio Equipment

TIME TABLE — October to July

Day	Hours	Subject
MONDAY	10.0—12.30	1. PRACTICAL RADIO
	2.0—3.0	RADIO TECHNOLOGY
	3.0—5.0	MATHEMATICS
TUESDAY	10.0—11.0	ELECTRICAL THEORY
	11.0—12.30	ELECT. LABORATORY
	2.0—4.0	WORKSHOP PRACTICE
WEDNESDAY	10.0—12.30	PRACTICAL RADIO
	2.0—3.0	RADIO TECHNOLOGY
	3.0—5.0	DRAWING
THURSDAY	10.0—12.30	PRACTICAL RADIO
	2.0—5.0	WORKSHOP PRACTICE
FRIDAY	10.0—11.0	ELECTRICAL THEORY
	11.0—12.30	ELECTRICAL LABORATORY
	2.0—3.0	RADIO TECHNOLOGY
	3.0—5.0	MATHEMATICS
SATURDAY	10.0—12.30	PRACTICAL RADIO

Full-time Courses for the Training and Certification of Radio Officers (Mercantile Marine and Aircraft).

EQUIPMENT.

The School is fully equipped with the latest Marine and Civil Aircraft Radio Apparatus.

Additional Radio Equipment recently installed includes the following items :—

For the Training of Sea-going Radio Officers :

(i) Marconi Transmitter, "Oceanspan" medium and high frequency, main, and emergency, 4-stage MCW/CW, employing crystal control on the H.F. bands up to 23 Mc/s.

(ii) Marconi 7-Stage Communications type Superheterodyne Receiver, type CR-300, covering frequencies 15 Kc/s to 28 Mc/s.

(iii) Marconi " Lodestone " Direction Finding apparatus, type 758, employing Bellini-Tosi fixed loops and a 5-valve MF Superheterodyne Receiver.

(iv) Automatic Alarm, Type M, Signal Receiver and Selector.

For the Training of Civil Aircraft Radio Officers :

(i) American Aircraft Radio Apparatus as used extensively in Dakota Civil Aircraft, including G.E.C. Aircraft Transmitter, type BC-375-E for MCW/CW Telephony on medium and high frequencies, with Belmont 8-valve, 6-band Superheterodyne Receiver BC-348-R.

(ii) Marconi Medium Frequency Transmitter and Receiver.

(iii) Command multi-Channel Radio Equipment, consisting of two transmitters for Radio Telegraphy or Telephony and three Superheterodyne Receivers and associated Dynamotors, which provide three simultaneous listening channels on low, medium or high frequencies and a choice of two transmitter channels in the aeronautical H.F. wave bands.

(iv) V.H.F. Radio Telephony Crystal Controlled Transmitter-Receiver type SCR 522a, and VHF standard Beam Approach Receiver.

(v) MF Radio Compass unit with motor-driven rotating loop aerial, providing Radio Bearings and serving as a Homing device.

Accessory Testing Equipment, includes :

(i) Signal Generators.

(ii) Universal Testing Meters.

(iii) Circuit and Component Analysers.

(iv) Electrostatic and Valve Voltmeters.

DAY COURSES.

Telegraphy (Morse):

The Morse Class Room provides full facilities for training students in Marine and Aircraft operating procedures and in Traffic Working under the conditions required by the Examination Authorities of the Department of Posts and Telegraphs.

Technical Electricity:

The Electrical Engineering and Physical Laboratories are elaborately equipped with modern machine plant and instruments to facilitate the practical instruction of students in Direct and Alternating Current Principles.

Course of Instruction.

The Course of Training is arranged to prepare students in the shortest possible time for the Examinations of Proficiency in Radiotelegraphy and Radiotelephony. The instruction consists of Lectures and Practical Work in Technical Electricity, Technical Radiotelegraphy and Radiotelephony, and Direction Finding, with practice on the Marine and Aircraft Apparatus specified above, and includes training in sending and receiving in the Morse Code, operating procedure and the handling of traffic, and in the Rules and Regulations for Radio Operators including the Q-Code, and typewriting.

Enrolment and Period of Training.

Enrolment may be effected at any period within the months of September and January in each Session: the duration of the period of training requisite for the acquirement of a State Certificate of the First Class is approximately 14-18 months.

Examinations.

The State Certificate Examinations are conducted in the School at intervals of three months by examiners appointed by the Department of Posts and Telegraphs; the syllabuses of Examination subjects are those defined by the International Telecommunication Convention, 1937. State Certificates confer eligibility for employment as Radio Officer in Mercantile Marine or Air Services (Eire and British Commonwealth).

DAY COURSES.

ADMISSION.

Students are expected to have a good general education, with special attention to handwriting, spelling, geography, arithmetic up to square root, algebra up to quadratic equations, elements of trigonometry.

There is no age-limit.

FEES.

The Fees, which cover tuition in all subjects up to obtaining the State Certificate of Proficiency, are as follows :—

15D.	Marine Operators' Certificate Course, per Term	£4	0	0
16D.	Aircraft Operators' Certificate Course do.	4	0	0
17D.	Radiotechnology (Part Course) ... do.	4	0	0

DAY COURSES FOR THE TRAINING AND CERTIFICATION OF RADIO OFFICERS FOR MERCANTILE MARINE AND AIR SERVICES

TIME TABLE—(September to July)

Day	Hour	Section	Subject
Monday	10.00—12.30	A	Aircratt Radio Theory and Practice
	3.00— 5.00	A	Practical Radio
	10.00—11.00	B	Rules and Regulations
	2.00— 4.00	B	Alternating Current
	10.00—12.30	C	Magnetism and Electricity
Tuesday	10.00—11.00	A	Radio Theory
	11.00—12.30	A	Electrotechnology
	2.00— 3.00	A	Practical Radio
	11.00—12.30	B	Radio Technology
	3.00— 5.00	B	Practical Radio
	11.30—12.30	C	Rules and Regulations
	3.30— 5.00	C	Magnetism and Electricity
Wednesday	10.00—11.30	A	Radio Technology
	11.30—12.30	A	Aircraft Rules and Regulations
	3.00— 5.00	A	Practical Radio
	11.30—12.30	B	Radio Technology
	10.00—12.30	C	Magnetism and Electricity
Thursday	10.00—12.30	A	Aircraft Radio Theory and Practice
	2.00— 3.00	A	Practical Radio
	4.00— 5.00	A	Rules and Regulations
	10.00—12.00	B	Alternating Current
	3.00— 5.00	B	Practical Radio
	11.30—12.30	C	Rules and Regulations
Friday	10.00—11.00	A	Radio Technology
	2.00— 3.30	A	Electrotechnology
	3.30— 5.00	A	Practical Radio
	11.30—12.30	B	Radio Technology
	2.00— 3.30	B	Practical Radio
Saturday	10.30—12.30		Mathematics (optional)

NOTE: At times not specified in the above Time-Table, between the hours of 10 a.m. and 12.30 p.m., and 2 p.m. and 5 p.m., all Sections engaged in Telegraphy Practice (Morse).

DAY COURSES.

18D. Full-time Course—Radio Engineering and Electronics.

(Session—October to July).

This advanced Course is designed to offer a thorough training, over a maximum period of three Sessions, in Radio Communication Principles and Engineering Practice, and meets the requirements of those who seek special qualifications in Radio Engineering or who intend to enter employment as Radio Engineers in any branch of the Radio Industry.

The Schedule for the full Course embraces Lectures and Experimental courses in the following subjects: Technical Physics (Mechanics, Heat, Sound, Light and applications in Electrical Communications); Mathematics (Algebra, Trigonometry, Conic Sections, Differential and Integral Calculus); Electrotechnology (D.C. & A.C. theory: Machines); Radio Communication and Carrier Telephony; Radio Frequency Measurements; Engineering Electronics; Radio Installations and Plant; Radio Service Work; Workshop Practice.

The syllabuses of instruction conform in full with the examination requirements of the Institution of Electrical Engineers, British Institution of Radio Engineers, the City and Guilds of London Institute and the several recognised professional institutions associated solely with this branch of Engineering.

Intending students should have attained Matriculation or Leaving Certificate standard in Mathematics.

Applicants possessing the Certificate of Proficiency of the First Class in Radiotelegraphy or the Preliminary Grade Certificate in Radiocommunication (City and Guilds of London) or an equivalent qualification may be approved by the Principal for direct admission to the Second Year of the Course.

The Course provides approximately 33 hours of instruction per week; students of the Day Course may take related Evening Classes on two evenings per week.

FEES.

Per Term, £3; Three Terms, £9.

DAY COURSES.

TIME TABLES

Radio Engineering and Electronics

(October to July)

FIRST YEAR

Day	Hours	Subject
MONDAY	10.0—11.0	RADIO THEORY
	11.0—12.30	RADIO CONSTRUCTION
	2.0—3.30	MAGNETISM and ELECTRICITY (Lecture).
	3.30—5.0	MATHEMATICS
TUESDAY	9.30—11.0	MATHEMATICS
	11.0—12.30	PRACTICAL RADIO
	2.0—3.0	RADIO THEORY
	3.0—4.30	PHYSICS
WEDNESDAY	9.30—11.0	RADIO THEORY
	11.0—12.30	APPLIED MATHEMATICS
	2.0—3.30	MAGNETISM and ELECTRICITY (Lecture)
	3.30—5.0	Do. LABORATORY
THURSDAY	10 0—11.30	RADIO THEORY
	11.30—12.30	APPLIED MATHEMATICS
	2.0—3.30	PHYSICS
	3.30—5.0	TUTORIAL
FRIDAY	9.30—11.0	MATHEMATICS
	11.0—12.30	DRAWING
	2.0—3.0	RADIO THEORY
	3.0—4.30	MAGNETISM and ELECTRICITY (Lecture).
SATURDAY	9.30—11.0	RADIO THEORY
SATURDAY	11.0—12.30	PHYSICS LABORATORY

SECOND YEAR

Day	Hours	Subject
MONDAY	9.30—11.0	RADIO ENGINEERING
	11.0 —12.30	MATHEMATICS
	2.0 —5.0	PRACTICAL RADIO
TUESDAY	9.30—11.0	RADIO TECHNOLOGY
	11.0 —12.30	PHYSICS
	2.0 —3.0	RADIO THEORY
	3.0 —5.0	MATHEMATICS
WEDNESDAY	9.30—11.0	ELECTROTECHNOLOGY (Lecture)
	11.0 —12.30	Do. (Laboratory)
	2.0 —5.0	PRACTICAL RADIO
THURSDAY	9.30—11.0	RADIO MEASUREMENTS
	11.0 —12.30	ELECTROTECHNOLOGY
	2.0 —3.0	RADIO THEORY
	3.0 —5.0	RADIO SERVICE
FRIDAY	9.30—11.0	RADIO DESIGN
	11.0 —12.30	MATHEMATICS
	2.0 —5.0	ELECTRONICS (Laboratory)
SATURDAY	9.30—11.0	ELECTROTECHNOLOGY (Lecture)
	11.30—12.30	DRAWING

THIRD YEAR

MONDAY	10.0 —11.0	ELECTROTECHNOLOGY
	11.0 —12.30	RADIO THEORY
	2.0 —3.0	APPLIED MECHANICS
	3.0 —5.0	APPLIED HEAT
TUESDAY	10.0 —11.30	ELECTROTECHNOLOGY
	11.30—12.30	RADIO ENGINEERING
	2.0 —5.0	PRACTICAL RADIO
WEDNESDAY	10.0 —11.0	ELECTROTECHNOLOGY (Lecture)
	11.0 —12.30	ELECTROTECHNOLOGY (Laboratory)
	2.0 —3.30	TELEVISION
	3.30—5.0	DRAWING
THURSDAY	10.0 —12.30	RADIO MEASUREMENTS
	2.0 —3.30	MATHEMATICS
FRIDAY	9.30—10.30	ELECTROTECHNOLOGY
	10.30—12.30	RADIO DESIGN
	2.0 —3.30	APPLIED MECHANICS
	3.30—5.0	APPLIED HEAT
SATURDAY	10.30—12.30	TUTORIAL

DAY COURSES FOR TRADE APPRENTICES

19D. Full-time Courses—Electrical Installation Work and Electrotechnology

These Courses are conducted under a special scheme making provision for the full technical training of Electrical Apprentices during the five-year period of Apprenticeship. The scheme has the co-operation of Trade Unions and the Electricity Supply Board.

Courses provide 33 hours of instruction per week in Electrical Theory and Experimental Work, Engineering Science, Mathematics, English (Précis and Report Writing), Technical Drawing, Electrical Installation and Fitting Work.

The syllabuses of instruction are based on those for the Department of Education Examinations in Electrical Installation Work and in Electrical Engineering Practice. By arrangement with the Department of Education, students sit for the Junior and Senior Trade Tests and for the Technological Examinations at appropriate stages in the instruction.

Under the present Scheme, each stage of full-time instruction occupies a period of 13 weeks and is associated with a further course of instruction by correspondence carried over an additional period of 26 weeks, approximately.

Fees: City Borough Area, Each Course, £1.

External Areas—Student-Apprentices from External Areas are admitted under special fees by arrangement with the Vocational Committees concerned.

TIME TABLES

ELECTRICAL INSTALLATION WORK AND ELECTROTECHNOLOGY

Autumn, Lent and Summer Term Courses: Two courses current in each term

SECTION A

Day	Time	Subject	Room
Monday	9.30—10.30	Installation Work, Lecture	6
	10.30—12.30	Installation Work, Lab.	6
	2.00— 3.30	Practical Drawing	14
	3.30— 5.00	Mathematics	14
Tuesday	9.30—10.30	Electrotechnology, Lecture	6
	10.30—12.30	Electrotechnology, Lab.	6
	2.00— 5.00	Installation Work, Pract.	33
Wednesday ...	9.30—12.30	Installation Work, Pract.	33
	2.00— 5.00	Installation Work, Pract.	33
Thursday	9.30—12.30	Workshop Practice	1
	2.00— 5.00	Workshop Practice	1
Friday	9.30—11.00	Electrical Calculations	19
	11.00—12.30	English (Precis and Report Writing)	19
	2.00— 5.00	Engineering Science	12
Saturday	9.30—10.15	Workshop Technology	12
	10.15—11.45	Practical Drawing	14
		SECTION B	
Monday	9.30—12.30	Installation Work, Pract.	33
	2.00— 5.00	Installation Work, Pract.	33
Tuesday	9.30—12.30	Installation Work, Pract.	33
	2.00— 3.30	Practical Drawing	14
	3.30— 5.00	English (Precis and Report)	17
Wednesday ...	9.30—12.30	Workshop Practice	1
	2.00— 5.00	Workshop Practice	1
Thursday	9.30—11.00	Electrical Calculations	14
	11.00—12.30	Practical Drawing	14
	2.00— 5.00	Engineering Science	12
Friday	9.30—12.30	Electrotechnology, Lecture and Laboratory ...	6
	2.00— 5.00	Installation Work, Lecture and Laboratory ...	6
Saturday	9.30—10.15	Workshop Technology	8
	10.15—11.45	Mathematics	8

DAY COURSES.

20D. Part-time Courses—Electrical Installation Work

(For Apprentices, by arrangement with Employers).

(Session—September to May).

Part-time Courses, conducted over one full day and two evenings per week, have been arranged to facilitate the technical training of Electrical Apprentices. Day Classes are confined to practical work and to Mathematics, Science, Drawing and English (Précis and Report Writing); Evening Classes provide instruction in Electrical Engineering and Installation Technology.

Course Fee, £1 per Session.

21D. Part-time Courses—Projection Science and Technology (Cinema Apprentices)

The Courses are designed to provide for the technical training of Cinema Apprentices employed in the Dublin Area, and are organised in co-operation with the Trade Union and the Irish Cinema and Theatre Managers' Association.

The Courses extend over three Sessions and provide a minimum of four hours of instruction per week in Mathematics, Elementary Science, Light and Sound, Technical Electricity, Electrical Reproduction of Sound, and Sound Head Amplifier Equipment.

The Session extends from October to mid-June in each year.

Fee for each Course, 10/-.

22D. Part-time Courses—Practical Chemistry

The Courses are suitable for students preparing for the Final Examinations of the Pharmaceutical Society of Ireland or examinations of approximately equivalent standard.

Classes are conducted in the afternoon from 2.30 p.m. to 5.30 p.m., on days arranged to meet, as far as possible, the convenience of students.

Course Fee, £1 per Term.

23D. Part-time Courses—Practical Pharmacy

The Courses are intended for Pharmaceutical students preparing for the Final Examinations of the Pharmaceutical Society of Ireland.

Three Courses are conducted in each Session, *viz.*, one Course in each of the three School terms, *viz.*, Autumn, Lent and Summer terms.

There are approximately twelve class meetings to each Course. Classes meet on Wednesday and Thursday afternoons from 3 to 6 p.m.

Course Fee, £1.

SINGLE SUBJECTS: SCIENCE AND TECHNOLOGY

(Session—October to July).

Accommodation permitting, Classes of established Courses in one or more of the specialised subjects listed hereunder may be taken, if approved by the Principal, on payment of the appropriate fees.

	Subject	Day	Hour	Fee
S. 1	Pure Mathematics (tutorial)	M.W.F.	3.30— 5.00	£1 per Term
S. 2	Applied Mathematics (tutorial)	Tu., Th.	3.30— 5.00	£1 per Term
S. 3	Physics II (Lecture and Lab.)	M., Th.	9.30—12.30	£1 per Term
S. 4	Chemistry II (Lecture and Lab.)	W. F.	9.30—12.30	£1 per Term
S. 5	Chemical Analysis (Practice)...	Tu.	9.30—12.30	£1 per Term
S. 6	Dietetics Science	Sat.	9.30—12.30	£1 per Term
S. 7	Botany and Biology	Tu., Th.	5.00— 6.30	£1 per Term
S. 8	Industrial Bacteriology	Tu., Th.	5.00— 7.00	£1 per Session
S. 9	Botany, Advanced	F.	5.00— 7.00	£1 per Session
S.10	Bio-Chemistry	M.	3.00— 6.00	£1 per Session
S.11	X-ray Physics and Apparatus	As	Arranged	£1 per Term
S.12	Prelim. Physics for Radiography	F.	10.0—11.30	£1 per Term
S.13	Electrical Technology	F.	9.30—12.30	£1 per Term
S.14	Electrical Installation Technology	F.	2.00— 5.00	£1 per Term
S 15	Technical Drawing	Tu.	2.00— 3.30	£1 per Term
		Sat.	10.15—11.45	
S.16	Workshop Practice	Th.	9.30— 5.00	£1 per Term
S 17	Telegraphy (Morse)	As	arranged	£1 per Term

SCHOOLS OF ELECTRICAL ENGINEERING, RADIO TECHNOLOGY, PHYSICS AND APPLIED CHEMISTRY

EVENING COURSES.

CERTIFICATE AND DIPLOMA COURSES: EXTERNAL EXAMINATIONS.

The attention of Students is directed to the Examinations in Art, Engineering and Chemical Technology, and Craft subjects conducted under the auspices of the Department of Education, the City and Guilds of London Institute, and Professional Institutions, such as the Institution of Electrical Engineers, the Institute of Gas Engineers, etc.

When deciding on a Course of Study the intending student should consult the Principal or a Lecturer. It is important that the Course prescribed should meet the educational requirements of the student, and lead to the acquirement of a Technical Qualification of recognised standing in Industry. *Such qualifications are of definite value to the holders when seeking employment or betterment of position.*

The Established Courses listed hereunder are conducted in relation to the examination requirements of the several authorities named.

COURSE	EXAMINATION SYLLABUSES
Air Navigation	Department of Industry and Commerce (Provisional International Civil Aviation Organisation).
Art Subjects	Department of Education.
Breadmaking and Flour Confectionery	City and Guilds (Lond.).
Brewing	City and Guilds (Lond.).
Electrical Engineering Practice...	City and Guilds (Lond.). Department of Education.
Electrical Installation Work ...	Institution of Electrical Engineers
Flour Milling	Department of Education.
Flour Testing	City and Guilds (Lond.).

Course	Examination Syllabuses
Fuel Technology	City and Guilds (Lond.).
Gas Engineering and Supply ...	City and Guilds (Lond.). Institute of Gas Engineers.
Instrument Making : Glass Blowing	Institute of Physics.
Illuminating Engineering ...	City and Guilds (Lond.). Illuminating Engineering Society.
Line Telegraphy, Telephony ...	Department of Education. Institution of Electrical Engineers. City and Guilds (Lond.).
Milk Processing	City and Guilds (Lond.).
Oils, Fats and Waxes	City and Guilds (Lond.).
Ophthalmic Optics	Assoc. Ophth. Opticians, Ireland. Worshipful Comp. Spectacle Makers, etc.
Paper Manufacture	City and Guilds (Lond.).
Paints and Varnishes	City and Guilds (Lond.).
Petroleum Products	City and Guilds (Lond.).
Physics; Applied Chemistry: Botany; Biology; Mathematics	Department of Education. University of London. Institute of Chemistry.
Pharmaceutical Chemistry and Allied Subjects	Pharmaceutical Society of Ireland.
Radio-Communication ...	Department of Education. City and Guilds (Lond.). Institution of Electrical Engineers, etc. B. Inst. of Radio Engineers.
Radio Service Work	City and Guilds (Lond.). Radio Trades Examination Board, London.
Radio-Telegraphy, -Telephony (Aircraft and Marine Radio Officers)	Department of Posts and Telegraphs.

Further information in regard to Schemes of External Examinations may be had on request to the Principal.

SCHOOL OF APPLIED PHYSICS AND MATHEMATICS.

CONSULTANTS:

THE PRINCIPAL.

Senior Lecturer in Applied Physics: F. NOLAN, M.SC.

Senior Lecturer in Pure and Applied Mathematics: J. M. FORDE, B.E.

TIME-TABLE OF EVENING COURSES:

Pure and Applied Physics: All Stages.

Technical Physics: Special Advanced Courses.

Pure and Applied Mathematics: All Stages.

Applied Optics (Diploma in Optometry).

Illuminating Engineering and Photometry.

Laboratory Arts.

APPLIED PHYSICS AND MATHEMATICS.

The Curriculum in this section offers fundamental Courses in Physics and in Mathematics, which, in general, are linked with the requirements of Technological Courses in Engineering and Chemical Technology.

A number of the Courses are specific in character and are planned to meet the needs for training and certification of students of Ophthalmic Optics and of Illuminating Engineering. A further Course aims to give adequate training to Laboratory Technicians.

External Examining Bodies. It should be noted that the syllabuses of instruction are based, for the most part, on the requirements of external Examining Bodies, of Professional Institutions, and of the University of London. A list of these is set forth on page 48 and detailed information in regard to the Examinations of any of the bodies named may be had on application to the Principal.

Admission of Students. In general, students applying for admission to Intermediate Courses must have attained a standard of general education approximating to Matriculation, or have completed satisfactorily attendance at an approved Preliminary Science Course, including General Physics, Mechanics and Mathematics.

Class Registration. 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 of the appropriate Official 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.

EVENING COURSES.

No. of Course	Subject	Day	Hour	Room	Teacher
	PURE AND APPLIED PHYSICS				
	PRELIMINARY STAGES—Fee, 7/6 each Course.				
3K	Elementary Science (Physics and Chemistry)		7.30–10.0	as	may be arranged
4K	Physics IA (Maths., Mech., Heat)	Monday ...	7.30–10.0	8a–8b	H. Flood, J. Kane, O. McDermott.
5K	Physics IB (Maths., Mech., Heat)	Tuesday ...	7.30–10.0	12–8b	H. Flood, J. Kane, O. McDermott.
6K	Magnetism & Electricity, IA	Thursday ...	7.30–10.0	12–8b	O. McDermott, J. Kane, H. Flood.
7K	Magnetism & Electricity, IB	Wednesday	7.30–10.0	12–8b	O. McDermott, J. Kane, H. Flood.
	INTERMEDIATE STAGES—Fee, 10/- per Course.				
8K	Mechanics I	Friday ...	7.30–10.0	A	
9K	General Physics and Heat II	Monday ...	7.30–10.0	12–10	J. J. Kyne, P. Whelan
10K	Heat Light, Sound (Tutorial)	as	may be arranged		J. J. Kyne
11K	Light II	Wednesday	7.30–10.0	8a–10	P. J. O'Callaghan, P. Whelan
12K	Magnetism & Electricity, II	Friday ...	7.30–10.0	12-10-8b	P. J. O'Callaghan, P. Whelan, B. Dixon, J. J. Kyne
13K	Mechanics II (Applied Maths.)	Thursday ...	7.30–10.0	19	
	ADVANCED STAGES—Fee, 20/- each Course.				
14K	Heat & Thermodynamics, III	Friday ...	7.30–10.0	17	R. W. Ryder
15K	Wave Motion and Sound, III	Monday ...	7.30–9.30	9	F. Nolan
16K	Magnetism & Electricity, III	Tuesday ...	7.30–10.0	17–10–6	H. Barriscale
17K	Mechanics (including Strength of Materials) III	Wednesday	7.30–10.0	17	J. M. Forde
18K	Ionisation and Electronics, I	Tuesday ...	7.30–9.30	13	
	TECHNICAL PHYSICS: SPECIAL ADVANCED COURSES.				
	SUMMER TERM—Fee, 20/- per Course.				
19K	Engineering Electronics and Oscillographs ..	To be arranged	7.0–9.0	6–9–11	H. de Lacy
20K	Electro – Acoustics ..	do.	,,	,,	
21K	Television Reception and Transmission ..	do.	,,	,,	
22K	Refrigeration and Air Conditioning Principles	do.	,,	,,	
	PURE AND APPLIED MATHEMATICS				
	PRELIMINARY STAGES—Fee, 7/6 per Course.				
23K	Mathematics, IA	Friday ...	7.30–9.30	8a	A. D. Whelan
24K	Do. IB	Thursday ...	7.30–9.30	8a	A. D. Whelan
25K	Do. II	Wednesday	7.30–9.30	5	A. D. Whelan
26K	Do. III	Thursday ...	7.30–9.30	5	
	INTERMEDIATE STAGES—Fee, 10/- per Course.				
27K	Mathematics, IV	Monday ...	7.30–9.30	5	
28K	Do. V.	Friday ...	7.30–9.30	5	

EVENING COURSES

No. of Course	Subject	Day	Hour	Room	Teacher
	FINAL STAGES—Fee, 20/- per Course.				
29K	Mathematics, VI	Monday ...	7.30–9.30	17	J. M. Forde
30K	Mathematics VII	Tuesday ...	7.30–9.30	5	
	TUTORIAL CLASS—Fee, 10/- per Course.				
31K	Mathematics (Inter Stages) ...	Friday ...	7.30–9.30	14	H. Clifton
	MATHEMATICAL PHYSICS—Fee, 10/- per Course.				
32K	Mathematical Physics—I ..	Friday ...	7.30–9.30	4	
33K	Do. —II ..	Thurs. ...	7.30–9.30	19	

CERTIFICATION COURSES FOR OPHTHALMIC OPTICIANS—DIPLOMA COURSE IN OPTOMETRY

The Courses are organised in conjunction with the Examinations of the Association of Ophthalmic Opticians, Ireland. Applicants for admission to the Courses should have attained a standard of general education equivalent to that connoted by the Matriculation or Leaving Certificates.

Intending students are advised, in the first instance, to apply to the Association for full particulars relating to Syllabuses, Registration and conditions of admission to the professional examinations for the Diploma in Optometry.

The Diploma examinations are conducted on syllabuses in three sections and, to facilitate students, the Diploma Course of studies is correspondingly arranged in three sections or parts and conducted over three Sessions; other conditions being satisfied, the course student has the choice of sitting for the Diploma examinations at the conclusion of three Sessions of study covering Parts I, II and III or of sitting for each Part of the Examination at the conclusion of the course of study relating to that Part.

It should be noted that a condition of admission to any Part of the Diploma Examination is the attainment of a Certificate signed by the Principal certifying an attendance of at least 75% at each class in an obligatory Course subject.

DIPLOMA COURSE IN OPTOMETRY

	PART I				Fee, £3.
34K	Physical Optics	Monday ..	7.0–8.0	15	P. J. O'Callaghan
	do. (L b.) ..	Monday ..	8 0–9.30		do.
	Anatomy and Physiology ..	Wednesday..	7.15–8.15	28	Dr. McNally
	Optical Calculations .. (Optional)	Wednesday..	8.15–9.15	8a	P. J. O'Callaghan
	PART II				Fee, £3.
35K	Visual Optics	Tues., Thurs.	8.15 10.15	15	J. G. Coleman
	Anatomy and Recognition of Abnormal Conditions ..	Wednesday..	8.15–9.15	28	Dr. McNally
	PART III				Fee, £3.
36K	Subjective and Objective Sight Testing	Wednesday..	7.15–9.15	15	T. S. Mason
	Workshop Practice and Dispensing	Friday ..	7.15–9.15	15	do.

SHORT FULL-TIME SUMMER COURSES IN PARTS I, II AND III

In order to facilitate registered students who are not resident within the City Borough Area and who are following approved theoretical courses of instruction, short full-time intensive courses are provided, each affording approximately 60 hours of *practical* instruction in Physical Optics, in Anatomy and Recognition of Abnormal Conditions, and in Practical Sight Testing and Dispensing.

The Course for Part I and that for Parts II and III will be conducted in the month of May in each Session over a full-time period of two weeks.

The normal regulations in regard to attendance at these Courses will apply.

EVENING COURSES.

ILLUMINATING ENGINEERING AND PHOTOMETRY.

Students will be admitted to the First Year of the Intermediate Course who hold

(i) A Pass Certificate in Mathematics, Stage IV
or (ii) Intermediate Certificates in Electrical Engineering (D.C. & A.C.)
or (iii) Ordinary Grade Certificate in Gas Engineering
or (iv) Matriculation or Leaving Certificates or equivalent.

(Examination Syllabuses: City and Guilds of London Institute).

ILLUMINATING ENGINEERING AND PHOTOMETRY.

INTERMEDIATE COURSES—Fee, £2 per Course.

FIRST YEAR

37K	Light Production and Control ...	... 2 hrs. per week as may be arranged			E. V. Cleary
	Photometry: Practical Light Sources ...	2 hrs. per week as may be arranged			Do.
	Light II (Optional) ...	Wednesday..	7.0–9 30	8	P. J. O'Callaghan
	Mathematics (Optional)—Any Stage.				
	Engineering Drawing (Optional)—Any Stage.				

SECOND YEAR

38K	Illumination: Distribution and Control ...	2 hrs. per week	E. V. Cleary
	Photometry	2 hrs. per week	
	Optional Subjects as for First Year.		

FINAL COURSES—Fee, £2 per Course.

THIRD YEAR

39K	Radiation: Spectroscopy	at times to be arranged
	Heterochromatic Photometry	at times to be arranged
	Technical Calculations	at times to be arranged

FOURTH YEAR

40K	Artificial Light Sources and Equipment	at times to be arranged
	Lighting Installations	at times to be arranged
	Physiological Optics: Colour Vision	at times to be arranged

LABORATORY ARTS' CERTIFICATE COURSE.

INSTRUMENT MAKING AND GLASS BLOWING.

PRELIMINARY STAGES—**Fee, 7/6 Per Course.**

FIRST YEAR

41K	Instrument Making—I	Tuesday ...	7.30-10.0	2	H. Howard
	Physics—IA	Monday ...		8	H. Flood
	Mathematics—I	Thursday ...	7.15-9.15	8a	A. D. Whelan

SECOND YEAR.

42K	Instrument Making—II	Tuesday ...	7.0 -9.30	2	H. Howard
	Mathematics—II	Wednesday	7.30-9.30	5	A. D. Whelan
	Magnetism & Electricity, IA ...	Thursday ...	7.30-10.0	12–8b	O. McDermott, J. Kane

EVENING COURSES

No. of Course	Subject	Day	Hour	Room	Teacher
	FINAL STAGES—**Fee, 10/- per Course.**				
	THIRD YEAR				
43K	Glass Blowing—I	Mon., Wed.	6.0 -8.0	27	W. G. Brady
	Magnetism and Electricity—II ...	Friday ...	7.30–10.0	12–10	P. J. O'Callaghan
	FOURTH YEAR				
44K	Glass Blowing—II	Mon., Fri. ...	6.0 -8.0	27	W. G. Brady
	Magnetism and Electricity—III (D.C. and A.C.)	Tuesday ...	7.30–10.0	17—10	H. Barriscale
	Electrical Installation (Lec.) ...	Wednesday	7.30-9.0	19	W. Trundle

MATRICULATION AND PRELIMINARY PROFESSIONAL COURSE.

This Course is suitable for the Matriculation Examination of the University of London and other qualifying examinations of similar standard.

For Matriculation, a candidate must sit for English, Mathematics and French with two of the undermentioned subjects. A candidate may select a paper of lower standard in French, in which case three of the selective subjects must be offered.

Suitable classes are:—

Obligatory Subjects:				
English	To be arranged			
French	to be arranged			
Mathematics (Tutorial)	Friday ...	7.15-9.15	13	H. Clifton
Selective Subjects:				
Electricity and Magnetism	Friday ...	7.30–10.0	12 10 8	P. J. O'Callaghan
Drawing	Mon., Thur.	7.30–9.30	14	W. Whelan, J. Williams
Mechanics	Friday ...	7.30–9.30	4	J. M. Forde
Heat, Light and Sound	Mon., Wed....	7.30–10.0	12 8 13	P. J. O'Callaghan
Chemistry—I	Tues., Wed.	7.0-10.0	25 21	D. W. Morrissey
Additional Mathematics	Mon. Fri. ...	7.30–9.30	5–14	H. C. Clifton

INTERMEDIATE AND DEGREE EXAMINATIONS.

Students requiring instruction in subjects for the Intermediate and Degree Examinations of the University of London should consult the Principal, who will advise on suitable courses of study.

SCHOOL OF APPLIED CHEMISTRY AND BIOLOGY.

CONSULTANTS:

THE PRINCIPAL.

Head of Department: DR. W. J. LOOBY.

TIME-TABLE OF EVENING COURSES:

Pure and Applied Chemistry.

Physical Chemistry.

Technical Chemical Analysis.

Bio-Chemistry and Biology.

Pharmacy and Allied Subjects.

Botany.

Industrial Bacteriology.

Technology of Manufactures.

Languages.

EVENING COURSES

APPLIED CHEMISTRY AND BIOLOGY.

The Curriculum includes basic Courses in the Chemical and Biological Sciences and, also, specialised Courses in Technical Analysis and in the Technology of Manufactures, adapted to the needs of local and national industry and to the training and qualification of industrial technical personnel and of scientific workers generally.

EXTERNAL EXAMINING BODIES. It should be noted that the syllabuses of instruction are based, for the most part, on the requirements of external Examining Bodies, of Professional Institutions, and of the University of London. A list of these is set forth on page 48 and detailed information in regard to the Examinations of any of the bodies named may be had on application to the Principal.

ADMISSION OF STUDENTS. In general, students applying for admission to Intermediate Courses must have attained a standard of general education approximating to Matriculation, or have completed satisfactorily attendance at an approved Preliminary Science Course, including General Physics, Mechanics and Mathematics.

CLASS REGISTRATION. 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 of the appropriate Official 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.

EVENING COURSES

SCHOOL OF APPLIED CHEMISTRY AND BIOLOGY.

No. of Course	Subject	Day	Hour	Room	Teacher
	PURE AND APPLIED CHEMISTRY.				
	INORGANIC CHEMISTRY				
	INTERMEDIATE COURSES—**Fee, £1 per Course.**				
	FIRST YEAR.				
50K	Inorganic Chemistry, Lecture IA	Tues. ..	7.0-8.0	25	D. W Morrissey.
	Do. Do. Lab.—IA.	Tues. ..	8.0-10.0	21	D. W. Morrissey; Miss M. T. Lucey.
	Do. Do. Lecture—IB.	Wed. ..	7.0-8.0	25	D. W. Morrissey.
	Do. Do. Lab.- IB.	Wed. ..	8.0-10.0	21	D. W. Morrissey; Miss M. T. Lucey.
	Physics—II. (Heat) A & B ..	Mon. ..	7.0-9.30		P. J. O'Callaghan; P. Whelan
51K	SECOND YEAR.				
	Inorganic Chemistry, Lecture ..	Tues. ..	7.0-8.0	16	Miss F. Doherty
	Chemical Analysis—II.	Tues. ..	8.0-9.30	16	Miss F. Doherty
	Do.	Thurs. ..	7.0-9.30	16	Miss F. Doherty
	Physics (Light II)	Wed. ..	7.0-9.30	8a & 10	P. J. O'Callaghan; P. Whelan
	ADVANCED COURSE—**Fee, £1 per Course.**				
	THIRD YEAR.				
52K	Inorganic Chemistry, Lecture ..	Mon. ..	7.0-8.0	22	H. D. Thornton
	Chemical Analysis—III. ..	Mon. ..	8.0-9.30	22	H. D. Thornton
	Do.	Tues. ..	7.0-9.30	22	H. D. Thornton
	Physics II. (Mag. & Elec.) ..	Fri. ..	7.0-9.30	12 & 10	P. J. O'Callaghan; B. Dixon; P. Whelan, J. J. Kyne.
	ORGANIC CHEMISTRY				
	INTERMEDIATE COURSE—**Fee, £1 per Course.**				
	FOURTH YEAR.				
53K	Organic Chemistry Lecture	Thurs. ..	7.0-8.0	25	
	Organic Analysis—IV. ..	Fri. ..	7.0-10.0	22	B. G. Fagan
	Do.	Thurs. ..	8.0-10.0	22	B. G Fagan
	ADVANCED COURSE—**Fee, £1 per Course.**				
	FIFTH YEAR				
54K	Organic Chemistry, Lecture ..	Fri ..	8.0-9.0	25	
	Organic Analysis—V. ..	Fri. ..	7.0-8.0 9.0-10.0	22	B. G. Fagan.
	Do.	Thurs. ..	7.0-10.0	22	B. G. Fagan.
	PHYSICAL CHEMISTRY—Fee, £1 per Course.				
	(Summer Term)				
55K	Physical Chemistry—Lecture ..	Thurs. ..	7.0-8.0	16	P. O'Callaghan
	Physical Chemistry—Laboratory	Thurs. ..	8.0-9.30	16	P. O'Callaghan
	BIO-CHEMISTRY—Fee, £1 per Course.				
56K	Basic Biology and Bio-Chemistry	Friday ...	7.0-10.0	23	Dr. R. J. Senior.
	GENERAL BOTANY—Fee, 10/- per Course.				
57K	Botany	Tuesday ...	7.0-9.30	28	W. Looby
	TECHNICAL ENTOMOLOGY—Fee, £1 per Course.				
	(Summer Term)				
58K	Entomology and Limnology ...	Thursday ..	7.30-9.30	23	E. McMahon

EVENING COURSES

No. of Course	Subject	Day	Hour	Room	Teacher
	INDUSTRIAL CHEMISTRY.				
	Specialised Advanced Courses in Technical Analysis.				
	Fee, 30/- per Course.				
	***FOOD AND DRUGS.**				
59K	Technical Analysis	Thurs. & Fri.	7.0 -10.0	22	B.G. Fagan; H. Thornton
	***OILS AND FATS.**				
60K	Technical Analysis	Thurs. & Fri.	7.0 -10.0	22	B.G. Fagan; H. Thornton
	***GAS MANUFACTURE.**				
61K	Technical Analysis	Thurs. & Fri.	7.0 -10.0	22	B.G. Fagan; H. Thornton
	TECHNOLOGY OF FUELS.				
62K	Technical Analysis	Thurs. & Fri.	7.0 -10.0	22	B.G. Fagan; H. Thornton
	***TESTING OF PETROLEUM PRODUCTS (FUEL OILS AND LUBRICANTS).**				
63K	Technical Analysis	Thurs. & Fri.	7.0 -10.0	22	B.G. Fagan; H. Thornton
	TECHNOLOGY OF MANUFACTURES.				

* Admission to the following advanced and specialised Courses is conditional on the applicant satisfying the Principal or appropriate Lecturer of ability to follow the instruction; in general, a student should have passed the Intermediate Stages of the Applied Chemistry Course or hold equivalent or superior qualifications prior to enrolment.

*** INDUSTRIAL BACTERIOLOGY AND ENZYME CHEMISTRY—Fee, 30/- per Course.**

Bacteriology.

	STAGE I.				
64K	Lecture and Laboratory ...	Tues. ...	7.30–10.0	23	W. J. Looby
	" "	Thurs. ...	7.30–10.0	28	M. J. Gorman.
	STAGE II.				
65K	Lecture and Laboratory ...	Wed. ...	7.30–10.0	23	W. J. Looby, M. J. Gorman
	" " ...	Mon. ...	7.30–10.0	28	Do.

CERTIFICATE COURSE IN TECHNOLOGY OF FOODS—Fee, £3 per Course.

Director of Course: Mr. B. G. FAGAN, Public Analyst.

	PART I: Autumn and Lent Terms:—				
66K	Bacteriology—I	Tues., Thurs.	7.30–10.0	23	
	Biology and Biochemistry ...	Fri. ...	7.0 -10.0	28	Dr. B. J. Senior
	SUMMER TERM:				
67K	Dairy Products:				
	Microscopy of Starches	Thurs., Fri....	7.0 -10.0	22	B. G. Fagan

EVENING COURSES

No. of Course	Subject	Day	Hour	Room	Teacher
	CERTIFICATE COURSE IN TECHNOLOGY OF FOODS.				
	PART II: Autumn and Lent Terms:				
68K	Bacteriology—II	Mon. Wed.	7.30-10.0	23	M. J. Gorman
	Foods and Water Analysis ...	Thurs., Fri....	7.0 -10.0	22	B. G. Fagan, H. Thornton
	SUMMER TERM:				
69K	Technical Entomology	Mon. ...	7.0 9.30	28	E. McMahon
	Food Industrial Technology ...	Wed. ...	7.0 -9.30	28	M. J. Gorman

Examinations will be conducted immediately on conclusion of the work of each Section of the Course; a Full Technological Certificate will be awarded on the attainment of a Pass in all Sections. The work of the Course will be supplemented by a directed course of reading.

Note.—Students need not take all subjects scheduled for any particular year, and may qualify for the award of a Full Technological Certificate on attainment of the total numbers of Sectional Certificates within a reasonable period.

BREWING AND CHEMISTRY OF FERMENTATION.

INTERMEDIATE STAGES—**Fee, 30/- per Course.**

FIRST YEAR.

70K	Cereal Science	Mon. ...	7.0 -9.30	28	W. J. Looby.
	Organic Chemistry—I	Fri. ...	7.0 -9.30	22	Miss M. T. Lucey.

SECOND YEAR.

71K	Brewing Science—I	Fri. ...	6.0 -8.0	23	W. J. Looby
	Organic Chemistry—II	Thurs. ...	7.0 -9.30	22	

ADVANCED STAGES—**Fee, 30/- per Course.**

THIRD YEAR.

72K	Brewing—II	to be arranged			W. J. Looby
	Physical Chemistry—I	Thurs. ...	7.0 -9.30	16-22	P. J. O'Callaghan

FOURTH YEAR.

73K	Brewing—III	to be arranged			W. J. Looby
	Bacteriology—I	Tues., Thur.	7.0 -9.30	23	

FLOUR MILLING TECHNOLOGY.

INTERMEDIATE COURSE—STAGES I and II.—**Fee, 10/- per Course.**

74K	Flour Milling Principles	Mon. ...	7.0 -9.30	13	W. de Lacy
	Milling Science	Thurs. ...	7.0 -9.30	10	W. de Lacy.

FINAL COURSE—STAGES III and IV.—**Fee, 20/- per Course.**

75K	Milling Technology	Wed. ...	7.0 -9.30	24	W. de Lacy
	Cereal Science	Mon. ...	7.0 -9.30	23	W. J. Looby

FLOUR TESTING—Fee, 20/- per Course.

76K	Flour Testing	Mon. ...	7.0 -9.30	23	W. J. Looby

EVENING COURSES.

No. of Course	Subject	Day	Hour	Room	Teacher
	MILK PROCESSING AND MILK PRODUCTS.				
	INTERMEDIATE STAGE—Fee, 30/- per Course.				
77K	Bacteriology—I	Tues., Thurs.	7.30-10.0	23	D. Slattery; M. J. Gorman
	FINAL STAGES: THREE SESSIONS—Fee, 30/- per Course.				
78K	Milk Processing	Wed., Thurs.	6.0 -8.0	23 28	W. J. Looby M. Gorman D. Slattery
	TUTORIAL AND LABORATORY COURSES.				
	Fee, 30/- per Course.				

Applicants for admission to the following tutorial and laboratory Courses should consult the Principal, who will advise students in regard to preliminary and ancillary Courses and to the examination requirements of the City and Guilds of London Institute, the Institution of Gas Engineers and other professional and examining bodies.

79K Technology of Paint and Varnish Manufacture.
80K Town Gas Manufacture and Supply.
81K Paper Manufacture.
82K Textile Technology, Microscopy and Analysis.
83K Electro-Deposition of Metals.
84K Dyeing and Cleaning.

	CHEMISTRY FOR PHOTOGRAPHY, PHOTO-MECHANICAL PROCESS WORK, LITHOGRAPHY, ETC.—Fee, 30/- per Course.				
85K	Lecture and Laboratory ..	Thurs. ..	7.30–9.30	22	F. Nolan; Miss M. T. Lucey
	CHEMISTRY AND BOTANY FOR SEEDSMEN—Fee, 10/- per Course.				
86K	Lecture and Laboratory ..	Thurs. ..	7.30–9.30	23	W. J. Looby
	MEDICAL CHEMISTRY				
	Fee, £2 5s. 0d. per Course; Lectures only, 20/-.				
87K	Medical Chemistry—Lect.	At times to be arranged		16	D. W. Morrissey; Miss M. Lucey
	Do. Lab.	,, ,, ,,		13	D. W. Morrissey; Miss M. Lucey
	Do. Lab.	,, ,, ,,		16	D. W. Morrissey; Miss M. Lucey
	COURSES FOR PHARMACEUTICAL CHEMISTS				
	Fee, £2 5s. 0d. per Course; Lectures only, 30/-.				
	*** LECTURE CERTIFICATE COURSE IN PHARMACEUTICAL CHEMISTRY.**				
	(September to May).				
88K	Chemistry & Physics, Lect. A	Mon. & Fri.	7.0–8.0	25	P. J. Hurley
	,, ,, Lab. A	Mon. & Fri.	8.0–10.0	21	P. J. Hurley
	,, ,, Lect. B	Mon. & Fri.	7.0 -8.0	13	D. W. Morrissey
	,, ,, Lab. B	Mon. & Fri.	8.0 -10.0	16	D. W. Morrissey
	*** POST-LECTURE CERTIFICATE COURSES IN PRACTICAL CHEMISTRY.**				
	Fee, 20/- per Course.				
	(September to February; February to May; May to August).				
89K	Chemical Laboratory .. (120 hours).	Mon., Wed. Thurs.	7.0–10.0	21, 22, 16	P. J. Hurley; D. W. Morrissey Miss F. Doherty

EVENING COURSES.

No. of Course	Subject	Day	Hour	Room	Teacher

PRACTICE COURSES IN PHARMACEUTICAL AND MEDICAL CHEMISTRY.

Fee, 20/- per Course.

(September to January; January to April; May to August).

*90K	Chemical Laboratory ..	Wed. & Thurs	7.0–10.0	21–16	P. J. Hurley; D. W. Morrissey Miss M. Lucey; Miss F. Doherty

* Afternoon Courses may be arranged in respect of Practice Courses.

* BOTANY—Fee, 10/- per Course.

(September to May).

91K	Botany	Tues. or Thurs	8.0–9.30	23	W. J Looby; M. J. Gorman

* MATERIA MEDICA—Fee, 10/- per Course.

(September to May).

92K	Materia Medica	Tues. or Thurs.	7.0–8.0	23	Dr. J. Shiel

* Courses recognised by the Pharmaceutical Society of Ireland.

PRACTICAL PHARMACY—Fee, 20/- per Course.

(September to January; January to May; May to August).

93K	Lecture and Practical ..	Mon., Tues. Thurs., Fri.	7.0–9.30	24	F. J. Barragry

LANGUAGE COURSES

IRISH FOR STUDENTS OF SCIENCE AND TECHNOLOGY.

94K	Irish	As may be arranged			W. Looby

GERMAN FOR STUDENTS OF SCIENCE AND TECHNOLOGY.

95K	German—I	As may be arranged			
	German—II	" " "			

EXAMINATIONS OF THE UNIVERSITY OF LONDON.

Courses for Matriculation; Preliminary Professional; Intermediate Science and B.Sc. Examinations, University of London, see page 55.

SCHOOL OF ELECTRICAL ENGINEERING.

CONSULTANTS:

THE PRINCIPAL.

Head of Department: W. FEGAN, A.M.I.E.E.

TIME-TABLE OF EVENING COURSES:

Electrical Engineering, Technology and Practice.

Electrical Installation Work and Technology.

Electrotechnical Draughtsmanship.

Drawing Office Tracers' Course (Women).

Institution of Electrical Engineers Associate Membership.

Trades and Crafts.

ELECTRICAL ENGINEERING TECHNOLOGY.

COURSES : ADMISSION : SESSIONAL EXAMINATIONS.

The Curriculum in this section includes : (i) a Course for Trade Apprentices in Electrical Installation Work which is associated with the Department of Education Trade Certificate Examination syllabuses for this subject; (ii) a Higher Course for Journeymen and Foremen in Electrical Installation Technology associated with the syllabuses of the Course C, City and Guilds (Lond.); (iii) an Advanced Course in Electrical Engineering Practice associated with the examination syllabuses of the Department of Education, the City and Guilds of London Institute and the Institution of Electrical Engineers; (iv) a Course in Draughtsmanship for students of Electrical Engineering; (v) a Course for women students in Drawing Office Tracing; (vi) Courses of a tutorial type to meet the needs of students preparing for Part I and Part II of the Graduateship Examination of the Institution of Electrical Engineers.

ADMISSION OF STUDENTS. The Courses in Electrical Installation Work are reserved to Trade Apprentices and Journeymen who satisfy the entrance educational standard.

Intending students of Technological Courses must not be less than sixteen years of age and shall be required to show evidence of ability to profit by the instruction before being admitted to any stage of a Course.

CLASS REGISTRATION. 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 of the appropriate Official 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.

SCHOOL OF ELECTRICAL ENGINEERING

EVENING COURSES.

TECHNOLOGICAL.

No. of Course	Subject	Day	Hour	Room	Teacher
	ELECTROTECHNOLOGY—ELECTRICAL ENGINEERING PRACTICE.				
	PRELIMINARY COURSES—**Fee, 7/6 Per Course.**				
	FIRST YEAR.				
96K	Electrical Engineering—I.A. ..	Thurs. ..	7.30–10.0	12,10,8	J. Kane; O. McDermott; H. Flood
	Physics for Electricians—I.A. ..	Mon. ..	7.30–10.0	8a-8b	H. Flood; O. McDermott J. Kane
	Drawing—IA	Tues. ..	7.30–9.30	14	J. Williams; J. G. Moore
97K	Electrical Engineering—I.B. ..	Wed. ..	7.30–10.0	12,10,8	J. Kane; O. McDermott; H. Flood
	Physics for Electricians—I.B. ..	Tues. ..	7.30–10.0	12,10,8	H. Flood. O. McDermott J. Kane
	Drawing—IB	Mon. ..	7.30–9.30	14	J. Williams; J. G. Moore
	INTERMEDIATE COURSES—**Fee. 10/- per Course.**				
	DIRECT CURRENT AND MACHINES				
	GRADE I				
98K	Electrical Engineering—II. ..	Mon. ..	7.30–10.0	4-6	E. V. Cleary
	Mathematics—II. or higher stage	Wed. ..	7.30–9.30	5	A. D. Whelan.
	Technical Drawing—II. ..	Wed. or Fri.	7.30–9.30	14	J. Williams; J. G. Moore
	GRADE II.				
99K	Electrical Engineering—III. ..	Wed. ..	7.30–10.0	4-6	G. Ring, W. Fegan.
	Applied Mechanics—I.	Fri. ..	7.30–9.30	5	
	Mathematics III.	Thurs. ..	7.30–9.30	5	
	ALTERNATE CURRENT AND MACHINES				
	GRADE I				
100K	Electrical Engineering—IV. ..	Tues. ..	7.30–10.0	4–6	G. Ring, A. Folan
	Mathematics—IV.	Mon. ..	7.30–9.30	5	
	Applied Mechanics—II. ..	Thurs. ..	7.30–9.30	19	
	GRADE II.				
101K	Electrical Engineering—V. ..	Thurs., Fri.	7.30–10.0	4–6	G. Ring, W. Fegan.
	Mathematics IV.	Monday ..	7.30–9.30	5	
	Mechanics—III.	Wed. ..	7.30–9.30	17	J. M. Forde.
	FINAL COURSES—**Fee, 20/- per Course.**				
	ELECTRICAL ENGINEERING PRACTICE				
	GRADE III.				
102K	Generation and Transmission or Distribution and Utilisation of Electrical Energy ..	Tues & Thurs.	7.30–9.30	2	Dr. H. N. Wroe
	Mathematics V (or higher stage)	Mon. or Fri	7.30–9.30	17-5	J. M. Forde.
	Electrical Technology ..	Friday ..	7.30–9.30	2	E. V. Cleary

EVENING COURSES

No. of Course	Subject	Day	Hour	Room	Teacher

INSTITUTION OF ELECTRICAL ENGINEERS.

Associate Membership Course.

JOINT SECTION A—Fee, 20/-.

103K	English	Thursday	7.30—9.30	5	S. Moynihan
	Mathematics, V and VI ...	Monday	7.30—9.30	8c—17	J. M. Forde
	Principles of Electricity ...	Tuesday	7.30—10.0	17—10—6	H. J. Barriscale
	Applied Mechanics	Wednesday	7.30—9.30	17	J. M. Forde
	Applied Heat	Friday	7.30—10.0	17	R. W. Ryder

SECTION B—Fee, 20/-

104K	Electrical Engineering Technology	Friday	7.30—9.30	2	E. V. Cleary
	Electricity Supply	Tuesday	7.30—9.30	2	Dr. H. N. Wroe
	or Electrical Installations ...	Thursday	7.30—9.30	2	Dr. H. N. Wroe

Students should consult the Principal or a Lecturer before enrolling. It should be noted that exemption from Part II of the Associate Membership Examination is accorded to holders of the following qualification of the City and Guilds of London Institute:

(i) Final Certificate in Electrical Engineering Practice, in either Section A or B or C or D or E.

ELECTRICAL INSTALLATION TECHNOLOGY.

(Course C, City and Guilds of London Institute).

Intending students must hold the Department of Education Junior Trade Certificate in Electrical Installation Work or equivalent qualification prior to admission to the Intermediate Stage, Course C.

INTERMEDIATE STAGES—Fee, 10/- per Course.

105K	Electrical Engineering—III ...	Wed. ...	7.30–10.0	4-6	G. Ring, W. Fegan
	Applied Mechanics—I	Fri. ...	7.30–9.30	4	
	Mathematics—III	Thurs. ...	7.30–9.30	5	
106K	Electrical Engineering—IV ...	Tues. ...	7.30–10.0	4-6	G. Ring, W. Fegan
	Mathematics—III (or higher stage)	Fri. or Mon.	7.30–9.30	5	
	Technical Drawing—II ...	Wed. ...	7.30–9.30	14	J. G. Moore

FINAL STAGE—Fee, 20/- per Course.

107K	Electrical Installation Technology...	Wed. ... Thurs. ...	7.30–10.0	19-6	W. Fegan, W. Trundle

Mathematics or Technical Drawing III (optional) as may be arranged.

EVENING COURSES.

ELECTROTECHNICAL DRAUGHTSMANSHIP.

Certificate Course.

No. of Course	Subject	Day	Hour	Room	Teacher.
	PRELIMINARY STAGES—Fee, 7/6 per Course.				
	FIRST YEAR.				
108K	Introductory Course	Mon., Tues.	7.15-9.15	14	W. Whelan; J. G. Moore; J. Williams
	SECOND YEAR.				
109K	Electrotechnical	Wed. ...	7.0 -9.30	14	J. Williams
	Drawing—I	Fri. ...			J. G. Moore
	INTERMEDIATE STAGES—Fee, 10/- per Course.				
	THIRD YEAR.				
110K	Electrotechnical	Wed. ...	7.0 -9.30	14	J. Williams
	Drawing—II	Thurs. ...			J. G. Moore
	FOURTH YEAR.				
111K	Electrotechnical	Mon. ...	7.0 -9.30	14	J. Williams
	Drawing—III	Wed. ...			J. G. Moore
	FINAL STAGE—Fee, 20/- per Course.				
	FIFTH YEAR.				
112K	Electrotechnical	Tues. ...	7.0 -9.30	14	J. Williams
	Drawing—IV	Thurs. ...			J. G. Moore

* COURSE IN DRAWING OFFICE TRACING (Women).

Fee, 20/- per Course.

	FIRST YEAR				
113K	Drawing Office Tracing	Wed , Fri. ...		14	W. Whelan; J. William ; J. G. Moore.

Second and Higher Years as may be arranged.

* Entrance Standard of Education: Intermediate or Leaving Certificate or Equivalent.

Courses for Trade Apprentices

ELECTRICAL INSTALLATION WORK.

Fee, 7/6 per Course.

Junior Trade Certificate Course. (Department of Education).

	FIRST YEAR				
114K	Electrical Wiring—I, Pract. ...	Mon. or Fri.	7.30–10.0	1	E. J. McNamara, A. Mulvaney.
	Electrical Engineering—I ...	Wed. ...	7.30–10.0	12	J. Kane; O. McDermott
	Physics for Electricians	Tues. ...	7.30–10.0	8	J. Kane; O. McDermott
	SECOND YEAR				
115K	Electrical Wiring—II, Pract. ...	Thurs. ...	7.30–10.0	1	E. J. McNamara
	Electrical Installation—II, Lec. ...	Tues. ...	7.30-9.0	4	W. Trundle
	Electrical Engineering—II ...	Mon. ...	7.30–10.0	6	E. V. Cleary

Senior Trade Certificate Course. (Department of Education).

	THIRD YEAR.				
116K	Electrical Installation—III, Pract.	Wed. ...	7.30–10.0	1	E. J. McNamara
	Electrical Engineering (D.C. & A.C.)	Thurs. ...	7.30–10.0	6	W. Fegan, W. Trundle
	Technical Drawing	Fri. ...	7.30–9.30	14	J. Williams

EVENING COURSES.

No. of Course	Subject	Day	Hour	Room	Teacher
	FOURTH YEAR				
117K	Electrical Maintenance	Tues. ...	7.30–10.0	1	E. J. McNamara
	Fitting and Testing				W. Trundle
	Electrical Installation	as may be arranged			W. Fegan
	Technology (Tutorial)				W. Trundle

ELECTRICAL FITTING AND MAINTENANCE WORK.

Associated Courses in Practical Subjects.

Fee, 7/6 per Course.

*** CABLE JOINTING.**

118K	Cable Jointing—I	Mon., Wed.	7.30–10.0	1	P. O'Keeffe, A. Mulvaney
119K	Cable Jointing—II	Tues., Thurs.	7.30–10.0	1	P. O'Keeffe, A. Mulvaney
120K	Cable Jointing—III	Tues, Thurs.	7.30–10.0	1	P. O'Keeffe, A. Mulvaney

*** INSTRUMENT MAKING.**

124K	Instrument Workshop—I ...	Tues. ...	7.30–10.0	2	H. Howard
125K	Instrument Workshop—II ...	Tues. ...	7.30–10.0	2	H. Howard

SCHOOL OF RADIO TECHNOLOGY AND TELECOMMUNICATIONS.

(incorporating Air Navigation Section)

CONSULTANTS:

THE PRINCIPAL.

Head of Department: H. HODGENS, GRAD.I.E.E.

TIME-TABLE OF EVENING COURSES:

Post Office Engineering.

Technical Telegraphy and Telephony.

Radio Communication and Engineering.

Testing, Maintenance and Servicing of Radio Equipment.

Graduateship Examination, B.I.R.E.

Associate Membership Examination, I.E.E.

State Certificates of Proficiency—Radio Officers (Marine and Aircraft).

Air Navigation—Courses for Civil Aviation Navigators' Licence Examinations.

RADIO TECHNOLOGY AND TELECOMMUNICATIONS.

The Courses offered in this section of the Evening School Curriculum fully cover the requirements of all external Examining Bodies associated with this branch of Engineering Technology, including the Institution of Electrical Engineers, the British Institution of Radio Engineering, the Radio Trades' Examination Board, the City and Guilds of London Institute, the Department of Posts and Telegraphs and the Department of Education.

The Courses include theoretical and practical instruction in all grades, and are intimately associated with practical trade and occupational interests, as well as with general professional and proficiency standards and certification for employment.

ADMISSION OF STUDENTS. Intending students must not be less than sixteen years of age and shall be required to show evidence of ability to profit by the instruction before being admitted to any stage of a Course.

CLASS REGISTRATION. 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 of the appropriate Official 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.

SCHOOL OF RADIO TECHNOLOGY AND TELECOMMUNICATIONS.

EVENING COURSES.

No. of Course	Subject	Day	Hour	Room	Teacher
	TELECOMMUNICATIONS ENGINEERING (LINE).				
	PRELIMINARY COURSES—**Fee, 7/6 per Course.**				
	POST OFFICE ENGINEERING				
126K	Post Office Engineering—I. ..	Mon. ..	7.30-9.30	19	H. J. Barriscale.
	Instrument and Wiring (Pr) ..	Fri. ..	7.30-9.30	1	W. O'Connor
	TECHNICAL TELEGRAPHY				
	* INTERMEDIATE COURSES—**Fee, 10/- per Course.**				
	STAGE I				
127K	Technical Telegraphy—I. ..	Thurs. ..	7.30-9.30	17	P. J. Sullivan.
	Magnetism and Electricity II ..	Fri. ..	7.30-10.0	12,10,8	P. J. O'Callaghan.
	STAGE II				
128K	Technical Telegraphy—II. ..	Mon. ..	7.30-9.30	19	T. P. Sheridan
	TECHNICAL TELEPHONY				
	INTERMEDIATE COURSES—**Fee, 10/- per Course.**				
	STAGE I				
129K	Technical Telephony—I. ..	Wed. ..	7.30-9.30	4	P. J. Sullivan.
	Magnetism and Electricity—II	Fri. ..	7.30 10.0	12-10 8	P. J. O'Callaghan.
	STAGE II				
130K	Technical Telephony—IIA ...	Wed. ...	7.30-9.30	2	J. W. Devon
	Magnetism and Electricity—III ...	Tues. ...	7.30-10.0	17-10	H. Barriscale
	STAGE III				
131K	Tech. Telephony—IIB	Fri. ...	7.30-9.30	19	B. Mangan
	Mag. and Elect.—III	Tues. ...	7.30-10.0	17-10	H. Barriscale
	* FINAL COURSE—**Fee, 20/- per Course.**				
	FINAL GRADE				
132K	Transmission and Lines ..	Mon. ..	7.30-9.30	2	B. Mangan

*A Class in Mathematics may be taken in addition.

EVENING COURSES

No. of Course	Subject	Day	Hour	Room	Teacher
	TELECOMMUNICATIONS ENGINEERING (RADIO)				
	COURSE FOR THE INTERMEDIATE CERTIFICATE IN TELECOMMUNICATIONS ENGINEERING (CITY AND GUILDS OF LONDON INSTITUTE).				
	Fee, 10/- per Course.				
	First Year:				
133K	Telecommunications (Principles) I	Friday	7.30—10.0	12—10—8	P. J. O'Callaghan
	Telecommunications Practice	Monday	7.30—9.30	11	T. J. Carroll
	Mathematics, III	Thursday	7.30—9.30	5	
134K	*Second Year:*				
	Telecommunications (Principles) II	Tuesday	7.30—10.0	17—10—6	H. J. Barriscale
	Radio, I	Wednesday	7.30—9.30	11	T. J. Carroll
	Mathematics IV	Monday	7.30—9.30	5	
	COURSE FOR THE FINAL CERTIFICATE IN TELECOMMUNICATIONS ENGINEERING (CITY AND GUILDS).				
	Fee, 20/- per Course.				
	Third Year:				
135K	Telecommunications (Principles) III	Tuesday	7.30—10.0	6	G. K. Ring and A. Folan
	Radio, II	Monday	7.30—10.0	13	H. de Lacy
	Mathematics, V	Friday	7.30—9.30	5	
	Fourth Year:				
136K	Telecommunications (Principles) IV	Friday	7.30—10.0	13	H. de Lacy
	Radio, III	Wednesday	7.30—10.0	13	H. de Lacy
	Mathematics, VI	Monday	7.30—9.30	8c	J. M. Forde
	TESTING, MAINTENANCE AND SERVICING OF RADIO EQUIPMENT.				
	(CERTIFICATES OF RADIO TRADES EXAMINATIONS BOARD).				
	PRELIMINARY COURSE—**Fee, 7/6 per Course.**				
137K	Electrical Engineering—I ..	Thurs. ..	7.30-10.0	12-10-8	J. Kane; H. Flood; O. McDermott
	Mathematics I (or higher stage)	Wed. ..	7.30-9.30	19	A. D. Whelan
	Workshop Practice	Tues. ..	7.30-10.0	1	R. Howard

EVENING COURSES

No. of Course	Subject	Day	Hour	Room	Teacher
	INTERMEDIATE COURSE—**Fee, 10/- per Course.**				
	GRADE I				
138K	Radio Service—I	Tues. ..	7 30 9.30	19	J. Carroll
	Electrical Engineering—II ..	Mon. ..	7.30-10.0	4	E. V. Cleary
	Mathematics—II	Fri.	7.30-9.30	8A	A. D. Whelan
	FINAL COURSES—**Fee, 20/- per Course.**				
	GRADE II				
139K	Radio Service—II.	Wed. ..	7.30-9 30	9	J. V. Honan
	Alternate Current I	Tues. ..	7.30-10.0	4-6	G. K. Ring
	Mathematics—III	Thurs. ..	7 30-9 30	5	
140K	Radio Service—III	Thurs. ..	7.30-9.30	9	J. V. Honan
	Wave Motion and Sound ..	Mon. ..	7.30 9.30	9	F. Nolan
	Electronics—I	Tues. ..	7.30-9.30	13	

TELECOMMUNICATIONS ENGINEERING (RADIO)

BRITISH INSTITUTION OF RADIO ENGINEERS.

COURSE FOR GRADUATESHIP EXAMINATIONS.

PART I—**Fee, 10/- per Course.**

	First Year:				
141K	Magnetism and Electricity II	Friday	7.30—10.0	12—10—8	P. J. O'Callaghan
	General Science and Heat, II	Monday	7.30—10.0	12—10	J. J. Kyne
	Mathematics (Optional) ...	As arranged			
	Second Year:				
142K	Magnetism and Electricity, III	Tuesday	7.30—10.0	17—10	H. J. Barriscale E. V. Cleary
	Light, II	Wednesday	7.30—10.0	8—10	P. J. O'Callaghan P. Whelan
	Wave Motion and Sound ...	Monday	7.30—9.30	9	F. Nolan

PART II—**Fee, 10/- per Course.**

143K	*Third Year:*				
	Radio Technology, I	Wednesday	7.30—9.30	11	T. J. Carroll
	Mathematics, IV	Monday	7.30—9.30	5	
	Electronics	Tuesday	7.30—9.30	9	

EVENING COURSES.

No. of Course	Subject	Day	Hour	Room	Teacher
	PART III—**Fee, 20/- per Course.**				
	Fourth Year:				
144K	Radio Technology, II	Monday	7.30—10.0	13	H. de Lacy
	Telecommunications, III ...	Tuesday	7.30—10.0	6	A. Folan & G. K. Ring
	Mathematics, V (Optional) ...	Friday	7.30—9.30	5	
	Fifth Year:				
145K	Radio Technology, III... ...	Wednesday	7.30—10.0	13	H. de Lacy
	Telecommunications, IV ...	Friday	7.30—10.0	13	H. de Lacy
	Mathematics, VI (Optional) ...	Monday	7.30—9.30	17	J. M. Forde

Students should consult the Principal or a Lecturer before enrolling.

The following qualifications, conferring full or partial exemption in relation to the Graduateship Examination, should be noted:

FULL EXEMPTION.

City and Guilds of London Institute, Grade II and Final Examination in Radio Communication with first class passes, together with a pass in Technical Electricity, Grade II.

EXEMPTION FROM PARTS I AND II ONLY.

The Examination of the Institution of Electrical Engineers for Associate Membership, provided Electrical Communications has been taken as an optional subject.

EXEMPTION FROM PART I ONLY.

First Science or Intermediate Examination of any approved University, with passes in "Mathematics," "Physics" and "Electricity."

TELECOMMUNICATIONS ENGINEERING

INSTITUTION OF ELECTRICAL ENGINEERS.

ASSOCIATE MEMBERSHIP COURSE

SECTION A—**Fee, 20/-.**

103K	English	Thursday	7.30—9.30		S. Moynihan
	Mathematics, VI	Monday	7.30—9.30	17	J. M. Forde
	Principles of Electricity ...	Tuesday	7.30—10.0	17—10—6	H. J. Barriscale
	Applied Mechanics, III ...	Wednesday	7.30—9.30	17	J. M. Forde
	Applied Heat, III	Friday	7.30—9.30	17	R. W. Ryder

SECTION B—**Fee, 20/-.**

144K	Radio Communications ...	Wednesday	7.30—10.0	13	H. de Lacy
		Friday	7.30—10.0	13	H. de Lacy
	or Line Communications ...	Monday	7.30—9.30	2	B. Mangan
		Friday	7.30—9.30	19	B. Mangan

Students should consult the Principal or a Lecturer before enrolling. It should be noted that exemption from Part II of the Associate Membership Examination is accorded to holders of one of the following qualifications of the City and Guilds of London Institute:

(i) Grade II Certificate in Technical Electricity, plus the Grade II Certificate in Telegraphy.
(ii) Grade III Certificate in Radio-Communication.
(iii) Grade II Certificate in Transmission and Lines.

EVENING COURSES.

COURSES FOR THE CERTIFICATION (FIRST AND SECOND CLASS) OF RADIO OFFICERS FOR THE MERCANTILE MARINE AND AIR SERVICES.

For additional information in regard to the Courses, see pages 35 to 38. [Day Courses].

COURSES.

145K Proficiency Certificate (Marine).
146K Proficiency Certificate (Aircraft).
147K Combined Course (Marine and Aircraft).

Course Fee: £4 per Session.

JOINT TIME-TABLE (MARINE AND AIRCRAFT).

SEPTEMBER TO JULY

Subject	Year	Day	Room	Hour
Magnetism and Electricity	I	Friday ...	12-10-8	7.30-10.0
Alternate Current—Summer Term	I	Friday ...	12-10-6	7.30-10.0
Electrical Machines—Summer Term	I	Thursday ...	6	7.30-10.0
Morse Code Practice, including Marine and Aircraft Operating Procedure ...	I	Tues., Wed. Thursday ...	8c	7.30-9.30
Morse Code Practice, etc.	II	Wed., Thurs. Friday ...	8c	7.30-9.30
Radio Technology (Marine Aircraft and Direction Finding)	II	Thursday ...	11	7.30-9.30
Radiotechnology, Practical	II	Tues., Fri.	11	7.0 -10.0
Rules: Regulations (Marine)	II	Wednesday	8c	8.0 -9.0
Rules: Regulations (Aircraft)	II	Wednesday	8c	8.0 -10.0

No. of Course	Subject	Day	Hour	Room	Teacher
MORSE CODE PRACTICE—Fee, 20/- per Session. SEPTEMBER TO JULY					
148K	Telegraphy Practice	Tues., Wed or Wed., Fri. ...	7.30-9.30	8c	M. J. O'Rorke V. Roddy
RADIOTECHNOLOGY—Fee, £2 per Session. SEPTEMBER TO JULY					
149K	Radiotechnology (Lec.) ... ... (Radio Officers)	Thurs. ...	7.30-9.30	11	H. Hodgens

Air Navigation—Civil Aviation

Courses in AIR NAVIGATION subjects in preparation for the State Examinations for Air Navigators' Licences; First and Second Class.

The Courses offer facilities for specialised instruction based on the Syllabuses for the First and Second Class Licence Examinations conducted by the Department of Industry and Commerce.

Applicants for admission to the Courses for the Second Class 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 Courses for the First Class Licence must have acquired, in addition, an elementary knowledge of spherical trigonometry.

Suitable tutorial classes in Mathematics, including elements of Vector Algebra, Plane and Spherical Trigonometry are ordinarily available.

NOTE *re* GRANT OF LICENCES

The granting of Licences to successful examinees is contingent on submitting acceptable evidence of actual flying experience as Pilot or Navigator to the minimum extent of 300 " flying " hours in respect of the Second Class Licence, and of 600 " flying " hours in respect of the First Class Licence.

SYLLABUSES OF INSTRUCTION

The Examination Syllabuses are those approved by the Provisional International Civil Aviation Organisation (P.I.C.A.O.); these are subject to revision and amendment from time to time.

EVENING COURSES

COURSES OF INSTRUCTION

Fee, £2 per Section.

(September to May)

150K Section A: (i) Air Navigation, including D.R. and Radio D.F. Navigation.
(ii) International and Air Legislation.
Instructor: Lieut. B. M. Flanagan.

151K Section B: (iii) Form of the Earth, Maps and Charts.
(iv) Earth's Magnetism and the Compass.
Instructor: Capt. M. Higgins.

152K Section C: (v) Meteorology.
Instructor: Capt. P. Swan.

153K Section D: (vi) Astronomical Navigation.
Instructor: Capt. T. C. Walsh.

Signalling: Common to all Sections and optional. Instructor: M. J. O'Rorke.

154K Full Course: Second Class Licence Air Navigation, Sections A, B, C.

155K Full Course: First Class Licence Air Navigation, Sections A, B, C, D.

SUMMER TERM REVISION COURSE

Fee, £3.

(May to July)

156K Air Navigation—All Sections.

JOINT TIME TABLE

(subject to amendment)

Subject	Day	Room	Hour
Section A	Thursday ...	13	7.30–10. 0
Section B	Friday ...	9	7.30–10. 0
Section C	Tuesday ...	8a	7.30– 9.30
Section D	Wednesday ...	2	7.30– 9.30
Signalling (Jan. to May) ...	Monday ...	8c	7.30– 9.30

CIVIL AIRPORT CONTROL OFFICERS

It should be noted that the Courses in Air Navigation for the Second Class Licence are open to Aircraft Radio Officers anxious to qualify for positions as Airport Control Officers. For the time being, a PASS in the Second Class Licence Examination is requisite as a qualification for such appointments.

STAFF

ART AND ART CRAFTS.

WILLIAM L. WHELAN, Art Master's Certificates, Board of Education, London, Silver and Bronze Medalist, National Competition, South Kensington; Medalist, Irish National Art Competition.

Evening Courses and Time Table

GENERAL ART COURSES.

Fee, 7/6 per Course.

No. of Course	SUBJECT	Day	Hour	Room	TEACHER
	FIRST YEAR.				
157 K	Obj. and Mem. Drawing—I. ..	Thurs.	7.30–9.30	14	W. L. Whelan; Miss M. Whelan.
	Mechanical Drawing and Design —I.	Tues.	7.30–9.30	14	Miss M. Whelan.
	Extra Class in any Art subject	..	7.30–9.30	11	W. L. Whelan.
	SECOND YEAR.				
158 K	Obj. and Mem. Drawing—II. ..	Thurs.	7.30–9.30	14	W. L. Whelan.
	Design—II.	Tues.	7.30–9.30	14	W. L. Whelan
	Drawing from Natural Forms —II.		7.30–9.30	14	W. L. Whelan.
	Drawing from Casts—II ..	—	—	—	— —
	THIRD YEAR.				
159 K	Obj. and Mem. Drawing—III.	Tues.	7.30–9.30	14	W. L. Whelan; Miss M. Whelan
	Industrial Design—III. ..	Thurs.	7.30–9.30	14	W. L. Whelan
	Drawing from Natural Forms —III.	Thurs.	7.30–9.30	14	W. L. Whelan.
	Drawing from Casts—III. ..	Thurs.	7.30–9.30	14	W. L. Whelan.
	Pictorial Composition	Tues.	7.30–9.30	14	W. L. Whelan.
	FOURTH YEAR.				
160 K	Obj. and Mem. Drawing—IV.	Tues.	7.30–9.30	14	W. L. Whelan.
	Industrial Design—IV. ..	Thurs.	7.30–9.30	14	W. L. Whelan.
	Pictorial Composition	Tues.	7.30–9.30	14	W. L. Whelan
	Drawing and Painting from Natural Forms	Tues.	7.30–9.30	14	W. L. Whelan.

EVENING COURSES

APPLIED ART AND CRAFT COURSE.

No. of Course	Subject	Day	Hour	Room	Teacher
	FIRST YEAR.				
161 K	Mechanical Drawing, Geometrical Design, etc.	Tues.	7.30–9.30	14	Miss M. Whelan.
	Freehand and Elementary Drawing from Casts, etc. ..	Thurs.	7.30–9.30	14	W. L. Whelan.
	SECOND YEAR.				
162 K	Elementary Designs and General Handicrafts	Tues.	7.30–9.30	14	W. L. Whelan.
	Drawing of Common Objects, etc.	Thurs.	7.30–9.30	14	W. L. Whelan.
	Craftwork	—	—	—	—
	THIRD YEAR.				
163 K	Industrial Design	Thurs.	7.30–9.30	14	W. L. Whelan.
	Drawing in Light and Shade from Casts, etc.	Tues.	7.30–9.30	—	—
	Craftwork	—	—	—	—
	FOURTH YEAR.				
164 K	Industrial Design and Historic Development of Styles ..	Thurs.	7 30–9.30	14	W. L. Whelan.
	Craftwork	—	—	—	—

In the Third and Fourth Years a Class in Craftwork should be taken, and in the First and Second Years an appropriate Class in Art added.

SPECIAL ART AND CRAFT CLASSES.

Subject	Day	Hour	Room	Teacher
165 K				
Drawing & Design for Leatherwork and Leathercraft ..	Tues.-Thrs.	7.30 9.30	14	W. L. Whelan ; Miss M. Whelan
Leatherwork, Stenciling, etc. ..	Tues.-Thrs.	7.30–9.30	14	W. L. Whelan ; Miss M. Whelan.
Design for Art Ironwork ..	Tues.-Thrs.	7.30–9.30	11	W. L. Whelan.
Commercial Art	Tues.-Thrs.	7.30–9.30	11	W. L. Whelan
Decorative Art for Confectioners	Tues.-Thrs.	7.30–9.30	14	W. L. Whelan; Miss M. Whelan.

ADVANCE DESIGN APPLIED TO CRAFTS.

In these classes exercises will be arranged bearing upon the particular branch of design or handicraft the student desires to follow up.

Advanced designs adapted to special processes of execution: wood-carving, goldsmiths' work, enamelling, metal work, embossing, casting and ironwork; book illustration; process work; wood-engraving; colour printing; furniture and plaster work; designs for schemes of decoration with some important feature carried out in full sizes, or to as large a scale as the limits will allow; designs for important competition to full size or to a large scale, with sketches to show the position the design is meant to occupy.

School of Bakery

STAFF:

Chief Instructor: SAMUEL ANTHONY, Diploma, National Association of Master Bakers, Confectioners and Caterers; Full Technological Certificate in Breadmaking and Flour Confectionery, City and Guilds of London Institute.

Confectionery Decoration: W. CLARKE.

Breadmaking: W. FRANEY.

BAKERY PRACTICE AND TECHNOLOGY

The Courses are organised to provide for the full technical training of Bakehouse Apprentices in the theory and practice of Breadmaking and Flour Confectionery, during the period of apprenticeship.

The work of the classes is under the supervision of an Advisory Committee representative of the Irish Bakers', Confectioners' and Allied Workers' Union and of the Association of Master Bakers.

The practical classes are conducted on each afternoon excepting Saturday, from 12.30 to 6.30 p.m. The ancillary instruction in Bakery Science and Calculations and in Art is given in Evening Classes.

APPRENTICE DAY COURSES

Sessional Course Fee, 7/6.

Time Table

25D. Bakery Practice and Technology

Day	Time	Subject	Room	Teacher
Monday ...	12.00–3.00 3.30–6.30	Bakery Practice IA do. IIIA	20 20	Mr. S. Anthony do.
Tuesday ...	12.00–3.00 3.30–6.30	Bakery Practice IIA do. IVA	20 20	Mr. S. Anthony do.
Wednesday...	12.00–3.00 3.30–6.30	Bakery Practice IIB do. IVB	20 20	Mr. Wm. Franey do.
Thursday ...	12.00–3.00 3.30–6.30	Bakery Practice IB do. IIIB	20 20	Mr. S. Anthony do.
Friday ...	12.00–3.00 3.30–6.30	Bakery Practice IC do. ID	20 20	Mr. S. Anthony do.

CERTIFICATE COURSES IN BREADMAKING AND FLOUR CONFECTIONERY

The Certificate Courses in both subjects follow the Syllabuses of the Examinations of the City and Guilds of London Institute. The requisite ancillary subjects to Bakery Practice include Physics, Chemistry, Cereal Science, Microbiology and Decorative Art.

The classes in ancillary subjects to be taken by the student in each year of a Course will be determined in consultation with the Principal.

26D. Certificate Course Fee, 20/- per Session.

EVENING COURSE IN BAKERY PRACTICE.

(Journeymen).

Course Fee, 10/- per Session.

167K	Bakery Practice	... ...	Wed.	... 7.30-10.0	20	S. Anthony

EVENING COURSE IN CONFECTIONERY DECORATION.

(Journeymen).

Course Fee, 20/- per Session.

168K	Design; Icing; Piping	...	Tues., Thurs.	7.30-9.30	20	W. Clares
	Ancillary Subjects	...		as may be arranged.		

BOOT AND SHOE MANUFACTURE

HANDICRAFT AND FACTORY OPERATIVE COURSES.

The aim of these classes is to give a knowledge of the various branches of the trade to apprentices and improvers, who, owing to the increased use of machinery, are usually confined to one of the many branches of the Boot Trade.

Several machines have been added to the equipment.

DAY APPRENTICE SCHOLARSHIP COURSE

BOOTMAKING

This Full-time Day Course extends over two Sessions and is conducted under the terms of the Day Apprentice Scholarship Scheme. The Course provides 30 hours of instruction per week, of which approximately 20 hours are devoted to practical instruction in Bootmaking.

EVENING COURSES AND TIME TABLE

Course Fee, 7/6 per Session.

HANDICRAFT.

				Room	
169K	Boot and Shoe Making—I. ...	M., W.	8.0-10.0	3	K. English
170K	Boot and Shoe Making—II. ...	Tu., W.	8.0-10.0	3	K. English
171K	Boot and Shoe Making—III. ...	Tu., Th.	8.0-10.0	3	K. English

*** BOOT FACTORY OPERATIVES' COURSE.**

Clicking and Pattern Cutting—I.	M.	8.0-10.0
Factory Methods and Operations—I.	W.	8.0-10.0

* Will not be held in Session 1947-48.

Irish Language : General Courses

Registered students may take Irish as an additional subject on payment of a fee of 2/6. Graded classes in Irish are organised in several institutes, and students are advised to consult the General Time-table of Irish Classes as displayed on the Notice Board, in order to ascertain the most convenient centre.

Languages for Students of Technology

Technical Irish.
Technical German.
Technical French.

Classes will be organised for students of Applied Science in Irish, German, and French. It is the general aim of the instruction to impart a sufficient grasp of the usage of each language in scientific and technical literature; also, the instruction is generally suitable as a preparation for Preliminary, Professional and University of London B.Sc. Degree examinations.

A class will be formed only on condition of a minimum enrolment of eight students.

EVENING COURSES.

INTRODUCTORY COURSES

Intending students who have failed the entrance examinations or whose educational standard is deemed to be below the minimum required for entrance on a course of Theoretical Instruction are required to enrol in an Introductory Course and subsequently to make satisfactory attendance and progress during the period of the Course, before being admitted to preliminary classes in Science or Technology in the following Session.

No. of Course	SUBJECT	Day	Hour	Room	TEACHER
	FOR NON-APPRENTICE STUDENTS—FEE 2/6				
	*English	Tues. or Thurs.	7.30–8.30		S. E. MacCormaic.
	*Elementary Mathematics ..	do.	8.30–9.30		S. E. MacCormaic.

*Held at Capel Street Branch School

	FOR TRADE APPRENTICES ONLY—FEE 7/6				
	*English—F	Tues. or Thurs	7.30–8.30		S. E. MacCormaic.
	*Elementary Mathematics ..	do.	8.30–9.30		S. E. MacCormaic.
	Practical Trade Subjects–as may	be arranged.			

* Classes held in the Technical School, Capel Street.

SCHOLARSHIPS AND PRIZES.

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 £20, being the proceeds of an investment of £500 in Dublin Corporation Stock.

The Scholarship is awarded each Session on the result of an Examination in Chemistry, usually held in May. 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.

IRISH PROFICIENCY SCHOLARSHIPS entitle the holders to free entry to Day Junior Technical Course in Electrotechnology and Science and to an annual payment of £3 to cover the cost of books and equipment. The Scholarships are awarded on the results of an oral examination in Irish. Candidates are first required to pass qualifying examinations in Irish, Mathematics, and English. These examinations are held in the month of June.

GAEDHEALTACHT SCHOLARSHIPS, entitling the holders to a Summer course in the Gaedhealtacht, free of all expense. These Scholarships are open to competition amongst the students of the Whole-time Day Courses.

DAY APPRENTICE SCHOLARSHIPS IN BOOTMAKING, entitling the holders to free training for two years in Whole-time Day Apprentice Course, together with payment of 6/- per week during the first year and 8/- per week during the second year of the Course. On the completion of the Course, students are accepted as third year apprentices to the trade. Particulars are published in the Dublin daily press, in the month of March.

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 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.

DEPARTMENT OF EDUCATION (TECHNICAL INSTRUCTION BRANCH)

The Department of Education offers, from time to time, Scholarships in certain selected Trades to apprentices who have completed the second year of apprenticeship. These Scholarships are announced in the public press.

PRIZES.

BREADMAKING AND FLOUR CONFECTIONERY

Annual Awards are made by the Irish Bakers', Confectioners' and Allied Workers' Union of a Silver Medal and a Bronze Medal to each of the classes of the Course for Bakery Apprentices, *viz.*, First, Second, Third and Fourth Year Classes, in respect of First and Second Places in the Sessional Examinations held in the month of June in each Session.

FLOUR MILLING TECHNOLOGY PRIZES. 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.

RADIO SERVICE WORK

Awards of Prizes to the value of £20 are made each year by the Irish Radio Manufacturers' and Wholesalers' Association and the Wireless Dealers' Association to successful students of the Day and Evening Courses.

GENERAL CURRICULUM OF THE SCHOOLS
UNDER THE CONTROL OF
The City of Dublin Vocational Education Committee

TECHNICAL INSTITUTE, BOLTON STREET.

Mechanical Engineering.
Motor Car Engineering.
Marine Engineering.
Naval Architecture.
Mechanical Engineering Trades.
Motor Car Engineering Trades.
Smithwork and Art Ironwork.
Brassfinishing.
Gasfitting.
Watchmaking.
Oxy-Acetylene and Electric Welding.
Architecture.
Civil Engineering.
Quantity and Building Surveying.
Building Science.
Surveying and Levelling.
Building Trades.
Furniture Trades.
Coachbuilding, Coachtrimming and Coach-painting.
Ship Construction.
Printing and Book Production.

Day Junior Technical Courses.
Day Apprentice Courses.

BRANCH TECHNICAL SCHOOL, CAPEL STREET.

Continuation Courses.
Day Junior Technical Courses.
Manual Instruction: Woodwork, Metalwork.
Post Office Messengers.
Trade Classes:—Tailoring. Bootmaking. Hairdressing.

CABRA TECHNICAL INSTITUTE.

Day Junior Technical School.
Day School of Commerce.

General Commercial Subjects.
Languages.
Metalwork.
Woodwork.
Domestic Science and Housecraft
Physical Training.

INSTITUTE OF SCIENCE AND TECHNOLOGY—KEVIN ST.

Pure and Applied Mathematics.
Pure and Applied Physics.
Pure and Applied Chemistry.
Physical Chemistry.
Bio-Chemistry: Botany.
Bacteriology: Biology.
Pharmacy.
Industrial Technology: Manufactures.
Illuminating Engineering.
Bootmaking.
Ophthalmic Optics.
Electrical Engineering and Allied Trades.
P.O. Engineering Technology.
Instrument Making.
Radio Engineering and Service Work.
Radio Telegraphy (Radio Officers).
Air Navigation.
Art and Art Crafts.
Bakery Science and Practice.

PARNELL SQUARE TECHNICAL INSTITUTE.

Day School of Commerce.
Day Junior School of Domestic Economy.

General Commercial Subjects.
Domestic Science and Housecraft.
Languages.
Retail Distribution.
Trades Courses:—
Shirtmaking.
Clothing Manufacture.
Upholstery.

HARCOURT STREET SCHOOL OF DOMESTIC SCIENCE.

Day Junior Domestic Economy.
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