1956

Innealtoireacta: Buneolaire 1956-57

City of Dublin Vocational Education Committee

Coiste Fairm-Oideachais Chathair Átha Cliath

An Roinn Innealtóireachta

Ceárd-scoileanna
Sráid Bóltúin

★

Ranganna Lae agus Oíche

★

Buneolaire

1956-57

CALENDAR—SESSION 1956-'57

1956—SEPT. 3 MONDAY	- Higher Technological Courses; Whole-time Engineering Courses; Trade Apprentice Part-time Day Courses open for enrolment and Mechanical Engineering Sandwich Course resumes work.
10 MONDAY	- Trade Apprentice Part-time Day Courses commence work. Evening Courses open for enrolment.
17 MONDAY	- Higher Technological Courses and Evening Classes commence work.
OCT. 8 MONDAY	- Whole-time Engineering Courses commence work.
DEC. 21 FRIDAY	- Final Class meetings before Christmas Vacation.
1957—JAN. 7 MONDAY	- All Classes resume work after Christmas Vacation.
MAR. 17 SUNDAY	- *St. Patrick's Day.*
APR. 16 TUESDAY	- Final Class meetings before Easter Vacation. Final meetings of Evening Classes.
29 MONDAY	Day Classes resume work after Easter Vacation.
MAY 25 SATURDAY	- Final Class meetings of Whole-time Engineering Courses.
JUN. 10 MONDAY	- *Whit Monday.* School closed.
28 FRIDAY	- Summer Term closes, except where otherwise arranged.

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

CONTENTS

CITY OF DUBLIN VOCATIONAL EDUCATION COMMITTEE

Very Rev. John Canon Fitzpatrick, M.A., D.D., P.P. (Chairman), St. Cronan's, Main Street, Bray, Co. Wicklow.
Mr. William Whelan (Vice-Chairman), 61 Lr. Beechwood Ave., Dublin.
Alderman John McCann, 68 Fortfield Road, Terenure, Dublin.
Councillor Bernard Butler, B.A., T.D., P.C., 16 Healthfield Road, Terenure, Dublin.
Councillor Joseph Barron, 10 South Circular Road, Portobello, Dublin.
Councillor Bhalter Breathnach, 58 Bannow Road, Cabra West, Dublin.
Councillor Mrs. Catherine Byrne, 5 Seafort Terrace, Sandymount, Dublin.
Councillor Michael Gerard Dempsey, 37 The Rise, Glasnevin, Dublin.
Councillor Gilbert Hughes, 24 Cill Eanna, Howth Road, Raheny, Dublin.
Diarmuid O h-Almhain, Tigh Mhichil, Deilginis.
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Mr. John J. Dunne, 125 Terenure Road West, Dublin.
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Mr. Kevin McCarthy, 74 Castle Ave., Clontarf, Dublin.

Offices:—Town Hall, Merrion Road, Ballsbridge, Dublin.

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

CITY OF DUBLIN VOCATIONAL EDUCATION SUB-COMMITTEE

(Technical Institute, Bolton Street)

Very Rev. John Canon Fitzpatrick, D.D., P.P., St. Cronan's, Bray, Co. Wicklow (ex officio).
Councillor Bhalter Breathnach, 58 Bannow Road, Cabra West.
Gerald Doyle, Operative Plasterers' Trade Society.
W. J. Whelan, Dublin Typographical Provident Society.
B. O Cearbhaill, Dublin Typographical Provident Society.
A. J. Wilson, Dublin Master Printers' Association.
G. E. Hetherington, Dublin Master Printers' Association.
P. J. Kearney, Irish Engineering Industrial Union.
J. Mulhall, Irish National Painters' Union.
J. Farrell, Ancient Guild of Brick and Stonelayers' Union.
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DONAL F. O'DWYER, B.Arch., F.R.I.A.I.
Principal.

Telephone: 43553-4

TECHNICAL INSTITUTE, BOLTON STREET

Principal: DONAL F. O'DWYER, B.ARCH., F.R.I.A.I.

Vice-Principal: JOHN D. BARRY, M.SC., B.E., M.I.MECH.E., M.I.C.E.I.

TELEPHONE: 43553-4

DEPARTMENT OF ENGINEERING

Head of Department:
THE VICE-PRINCIPAL

Assistant Head of Department:
G. L. LATCHFORD, B.E., B.SC.

Head of Motor Car Engineering Division:
VACANT

Head of Science Division:
J. NUNAN, B.SC., H.DIP.ED.

Chief Instructor (Mechanical Engineering Trades):
H. FITZGERALD, HONS. MANUAL INSTRUCTORS CERT. (DEPT. OF EDUC.)

ADVISORY COMMITTEES

ENGINEERING TECHNOLOGY

CAPT. CORMACK, B.E., D.I.C., F.R.A.E.S., Chief Engineer, Aer Lingus.

A. HARKIN, M.E., M.I.MECH.E., M.I.E.E., Deputy Chief Engineer, E.S.B.

O. V. S. BULLEED, L.B.E., M.I.MECH.E., Chief Mechanical Engineer, C.I.E.

MR. J. FITZPATRICK, WH.EX., M.I.MECH.E., M.I.C.E.I., Deputy Chief Engineer, Office of Public Works.

MR. DRESSER, M.SC., M.I.C.E.I., Chief Engineer, Messrs. Arthur Guinness Son & Co.

MR. MAGUIRE, B.E., M.I.C.E.I., M.AM.SOC.C.E., Chief Engineer, Bord na Mona.

DR. L. J. KETTLE, D.SC., M.I.MECH.E., M.I.C.E.I., Chairman, Industrial Research Committee of the Institute for Industrial Research and Standards.

MR. C. WARREN, WH.EX., A.M.I.MECH.E., 122 St. Stephen's Green, Dublin.

MECHANICAL ENGINEERING

J. CASSIDY, General Secretary, Irish Engineering and Foundry Union, 33 Gardiner's Place, Dublin.

A. P. TUKE, Irish Engineering Industrial Union, 6 Gardiner's Row, Dublin.

BRIAN D'A. PATTERSON, Personnel Officer, Coras Iompair Eireann, 59 Upper O'Connell Street, Dublin.

H. LENNOX, General Manager, Liffey Dockyard Co., East Wall, Dublin.

S. O'FLAHERTY, Managing Director, Messrs. Motor Distributors Ltd., Naas Road.

GEORGE WATT, Rock Brook, Dundrum Road.

DISTRICT SECRETARY, United Society of Boilermakers and Iron and Steel Shipbuilders, 11 Richmond Hill, Rathmines.

MOTOR ENGINEERING

A. MCAULEY, B.SC., Rolling Stock Engineer, Coras Iompair Eireann, Broadstone, Dublin.

CHARLES WARREN, Society of Irish Motor Traders.

PETER PATRICK GRENNAN, Secretary, Irish Automobile Drivers' and Auto-Mechanics' Union, 99 Drimnagh Road, Dublin.

A. P. TUKE, Irish Engineering Industrial Union, 6 Gardiner's Row, Dublin.

ROBERT J. PORTER, Messrs. R. W. Archer & Co., Ltd.

PATRICK FLANAGAN, Messrs. McCairns Motors Ltd.

JOHN KEENEY, L.S.E. Motors Ltd.

AERONAUTICAL ENGINEERING

P. DELANEY, Aer Lingus Teo., Dublin Airport.

R. W. O'SULLIVAN, Chief Aero. Officer, Dept. Industry and Commerce.

COMDT. J. TEAGUE, Army Air Corps, Baldonnel.

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 or Colaiste Muire, Cathal Brugha Street.

(*b*) The Committee, in accordance with the means and facilities at its disposal, has 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 should insist that he/she receive an official receipt for the amount of the fee paid.

(*iv*) The appropriate class ticket/tickets is/are 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 of 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.

STAFF

1. MATHEMATICS; STRENGTH OF MATERIALS; APPLIED MECHANICS, ETC.:

J. D. BARRY, M.SC., B.E., M.I.MECH.E., M.I.C.E.I.
J. BOYLAN, A.M.MECH.E., A.M.I.C.E.I.
J. MCCABE, B.E.
M. O'DONNELL, B.E.
E. P. DUNNE, A.M.I.MECH.E., A.M.I.C.E.I.
J. J. HUGHES, H.DIP.ED.
G. L. LATCHFORD, B.E., B.SC.
D. MCCARTHY, PH.D.
W. J. O'BRIEN, DIP.ING.
W. J. O'DOHERTY, B.A., H.DIP.ED.
S. ROSSITER, HONS., MAN.INSTR.CERT.
A. WHELAN, B.E., A.M.I.C.E., A.M.I.C.E.I.
H. J. TAYLOR, H.N.C.
H. P. CLIFTON, M.E., B.SC., A.M.I.C.E.
J. MOYNIHAN, B.E., A.M.I.C.E.
T. MCCARTHY, B.SC.

2. PHYSICS; CHEMISTRY; GENERAL SCIENCE:

S. H. KNIGHT, B.A.
G. L. LATCHFORD, B.E., B.SC.
M. L. NIALL, M.SC., B.COMM.
J. NUNAN, B.SC., H.DIP.ED.
G. MCAULIFFE, M.SC., B.A.
S. ROSSITER, HONS., MAN.INSTR.CERT.
J. TIGHE, B.SC.
M. MARREN, B.SC.
T. MCCARTHY, B.SC.

3. HEAT ENGINES; APPLIED THERMODYNAMICS:

J. D. BARRY, M.SC., B.E., M.I.MECH.E., M.I.C.E.I.
J. BOYLAN, A.M.I.MECH.E., A.M.I.C.E.I.
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F. DRECHSLER, M.E.
M. O'DONNELL, B.E.
H. J. TAYLOR, H.N.C.
J. MCCABE, B.E.

4. ELECTRICITY; ELECTROTECHNOLOGY; AUTOMOBILE ELECTRICITY:

J. D. BARRY, M.SC., B.E.
S. H. KNIGHT, B.A.
G. L. LATCHFORD, B.E., B.SC.
J. BRYAN.
J. TIGHE, B.SC.
M. O'DONNELL, B.E.

5. MECHANICAL ENGINEERING; MACHINE DESIGN; THEORY OF MACHINES:

J. D. BARRY, M.SC., B.E., M.I.MECH.E., M.I.C.E.I.
J. C. FITZPATRICK, WH.EX., M.I.MECH.E., M.I.C.E.I.
G. L. LATCHFORD, B.E., B.SC.
D. MCCARTHY, PH.D.
H. J. TAYLOR, H.N.C.
M. O'DONNELL, B.E.

6. SURVEYING AND LEVELLING; STRUCTURES; CIVIL ENGINEERING:

W. J. O'Brien, dip.ing.
A. Whelan, b.e., a.m.i.c.e.
C. Clifton, m.e., a.m.i.c.e.
H. P. Clifton, m.e., b.sc., a.m.i.c.e.
J. Moynihan, b.e., a.m.i.c.e.
S. Kenny, b.e., a.m.i.c.e.

7. MACHINE DRAWING AND CONSTRUCTION; WORKSHOP TECHNOLOGY:

B. Fee.
R. Daly.
J. F. Lawless.
J. Gribben, hons., man.instr.cert.
S. Rossiter, hons., man.instr.cert.
W. Kennedy.
R. Stephen.
W. J. N. O'Brien, dip.ing.
J. Roche.
J. C. Fitzpatrick, wh.ex., m.i.mech.e.
D. Aungier.

8. MOTOR CAR ENGINEERING; DIESEL MAINTENANCE:

S. Guirke.
T. Giblin.
J. Boylan, a.m.i.mech.e., a.m.i.c.e.i.
J. N. Brookes, b.e.
T. McSweeney.

9. AERONAUTICAL ENGINEERING:

E. P. Dunne, a.m.i.mech.e., a.m.i.c.e.i.
D. McMahon, a.r.ae.s.
R. O'Shea.
J. Humphreys.
T. McInerney.
P. I. Taylor, a.r.ae.s.

10. INDUSTRIAL ADMINISTRATION; ENGINEERING ECONOMICS; ENGLISH:

M. Gaffney, b.comm., b.l.
W. Lismore, a.m.i.mech.e.

11. PHYSICAL TRAINING:

M. Doogan.

12. TRADE—THEORY AND PRACTICE:

Boilermaking:
E. Bennett.

Brassfinishing:
M. O'Carroll.

Brass Moulding:
C. Maples.

Fitting and Turning:

W. Hunt.
G. Aungier.
O. W. Crotty.
H. Fitzgerald.
J. Gribben.
D. Aungier.
W. De Renzy.
S. Rossiter.
S. O'Carroll.
R. Tynan.
D. Quinn.
J. McGrane.

Iron Moulding:
T. C. Smith.

Smithwork and Art Ironwork:
A. J. Ward.

Structural Steelwork:
F. McGloughlin.
D. Shatwell.

Garage Practice:

J. Fox.
R. J. Dowling.
T. Giblin.
S. Guirke.
A. Harbron.
T. Shortt.

Metalplate Work:

J. Bryan.
C. Devine.
A. O'Toole.
M. Kane.

Oxy-Acetylene and Electric Welding:
D. Aungier.
P. Cowley.

Patternmaking:
E. J. Kennedy.

Spiritual Directors: Rev. J. McAvoy, s.j.; Rev. D. Mulcahy, s.j.; Rev. W. O'Connor, s.j.

GENERAL DESCRIPTION OF THE ACTIVITIES OF THE ENGINEERING DEPARTMENT

The work of the Department comprises both Day and Evening Courses and is carried out under two main sub-divisions:—

(i) Engineering Technology; (ii) Engineering Trades.

DAY ACTIVITIES

The Day School activities comprise:—

(*a*) Whole-time Courses in Engineering.
(*b*) " Sandwich " Courses in Engineering.
(*c*) Part-time Courses in Engineering.
(*d*) Part-time Apprentice Courses.

EVENING ACTIVITIES

The Evening School activities comprise:—

(*a*) Technological Courses in Mechanical Engineering; Aeronautical Engineering; Marine Engineering; Civil Engineering; Heating, Ventilating and Air Conditioning; Structural Engineering; Motor Car Engineering; Welding Technology.
(*b*) Courses in Aeronautical Engineering for Maintenance Engineers' Licences; Courses in Diesel Maintenance; Motor Car Engineering.
(*c*) Trade Courses in Fitting and Turning; Garage Practice; Metal Plate Work; Brassfinishing; Patternmaking; Boilermaking; Smithwork; Art Ironwork; Oxy-Acetylene and Electric Welding; Foundry Work; Brass Moulding.

EXAMINATIONS

The Courses are designed to prepare students for the following External Examinations:—

1. Department of Education Examinations

(*a*) i. Elementary, Intermediate and Advanced Technological Certificate Examinations in Mechanical Engineering.
ii. Higher Technological Certificate in Mechanical Engineering.
(*b*) Junior and Senior Trade Certificate Examinations in Fitters' Work; Turners' Work; Metal Plate Work; Brassfinishing; Motor Car Engineering; Boilermakers' Work.

2. Examinations of Professional Institutions

The Institution of Mechanical Engineers; the Institute of Marine Engineers; the Institution of Civil Engineers of Ireland; the Institution of Heating and Ventilating Engineers; the Institution of Civil Engineers; the Royal Aeronautical Society; the Institution of Municipal Engineers; the Institution of Structural Engineers; the Institute of the Motor Industry, etc.

3. Board of Trade Examination for the Certification of Marine Engineers

4. City and Guilds of London Institute

5. University of London

6. Licence Examinations in Aeronautical Engineering of the Dept. of Industry and Commerce.

Further particulars regarding the above Examinations may be obtained from the Head of the Department.

CONDITIONS REGULATING THE ADMISSION OF STUDENTS TO CLASSES AND COURSES

Practical Workshop Classes in Trade Subjects

These classes are provided for the sole purpose of supplementing the practical trade training of persons actually employed at and engaged in the various operations of the trade. The Committee realise that it is impossible for a person to learn a trade solely by attendance at these classes, and are further of the opinion that the admission to the classes of persons not actually engaged in the trades would be not only of little use to such persons but would prejudicially affect the instruction of those for whom the classes have been organised. Accordingly, the Committee reserve the right to restrict enrolment in the trade practical classes to those persons who are actually employed in the several processes and operations of the trade.

In the Engineering Department the classes to which this regulation refers in the Session 1956-'57 will be:—

(*i*) Evening Trade Classes in Fitting and Turning; Garage Practice; Metal Plate Work; Brassfinishing; Patternmaking; Boilermaking; Smithwork; Art Iron Work; Oxy-Acetylene and Electric Welding; Foundry Work—Iron Moulding; Brass Moulding.

(*ii*) Part-time Day Apprentice Workshop Classes in Fitting and Turning; Garage Practice; Oxy-Acetylene and Electric Welding.

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

DAY AND EVENING TECHNOLOGICAL COURSES

Only such students will be admitted as have attained a standard of general education that will enable them to follow all the subjects of the Course with profit. In the absence of satisfactory evidence on this point, intending students may be required to pass a qualifying examination as a condition of admission.

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.

DESCRIPTION OF COURSES

TECHNOLOGICAL COURSES

(i) Whole-time Course in Engineering

This Course is designed to prepare students for the examinations of the Professional Engineering Institutions. The Course extends over four years.

Applicants for the Course must have passed the Common Preliminary Examination of the Professional Engineering Institutions or an examination exempting therefrom.

Further information concerning the Course may be obtained by consulting the Head of the Engineering Department.

(ii) Part-time Engineering (Higher Technological) Day Course A

This Course is designed to meet the requirements of the Syllabus of the Associate Membership Examination of the Institution of Mechanical Engineers.

It is a four-year Course and lectures are given on two days per week from 9.30 a.m. to 12.30 p.m., and from 2.0 p.m. to 5.0 p.m. In addition, the students attend at suitable evening school classes in those subjects in which they may require extra tuition. The lecture work is modelled directly on the requirements of the examination syllabuses and is supplemented by practical work in the mechanical and engine testing laboratories. Students must carry out all homework and drawing exercises which are set by the lecturers.

Permission to sit for the examination must be obtained from the Council of the Institution following the sending in of Proposals for Election.

On passing the requisite examinations the students may be elected as Graduate Members provided that they fulfil the following requirements of the Institution:—

(1) That they are between the ages of 21 and 30 years; and

(2) That they satisfy the Council that they have received or are receiving such regular training as Mechanical Engineers as would in due course fit them for employment as Mechanical Engineers.

For enrolment in this Course students must be at least 18 years of age and must possess such a standard of general education as would, in the opinion of the Head of the Department, enable them to follow the instruction given.

The students must provide themselves with the specified text-books, notebooks and drawing instruments.

(iii) Part-time Mechanical Engineering Technological Day Course B

Apprentices successful at the Department of Education elementary stage examinations in Mechanical Engineering and Mathematics at the end of the second year are promoted to this course and are prepared for the Intermediate and Advanced Stage Examinations of the Department of Education.

(iv) Civil Engineering

This Course is designed to meet the requirements of the Syllabus of the Associate Membership Examination of the Civil Engineering Institutions.

Lectures are given on two days per week, from 9.30 a.m. to 12.30 p.m., and from 2.0 p.m. to 5.0 p.m., for the Section A Examination. The students attend evening classes for the professional subjects of Section B. Examination. The lecture work is modelled directly on the requirements of the Institution Examination Syllabuses and is supplemented by practical work in the laboratories. Students must carry out all homework and drawing exercises set by the lecturers.

Permission to sit for the examination must be obtained from the Council of the Institution.

For enrolment in this Course students must be at least 18 years of age and must possess such a standard of general education as would, in the opinion of the Head of Department, enable them to follow the instruction given.

(v) Heating, Ventilating and Air Conditioning

This Course is designed to meet the requirements of the Syllabus of the Associate Membership Examination of the Institution of Heating and Ventilating Engineers.

Lectures are given on two days per week, from 9.30 a.m. to 12.30 p.m., and from 2.0 p.m. to 5.0 p.m. for the Section A Examination. The students attend evening classes for the professional subjects of Section B Examination. The lecture work is modelled directly

on the requirements of the Institution Examination Syllabuses and is supplemented by practical work in the laboratories. Students must carry out all homework and drawing exercises set by the lecturers.

Permission to sit for the examination must be obtained from the Council of the Institution.

For enrolment in this Course students must be at least 18 years of age and must possess such a standard of general education as would, in the opinion of the Head of Department, enable them to follow the instruction given.

(vi) The Evening Course in Mechanical Engineering Technology, Course A, is a six-year Course designed for students in engineering employment who wish to qualify in the technological branches of their work. A good standard of general education is required on entrance. Apprentices to the engineering trades who enjoy full opportunity for learning all branches of their trade in the works and who have the required standard of general education are advised to choose the technological in preference to the trade course.

The course prepares students for the Higher Technological Certificate Examinations in Mechanical Engineering of the Department of Education.

(vii) The Evening Course in Mechanical Engineering, Course B, prepares students for the examinations of the Institution of Mechanical Engineers.

(viii) Heating, Ventilating and Air Conditioning

This is a six-year evening Course which prepares students for the Associate Membership Examination of the Institution of Heating and Ventilating Engineers.

(ix) The Marine Engineer's Certificate Course is a four-year Course designed for students who are employed in engineering works and who intend to go to sea as marine engineers. The course covers the syllabus of Part A of the Certificate of Competency Examination (2nd Class) of the Board of Trade, and examinations giving exemption therefrom. Before going to sea a student is required to have completed at least four years of approved apprenticeship, and it is a distinct advantage to have already passed Part A of the Examination. The Institute is recognised by the Board of Trade for exemption purposes and students who have attended courses satisfactorily will be entitled to claim partial exemption from the four years of approved apprenticeship specified. Further particulars may be obtained from the Head of the Department or by consulting the Board of Trade Regulations.

(x) The Evening Course in Civil Engineering and Structural Engineering

This is a five-year Evening Course which prepares students for the Associate Membership Examinations of the Civil Engineering Institutions and the Institution of Structural Engineers.

(xi) Aero-Mechanics Licence Courses

These Courses prepare ground engineers for the internal examinations of this Institute which exempt from the Department of Industry and Commerce examinations for Maintenance Engineers' Licences, Categories A and C.

(xii) Aeronautical Engineering

This Course prepares students for the Associate Fellowship examinations of the Royal Aeronautical Society.

(xiii) Marine Engineering

This course prepares students for the Associate Membership Examinations of the Institute of Marine Engineers.

(xiv) Motor Car Engineering Technology

This is a five-year course which prepares students for the Technological Examinations of the Department of Education and the Associate Membership Examinations of the Institute of the Motor Industry.

(xv) Mechanical Engineering "Sandwich" Course

This Course is designed to prepare mechanical engineering apprentices for the Technological and Trade Examinations of the Department of Education.

(xvi) Welding Technology

A series of twelve lectures on Welding Technology organised for Engineering personnel in Industry.

2. TRADE COURSES

These courses are designed for apprentices and young journeymen engaged in the several trades. Every facility is given to students who wish to enter for the Trade Certificate Examinations of the Department of Education or of the City and Guilds of London Institute, these examinations being conducted in the School at the close of the evening session.

EVENING COURSES leading to the Department of Education Examinations are provided in the following trades: Fitters' and Turners' Work; Metalplate Work; Brassfinishing; Motor Car Engineering; Boilermaking.

Evening Courses are also provided in the following trades: Patternmaking; Foundry Work; Smithwork and Art Ironwork; Oxy-acetylene and Electric Welding; Brass Moulding; Diesel Maintenance; Structural Steelwork.

Part-time Day Apprentice Courses. By agreement with certain employers, apprentices are allowed time off to attend this course on one day (6 hours) per week. It is a two-year course which aims at the attainment of the standard of the Elementary Technological Certificate of the Department of Education.

Part-time Day Courses: Fitters and Turners, and Motor Mechanics (Scheme A). By agreement with certain employers, apprentices are allowed time off to attend these courses on one day (6 hours) per week. The course aims at the attainment of the standard of the Junior and Senior Trade Certificates of the Department of Education.

Part-time Day Courses: Apprentice Motor Mechanics (Scheme B). By agreement with the Society of Irish Motor Traders, the apprentices of all city members of the Society are allowed off to attend this course on one half-day per week. The course is a five-year course which aims at the standard of attainment of the Junior and Senior Trade Certificates in Motor Car Engineering of the Department of Education.

Welding Course for Boilermaking Apprentices: This is a special course in Oxy-Acetylene and Electric Welding for Boilermaking Apprentices who are released from employment to attend the Institute for three hours' instruction per week.

3. PHYSICAL TRAINING

Evening Courses in Physical Training for men are provided.

FEES (PER SESSION)

Course	£	s.	d.
1. WHOLE-TIME COURSE IN ENGINEERING	15	0	0
2. ENGINEERING TECHNOLOGICAL PART-TIME DAY COURSES	3	0	0
3. ENGINEERING "SANDWICH" COURSE	3	0	0
4. PART-TIME *DAY* APPRENTICE COURSES: Mechanical Engineering—all trades	2	0	0
5. EVENING COURSES AND CLASSES: All Courses or Single Subjects	1	10	0
Additional Subjects	0	7	6

SCHOLARSHIPS AND PRIZES

The City of Dublin Vocational Education Committee awards scholarships annually in the Whole-time Course in Engineering, based on student's progress in the first, second and third years of the Course. Scholarships consist of free admission to the subsequent year of the Course.

The Dublin Mechanics' Institute Scholarships are provided for by the Dublin Mechanics' Institute Residuary Fund. One scholarship is awarded annually to apprentices between the ages of 16 and 19 years of age who have been in attendance at a Technical Course during the previous session and made a specified minimum attendance. The Scholarships are tenable for three years and are valued about £3 each per year.

The Department of Education offers the following medals and prizes annually in connection with their examinations:—

(*a*) *Technological Certificate Examinations.* A prize of £1 in each subject of the Elementary and Intermediate Stages. A silver medal, a first prize of £2 and a second prize of £1 in each subject of the Advanced Stage.

(*b*) *Trade Certificate Examinations.* A prize of £1 in each of the practical and written examinations of the Junior Stage. A bronze medal and a prize of £2 in each of the practical and a prize of £1 in each of the written examinations of the Senior Stage.

The William Rooney Memorial Prizes are provided for by a trust fund established in memory of William Rooney (Fear na Muinntir), the Irish poet and patriot. A sum of approximately £12 is available annually for awards to students who are apprentices to the Mechanical Engineering and Building trades. The award alternates in successive years between students of the Engineering and Building trade groups, but is not available to holders of scholarships in the Day Apprentice Courses. A competent knowledge of Irish is an essential requirement, in addition to regular attendance and proficiency.

The Union of Sheet Metalworkers' Prize, value £10 10s., is awarded annually to apprentices of the Sheet Metalwork Classes, mainly on the results of the Trade Certificate Examinations of the Department of Education.

EQUIPMENT

The equipment of the School can be briefly described under seven heads: (1) Laboratories; (2) Drawing Offices and Art Room; (3) Workshops; (4) Classrooms and Lecture Rooms; (5) Gymnasium; (6) Surveying and Levelling Equipment; (7) Models and Specimens; (8) Visual Aids.

Laboratories

The Laboratories, covering a floor area of 7,500 sq. feet, are five in number:—

PHYSICS AND CHEMISTRY LABORATORY with Preparation Rooms and Stores equipped with the usual apparatus required for general courses in Science.

APPLIED MECHANICS AND MATERIALS TESTING LABORATORY, well equipped with apparatus for demonstrating the laws of statics and dynamics and with machines for testing engineering and building materials in compression, tension, shear, bending and torsion, and for measuring deflections and extensions under load. The equipment includes an Avery vertical single-lever testing machine capable of applying tension or compression up to 5 tons; a verticle-screw testing machine for deflection and cross-breaking tests; a torsion testing machine; a cement testing machine of the compound lever type; a beam testing apparatus; an Izod testing machine; a Searle extensometer and several wire extensometers and compression and tension testing machines for springs; strut apparatus; Fletcher's trolley; experimental flywheels; gyroscope; balancing machine; whirling speed apparatus; fatigue testing machine; various apparatus for determining the moduli of elasticity; a vernier microscope; an oscillograph and recording camera; polariscope; strain gauge measuring equipment, etc.

APPLIED HEAT LABORATORY with equipment for experimental work on heat and heat engines, including Jünker and bomb calorimeters; flashpoint and viscosity apparatus; Orsat apparatus; pyrometer (Whipple's heat recorder); equipment for study of gas laws (including temperature-pressure apparatus for high pressures); steam pressure gauges; Peugeot engine and the Davidson apparatus demonstrating the principles of domestic hot-water installations, etc. Several engine and boiler models including the principal steam engine valve mechanisms, etc.

AN ELECTRICITY LABORATORY fitted with apparatus for experimental work on magnetism, static electricity, D.C. and A.C., including ammeters; voltmeters; galvanometers, meter bridges; P.O. boxes; a demountable transformer; various test instruments; 1½ k.w. Canning motor generator set feeding through bus-bars to work-benches. Special equipment for use in connection with courses in automobile electricity include Newton test bench for 6v. and 12v. automobile equipment; Davenset; two-circuit metal

rectifier battery charger (2v.-60v., 3a. and 10a. outputs). Varied selection of motors, dynamos and associated electrical apparatus, 12kw. motor-generator, etc.

AN ENGINE TESTING LABORATORY fully equipped for experimental work on petrol, oil, gas and steam engines. The plant includes: A 4-cylinder Wolseley petrol engine fitted with Hopkinson indicator for photographing the indicator diagrams; a water-cooled Prony brake; calorimeters for measuring heat loss in jacket water and exhaust gases and measuring tank for finding petrol consumption. A 50 B.H.P. Diesel oil engine by Mirrlees, Bickerton and Day fitted with motor-driven compressor; Froude dynamometer; indicator; Orsat apparatus, etc., for engine and heat balance tests. A 28 B.H.P. gas engine by Crossley Bros. fitted with the usual apparatus for making B.H.P. and I.H.P. tests, etc. Three experimental steam engines with apparatus for making comprehensive tests. Experimental apparatus for the study of the properties of steam, including throttling calorimeter; injectors; steam traps; apparatus for illustrating relative conductivity of lagging materials; a Stroboflash for the examination and analysis of running machinery; steam turbine, etc.

The Institute also possesses an Armstrong Siddeley Cheetah X aircraft engine and a 1,100 h.p. Pratt & Whitney aircraft engine, etc., for use in classes in Aero Engineering.

NOTE:—Senior students specialising in advanced experimental work must obtain permission of the Head of the Department before proceeding with engineering investigations.

Drawing Offices and Art Room

There are six well-equipped and well-lighted Drawing Offices and an Art Room covering in the aggregate a floor area of 7,000 sq. feet. The Art Room is provided with a good selection of models and plaster casts, while the Drawing Offices are stocked with a large number of engineering models for machine construction and design purposes.

Workshops

Trade workshops, having an aggregate floor area of over 30,000 sq. feet, are individually equipped for each of the trades covered by the activities of the Institute.

THE FITTING AND TURNING WORKSHOPS are well provided with modern machine tools, including fifteen power-driven screw-cutting surfacing lathes, eight drilling machines, one vertical and one horizontal universal milling machine, a 3-ft. planer, four shaping machines, universal grinding machines, power saws and grinders for twist drills and lathe tools. There are six smiths' hearths.

THE GARAGE is equipped with the usual small tools for repairing British and American cars and with an hydraulic hoist, portable electric drilling machines, hydraulic press, boring bars for big-end and main bearings and for cylinder reconditioning, connecting rod and steering aligning tools, battery-charging equipment, stenor tyre vulcaniser, air meter for tyre inflation, Stromberg engine test apparatus and Weston electrical fault-finding instruments, representative engines of the more usual motor-car manufacturers, and a complete bus chassis, etc.

Other fully equipped workshops are provided in the Engineering Department as follows: Boilermaking, foundry, patternmaking, metal-plate work, oxy-acetylene and electric welding, smithwork and art ironwork.

Classrooms and Lecture Rooms

There are a number of well-lighted classrooms equipped on modern lines and covering in the aggregate a floor area of over 6,000 square feet, and a Cinema Theatre with seating for 200 students.

Gymnasium

A large Gymnasium covering a floor area of 2,200 square feet is provided for physical training.

Surveying and Levelling Equipment for class work and field work includes 100-ft. of Gunter's chains and accessories; two improved Dumpy levels and one Crooke Throughton level; theodolites; levelling staffs; plane-table; clinometer; prismatic compass; planmeter; the usual scales, computing scales, proportional dividers, protractors, etc.

Models and Specimens

A large collection of Mechanical Engineering models has been acquired and is constantly being added to. These include: models of machine tool parts; sectioned models of engine parts and of all common types of valve gears; structural engineering details; boilers and mountings; engine cylinders; hydraulic details, etc.

Visual Aids

The following visual aids are provided: 35 mm. silent film projector; 16 mm. sound film projector; film strip projector; slide projectors and epidiascope.

TIME-TABLES—DAY COURSES

WHOLE-TIME DAY COURSE IN ENGINEERING

FIRST YEAR

No. of Course	Subject	Hours per Week
1	Mathematics	3
	Engineering, Drawing and Graphics	5
	Engineering Economics	1
	Applied Mechanics	4
	Applied Heat	3
	Electricity	3
	Experimental Physics	3
	Chemistry	3
	Engineering Theory	1
	Workshop Technology	1
	Philosophy	1
	Practical Engineering	3
	(In addition Students attend Evening Workshop Classes for periods as directed).	

SECOND YEAR

2	Mathematics	3
	Engineering, Drawing and Graphics	5
	Applied Mechanics	4
	Applied Heat and Heat Engines	4
	Principles of Electricity	4
	Physics	2
	Chemistry	3
	Engineering Theory	1
	Workshop Technology	1
	Practical Engineering	3
	Engineering Economics	1
	Philosophy	1

THIRD YEAR

3	Mathematics	3
	Theory of Machines	3
	Theory of Structures and Structural Design	4
	Properties and Strength of Materials	3
	Machine Design	4
	Applied Thermodynamics	5
	Electrotechnology	4
	Mechanics of Fluids	2
	Metrology and Machine Tools	1
	Philosophy	1

Whole-time Day Course in Engineering (continued)

FOURTH YEAR

4	Applied Mathematics	2
	Theory of Machines	4
	Structures	4
	Properties and Strength of Materials	3
	Machine Design	4
	Applied Thermodynamics	5
	Electrical Engineering	4
	Mechanics of Fluids	2
	Metrology and Machine Tools	1
	Philosophy	1

PART-TIME MECHANICAL ENGINEERING

Technological Course A

FIRST YEAR

Course No.	Day	Time	Subject	Room
6	Monday	9.30–11.00	Applied Mechanics	A 5
		11.00–12.30	Applied Mechanics	A 5
		2.00– 3.30	Heat, Light and Sound	A 11
		3.30– 5.00	Heat, Light and Sound	A 11
	Wednesday	9.30–11.00	Principles of Electricity	A 6
		11.00–12.30	Principles of Electricity	A 6
		2.00– 3.30	Mathematics	B 10
		3.30– 5.00	Mathematics	B 10
		7.30– 9.30	Engineering Economics	B 8
	Thursday	7.30– 9.30	Machine Drawing	B 11

SECOND YEAR

7	Monday	9.30–11.00	Principles of Electricity	A 7
		11.00–12.30	Principles of Electricity	A 7
		2.00–3.30	Heat, Light and Sound	C 6
		3.30– 5.00	Heat, Light and Sound	C 6
		7.30– 9.30	Machine Drawing & Construction ...	B 11
	Wednesday	7.30– 9.30	Engineering Economics	B 8
	Thursday	9.30–11.00	Mathematics	B 28
		11.00–12.30	Mathematics	B 28
		2.00– 3.30	Applied Mechanics	A 5
		3.30– 5.00	Applied Mechanics	A 5

THIRD YEAR

8	Monday	8.30–10.00	Mathematics	C 7
	Tuesday	9.30–11.00	Theory of Machines	C 6
		11.00–12.30	Theory of Machines	C 6
		2.00– 3.30	Internal Combustion Engines	C 6
		3.30– 5.00	Steam	C 6
		7.00–10.00	Machine Construction and Design ...	B 10
	Thursday	9.30–11.00	Strength of Materials	C 6
		11.00–12.30	Strength of Materials	C 6
		2.00– 3.30	Internal Combustion Engines	C 6
		3.30– 5.00	Steam	C 6

FOURTH YEAR

Course No.	Day	Time	Subject	Room
9	Monday	8.30–10.00	Mathematics	C 7
	Tuesday	9.30–11.00	Theory of Machines	C 6
		11.00–12.30	Theory of Machines	C 6
		2.00– 3.30	Internal Combustion Engines	C 6
		3.30– 5.00	Steam	C 6
	Thursday	9.30–11.00	Strength of Materials	C 6
		11.00–12.30	Strength of Materials	C 6
		2.00– 3.30	Steam	C 6
		3.30– 5.00	Internal Combustion Engines	C 6
		7.30– 9.30	Industrial Administrations	B 8
	Friday	7.00–10.00	Machine Design	B 10

HEATING, VENTILATING AND AIR CONDITIONING

PART I—FIRST YEAR

6	Monday	9.30–11.00	Applied Mechanics	A 5
		11.00–12.30	Applied Mechanics	A 5
		2.00– 3.30	Heat, Light and Sound	A 11
		3.30– 5.00	Heat, Light and Sound	A 11
	Wednesday	9.30–11.00	Principles of Electricity	A 6
		11.00–12.30	Principles of Electricity	A 6
		2.00– 3.30	Mathematics	B 10
		3.30– 5.00	Mathematics	B 10
		7.30– 9.30	Engineering Economics	B 8
	Thursday	7.30– 9.30	Machine Drawing	B 11

PART I—SECOND YEAR

7	Monday	9.30–11.00	Principles of Electricity	A 7
		11.00–12.30	Principles of Electricity	A 7
		2.00– 3.30	Heat, Light and Sound	C 6
		3.30– 5.00	Heat, Light and Sound	C 6
		7.30– 9.30	Machine Drawing and Construction ...	B 11
	Wednesday	7.30– 9.30	Engineering Economics	B 8
	Thursday	9.30–11.00	Mathematics	B 28
		11.00–12.30	Mathematics	B 28
		2.00– 3.30	Applied Mechanics	A 5
		3.30– 5.00	Applied Mechanics	A 5

PART II—THIRD AND FOURTH YEARS

53	——	7.30– 9.30	Heating and Hot Water Service ...	—
54	——	7.30– 9.30	Ventilation and Air Conditioning ...	—
55	Friday	7.30– 9.30	Mechanics of Fluids	A 7
56	——	7.30– 9.30	Boiler House Work	—

CIVIL ENGINEERING

PART I—FIRST YEAR

Course No.	Day	Time	Subject	Room
6	Monday	9.30–11.00	Applied Mechanics	A 5
		11.00–12.30	Applied Mechanics	A 5
		2.00– 3.30	Heat, Light and Sound	A 11
		3.30– 5.00	Heat, Light and Sound	A 11
	Wednesday	9.30–11.00	Principles of Electricity	A 6
		11.00–12.30	Principles of Electricity	A 6
		2.00 - 3.30	Mathematics	B 10
		3.30– 5.00	Mathematics	B 10
		7.30– 9.30	Engineering Economics	B 8
	Thursday	7.30– 9.30	Machine Drawing	B 11

PART I—SECOND YEAR

7	Monday	9.30–11.00	Principles of Electricity	A 7
		11.00–12.30	Principles of Electricity	A 7
		2.00– 3.30	Heat, Light and Sound	C 6
		3.30– 5.00	Heat, Light and Sound	C 6
		7.30– 9.30	Machine Drawing and Construction ...	B 11
	Wednesday	7.30– 9.30	Engineering Economics	B 8
	Thursday	9.30–11.00	Mathematics	B 28
		11.00–12.30	Mathematics	B 28
		2.00– 3.30	Applied Mechanics	A 5
		3.30– 5.00	Applied Mechanics	A 5

PART II—THIRD YEAR

48	Monday	7.00–10.00	Structural Engineering	D 15
46	Wednesday	7.00– 8.30	Strength of Materials	A 7
47	Wednesday	8.30–10.00	Theory of Structures	A 7
15	Friday	7.00– 8.30	Applied Mechanics	A 5

PART II—FOURTH YEAR

51	Monday	7.00–10.00	Surveying and Levelling	B 29
49	Tuesday	7.00–10.00	Municipal Engineering	A 7
52	Thursday	8.30–10.00	Engineering Drawing, Specification and Quantities	A 5
50	Friday	7.00–10.00	Concrete—Plain and Reinforced ...	D 15

ENGINEERING APPRENTICES' COURSE

FIRST YEAR—GROUPS A, B and C

Course No.	Day	Time	Subject	Room
10	Monday	9.30–11.00	Machine Drawing 1A	B 11
		11.00–12.30	Heat 1A	A 8
		2.00– 3.30	Mechanics 1A	A 5
		3.30– 5.30	Mathematics 1A	B 15
	Friday	9.30–11.00	Mechanics 1B	A 5
			Heat 1C	A 11
		11.00–12.30.	Heat 1B	A 11
			Mathematics 1C	B 28
		2.00– 3.30	Mechanics 1C	A 11
			Machine Drawing 1B	B 11
		3.30– 5.00	Machine Drawing 1C	B 11
			Mathematics 1B	B 28

SECOND YEAR—GROUPS A, B, C and D

11	Monday	9.30–11.00	Heat 2B	A 8
		11.00–12.30	Machine Drawing 2B	B 11
		2.00– 3.30	Mathematics 2B	B 15
		3.30– 5.00	Mechanics 2B	A 5
	Tuesday	9.30–11.00	Mechanics 2D	A 5
			Machine Drawing 2C	B 11
		11.00–12.30	Machine Drawing 2D	B 11
			Mathematics 2C	B 28
		2.00– 3.30	Mathematics 2D	B 29
			Heat 2C	A 11
		3.30– 5.00	Heat 2D	A 11
			Mechanics 2C	A 5
	Thursday	9.30–11.00	Mechanics 2A	A 5
		11.00–12.30	Mathematics 2A	B 27
		2.00– 3.30	Physics 2A	A 11
		3.30– 5.00	Mathematics 2A	B 27

Classes in English are available in the School of Commerce and Retail Distribution, 18 Parnell Square.

Part-time Engineering Technological Course B

THIRD YEAR

12	Monday	9.30–11.00	Applied Mechanics	A 5
		11.00–12.30	Applied Mechanics	A 5
		2.00– 3.30	Applied Heat	A 11
		3.30– 5.00	Applied Heat	A 11
	Wednesday	9.30–11.00	Principles of Electricity	A 6
		11.00–12.30	Principles of Electricity	A 6
		2.00– 3.30	Mathematics	B 10
		3.30– 5.00	Mathematics	B 10
		7.30– 9.30	Engineering Economics	B 8
	Thursday	7.30– 9.30	Machine Drawing	B 11

FOURTH YEAR

Course No.	Day	Time	Subject	Room
13	Monday	9.30–11.00	Principles of Electricity	A 7
		11.00–12.30	Principles of Electricity	A 7
		2.00– 3.30	Applied Heat	C 6
		3.30– 5.00	Applied Heat	C 6
		7.30– 9.30	Machine Drawing and Construction ...	B 11
	Wednesday	7.30– 9.30	Engineering Economics	B 8
	Thursday	9.30–11.30	Mathematics	B 28
		11.00–12.30	Mathematics	B 28
		2.00– 3.30	Applied Mechanics	A 5
		3.30– 5.00	Applied Mechanics	A 5

Fitters and Turners

THIRD YEAR

Course No.	Day	Time	Subject	Teacher	Room
14	Friday ...	9.30–11.00	Fitting and Turning ...	Mr. Hunt	D 7
		11.00–12.30	Fitting and Turning ...	Mr. Hunt	D 7
		2.00– 3.30	Fitting and Turning ...	Mr. Hunt	D 7
		3.30– 5.00	Fitting and Turning ...	Mr. Hunt	D 7

FOURTH YEAR

15	Monday ...	9.30–11.00	Fitting and Turning ...	Mr. Hunt	D 7
		11.00–12.30	Fitting and Turning ...	Mr. Hunt	D 7
		2.00– 3.30	Fitting and Turning ...	Mr. Hunt	D 7
		3.30– 5.00	Fitting and Turning ...	Mr. Hunt	D 7

FIFTH YEAR

16	Tuesday ...	9.30–11.00	Fitting and Turning ...	Mr. Hunt	D.7
		11.00–12.30	Fitting and Turning ...	Mr. Hunt	D 7
		2.00– 3.30	Fitting and Turning ...	Mr. Hunt	D 7
		3.30– 5.00	Fitting and Turning ...	Mr. Hunt	D 7

Part-time Day Course in Fitting and Turning

17	Thursday	9.30–11.00	Fitting and Turning ...	Mr. Hunt	D 7
		11.00–12.30	Fitting and Turning ...	Mr. Hunt	D 7
		2.30– 3.30	Fitting and Turning ...	Mr. Hunt	D 7
		3.30– 5.00	Fitting and Turning ...	Mr. Hunt	D 7

Mechanical Engineering "Sandwich" Courses

SUBJECT	Hours of Instruction per Week			
	1st Year Course No. 18	2nd Year Course No. 19	3rd Year Course No. 20	4th Year Course No. 21
Mathematics	3	3	3	3
Applied Mechanics ...	3	3	3	3
Applied Heat and Heat Engines	3	3	3	3
Principles of Electricity ...	3	3	3	3
Workshop Technology ...	3	3	3	3
Engineering Drawing ...	5½	5½	5½	5½
Powerhouse Practice ...	1½	1½	1½	1½
Workshop Practice... ...	9	9	9	9
English	1	1	1	1
Religious Instruction ...	½	½	½	½

The first and third years attend during the term September to December. The second and fourth years during the term January to March.

EVENING COURSES

MECHANICAL ENGINEERING
Course A

Technological Certificate Courses

ELEMENTARY STAGE

Class No.	Subject	Day	Hour	Room	Teacher
	FIRST YEAR				
1	Machine Drawing	Wednesday	7.30–9.30	B 11	B. E. Fee R. Daly
2	Heat	Tuesday	7.00–8.30	A.11	M. Marren
3	Mechanics	Tuesday	8.30–10.00	A 5	E. P. Dunne
4	Mathematics	Friday	7.00–8.30	A 8	W. J. O'Doherty
	SECOND YEAR:				
5	Machine Drawing	Thursday	7.30–9.30	B 11	B. E. Fee J. Lawless
6	Heat	Tuesday	8.30–10.00	A 11	M. Marren
7	Mechanics	Tuesday	7.00–8.30	A 5	E. P. Dunne
8	Mathematics	Friday	8.30–10.00	A 8	W. J. O'Doherty

INTERMEDIATE STAGE

	THIRD YEAR:				
9	Machine Drawing and Construction	Monday	7.30–9.30	B 11	J. Roche
10	Heat and Heat Engines ...	Friday	7.00–8.30	A 11	J. McCabe
11	Applied Mechanics	Friday	8.30–10.00	A 5	E. P. Dunne
12	Mathematics	Thursday	7.30–9.30	C 7	W. J. O'Doherty

ADVANCED STAGE

	FOURTH YEAR:				
13	Machine Construction and Design	Tuesday	7.00–10.00	B 10	J. C. Fitzpatrick
14	Heat Engines	Friday	8.30–10.00	A 11	J. McCabe
15	Applied Mechanics	Friday	7.00–8.30	A 5	E. P. Dunne
16	Mathematics	Thursday	7.30–9.30	B 10	G. McAuliffe

Higher Technological Stage

	FIFTH YEAR:				
17	Machine Design	Friday	7.00–10.00	B 10	J. C. Fitzpatrick
18	Internal Combustion Engines	Wednesday	7.00–8.30	A 11	F. Drechsler
19	Steam	Wednesday	8.30–10.00	A 11	F. Drechsler
20	Strength of Materials ...	Monday	7.00–8.30	C 7	M. D. McCarthy
21	Mathematics	Monday	8.30–10.00	C 7	M. D. McCarthy
22	Theory of Machines	Tuesday	7.00–8.30	D 15	M. D. McCarthy
	SIXTH YEAR:				
23	Machine Design	Friday	7.00–10.00	B 10	J. C. Fitzpatrick
24	Internal Combustion Engines	Wednesday	7.00–8.30	A 11	F. Drechsler
25	Steam	Wednesday	8.30–10.00	A 11	F. Drechsler
26	Strength of Materials ...	Monday	7.00–8.30	C 7	M. D. McCarthy
27	Mathematics	Monday	8.30–10.00	C 7	M. D. McCarthy
28	Theory of Machines	Tuesday	8.30–10.00	D 15	M. D. McCarthy

MECHANICAL ENGINEERING
Course B

Associate Membership Examination of the Institution of Mechanical Engineers

Class No.	Subject	Day	Hour	Room	Teacher
	PRELIMINARY YEAR:				
	English	Wednesday	7.30–9.30	*	*
29	Physics	Monday	8.30–10.00	A 11	M. Marren
30	Mechanics	Monday	7.00–8.30	A 5	A. Whelan
31	Mathematics	Tuesday	7.00–10.00	C 7	W. J. O'Doherty
	FIRST YEAR:				
32	Engineering Drawing	Wednesday	7.00–10.00	B 10	J. Roche
33	Heat, Light and Sound ...	Monday	7.00–8.30	A 11	
34	Mechanics	Monday	8.30–10.00	A 5	A. Whelan
35	Mathematics	Friday	7.00–8.30	C 7	A. Whelan
36	Principles of Electricity ...	Tuesday	7.00–8.30	A 6	J. Tighe
	SECOND YEAR:				
37	Engineering Drawing	Monday	7.00–10.00	B 10	J. C. Fitzpatrick
38	Heat, Light and Sound ...	Thursday	8.30–10.00	A 11	J. McCabe
39	Mechanics	Thursday	7.00–8.30	A 5	J. McCabe
40	Mathematics	Friday	8.30–10.00	C 7	A. Whelan.
41	Principles of Electricity ...	Tuesday	8.30–10.00	A 6	J. Tighe
	THIRD YEAR				
17	Machine Design	Friday	7.00–10.00	B 10	J. C. Fitzpatrick
18	Internal Combustion Engines	Wednesday	7.00–8.30	A 11	F. Drechsler
19	Steam	Wednesday	8.30–10.00	A 11	F. Drechsler
20	Strength of Materials ...	Monday	7.00–8.30	C 7	M. D. McCarthy
21	Mathematics	Monday	8.30–10.00	C 7	M. D. McCarthy
22	Theory of Machines	Tuesday	7.00–8.30	D 15	M. D. McCarthy
42	Industrial Administration ...	Thursday	7.00–10.00	B 8	W. Lismore
	FOURTH YEAR:				
23	Machine Design	Friday	7.00–10.00	B 10	J. C. Fitzpatrick
24	Internal Combustion Engines	Wednesday	7.00–8.30	A 11	F. Drechsler
25	Steam	Wednesday	8.30–10.00	A 11	F. Drechsler
26	Strength of Materials ...	Monday	7.00–8.30	C 7	M. D. McCarthy
27	Mathematics	Monday	8.30–10.00	C 7	M. D. McCarthy
28	Theory of Machines	Tuesday	8.30–10.00	D 15	M. D. McCarthy
42	Industrial Administration ...	Thursday	7.00–10.00	B 8	W. Lismore

* The class in English will be held in the School of Commerce and Retail Distribution, 18 Parnell Square.

CIVIL ENGINEERING AND STRUCTURAL ENGINEERING

PRELIMINARY YEAR

Class No.	Subject	Day	Hour	Room	Teacher
4	Mathematics	Friday	7.00–8.30	A 8	W. J. O'Doherty
3	Mechanics	Tuesday	8.30–10.00	A 5	E. P. Dunne
2	Heat	Tuesday	7.00–8.30	A 11	M. Marren
1	Machine Drawing	Wednesday	7.30–9.30	B 11	B. E. Fee, R. Daly

FIRST YEAR

8	Mathematics	Wednesday	7.30–9.30	A 8	W. O'Doherty
7	Mechanics	Tuesday	7.00–8.30	A 5	E. P. Dunne
6	Heat	Tuesday	8.30–10.00	A 11	M. Marren
5	Machine Drawing	Thursday	7.30–9.30	B 11	B. E. Fee J. Lawless

SECOND YEAR

43	Mathematics	Wednesday	7.00–10.00	D 15	J. Lenihan
11	Applied Mechanics	Friday	8.00–10.00	A 5	E. P. Dunne
44	Strength of Materials ...	Monday	7.00–8.30	A 7	J. Moynihan
45	Theory of Structures	Monday	8.30–10.00	A 7	J. Moynihan

THIRD YEAR

46	Strength of Materials ...	Wednesday	7.00–8.30	A 7	J. Moynihan
47	Theory of Structures ...	Wednesday	8.30–10.00	A 7	J. Moynihan
15	Applied Mechanics	Friday	7.00–8.30	A 5	E. P. Dunne
48	Structural Engineering ...	Monday	7.00–10.00	D 15	S. Kenny

FOURTH YEAR

49	Municipal Engineering... ...	Tuesday	7.00–10.00	A 7	
50	Concrete—Plain and Reinforced	Friday	7.00–10.00	D 15	H. Clifton
51	Surveying and Levelling ...	Monday	7.00–10.00	B 29	W. O'Brien
52	Drawing, Specification and Quantities	Thursday	8.30–10.00	A 5	H. Clifton
20	Strength of Materials ...	Monday	7.00–8.30	C 7	M. D. McCarthy
48	Structural Engineering ...	Monday	7.00–10.00	D 15	S. Kenny

Note: 1. Fieldwork on Saturday afternoons during late spring and early summer.

MARINE ENGINEERS' CERTIFICATE COURSE

(Part A)

ELEMENTARY STAGE

Class No.	Subject	Day	Hour	Room	Teacher
	FIRST YEAR				
1	Machine Drawing	Wednesday	7.30–9.30	B 11	B. E. Fee, R Daly
2	Heat	Tuesday	7.00–8.30	A 11	M. Marren
3	Mechanics	Tuesday	8.30–10.00	A 5	E. P. Dunne
4	Mathematics	Friday	7.00–8.30	A 8	W. J. O'Doherty
	SECOND YEAR:				
5	Machine Drawing	Thursday	7.30–9.30	B 11	B. E. Fee, J. Lawless
6	Heat	Tuesday	8.30–10.30	A 11	M. Marren
7	Mechanics	Tuesday	7.00–8.30	A 5	E. P. Dunne
8	Mathematics	Friday	8.30–10.00	A 8	W. J. O'Doherty

INTERMEDIATE STAGE

	THIRD YEAR ·				
9	Machine Drawing and Construction	Monday	7.30–9.30	B 11	J. Roche
10	Heat and Heat Engines ...	Friday	7.00–8.30	A 11	J. McCabe
11	Applied Mechanics	Friday	8.30–10.00	A 5	E. P. Dunne
12	Mathematics	Thursday	7.30–9.30	C 7	W. J. O'Doherty

ADVANCED STAGE

	FOURTH YEAR:				
13	Machine Construction and Design	Tuesday	7.00–10.00	B 10	J. C. Fitzpatrick
14	Heat Engines	Friday	8.30–10.00	A 11	J. McCabe
15	Applied Mechanics	Friday	7.00–10.00	A 5	E. P. Dunne
16	Mathematics	Thursday	7.30–9.30	B 10	G. McAuliffe

Note.—Students successful at the Department of Education Advanced Stage Examinations in Applied Mechanics and Heat Engines and the Inter. Stage Examination in Machine Drawing and Construction, Mechanical Engineering Course, are exempt from Part A of the Certificate of Competency Examination (2nd Class) of the Board of Trade.

HEATING, VENTILATING AND AIR CONDITIONING

FIRST YEAR

Class No.	Subject	Day	Hour	Room	Teacher
1	Machine Drawing	Wednesday	7.30–9.30	B 11	B. E. Fee
2	Heat	Tuesday	7.00–8.30	A 8	M. Marren
3	Mechanics	Tuesday	8.30–10.00	A 11	E. P. Dunne
4	Mathematics	Friday	7.00–8.30	A 5	W. J. O'Doherty

SECOND YEAR

5	Machine Drawing	Thursday	7.30–9.30	B 11	B. E. Fee
6	Heat	Tuesday	8.30–10.00	A 11	M. Marren
7	Mechanics	Tuesday	7.00–8.30	A 5	E. P. Dunne
8	Mathematics	Friday	8.30–10.00	A 8	W. J. O'Doherty

THIRD YEAR

9	Machine Draw. and Construction	Monday	7.30–9.30	B 11	J. Roche
10	Heat and Heat Engines ...	Friday	7.00–8.30	A.8	J. McCabe
11	Applied Mechanics	Friday	8.30–10.00	A.5	E. P. Dunne
12	Mathematics	Thursday	7.30–9.30	C 7	W. J. O'Doherty

FOURTH YEAR

13	Machine Construction and Design	Tuesday	7.00–10.00	B 10	J. Fitzpatrick
14	Heat Engines	Friday	8.30–10.00	A 11	J. McCabe
15	Applied Mechanics	Friday	7.00–8.30	A 5	E. P. Dunne
16	Mathematics	Thursday	7.30–9.30	B 10	G. McAuliffe

FIFTH AND SIXTH YEARS

53	Heating and Hot Water Service	——	7.30–9.30	—	——
54	Ventilation and Air Conditioning	——	7.30–9.30	—	——
55	Mechanics of Fluids	Friday	7.00–8.30	A.7	——
56	Boiler House Practice ...	——	7.30–9.30	—	——

MARINE ENGINEERING

FIRST YEAR

Class No	Subject	Day	Hour	Room	Teacher
32	Engineering Drawing	Wednesday	7.00–10.00	B 10	J. Roche
10	Heat and Heat Engines ...	Friday	7.00–8.30	A 11	J. McCabe
11	Applied Mechanics	Friday	8.30–10.00	A 5	E. P. Dunne
12	Mathematics	Thursday	7.30–9.30	C 7	W. J. O'Doherty
36	Principles of Electricity ...	Tuesday	8.30–10.00	A 6	J. Tighe

SECOND YEAR

37	Engineering Drawing ...	Monday	7.00–10.00	B 10	J. C. Fitzpatrick
14	Heat Engines	Friday	8.30–10.00	A 11	J. McCabe
15	Applied Mechanics	Friday	7.30–9.30	A 5	E. P. Dunne
16	Mathematics	Thursday	7.30–9.30	B 10	G. McAuliffe
41	Principles of Electricity ...	Tuesday	7.00–8.30	A 6	J. Tighe

THIRD YEAR

18	Internal Combustion Engines	Wednesday	7.00–8.30	A 11	F. Drechsler
19	Steam	Wednesday	8.30–10.00	A 11	F. Drechsler
20	Strength of Materials ...	Monday	7.00–8.30	C 7	M. D. McCarthy
55	Mechanics of Fluids	Friday	7.00–8.30	A 7	
	or				
17	Machine Design	Friday	7.00–10.00	B 10	J. C. Fitzpatrick
	or				
22	Theory of Machines ...	Tuesday	7.00–8.30	D 15	M. D. McCarthy
42	Industrial Administration ...	Thursday	7.00–10.00	B 8	W. Lismore

FOURTH YEAR

24	Internal Combustion Engines	Wednesday	7.00–8.30	A 11	F. Drechsler
25	Steam	Wednesday	8.30–10.00	A 11	F. Drechsler
26	Strength of Materials ...	Monday	7.00–8.30	C 7	M. D. McCarthy
55	Mechanics of Fluids	Friday	7.00–8.30	A 7	
	or				
23	Machine Design	Friday	7.00–10.00	B 10	J. C. Fitzpatrick
	or				
28	Theory of Machines	Tuesday	8.30–10.00	D 15	M. D. McCarthy
42	Industrial Administration ...	Thursday	7.00–10.00	B 8	W. Lismore

MOTOR CAR ENGINEERING

Technological Course

FIRST YEAR

Class No.	Subject	Day	Time	Room	Teacher
30	Mechanics	Monday	7.00–8.30	A 5	A. Whelan
29	Physics	Monday	8.30–10.00	A 11	M. Marren
152	Motor Engineering	Thurs	7.00–8.30	B 15	T. Giblin
4	Mathematics	Friday	7.00–8.30	A 8	W. J. O'Doherty
1	Machine Drawing	Wednesday	7.30–9.30	B 11	B. E. Fee, R. Daly
—	English*	—		—	

SECOND YEAR

7	Mechanics	Tuesday	7.00–8.30	A 5	E. P. Dunne
6	Heat	Tuesday	8.30–10.00	A 11	M. Marren
160	Motor Engineering	Mon.	7.00–8.30	B 15	T. Giblin.
8	Mathematics	Friday	8.30–10.00	A 8	W. J. O'Doherty
5	Machine Drawing	Thursday	7.30–9.30	B 11	B. E. Fee,
—	English*				J. Lawless

THIRD YEAR

11	Applied Mechanics	Friday	8.30–10.00	A 5	E. P. Dunne
10	Heat and Heat Engines ...	Friday	7.00–8.30	A 11	J. McCabe
164	Motor Engineering	Tuesday	7.30–9.30	B 15	J. N. Brooks
12	Mathematics	Thursday	7.30–9.30	C 7	W. J. O'Doherty

FOURTH YEAR

15	Applied Mechanics	Friday	7 00–8.30	A 5	E. P. Dunne
14	Heat Engines	Friday	8.30–10.00	A 11	J. McCabe
168	Motor Engineering	Wednesday	7.30–9.30	B 15	J. N. Brooks

FIFTH YEAR

172	Motor Engineering	Friday	7.00–10.00	B 15	J. N. Brooks
173	Workshop Organisation and Administration	—	—	—	——

* Class in English is conducted in the School of Commerce and Retail Distribution, 18 Parnell Square.

AERONAUTICAL ENGINEERING

ASSOCIATE FELLOWSHIP EXAMINATIONS OF THE ROYAL AERONAUTICAL SOCIETY

FIRST YEAR

Class No.	Subject	Day	Hour	Room	Teacher
33	Heat, Light and Sound ...	Mon.day	7.00– 8.30	A 11	——
34	Mechanics	Monday	8.30–10.00	A 5	A Whelan
35	Mathematics	Friday	7.00–8.30	C 7	A. Whelan
36	Principles of Electricity ...	Tuesday	7.00–8.30	A 6	J. Tighe

SECOND YEAR

38	Heat, Light and Sound ...	Thursday	8.30–10.00	A 5	J. McCabe
39	Mechanics	Thursday	7.00—8.30	A 11	J. McCabe
40	Mathematics	Friday	8.30–10.00	C 7	A Whelan
41	Principles of Electricity ...	Tuesday	8.30–10.00	A 6	J. Tighe

THIRD YEAR

17	Machine Design	Friday	7.00–10.00	B 10	J. C. Fitzpatrick
18	Internal Combustion Engines	Wednesday	7.00–8.30	A 11	F. Drechsler
20	Strength of Materials ...	Monday	7.00–8.30	C 7	M. D. McCarthy
22	Theory of Machines	Tuesday	7.00–8.30	D 15	M. D. McCarthy
42	Industrial Administration ...	Thursday	7.00–10.00	B 8	W. Lismore

FOURTH YEAR

23	Machine Design	Friday	7.00–10.00	B 10	J. C. Fitzpatrick
24	Internal Combustion Engines	Wednesday	7.00–8.30	A 11	F. Drechsler
26	Strength of Materials ...	Monday	7.00–8.30	C7	M. D. McCarthy
28	Theory of Machines	Tuesday	8.30–10.00	D 15	M. D. McCarthy
42	Industrial Administration ...	Thursday	7.00–10.00	B 8	W. Lismore

AERO-MECHANICS' LICENCE COURSES

FIRST YEAR

Class No.	Subject	Licence Category	Day	Time	Teacher	Room
141	Engineering Drawing, Materials & Processes	A & C	Mon.	7.00–10.0	D McMahon	B 13
142	Aero-Engineering ...	A & C	Tues.	7.00–10.0	J. Humphreys	C6
143	Aero-Engineering ...	A & C	Thur.	7.00–10.0	T. McInerney	C 6

SECOND YEAR ("DC 3" and "PRATT & WHITNEY")

144	Aero-Engineering ...	A & C	Wed.	7.00–10.0	R. O'Shea	A 8
145	Aero-Engineering ...	A	Mon.	7.00–10.0	J. Humphreys	A 8
146	Aero-Engineering ...	C	Friday	7.00–10.0	T. McInerney	C 6

SECOND YEAR (VISCOUNT and TURBO-PROP.)

147	Aero-Engineering ...	A & C	Mon.	7.00–10.0	P. J. Taylor	C 6
148	Aero-Engineering ...	A	Thur.	7.00–10.0	P. Taylor	A 7
149	Aero-Engineering ...	C	Wed.	7.00–10.0	T. McInerney	C 6

DIESEL MAINTENANCE

Class No.	Subject	Day	Time	Teacher	Room
133	Diesel Maintenance—Theory I	Friday	8.30–10.00	J. Boylan	A 6
134	Diesel Maintenance—Practical I	Tuesday	7.00–10.00	T. McSweeney	C 15
135	Diesel Maintenance—Theory II	Wednesday	8.30–10.00	J. Boylan	A 6
136	Diesel Maintenance—Practical II	Thursday	7.00–10.00	T. McSweeney	C 15

WELDING TECHNOLOGY

137	Welding Technology	Friday	7.30–9.30	—	C 9

STRUCTURAL STEELWORK

138	Theory and Drawing	—	7.30–9.30	Mr. Shatwell	—
139	Practical	Monday	7.30–9.30	Mr. McGloughlin	D 10

TRADE CERTIFICATE COURSES

(Trade Apprentices and Mechanics)

Fitters' Work and Turners' Work

JUNIOR STAGE

Class No.	Subject	Day	Hour	Room	Teacher
	FIRST YEAR				
60	Fitting and Turning ... 1 A	Thursday	7.30–9.30	D 5	W. De Renzy
61	Workshop Theory ... 1 A and	Tuesday	8.35–9.35	C 5	D. Aungier
62	Workshop Calculations 1 A	Tuesday	7.30–8.30	C 2	J. J. Hughes
63	Mechanical Drawing 1 A	Wednesday	7.30–9.30	B 13	J. Roche
64	Fitting and Turning ... 1 B	Wednesday	7.30–9.30	D 5	W. de Renzy
65	Workshop Theory ... 1 B and	Tuesday	7.30–8.30	C 5	D. Aungier
66	Workshop Calculations 1 B	Tuesday	8.35–9.35	C 2	J. J. Hughes
67	Mechanical Drawing 1 B	Friday	7.30–9.30	B 13	J. Roche
68	Fitting and Turning ... 1 C	Tuesday	7.30–9.30	D 5	R. Tynan
69	Workshop Theory ... 1 C and	Thursday	8.35–9.35	C 5	D. Aungier
70	Workshop Calculations 1 C	Thursday	7.30–8.30	C 2	J. J. Hughes
67	Mechanical Drawing 1 C	Friday	7.30–9.30	B 13	J. Roche
71	Fitting and Turning ... 1 D	Monday	7.30–9.30	D 5	R. Tynan
72	Workshop Theory ... 1 D and	Thursday	7.30–8.30	C 5	D. Aungier
73	Workshop Calculations 1 D	Thursday	8.35–9.35	C 2	J. J. Hughes
63	Mechanical Drawing 1 D	Wednesday	7.30–9.30	B 13	J. Roche
	SECOND YEAR:				
74	Fitting and Turning ... 2 A	Tuesday	7.30–9.30	D 7	G. Aungier, W. De Renzy
75	Workshop Theory ... 2 A and	Wednesday	7.30–8.30	C 5	J. Gribben
76	Workshop Calculations 2 A	Wednesday	8.35–9.35	C 2	J. J. Hughes
77	Mechanical Drawing 2 A	Friday	7.30–9.30	B 11	B. E. Fee, J. Lawless
78	Fitting and Turning ... 2 B	Monday	7.30–9.30	D 7	G. Aungier, W. De Renzy
79	Workshop Theory ... 2 B and	Wednesday	8.35–9.35	C 5	J. Gribben
80	Workshop Calculations 2 B	Wednesday	7.30–8.30	C 2	J. J. Hughes
81	Mechanical Drawing 2 B	Thursday	7.30–9.30	B 13	J. Roche
82	Fitting and Turning ... 2 C	Thursday	7.30–9.30	D 7	G. Aungier, R. Tynan
79	Workshop Theory 2 C and ...	Wednesday	8.35–9.35	C 5	J. Gribben
80	Workshop Calculations 2 C	Wednesday	7.30–8.30	C 2	J. J. Hughes
77	Mechanical Drawing 2 C	Friday	7.30–9.30	B 11	B. E. Fee, J. Lawless

Trade Certificate Courses (continued)

SENIOR STAGE

Class No.	Subject	Day	Hour	Room	Teacher
	THIRD YEAR:				
83	Fitting and Turning	Wednesday	7.30–9.30	D 7	G. Aungier, R. Tynan
84	Workshop Theory ... ... and	Monday	7.30–8.30	C 5	R. Stephen
85	Workshop Calculations ...	Monday	8.35–9.35	C 2	J. J. Hughes
86	Machine Drawing	Tuesday	7.30–9.30	B 13	J. Roche
	FOURTH YEAR:				
87	Fitting and Turning	Friday	7.30–9.30	D 7	G. Aungier, R. Tynan
88	Workshop Theory ... ... and	Monday	8.35–9.35	C 5	R. Stephens
89	Workshop Calculations ...	Monday	7.30–8.30	C 2	J. J. Hughes
90	Machine Drawing	Tuesday	7.30–9.30	B 11	B. Fee J. Lawless
	FIFTH YEAR:				
87	Fitting and Turning	Friday	7.30–9.30	D.7	G. Aungier, R. Tynan

Patternmaking

	FIRST YEAR:				
91, 92	Patternmaking	Tues, Thur.	7.30–9.30	B 14	E. J. Kennedy
93	Workshop Drawing	Monday	7.30–9.30	B 14	E. J. Kennedy
	SECOND YEAR:				
91, 92	Patternmaking	Tues, Thur.	7.30–9.30	B 14	E. J. Kennedy
93	Workshop Drawing	Monday	7.30–9.30	B 14	E. J. Kennedy
	THIRD YEAR:				
91, 92	Patternmaking	Tues, Thur.	7.30–9.30	B 14	E. J. Kennedy
93	Workshop Drawing	Monday	7.30–9.30	B 14	E. J. Kennedy

Foundry Work

	IRONMOULDING				
94	Ironmoulding—Practical ...	Friday	7.30–9.30	D 4	T. C. Smith
95	Foundry Work—Theory ...	Thursday	7.30–9.30	D 4	T. C. Smith
63	Mechanical Drawing ...	Wednesday	7.30–9.30	B 13	J. Roche
	BRASSMOULDING				
96	Brassmoulding—Practical ...	Monday	7.30–9.30	D 4	C. Maples
97	Brassmoulding—Theory ...	Tuesday	7.30–9.30	D 4	C. Maples
63	Mechanical Drawing ...	Friday	7.30–9.30	B 13	J. Roche

Brass Finishing

Class No.	Subject	Day	Hour	Room	Teacher
	FIRST YEAR:				
100	Brassfinishing—Practical ...	Monday	7.30–9.30	C 10	M. O'Carroll
69	Workshop Theory ... ... and	Thursday	8.35–9.35	C 5	D. Aungier
70	Workshop Calculations	Thursday	7.30–8.30	C 2	J. J. Hughes
63	Mechanical Drawing ...	Wednesday	7.30–9.30	B 13	J. Roche
	SECOND YEAR:				
101	Brassfinishing—Practical (Eng.)	Friday	7.30–9.30	C 10	M. O'Carroll
102	Brassfinishing Practical—(Art)	Thursday	7.30–9.30	C 10	——
79	Workshop Theory ... ... and	Wednesday	8.35–9.35	C 5	J. Gribben
80	Workshop Calculations ...	Wednesday	7.30–8.30	C 2	J. J. Hughes
81	Mechanical Drawing ...	Thursday	7.30–9.30	B 13	J. Roche
	THIRD YEAR:				
101	Brassfinishing—Practical (Eng.)	Friday	7.30–9.30	C 10	M. O'Carroll
102	Brassfinishing—Practical (Art)	Thursday	7.30–9.30	C 10	——
84	Workshop Theory ... ... and	Monday	7.30–8.30	C 5	J. Gribben
85	Workshop Calculations ...	Monday	8.35–9.35	C 2	J. J. Hughes
86	Machine Drawing	Tuesday	7.30–9.30	B 13	J. Roche

Students are recommended to add a class in Free Drawing and Design.

Boilermaking

	FIRST YEAR				
103	Boilermaking Lectures and Drawing I.	Wednesday	7.30–9.30	C 22	E. Bennett
104	Boilermaking, Practical I. ...	Tuesday	7.30–9.30	D 10	E. Bennett.
	SECOND YEAR				
105	Boilermaking, Lectures and Drawing II	Monday	7.30–9.30	C 22	E. Bennett
106	Boilermaking, Practical II.	Thursday	7.30–9.30	D 10	E. Bennett

Students are recommended to add a suitable class in Mathematics.

Smithwork and Art Ironwork

107	Smithwork , Practical ...	Wednesday	7.30.–9.30	D 10	A. J. Ward
108	Art Ironwork, Practical ...	Friday	7.30–9.30	D 10	A. J. Ward
63/67	Machine Drawing	Friday or Wednesday	7.30–9.30	B 13	J. Roche

Students are recommended to add a class in Design

Trade Certificate Courses (continued)

Metal Plate Work

Class No.	Subject	Day	Hour	Room	Teacher
	FIRST YEAR:				
110	Metal Plate Work, Lectures and Drawing 1	Monday	7.30–9.30	B 27	J. Bryan
111	Metal Plate Work, Practical 1	Tuesday	7.30–9.30	D 2	A. O'Toole
					J. Bryan
	SECOND YEAR:				
112	Metal Plate Work, Lectures and Drawing 2	Tuesday	7.30–9.30	B 27	C. Devine
113	Metal Plate Work, Practical 2	Wednesday	7.30–9.30	D 2	A. O'Toole
					M. Kane
	THIRD YEAR:				
114	Metal Plate Work, Lectures and Drawing 3	Wednesday	7.30–9.30	B 27	J. Bryan
115	Metal Plate Work, Practical 3	Thursday	7.30–9.30	D 2	M. Kane
					C. Devine
	FOURTH YEAR:				
116	Metal Plate Work, Lectures and Drawing 4	Thursday	7.30–9.30	B 27	A. O'Toole
117	Metal Plate Work, Practical 4	Friday	7.30–9.30	D 2	M. Kane
					C Devine
	FIFTH YEAR:				
118	Metal Plate Work, Lectures and Drawing 5	Friday	7.30–9.30	B 27	A. O'Toole
119	Metal Plate Work, Practical 5	Monday	7.30–9.30	D 2	A. O'Toole
					M. Kane

Oxy-Acetylene and Electric Welding

	FIRST YEAR				
120	Oxy-Acetylene and Electric Welding ... ... 1 A	Monday	7.30–9.30	D 1	P. Cowley
121	Welding Theory 1 A	Thursday	7.00–8.30	A 11	F. McCarroll
122	Oxy-Acetylene and Electric Welding ... ... 1 B	Tuesday	7.30–9.30	D 1	P. Cowley
123	Welding Theory ... 1 B	Thursday	7.00–8.30	A 11	F. McCarroll
	SECOND YEAR:				
124	Oxy-Acetylene and Electric Welding ... ... 2 A	Wednesday	7.30–9.30	D 1	P. Cowley
125	Welding Theory ... 2 A	Friday	7.30–9.30	C 5	F. McCarroll
126	Oxy-Acetylene and Electric Welding ... ... 2 B	Thursday	7.30–9.30	D 1	P. Cowley
127	Welding Theory ... 2 B	Friday	7.30–9.30	C 5	F. McCarroll
	THIRD and FOURTH YEARS:				
128	Oxy-Acetylene and Electric Welding	Friday	7.30–9.30	D 1	P. Cowley
129	Welding Theory	Wednesday	7.30–9.30	D 4	F. McCarroll

PHYSICAL TRAINING (Men)

130	Physical Training Div. I ...	Monday	7.30–9.30	C 9	M. C. Doogan
131	Physical Training Div. II. ...	Tuesday	7.30–9.30	C 9	M. C. Doogan
132	Physical Training Div. III ...	Wednesday	7.30–9.30	C 9	M. C. Doogan

APPRENTICE MOTOR MECHANICS

Evening Courses

Class No.	Subject	Day	Hour	Room	Teacher
	FIRST YEAR:				
150	Garage Practice	Friday	7.30–9.30	C 15	——
151	Workshop Practice	Wednesday	7.30–9.30	C 10	——
152	Motor Engineering (Lecture) A	Thursday	7.00–8.30	B 15	T. Giblin
153	Electricity ... ... A	Thursday	8.30–10.00	A 6	J. Tighe
154	Motor Engineering (Lecture) B.	Thursday	8.30–10.00	B 15	T. Giblin
155	Electricity ... ... B	Thursday	7.00–8.30	A 6	J. Tighe
	SECOND YEAR:				
156	Garage Practice	Wednesday	7.30–9.30	C 15	R. J. Dowling
157	Workshop Practice	Tuesday	7.30–9.30	D8	——
158	Motor Engineering (Lecture) A	Monday	8.30–10.00	B 15	T. Giblin
159	Electricity ... ... A	Monday	7.00–8.30	A 6	J. Tighe
160	Motor Engineering (Lecture) B	Monday	7.00–8.30	B 15	T. Giblin
161	Electricity ... ... B	Monday	8.30–10.00	A 6	J. Tighe
	THIRD YEAR:				
162	Garage Practice	Monday	7.30–9.30	C 15	R. J. Dowling
163	Workshop Practice	Thursday	7.30–9.30	D 8	——
164	Motor Engineering (Lecture)	Tuesday	7.30–9.30	B 15	J. N. Brooks
165	Automobile Electricity ...	Wednesday	7.00–8.30	A 6	J. Bryan
	FOURTH YEAR:				
166	Garage Practice	Monday	7.30–9.30	C 15	R. J. Dowling
167	Workshop Practice	Thursday	7.30–9.30	D 8	——
168	Motor Engineering (Lecture) ...	Wednesday	7.30–9.30	B 15	J. N. Brooks
169	Automobile Electricity ...	Friday	7.00–8.30	A 6	J. Bryan
	FIFTH YEAR:				
170	Garage Practice	Monday	7.30–9.30	C 15	R. J. Dowling
171	Workshop Practice	Thursday	7.30–9.30	D 8	——
172	Motor Engineering (Lecture) ...	Friday	7.00–10.00	B 15	J. N. Brooks

Students entering this Course must have satisfactorily completed two years in a Day Junior Technical School or two years of an approved evening Course.

PART-TIME DAY AND EVENING COURSES

Apprentice Motor Mechanics—Course A

Class No.	Subject	Day	Hour	Room	Teacher
	FIRST YEAR:				
	Garage Practice *or*	Friday	9.30–12.30	C 15	——
	Workshop Practice	Friday	9.30–12.30	D 8	T. Giblin
	Motor Engineering Lecture and Technical Drawing ...	Friday	2.00–5.00	B 15	——
155	Electricity	Thursday	7.00–8.30	A 6	J. Tighe
77	Mechanical Drawing ...	Wednesday	7.30–9.30	B 13	J. Roche
	SECOND YEAR:				
	Garage Practice *or*	Monday	2.00–5.00	C 15	T. Giblin
	Workshop Practice	Monday	2.00–5.00	D 8	S. Guirke
	Motor Engineering Lecture and Technical Drawing ...	Monday	9.30–12.30	B 15	——
159	Electricity	Monday	7.00–8.30	A 6	J. Tighe
81	Mechanical Drawing ...	Thursday	7.30–9.30	B 13	J. Roche
	THIRD YEAR:				
	Garage Practice *or*	Thursday	9.30–12.30	C 15	R. J. Dowling
	Workshop Practice	Thursday	9.30–12.30	D 8	S. Guirke
	Motor Engineering Lecture and Technical Drawing	Thursday	2.00–5.00	B 15	——
6	Heat	Tuesday	8.30–10.00	A 11	M. Marren
7	Mechanics	Tuesday	7.00–8.30	A 5	E. P. Dunne
81	Machine Drawing	Thursday	7.30–9.30	B 13	J. Roche
	FOURTH YEAR:				
	Garage Practice *or*	Wednesday	9.30–12.30	C 15	R. J. Dowling
	Workshop Practice	Wednesday	9.30–12.30	D 8	S. Guirke
	Motor Engineering Lecture and Technical Drawing ...	Wednesday	2.00–5.00	B 15	——
10	Heat and Heat Engines ...	Friday	7.00–8.30	A 11	J. McCabe
11	Applied Mechanics	Friday	8.30–10.00	A 5	E. P. Dunne
86	Machine Drawing	Tuesday	7.30–9.30	B 13	J. Roche
	FIFTH YEAR:				
	Garage Practice *or*	Tuesday	9.30–12.30	C 15	R. J. Dowling
	Workshop Practice	Tuesday	9.30–12.30	D 8	S. Guirke
	Motor Engineering Lecture and Technical Drawing ...	Tuesday	2.00–5.00	B 15	—
10	Heat and Heat Engines ...	Friday	7.00–8.30	A 11	J. McCabe
11	Applied Mechanics	Friday	8.30–10.00	A 5	E. P. Dunne
90	Machine Drawing	Tuesday	7.30–9.30	B 11	B. E. Fee

Apprentice Motor Mechanics—Course B

Class No.	Subject	Day	Hour	Room	Teacher
	FIRST YEAR:				
	Garage Practice *or*	Friday	2.00–5.00	C 15	R. J. Dowling
	Workshop Practice	Friday	2.00–5.00	D 8	—
152	Motor Engineering, Lecture	Thursday	7.00–8.30	B 15	T. Giblin
153	Electricity	Thursday	8.30–10.00	A 6	J. Tighe
	Garage Practice *or*	Friday	9.30–12.30	C 15	
	Workshop Practice	Friday	9.30–12.30	D 8	T. Giblin
154	Motor Engineering Lecture ...	Thursday	8.30–10.00	B 15	T. Giblin
155	Electricity	Thursday	7.00–8.30	A 6	J. Tighe
	SECOND YEAR: ...				
	Garage Practice *or* ...	Monday	9.30–12.30	C 15	R. J. Dowling
	Workshop Practice	Monday	9.30–12.30	D 8	—
158	Motor Engineering Lecture ...	Monday	8.30–10.00	B 15	T. Giblin
159	Electricity	Monday	7.30–8.30	A 6	J. Tighe
	Garage Practice *or*	Monday	9.30–12.30	C 15	R. J. Dowling
	Workshop Practice	Monday	9.30–12.30	D 8	—
158	Motor Engineering Lecture ...	Monday	8.30–10.00	B 15	T. Giblin
159	Electricity	Monday	7.00–8.30	A 6	J. Tighe
	Garage Practice *or*	Monday	9.30–12.30	C 15	T. Giblin
	Workshop Practice	Monday	9.30–12.30	D 8	S. Guirke
160	Motor Engineering Lecture ...	Monday	7.00–8.30	B 15	T. Giblin
161	Electricity	Monday	8.30–10.00	A 6	J. Tighe
	Garage Practice *or*	Friday	2.00–5.00	C 15	R. J. Dowling
	Workshop Practice	Friday	2.00–5.00	D 8	—
160	Motor Engineering Lecture ...	Monday	7.00–8.30	B 15	T. Giblin
161	Electricity	Monday	8.30–10.00	A 6	J. Tighe

Apprentice Motor Mechanics—Course B (continued)

Class No.	Subject	Day	Hour	Room	Teacher
	THIRD YEAR:				
	Garage Practice *or*	Wednesday	2.00–5.00	C 15	R. J. Dowling
	Workshop Practice	Wednesday	2.00–5.00	D 8	T. Giblin
164	Motor Engineering Lecture ...	Tuesday	7.30–9.30	B 15	J. N. Brooks
165	Automobile Electricity ...	Wednesday	7.00–8.30	A 6	J. Bryan
	Garage Practice *or*	Thursday	9.30–12.30	C 15	R. J. Dowling
	Workshop Practice	Thursday	9.30–12.30	D 8	S. Guirke
164	Motor Engineering Lecture ...	Tuesday	7.30–9.30	B 15	J. N. Brooks
165	Automobile Electricity ...	Wednesday	7.00–8.30	A 6	J. Bryan
	Garage Practice *or*	Thursday	2.00–5.00	C 15	R. J. Dowling
	Workshop Practice	Thursday	2.00–5.00	D 8	S. Guirke
164	Motor Engineering Lecture ...	Tuesday	7.30–9.30	B 15	J. N. Brooks
165	Automobile Electricity ...	Wednesday	7.00–8.30	A 6	J. Bryan
	Garage Practice *or*	Thursday	2.00–5.00	C 15	R. J. Dowling
	Workshop Practice	Thursday	2.00–5.00	D 8	S. Guirke
164	Motor Engineering Lecture ...	Tuesday	7.30–9.30	B 15	J. N. Brooks
165	Automobile Electricity ...	Wednesday	7.00–8.30	A 6	J. Bryan
	FOURTH YEAR:				
	Garage Practice *or*	Wednesday	9.30–12.30	C 15	R. J. Dowling
	Workshop Practice	Wednesday	9.30–12.30	D 8	T. Giblin
168	Motor Engineering Lecture ...	Wednesday	7.30–9.30	B 15	J. N. Brooks
169	Automobile Electricity ...	Friday	7.00–8.30	A 6	J. Bryan
	Garage Practice *or*	Wednesday	9.30–12.30	C 15	R. J. Dowling
	Workshop Practice	Wednesday	9.30–12.30	D 8	T. Giblin.
168	Motor Engineering Lecture ...	Wednesday	7.30–9.30	B 15	J. N. Brooks
169	Automobile Electricity ...	Friday	7.00–8.30	A 6	J. Bryan
	Garage Practice *or*	Wednesday	2.00–5.00	C 15	R. J. Dowling
	Workshop Practice	Wednesday	2.00–5.00	D 8	T. Giblin
168	Motor Engineering Lecture ...	Wednesday	7.30–9.30	B 15	J. N. Brooks
169	Automobile Electricity ...	Friday	7.00–8.30	A 6	J. Bryan
	FIFTH YEAR:				
	Garage Practice *or*	Tuesday	9.30–12.30	C 15	R. J. Dowling
	Workshop Practice	Tuesday	9.30–12.30	D 8	S. Guirke
	Garage Practice *or*	Tuesday	2.00–5.00	C 15	S. Guirke
	Workshop Practice	Tuesday	2.00–5.00	D 8	T. Giblin
172	Motor Engineering Lecture ...	Friday	7.00–10.00	B 15	J. N. Brooks
	Garage Practice *or*	Tuesday	2.00–5.00	C 15	S. Guirke
	Workshop Practice	Tuesday	2.00–5.00	D 8	T. Giblin
172	Motor Engineering Lecture ...	Friday	7.00–10.00	B 15	J. N. Brooks