1937

Architecture, Building and Furniture Trades: Prospectus of Courses Session 1937-38

City of Dublin Vocational Education Committee

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City of Dublin
Vocational Education Committee

scoileanna ceárd-oideacáis
City of Dublin Technical Schools

Session 1937-38

Architecture, Building
and Furniture Trades

PROSPECTUS OF COURSES

BOLTON STREET :: RINGSSEND
1937—SEPT. 6, MONDAY

Whole-time Day Schools open for enrolment.

Day Apprentice School resumes work.

SEPT. 13, MONDAY

Whole-time Day Schools commence work and Part-time Day Classes open for enrolment.

SEPT. 20, MONDAY

Evening Classes open for enrolment and Part-time Day Classes commence work.

SEPT. 27, MONDAY

Evening Classes commence work.

NOV. 1, MONDAY

All Saints’ Day. Whole-time Day Schools—exception Day Apprentice School and Special Classes—closed.

DEC. 3, WEDNESDAY

Feast of Immaculate Conception. Whole-time Day Schools—excepting Day Apprentice School and Special Classes—closed.

DEC. 10, SATURDAY

Teaching work in Whole-time Day Schools ceases (excepting Day Apprentice School and Special Classes).

DEC. 13, MONDAY

Term Examinations in Whole-time Day Schools commence.

DEC. 18, SATURDAY

Schools close for Christmas Vacation.

1938—JAN. 3, MONDAY

All Classes resume work after Christmas Vacation.

JAN. 6, THURSDAY

Feast of Epiphany. Whole-time Day Schools—excepting Day Apprentice School and Special Classes—closed.

MAR. 4, FRIDAY

Land Surveying and Levelling Course begins.

MAR. 17, THURSDAY

St. Patrick’s Day. Schools closed.

MAR. 19, SATURDAY

Land Surveying Field Work begins. Motor Car Driving Lessons begin.

APR. 12, TUESDAY

Last meeting of classes before Easter Vacation.

APR. 20, WEDNESDAY

All classes resume work after Easter Vacation.

APR. 25, FRIDAY

Evening Classes close—excepting Special Classes.

MAY 2, MONDAY

Evening Examinations commence.

MAY 26, THURSDAY

Ascension Day. Whole-time Day Schools—excepting Day Apprentice School and Special Classes—closed.

JUNE 6, MONDAY

Whit-Monday. Schools closed.

JUNE 16, THURSDAY

Feast of Corpus Christi. Whole-time Day Schools—excepting Day Apprentice School and Special Classes—closed.

JUNE 25, SATURDAY

Teaching work ceases in Whole-time Day Schools—excepting Day Apprentice School and Special Classes.

JUNE 27, MONDAY

Sessional Examinations commence in Whole-time Day Schools—excepting Day Apprentice School and Special Classes.

JUNE 29, WEDNESDAY

Feast of Saints Peter and Paul. Whole-time Day Schools—excepting Day Apprentice School and Special Classes—closed.

JULY 2, SATURDAY

Whole-time Day Schools and Part-time Domestic Economy Classes close—excepting Day Apprentice School and Special Classes.

JULY 16, SATURDAY

Day Apprentice School and Special Classes close.

CITY OF DUBLIN

VOCATURAL EDUCATION COMMITTEE

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CHIEF EXECUTIVE OFFICER.

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COUNCILLOR D. D. HEALY, P.C., 40 Usher’s Quay.
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L. G. SHERLOCK, LL.D., 21 Parliament Street.
MRS. Maud Atken, Dungaoithe, Sandyford

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Mr. L. BEIRLEY.
Mr. J. SHEERIN.
Mr. SLEATOR.

MASTER TAILORS.

Mr. W. O’CONNOR.
Mr. W. Scott.
Mr. R. Boyd.

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<td>- GEOMETRICAL HANDRAILING</td>
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<td>- MANUAL INSTRUCTION (WOODWORK)</td>
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<td>- MECHANICAL DRAWING, PATTERN CONSTRUCTION AND GEOMETRICAL DESIGN</td>
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<td>- PLAN DRAWING AND READING</td>
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<td>- IRISH</td>
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GENERAL NOTICES

Entrance Examinations, Fees, Regulations

Students, on enrolment, may be required, at the discretion of the Principal to sit for an Entrance Examination. Introductory Courses are provided for those not sufficiently qualified to enter a full Technological Course.

FEES FOR SESSION

<table>
<thead>
<tr>
<th>Course Type</th>
<th>s.</th>
<th>d.</th>
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<tbody>
<tr>
<td>Introductory and Preparatory Courses</td>
<td>2</td>
<td>6</td>
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<tr>
<td>General Courses</td>
<td>7</td>
<td>6  per Course.</td>
</tr>
<tr>
<td>Additional Course Subjects</td>
<td>2</td>
<td>6 each.</td>
</tr>
<tr>
<td>Single Subjects</td>
<td>7</td>
<td>6 each.</td>
</tr>
<tr>
<td>Land Surveying and Levelling</td>
<td>10</td>
<td>0 for Course.</td>
</tr>
</tbody>
</table>

(Of approximately Twelve Weeks)

Fees cannot be refunded.

Students who through obtaining employment are unable to continue in attendance at the Whole-time Day School Courses of the City of Dublin Vocational Education Committee will be admitted to approved evening school courses, without fees, up to the value of the Day School Fees paid.

The same concession may be extended to other students who have left the Day School Courses, if the reasons for their non-attendance at the Day School Classes are considered by the Principal to be adequate.

Applicants for admission to Courses or Classes must be at least fourteen years of age.

The Trade Classes are primarily intended for those engaged in the several trades. Others will not be admitted before November 5th, and then only if there be room, and on payment of a quadruple fee.

A Laboratory or Workshop Class can only be taken in conjunction with an approved Lecture or Drawing Class. No student will be allowed to continue in a Laboratory or Workshop Class if his attendance at the Lecture or Drawing Class is unsatisfactory.

A Class may be discontinued if an insufficient number of students join or attend; the number of evenings allotted weekly to a Class may be reduced if there be a falling off in the attendance. The right is reserved to close Classes for any other reason whatever.

Students must make good any damage done by them. Strict order must be observed at all times within the precincts of the Schools.

A complete course of study in any section generally occupies about three years.

Where possible, separate classes for journeymen will be arranged in trade subjects.

The Courses as set out are not to be considered as arbitrary, the subjects may, with the sanction of the Principal, be varied to suit the needs of individual applicants.

Special Day Courses are provided for those actually engaged in trades—arrangements being made with employers whereby their apprentices can attend the School six or more hours weekly.

SCHOOL CHOIRS AND DRAMATIC CLASSES.

The Committee is prepared to facilitate the organisation of Choral and Dramatic Societies and similar activities. Students interested are invited to communicate with the Principal of the Institute in which they are enrolled.
SCHOOLS OF Architecture, Building and Furniture Trades

AT

TECHNICAL INSTITUTES

BOLTON STREET

AND RINGSSEND
TEACHING STAFF

WILLIAM DAVIDSON, F.B.L.C.C., Principal.

Aloysius Hanway.  
William D. Horgan, B.A.  
Henry C. Clifton, B.A.  
R. C. Grimes, A.B.L.C.C.  
Joseph Clarke.  
W. L. Whelan.  
James J. Burke.  
John J. Doyle.  
Martin J. Burke, M.S.A., F.S.I., Martin Burns, B.E., L.R.I.B.A.  
A. E. Williams, M.R.I.A.I., A.M.I.S.E.  
John O'Callaghan.  
James F. Cleary.  
Charles Kenny.  
Thomas Bridgeman.  
John G. Bolton.  
Thomas McCluskey.

Patrick Hicks.  
Thomas Roche.  
James Saunders, full tech. c. and g. art medallist, b. of e.  
George O'Keeffe.  
Robert W. Brown.  
Richard McNamara, A.R.C.S.C.I.  
Edward Byrne.  
Charles O'Byrne.  
Thos. Slevin, M.I.Q.S.A.  
J. J. Hughes.  
H. W. Dempsey.  
M. C. Murray.  
James Levens.  
J. J. McKiown.  
Daniel L. Rooney.  
W. J. Keiran.

BOLTON STREET.

DAY APPRENTICE SCHOOL, COURSES IN:

BRICKWORK  
PLUMBING  
PAINTING  

about 30 hours weekly.

See separate Time Table.

Special Afternoon Classes for Apprentice Painters—Mon., Tues., Wed., Thurs. 2 to 5 p.m.  
Plumbers—2 to 5 p.m. on Wed.  
Carpenters—Mon., Tues., Wed., Thurs. 2.15 to 5.15 p.m.

Day Course in Building Science, about 25 hours per week. See separate Time Table.

EVENING SCHOOL COURSES.

INTRODUCTORY COURSE

<table>
<thead>
<tr>
<th>No of Course</th>
<th>SUBJECT</th>
<th>Day</th>
<th>Hour</th>
<th>Room</th>
<th>Teacher</th>
<th>No. of Syllabus</th>
</tr>
</thead>
<tbody>
<tr>
<td>100m</td>
<td>Workshop Arithmetic—C</td>
<td>Mon.</td>
<td>7.30-8.30</td>
<td>C 20</td>
<td>W. J. O'Brien</td>
<td>157</td>
</tr>
<tr>
<td></td>
<td>English—C</td>
<td>Mon.</td>
<td>8.30-9.30</td>
<td>B 20</td>
<td>W. J. O'Brien</td>
<td>156</td>
</tr>
<tr>
<td></td>
<td>Building Drawing—A</td>
<td>Tues.</td>
<td>7.30-9.30</td>
<td>B 20</td>
<td>R. E. Fee</td>
<td>158</td>
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GENERAL BUILDING COURSES

For Architects, Civil Engineers, Clerks of Works, Builders and others

The First and Second Year Courses cover the work of the Dept. of Education Elementary Stage Examinations (See Department of Education Technological Certificate Course Exams. Programme)

FIRST YEAR.

101m

Building Construction—I. A. Wed. 7.30-9.30 B. 17 J. F. Cleary 11
Practical Mathematics—I. A. Thurs. 7.30-9.30 C 7 H. C. Clifton 7
Practical Geometry—I. A. Tues. 7.30-9.30 B. 17 J. F. Cleary 8

SECOND YEAR.

102m

Building Construction—II. Wed. 7.30-9.30 B. 10 A. E. Williams 9
Geometry, Mathematics and Mechanics Thurs. 7.30-9.30 B. 26 10

The Third and Fourth Year Courses cover the work of the Dept. of Education Intermediate Stage Examinations

THIRD YEAR.

103m

Building Construction—III. Thurs. 7.30-9.30 B. 10 A. E. Williams 11
Applied Mechanics—Ill. or Builders' Quantities—Intermediate Mon. 7.30-10.0 B. 20 M. J. Burke 151

FOURTH YEAR.

104m

Building Construction—IV. Thurs. 7.30-9.30 B. 10 A. E. Williams 13
Applied Mechanics—IV. or Builders' Quantities—Intermediate Mon. 7.30-10.0 B. 20 M. J. Burke 151

The Fifth Year Course covers the work of the Dept. of Education Advanced Stage Examinations

FIFTH YEAR.

105m

Building Construction—V. Thurs. 7.30-9.30 B. 10 A. E. Williams 15
Applied Mechanics—V. or Builders' Quantities—Advanced Mon. 7.30-10.0 B. 20 J. M. Burke 151
### BOLTON STREET.

#### CABINET-MAKERS' COURSE.

(See Dept. of Education Trade Certificate Course Exams. Programme)

<table>
<thead>
<tr>
<th>No. of Course</th>
<th>Subject</th>
<th>Day</th>
<th>Hour</th>
<th>Room</th>
<th>Teacher</th>
<th>No. of Syllabus</th>
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<tbody>
<tr>
<td>129B</td>
<td>FIRST YEAR. Cabinet-making, Lecture and Drawing—I.</td>
<td>Fri.</td>
<td>7.30-9.30</td>
<td>B 11</td>
<td>M. Murray</td>
<td>65</td>
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<tr>
<td>130B</td>
<td>Cabinet-making, Pract.—I.</td>
<td>Thurs.</td>
<td>7.30-9.30</td>
<td>B 11</td>
<td>M. Murray</td>
<td>66</td>
</tr>
<tr>
<td>131B</td>
<td>SECOND YEAR. Cabinet-making, Lecture and Drawing—II.</td>
<td>Wed.</td>
<td>7.30-9.30</td>
<td>B 11</td>
<td>M. Murray</td>
<td>67</td>
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<tr>
<td>132B</td>
<td>Cabinet-making, Pract.—II.</td>
<td>Mon.</td>
<td>7.30-9.30</td>
<td>B 11</td>
<td>M. Murray</td>
<td>68</td>
</tr>
<tr>
<td>133B</td>
<td>THIRD YEAR. Cabinet-making, Lecture and Drawing—III.</td>
<td>Wed.</td>
<td>7.30-9.30</td>
<td>B 11</td>
<td>M. Murray</td>
<td>67</td>
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<tr>
<td>134B</td>
<td>Cabinet-making, Pract.—III.</td>
<td>Mon.</td>
<td>7.30-9.30</td>
<td>B 11</td>
<td>M. Murray</td>
<td>68</td>
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<td>135B</td>
<td>FOURTH YEAR. Cabinet-making, Lecture and Drawing IV.</td>
<td>Wed.</td>
<td>7.30-9.30</td>
<td>B 11</td>
<td>M. Murray</td>
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<td>136B</td>
<td>Cabinet-making, Pract.</td>
<td>Tues.</td>
<td>7.30-9.30</td>
<td>B 11</td>
<td>M. Murray</td>
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#### COURSE IN UPHOLSTERY.

<table>
<thead>
<tr>
<th>No. of Course</th>
<th>Subject</th>
<th>Day</th>
<th>Hour</th>
<th>Room</th>
<th>Teacher</th>
<th>No. of Syllabus</th>
</tr>
</thead>
<tbody>
<tr>
<td>137B</td>
<td>FIRST YEAR. Upholstery, Theory and Practice</td>
<td>Mon., Wed.</td>
<td>7.30-9.30</td>
<td>D 16</td>
<td>T. Roche</td>
<td>76</td>
</tr>
<tr>
<td>138B</td>
<td>SECOND YEAR. Upholstery, Theory and Practice Measuring and Outdoor Fixing</td>
<td>Mon., Wed.</td>
<td>7.30-9.30</td>
<td>D 16</td>
<td>T. Roche</td>
<td>76</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Thurs.</td>
<td>7.30-9.30</td>
<td>D 16</td>
<td>T. Roche</td>
<td>76</td>
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<tr>
<td>139B</td>
<td>THIRD YEAR. Upholstery, Theory and Practice Measuring and Outdoor Fixing</td>
<td>Mon., Wed.</td>
<td>7.30-9.30</td>
<td>D 16</td>
<td>T. Roche</td>
<td>76</td>
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<tr>
<td></td>
<td></td>
<td>Thurs.</td>
<td>7.30-9.30</td>
<td>D 16</td>
<td>T. Roche</td>
<td>76</td>
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<tr>
<td>140B</td>
<td>FOURTH YEAR. Upholstery, Theory and Practice Measuring and Outdoor Fixing</td>
<td>Mon., Wed.</td>
<td>7.30-9.30</td>
<td>D 16</td>
<td>T. Roche</td>
<td>76</td>
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<tr>
<td></td>
<td></td>
<td>Thurs.</td>
<td>7.30-9.30</td>
<td>D 16</td>
<td>T. Roche</td>
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#### WOOD-CARVING.

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<th>Hour</th>
<th>Room</th>
<th>Teacher</th>
<th>No. of Syllabus</th>
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</thead>
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<td>141B</td>
<td>FIRST YEAR. Wood-carving, Lecture and Drawing—I.</td>
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<td>7.30-9.30</td>
<td>B 14</td>
<td>J. Levins</td>
<td>82</td>
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<tr>
<td>142B</td>
<td>Wood-carving, Pract.—I.</td>
<td>Tues.</td>
<td>7.30-9.30</td>
<td>B 14</td>
<td>J. Levins</td>
<td>82</td>
</tr>
<tr>
<td></td>
<td>Mechanical Drawing and Design—I.</td>
<td>Fri.</td>
<td>7.30-9.30</td>
<td>C 20</td>
<td>R. Grimes</td>
<td>82</td>
</tr>
<tr>
<td>143B</td>
<td>SECOND YEAR. Wood-carving, Lecture and Drawing—II.</td>
<td>Mon.</td>
<td>7.30-9.30</td>
<td>B 14</td>
<td>J. Levins</td>
<td>82</td>
</tr>
<tr>
<td>144B</td>
<td>Wood-carving, Pract.—II.</td>
<td>Tues.</td>
<td>7.30-9.30</td>
<td>B 14</td>
<td>J. Levins</td>
<td>82</td>
</tr>
<tr>
<td></td>
<td>Design—II</td>
<td>Fri.</td>
<td>7.30-9.30</td>
<td>C 20</td>
<td>R. Grimes</td>
<td>82</td>
</tr>
</tbody>
</table>

#### FRENCH POLISHING COURSE.

(Including Spray Polishing)

<table>
<thead>
<tr>
<th>No. of Course</th>
<th>Subject</th>
<th>Day</th>
<th>Hour</th>
<th>Room</th>
<th>Teacher</th>
<th>No. of Syllabus</th>
</tr>
</thead>
<tbody>
<tr>
<td>145B</td>
<td>FIRST YEAR. French Polishing, Theory and Practice</td>
<td>Mon.</td>
<td>7.30-9.30</td>
<td>B 23</td>
<td>J. Levins</td>
<td>90</td>
</tr>
<tr>
<td>146B</td>
<td>SECOND YEAR. French Polishing, Theory and Practice</td>
<td>Fri.</td>
<td>7.30-9.30</td>
<td>B 23</td>
<td>J. Levins</td>
<td>90</td>
</tr>
</tbody>
</table>

#### COACH AND MOTOR BODY BUILDERS COURSE.

<table>
<thead>
<tr>
<th>No. of Course</th>
<th>Subject</th>
<th>Day</th>
<th>Hour</th>
<th>Room</th>
<th>Teacher</th>
<th>No. of Syllabus</th>
</tr>
</thead>
<tbody>
<tr>
<td>147B</td>
<td>FIRST YEAR. Coach and Motor Body Building—L. (Lect. and Drawing)</td>
<td>Tues.</td>
<td>7.30-9.30</td>
<td>B 13</td>
<td>H. Dempsey</td>
<td>95</td>
</tr>
<tr>
<td>148B</td>
<td>Do. (Practical)</td>
<td>Fri.</td>
<td>7.30-9.30</td>
<td>B 13</td>
<td>H. Dempsey</td>
<td>95</td>
</tr>
<tr>
<td>149B</td>
<td>SECOND YEAR. Coach and Motor Body Building—II. (Lect. and Drawing)</td>
<td>Wed.</td>
<td>7.30-9.30</td>
<td>B 13</td>
<td>H. Dempsey</td>
<td>95</td>
</tr>
<tr>
<td>150B</td>
<td>Do. (Practical)</td>
<td>Thurs.</td>
<td>7.30-9.30</td>
<td>B 13</td>
<td>H. Dempsey</td>
<td>95</td>
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<tr>
<td>151B</td>
<td>THIRD YEAR. Coach and Motor Body Building—III. (Lect. and Drawing)</td>
<td>Wed.</td>
<td>7.30-9.30</td>
<td>B 13</td>
<td>H. Dempsey</td>
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</tr>
<tr>
<td>152B</td>
<td>Do. (Practical)</td>
<td>Thurs.</td>
<td>7.30-9.30</td>
<td>B 13</td>
<td>H. Dempsey</td>
<td>95</td>
</tr>
<tr>
<td>No. of Course</td>
<td>SUBJECT</td>
<td>Day</td>
<td>Hour</td>
<td>Room</td>
<td>TEACHER</td>
<td>No. of Syllabus</td>
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<tr>
<td>160B</td>
<td>Coach Painting—I (Pract.)</td>
<td>Thurs.</td>
<td>7.30-9.30</td>
<td>B 23</td>
<td>R. McNamara</td>
<td>115</td>
</tr>
<tr>
<td>160B</td>
<td>Do</td>
<td>Tues.</td>
<td>7.30-9.30</td>
<td>B 23</td>
<td>R. McNamara</td>
<td>115</td>
</tr>
<tr>
<td>161B</td>
<td>Coach Painting—II (Pract.)</td>
<td>Thurs.</td>
<td>7.30-9.30</td>
<td>B 23</td>
<td>R. McNamara</td>
<td>115</td>
</tr>
<tr>
<td>161B</td>
<td>Do</td>
<td>Tues.</td>
<td>7.30-9.30</td>
<td>B 23</td>
<td>R. McNamara</td>
<td>115</td>
</tr>
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</table>

**SPECIAL CLASS FOR JOURNEYMEN**

<table>
<thead>
<tr>
<th>No. of Course</th>
<th>SUBJECT</th>
<th>Day</th>
<th>Hour</th>
<th>Room</th>
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<th>No. of Syllabus</th>
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</thead>
<tbody>
<tr>
<td>162B</td>
<td>Paint Spraying</td>
<td>Wed.</td>
<td>7.30-9.30</td>
<td>B 23</td>
<td>R. McNamara</td>
<td>115</td>
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</table>

**COACH TRIMMING.**

<table>
<thead>
<tr>
<th>No. of Course</th>
<th>SUBJECT</th>
<th>Day</th>
<th>Hour</th>
<th>Room</th>
<th>TEACHER</th>
<th>No. of Syllabus</th>
</tr>
</thead>
<tbody>
<tr>
<td>164B</td>
<td>Coach Trimming</td>
<td>Mon., Wed.</td>
<td>7.30-9.30</td>
<td>D 18</td>
<td>G. O'Keeffe</td>
<td>122</td>
</tr>
<tr>
<td>165B</td>
<td>Coach Trimming</td>
<td>Mon., Wed.</td>
<td>7.30-9.30</td>
<td>B 18</td>
<td>G. O'Keeffe</td>
<td>122</td>
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</table>

**WOODCUTTING MACHINISTS’ COURSE.**

<table>
<thead>
<tr>
<th>No. of Course</th>
<th>SUBJECT</th>
<th>Day</th>
<th>Hour</th>
<th>Room</th>
<th>TEACHER</th>
<th>No. of Syllabus</th>
</tr>
</thead>
<tbody>
<tr>
<td>170B</td>
<td>Woodcutting Machinery—I (Pract.)</td>
<td>Mon.</td>
<td>7.30-9.30</td>
<td>C 18</td>
<td>C. Kenny.</td>
<td>127</td>
</tr>
<tr>
<td>170B</td>
<td>Woodcutting Machinery—I (Drawing)</td>
<td>Tues.</td>
<td>7.30-9.30</td>
<td>B 26</td>
<td>C. Kenny.</td>
<td>127</td>
</tr>
<tr>
<td>171B</td>
<td>Woodcutting Machinery—II (Drawing)</td>
<td>Tues.</td>
<td>7.30-9.30</td>
<td>B 26</td>
<td>C. Kenny.</td>
<td>127</td>
</tr>
<tr>
<td>171B</td>
<td>Woodcutting Machinery—II (Pract.)</td>
<td>Thurs.</td>
<td>7.30-9.30</td>
<td>C 18</td>
<td>C. Kenny.</td>
<td>127</td>
</tr>
<tr>
<td>172B</td>
<td>Woodcutting Machinery—IHI (Drawing)</td>
<td>Fri.</td>
<td>7.30-9.30</td>
<td>B 26</td>
<td>C. Kenny.</td>
<td>127</td>
</tr>
<tr>
<td>172B</td>
<td>Woodcutting Machinery—IHI (Pract.)</td>
<td>Wed.</td>
<td>7.30-9.30</td>
<td>C 18</td>
<td>C. Kenny.</td>
<td>127</td>
</tr>
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</table>

**BRICK AND STONELAYERS’ COURSE.**

(See Dept. of Education Trade Certificate Course Exams. Programme)

<table>
<thead>
<tr>
<th>No. of Course</th>
<th>SUBJECT</th>
<th>Day</th>
<th>Hour</th>
<th>Room</th>
<th>TEACHER</th>
<th>No. of Syllabus</th>
</tr>
</thead>
<tbody>
<tr>
<td>174B</td>
<td>Bricklaying (Pract.)</td>
<td>Tues.</td>
<td>7.30-9.30</td>
<td>C 17</td>
<td>E. Byrne</td>
<td>135</td>
</tr>
<tr>
<td>174B</td>
<td>Bricklaying (Drawing and Theory)</td>
<td>Fri.</td>
<td>7.30-9.30</td>
<td>B 10</td>
<td>E. Byrne</td>
<td>136</td>
</tr>
<tr>
<td>175B</td>
<td>Bricklaying (Pract.)</td>
<td>Thur.</td>
<td>7.30-9.30</td>
<td>C 17</td>
<td>E. Byrne</td>
<td>137</td>
</tr>
<tr>
<td>175B</td>
<td>Bricklaying (Drawing and Theory)</td>
<td>Mon.</td>
<td>7.30-9.30</td>
<td>B 10</td>
<td>E. Byrne</td>
<td>138</td>
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</table>

**STONECUTTING COURSE**

<table>
<thead>
<tr>
<th>No. of Course</th>
<th>SUBJECT</th>
<th>Day</th>
<th>Hour</th>
<th>Room</th>
<th>TEACHER</th>
<th>No. of Syllabus</th>
</tr>
</thead>
<tbody>
<tr>
<td>179</td>
<td>Stonecutting, Drawing and Theory</td>
<td>Tues.</td>
<td>7.30-9.30</td>
<td>B 10</td>
<td>E. Byrne</td>
<td>143</td>
</tr>
<tr>
<td>180</td>
<td>Stonecutting, Practical</td>
<td>Thurs.</td>
<td>7.30-9.30</td>
<td>D 18</td>
<td>E. Byrne</td>
<td>143</td>
</tr>
</tbody>
</table>

**MISCELLANEOUS CLASSES.**

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>DAY</th>
<th>HOUR</th>
<th>ROOM</th>
<th>TEACHER</th>
<th>NO. OF SYLLABUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Surveying and Levelling.</td>
<td>Mon.</td>
<td>7.30-9.30</td>
<td>C 8</td>
<td>A. M. McLoughlin</td>
<td>150</td>
</tr>
<tr>
<td>E Manual Instruction (Wood)</td>
<td>Mon.</td>
<td>7.30-9.30</td>
<td>C 11</td>
<td>J. J. McKewon</td>
<td>150</td>
</tr>
<tr>
<td>E Mech. Drawing and Design</td>
<td>Fri.</td>
<td>7.30-9.30</td>
<td>C 20</td>
<td>E. Grimes</td>
<td>154</td>
</tr>
<tr>
<td>F Manual Instruction (Wood)</td>
<td>Thurs.</td>
<td>7.30-9.30</td>
<td>B 12</td>
<td>J. J. McKewon</td>
<td>153</td>
</tr>
<tr>
<td>F Mech. Drawing and Design</td>
<td>Mon.</td>
<td>7.30-9.30</td>
<td>B 24</td>
<td>W. J. Keiran</td>
<td>154</td>
</tr>
<tr>
<td>G Manual Instruction (Wood) Advanced</td>
<td>Wed.</td>
<td>7.30-9.30</td>
<td>B 12</td>
<td>J. A. Clarke</td>
<td>153</td>
</tr>
<tr>
<td>H Manual Instruction (Wood)</td>
<td>Tues.</td>
<td>7.30-9.30</td>
<td>B 24</td>
<td>J. J. McKewon</td>
<td>154</td>
</tr>
<tr>
<td>J Mech. Drawing and Design</td>
<td>Mon.</td>
<td>7.30-9.30</td>
<td>B 17</td>
<td>W. J. Keiran</td>
<td>154</td>
</tr>
<tr>
<td>L Plan Drawing and Reading</td>
<td>Mon.</td>
<td>7.30-10.00</td>
<td>B 17</td>
<td>J. F. Cleary</td>
<td>158</td>
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</table>

**SPECIAL CLASSES IN IRISH.**

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>DAY</th>
<th>HOUR</th>
<th>ROOM</th>
<th>TEACHER</th>
<th>NO. OF SYLLABUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irish—LA.</td>
<td>Mon.</td>
<td>7.30-9.30</td>
<td>C 2</td>
<td>D. S. MacEoin</td>
<td>150</td>
</tr>
<tr>
<td>Irish—LB.</td>
<td>Thurs.</td>
<td>7.30-9.30</td>
<td>C 2</td>
<td>D. S. MacEoin</td>
<td>150</td>
</tr>
</tbody>
</table>

*This Class will start in March, 1938.*
TECHNICAL SCHOOL
RINGSEND

MARTIN KEADY, B.E., B.SC., A.R.C.SC.I., Principal.

TEACHING STAFF

W. H. STURDY, (Full Technological Certificates—City and Guilds of London Institute).

B. DEVLIN, B.SC. (Eng.) Lond., A.R.C.SC.I.

I. LAMBERT, B.SC. (Hons.), H.DIP.ED.

P. J. O’HAGAN.

TIME TABLE AND COURSES

BUILDING CONSTRUCTION COURSE.

<table>
<thead>
<tr>
<th>COURSE</th>
<th>DAY</th>
<th>TIME</th>
<th>TEACHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practical Mathematics</td>
<td>Tuesday</td>
<td>7.30-9.30</td>
<td>P. J. O’Hagan</td>
</tr>
<tr>
<td>Practical Geometry</td>
<td>Tuesday</td>
<td>7.30-9.30</td>
<td>P. J. O’Hagan</td>
</tr>
<tr>
<td>Building Construction</td>
<td>Wednesday</td>
<td>7.30-9.30</td>
<td>W. H. Sturdy</td>
</tr>
<tr>
<td>Practical Mathematics</td>
<td>Thursday</td>
<td>7.30-9.30</td>
<td>W. H. Sturdy</td>
</tr>
<tr>
<td>Practical Geometry</td>
<td>Thursday</td>
<td>7.30-9.30</td>
<td>P. J. O’Hagan</td>
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</table>

SECOND YEAR.

<table>
<thead>
<tr>
<th>COURSE</th>
<th>DAY</th>
<th>TIME</th>
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</thead>
<tbody>
<tr>
<td>Practical Mathematics</td>
<td>Friday</td>
<td>7.30-9.30</td>
<td>P. J. O’Hagan</td>
</tr>
<tr>
<td>Practical Geometry</td>
<td>Friday</td>
<td>7.30-9.30</td>
<td>I. Lambert</td>
</tr>
<tr>
<td>Building Construction</td>
<td>Wednesday</td>
<td>7.30-9.30</td>
<td>W. H. Sturdy</td>
</tr>
<tr>
<td>Practical Mathematics</td>
<td>Tuesday</td>
<td>7.30-9.30</td>
<td>I. Lambert</td>
</tr>
<tr>
<td>Practical Geometry</td>
<td>Tuesday</td>
<td>7.30-9.30</td>
<td>P. J. O’Hagan</td>
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</table>

CARPENTRY AND JOINERY COURSE.

<table>
<thead>
<tr>
<th>COURSE</th>
<th>DAY</th>
<th>TIME</th>
<th>TEACHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practical Mathematics</td>
<td>Tuesday</td>
<td>7.30-9.30</td>
<td>W. H. Sturdy</td>
</tr>
<tr>
<td>Practical Geometry</td>
<td>Tuesday</td>
<td>7.30-9.30</td>
<td>P. J. O’Hagan</td>
</tr>
<tr>
<td>Carpentry and Joinery (Practical)</td>
<td>Monday</td>
<td>7.30-9.30</td>
<td>W. H. Sturdy</td>
</tr>
<tr>
<td>Carpentry and Joinery (Drawing and Lecture)</td>
<td>Monday</td>
<td>7.30-9.30</td>
<td>W. H. Sturdy</td>
</tr>
<tr>
<td>Practical Mathematics</td>
<td>Thursday</td>
<td>7.30-9.30</td>
<td>W. H. Sturdy</td>
</tr>
<tr>
<td>Carpentry and Joinery (Practical)</td>
<td>Thursday</td>
<td>7.30-9.30</td>
<td>P. J. O’Hagan</td>
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HANDICRAFT (MANUAL INSTRUCTION) COURSE.

<table>
<thead>
<tr>
<th>COURSE</th>
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<th>TIME</th>
<th>TEACHER</th>
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<tbody>
<tr>
<td>Manual Instruction (Wood)</td>
<td>Tuesday</td>
<td>7.30-9.30</td>
<td>W. H. Sturdy</td>
</tr>
<tr>
<td>Woodwork Drawing</td>
<td>Thursday</td>
<td>7.30-9.30</td>
<td>W. H. Sturdy</td>
</tr>
<tr>
<td>Manual Instruction (Wood)</td>
<td>Tuesday</td>
<td>7.30-9.30</td>
<td>W. H. Sturdy</td>
</tr>
<tr>
<td>Woodwork Drawing</td>
<td>Thursday</td>
<td>7.30-9.30</td>
<td>W. H. Sturdy</td>
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</table>

PHYSICAL TRAINING.

<table>
<thead>
<tr>
<th>COURSE</th>
<th>DAY</th>
<th>TIME</th>
<th>TEACHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Training (Men)</td>
<td>Wednesday</td>
<td>8-10</td>
<td>E. Chandler</td>
</tr>
</tbody>
</table>
ARCHITECTURE and BUILDING TRADES

SYLLABUSES

EVENING SCHOOL

BUILDING CONSTRUCTION. I.

In this class the student will be familiarised with the more common building materials. Practice in freehand pictorial sketching of building details will be given, and students will be required to make therefrom proper working details to scale.

During the session occasional visits will be paid to buildings in course of erection for the purpose of examining and sketching details of construction.

6. Concrete: Examples of the use of Concrete in foundations, dwarf and rising walls, drain beds, door and window sills and copings.


Text Book.—C. F. Mitchell: Elementary Building Construction and Drawing.

PRACTICAL MATHEMATICS. I.

7. Approximate calculations—fractions—areas of triangle, rectangle, parallelogram, trapezium, irregular quadrilateral, etc.—evaluation of formulae—algebraic symbols—rules as algebraic formulae—mensuration of the circle, prism, cone, cylinder, pyramid—easy simple equations—transposing formulae—square root—the right-angled triangle, sine, cosine, and tangent of an angle and use of tables—percentages—averages—graphs—areas of irregular curved figures and average values by mid-ordinate rule—Graphical statics—the triangle and polygon of forces—simple problems on forces acting at a point—stresses in simple frames—parallel forces—simple cases only, such as determination of the reactions of supports of a loaded beam.

PRACTICAL GEOMETRY. I.

8. Construction and use of scales—plotting of angles by protractor or trigonometrical tables—division of lines in giving proportions—measurement of angles in degrees—sine, cosine and tangent of an angle—their values by graphical methods—construction of a triangle from given data—location of points by rectangular co-ordinates—construction of polygons—similar figures—enlarging and reducing figures by radial projection—areas of triangles, polygons and curved figures—construction of circles from specified data—tangents—angles in a segment—methods of defining positions in space, of points, lines and planes—horizontal and vertical traces—inclinations of lines and planes to planes of projection—prisms and pyramids—the regular tetrahedron—the sphere—the right circular cylinder and cone—plans, elevations and sections of these solids.

BUILDING CONSTRUCTION. II.

The instruction in the second year will give a more extended knowledge of the subjects dealt with in the first year syllabus, including the following:

9. Concrete: Reinforced Concrete in floors, lintels, walls and roofs.

Foundations: Precautions in excavations in various soils, with necessary strutting and timbering—concrete foundations for walls and piers—damp-proofing of basements and ventilating of underground floors. Brickwork: bonding in junction of walls at right angles, in fireplaces and flues—finishing of chimney stacks—hollow walls and
methods of bonding them—construction of flat, elliptical and pointed arches—corbelling. **Masonry** : stone dressings—joints and fastenings in stonework—string courses and cornices—corbelling, arches—well-known building stones, quarrying, cutting, etc. **Carpentry and Joinery** : double floors—centres for segmental and circular arches to 15 ft. span—"Fitch" beams—queen-post and composite roof up to 40 ft. span—preparing flat roof for plumbing—box and taper gutter—trimming around skylights, chimneys, etc.—self-supporting wood partitions—doors in hard and soft woods—methods of finishing panels, framed and panelled jamb linings—vestibule doors and frames—French casement windows—pivot-hung windows—skylights—dog-leg and open newel stairs with trimmings. **Stating** : roof coverings, methods of fixing. **Plumbing** : leadwork on roofs, gutters and flats, with rolls, drips, etc.—joints used in plumbing. **Sanitary Work** : principles of sanitation, laying and joining of glazed stoneware and iron pipes—connection with main sewer—ventilation of drains—varieties of traps and gullies—testing of drains by smoke and by water. **Plastering** : plasterers' work of all kinds, with knowledge of composition of materials used. **Painting and Glazing** : properties and qualities of pigments, varnishing, oils and other materials used in house painting and window glazing.

Text Book.—Mitchell: Advanced Building Construction.

**GEOMETRY, MATHEMATICS AND MECHANICS.**

10. Areas of irregular plane figures by squared paper—mid-ordinate rule and Simpson's rule—mensuration of geometrical solids—volumes and weights of girders, floors, roof coverings—amount of excavation in trenches for walls—volume of concrete in foundations, etc.—more difficult examples in plane geometry—construction and chief characteristics of the ellipse—further examples of plans, elevations and sections of solids—development and interpenetration—general problems on lines and planes—intersecting planes and the angle between them, with practical applications—parallel and perpendicular lines and planes—dihedral angle.

Graphical statics—the triangle and polygon of forces—stresses in frames—parallel forces—reactions of supports—units of force—measurement of force—composition and resolution of forces—moments of couples—centre of gravity and stability.

**BUILDING CONSTRUCTION. III.**

In this year of the Course the student will obtain a wider knowledge of the subjects already dealt with. More time will be given to the making of finished drawings. Colouring, tracing and inking-in will receive some attention.


Text Book.—Mitchell: Advanced Building Construction.

**APPLIED MECHANICS. III.**

12. Revision of the Second Years' work on moments, couples and centres of gravity—efficiency of machines—graphic statics—Bow's notation—space and force diagrams—link polygons for parallel and non-parallel forces—further consideration of stresses in frame structures, such as roof trusses up to 45 ft. span.
—dead load and wind pressure diagrams—diagrams for structures not in one plane, such as are required for the stresses in shear legs, derrick cranes, etc.—stress and strain—elastic limits—elastic constants—working stresses—factors of safety—the testing of materials by compression, tension and bending—concentrated and distributed loads on beams and cantilevers—shearing force and bending moment diagrams—the use of vector and link polygons in determining shear forces and bending moments—theory of simple bending—distribution of stress intensity—moment of resistance—application of formula for moments of inertia—section modulus—strength of beams of standard sections—combined bending and direct stress—common examples of eccentric loading—pillars and application of well-known formula—various forms of stanchions and built-up struts—the use of manufacturers' pocket-books in the choice of sections for beams and struts, stanchion bases and caps, connections for roof trusses, etc.

BUILDING CONSTRUCTION. IV.

13. House planning—production of complete drawings of a small building with simple specifications and such working drawings as are usually supplied to a builder—heating systems—ventilation—methods of house sewage disposal in town and country—gas and electric lighting in their relation to building work—fireproof floors—steel-work generally—the manufacture, characteristics and general uses of all classes of building materials and the tests applied to ascertain their behaviour under various conditions—reinforced concrete work in stairs of various kinds.

APPLIED MECHANICS. IV.

14. Various types of roof trusses and spans for which they are suitable—determination of stresses by the method of sections—design of roof truss members—outline of design of plate or braced girder of uniform depth—calculations for deflection of a beam under specified conditions of loading—permissible deflection—camber—columns under eccentric and central loads—design of long struts in braced structures—simple calculations relating to masonry dams, retaining walls, piers and buttresses, foundations, small span arches, chimney—safe pressure on foundations in different classes of earth—distribution of pressure—resultant pressure in retaining walls—the importance of wind pressure in lofty structures—reinforced concrete calculations.

BUILDING CONSTRUCTION. V.


CARPENTRY AND JOINERY (PRACTICAL). I.

18. Examples to suit students’ abilities will be chosen. The necessary tools will be provided by the Schools.

CARPENTRY AND JOINERY (PRACTICAL). II.

22. Examples to suit the students’ abilities will be chosen.

CARPENTRY AND JOINERY (DRAWING AND LECTURE). II.

23. Choice and preparation of scales—plans and elevations, including sections—examples of joints and fastenings—oblique and isometric projection of common joints—simple forms of centres, turning pieces, rib centres; segmental and elliptical—common floor joisting—common floor coverings—trimming around chimney breasts and well-holes—couple roof—collar brace roof—king-post truss—setting out the commoner forms of mouldings—door frames and jamb linings—doors; braced and sheeted, four panelled—casement frame—sash frame and sashes—skirtings, grounds and fixing—growth and structure of timber, conversion, seasoning, etc.—tools, mechanical principles involved.


CARPENTRY AND JOINERY (PRACTICAL). III.

24. Examples to suit students’ abilities will be chosen.
In the subsequent years of the Course the Calculations and Geometry will be of the same practical nature, but of a more advanced type.

**Text Book.**—Bennett: Technical Plumbing.

**Plumbers' Work (Practical). I., II., III. and IV.**

31. Straightening sheet lead and tin, lead pipes, etc.—preparation of seams for soldering sheet lead and tin—soldering sheet lead with fine, tinman's, and plumbing solder—preparation of solder, soil, etc.—preparation of joints for soldering with iron, blowpipe and plumbing metal—joint making (copper bit, blowpipe, plumbing)—caulking joints with lead and rust cement—joints of earthenware and stoneware pipes—lead working into various forms—pipe fixing—pipe bending—lead burning.

An exhibition of students' practical work will be held at close of the Session.

**Physics and Chemistry for Plumbers. I.**

This subject is of the greatest importance to Plumbers, and forms part of the First Year Course.

32. General Properties of Matter: measurement of length, area and volume—determination of density—measurement of force—centres of gravity—the lever—the principle of work. Fluid Pressure: nature and modes of measurement of pressure of liquids and gases—variation of pressure with depth in liquids—atmospheric pressure—the barometer—Boyle's Law—the principles of physics in connection with water supply, pumps and syphonic action. Heat: expansion of solids, liquids and gases—temperature and thermometers—heat as a quantity—the caloric and the thermal—thermal capacity and specific heat—change of state—melting and boiling points—latent heats of fusion and vaporisation—change of volume resulting from change of state—the spheroidal condition and the physics of fluxes—convection, conduction and radiation. Chemistry: oxidation—reduction—composition of water and its action on metals—acids and salts—hydrochloric acid and "killed spirit"—elementary chemistry of lead, iron, zinc, tin and copper—composition and properties of red lead, litharge, white lead, etc., and cements made from them.

This Course will be found suitable for those applying for Certificate of Registration.

**Plumbers' Work (Lecture and Drawing). II.**

33. Properties and Uses of Materials: relative strengths, under various pressures, of lead, cast iron, wrought iron and copper tubes—nature and uses of seamless lead pipes, tin and tin-lined pipes, sheet lead pipes, and method of joining. External Roof Work: covering of flats, gutters, cesspools, dormers, skylights, etc.—principles of jointing sheet lead by rolls, welts, drips and passings—development of surfaces—making of working drawings. Hot Water Apparatus: principles of hot water circulation for domestic and other purposes—cylinder and tank systems—boilers and taps—material used in valve seatings, packing, etc., systems in use for prevention of furring of pipes and boilers. Sanitary Appliances: water closets, their fittings and supply—water-waste preventers—baths, lavatories, sinks, etc.—traps—momentum, waving out, and syphonage of traps and methods of preventing same—house cisterns, their construction and fitting—traps, pipes, fittings and other materials used in house drain construction. Mechanical Appliances: the multiplication of power by water pressure, as illustrated by hydraulic press—pumps—construction and uses of different kinds of pumps—hydraulic ram, etc.


**Book of Reference.**—W. R. Maguire: Domestic Sanitary Drainage and Plumbing.

Students will find the instruction given in this Course suitable for the Final Examination of the City and Guilds of London Institute, and for the Examination of the Royal Sanitary Institute.

**Plumbers' Work (Lecture and Drawing). III.**

34. Water: sources, properties, qualities; deep and shallow wells, springs—storage, filtration and distribution—pollution; causes and prevention—quantity per head for private purposes—rain fall—flow of water in channels and pipes—calculations of velocities. Hot Water and Heating: method of obtaining large supplies—heating buildings by hot water and steam—high and low pressure systems—sizes of...
means of symbols—surface areas and volumes of cubes and rectangular prisms—measurement of cylinders, cones and spheres, all similarly expressed by symbols—exercises on wages, income and expenditure, simple trade accounts, rates, insurance, methods of measuring plastering trade quantities. Elementary Drawing: Freehand sketches from models—making dimensioned sketches of simple objects and details of plaster work—preparing working drawings from such sketches or from sketches supplied—simple problems in plane and solid geometry, with applications to plasterers' work. Science and Materials: simple mechanics, with illustrations on stability and on use of hoisting appliances—materials used in plastering, their properties and uses—simple experiments to illustrate the chemical changes which take place during the manufacture and use of plastering materials—the various limes used in candidate's neighbourhood and elsewhere—rich and poor limes—methods of making, slaking and testing limes and of making mortar for various purposes—plaster of Paris, its nature, origin, preparation and methods of use—nature of plaster substitutes, Keen's, Parian, Sirapite, and asbestos plasters, and the special purposes for which each is used—reasons for the defects which arise when these plasters are improperly used—natural and artificial cements, their properties and use for external and internal purposes—gauging, testing and using Portland, Roman, Medina, white and slag cements—mixtures of limes, plaster and cements—the purposes and methods of such admixtures with the dangers arising therefrom—other materials used in plastering, sands, hair, laths, oil, mastic, and water-proofing compounds.


MODELLING, II., III. AND IV.

A systematic introduction to modelled industrial design for expression in relief, in clay, plaster, cement, lead, brass, wood, etc. The work will include:

44. Management of clay—proper consistency—slab making—
Sinking forms (Lead repousse) cutting clay to measurement (letters cement. Greek key patterns). Modelling from simple casts. 
Modelling from ornament necessitating the use of tools. Study of planes of relief. Modelling of architectural features, mouldings, etc., including ornamental detail. Manipulation of Plaster of Paris, and making simple waste moulds and casts therefrom.

PAINTERS' AND DECORATORS' WORK. I.

57. Object in painting surfaces—principles underlying the use of paints—names, description and uses of brushes and other tools—care and preservation of these—the principal pigments, thinners and driers used in painting, Preparation of Grounds for Painting: stopping, filling up, and surfacing. Plain Painting: simple mixing and application. Distemper: composition, application and preparation of grounds—graining and the preparation of grounds. Sign Writing and Lettering: principal styles of lettering and their forms and names—setting out of simple signs—dimensions of paper-hanging—
preparation of pastes—the preparation of walls—stripping and hanging of ordinary papers.

TEXT BOOK.—Ellis Davidson: House Painting, Graining, Marbling and Sign Writing for all Classes.

DRAWING AND DESIGN. I., II., III. AND IV.

58. Designs for friezes, dado borders, string courses, pilasters, panels, corner pieces, breaks, centres, diapers—heraldic devices—ornamental
lettering, short texts to scale—drawings for imitation of inlaid woods and marbles—rough sketches for schemes of decoration—scales and working drawings for schemes of decoration—working out sketches with measurements taken from existing buildings and setting to given scale—drawing of historic ornament—sketches of Lunette, Cartouche.

PAINTERS' AND DECORATORS' WORK. II.

59. Faults in painting and their avoidance—preservative and decorative aspects of painters' work—economy in working—cleanliness in working—composition of, and the material used in, painters' brushes—use of plant and appliances—oils and diluents: the properties, qualities and uses—driers: their composition, nature and action—permanence and fugacity of pigments—washable and firm distempers—water paints; limitations—selection of papers for walls and ceilings—setting out for and hanging relievo materials—artistic use of graining and marbling—grounds and methods of working—graining of different woods: oak, walnut, etc.—notice and advertising lettering—elaboration and emphasising of lettering, flatting, enamelling, etc.—woods suitable for staining—preparation and application of stains—faults in varnishing and their cure—mixed tints and colours: general hints on paint mixing.

PAINTERS' AND DECORATORS' WORK. III and IV.

60. Selection of plant and tools for jobs, the testing of steps, ladders, etc.—arrangement of scaffolding for painters—testing colours, pigments, oils, turpentine and driers—quantities for given work—action of successive coats of paint upon preceding coats—arrangements of men when painting large surfaces—painting ornament, and gilding on distemper—use of distemper on other than plaster grounds—stencilling—punctuation, gilding and preparation of grounds, etc., for sign-writing and lettering—use of imitative effects of material and texture such as bronze, ivory, etc.—representation of inlays, marqueterie, etc.—polychromatic stencilling—matt and burnish gilding, etc.—chemical staining—preparation of stain—comparative value of water, oil and spirit staining—colour values and qualities—how to decide a colour scheme—selection and hanging of special papers, such as textile fabrics, imitation leather, Japanese grass cloth and relief materials. Measurement of painter's work, quantities and pricing.

61. More extended Course on the Syllabus for Third Year.

CABINET-MAKING (DRAWING AND LECTURE). I.

65. Nature and properties of various kinds of wood used in cabinet-making, with ports or places from which they are obtained—most suitable woods for construction—groundwork and veneers—best methods of seasoning and preparing for use—cabinet-making tools—names and uses—plain joints: dowelling, tongueing, dovetailing—methods of setting out and constructing mouldings; different names—preparation of working drawings—veneering surfaces—proper use of veneer—preparation of grounds and veneers, with methods of making wood stand after veneering—cabinet brass-work; hinges, joint stays, bolts and locks—methods of fixing and their different advantages—methods of measuring and setting out shaped window seats, cornice poles and drapery laths—hints with regard to the fitting up and completion of furniture for the showroom.

Text Book.—Bitmead: Cabinet-making.

CABINET-MAKING (PRACTICAL). I.

The Class forms part of the Course and must be taken in conjunction with the Drawing and Lecture Class in Cabinet-making.

The object of this Class is to afford the Student an opportunity of applying in a practical manner the knowledge gained at the theoretical and drawing lessons.

66. Tools: principles underlying their construction—proper method of sharpening and using—making of joints as used in cabinet work, including dowelling, tongueing, dovetailing—construction of simple mouldings by hand—preparation of machine-made mouldings for the polisher. Veneering: preparation of groundwork—veneering with caulk and hammer, including rails and panels in straight and
curved work, cross-banding circular rims, cleaning up veneered surfaces—proper methods of affixing hinges, joint stays, bolts and locks—fitting up furniture for the showroom, including proper methods of fastening glass—proper methods of affixing cornice poles, window seats and cosy corners.

The necessary tools and timber will be provided by the Schools.

CABINET-MAKING (DRAWING AND LECTURE).
II., III., AND IV.

67. Nature and properties of the various kinds of wood used in cabinet-making, their suitability for decorative work, their diseases and how to minimise their effect before and after being converted into furniture—mechanical actions, such as are used in cylinder fall desks, writing tables, dumb waiters, etc.—different methods of expanding dining tables—cabinet brass work: hinges, joint stays, bolts and locks—best methods of fixing—inlaying and veneering with tortoiseshell, ivory, mother of pearl, and metals—preparation and methods of applying veneers to flat and sweep work—styles of furniture and the periods to which they belong—joints: plain copper, dowelling, tonguing and dove-tailing, secret lap and secret mitre dovetail—methods of setting out—construction of working drawings from student's own designs.

TEXT BOOK.—Bitmead: Cabinet-making.

CABINET-MAKING (PRACTICAL). II., III., AND IV.

68. In this Class difficult pieces of Cabinet work will be undertaken, and the complete setting out and working of pieces of furniture.

More advanced work on the First Year Course, and, in addition:

Inlaying and veneering with tortoiseshell, ivory, mother-of-pearl, and metals—preparation of ground work and veneering of difficult pieces of cabinet work—making of joints, such as secret lap and secret mitre dovetail, knuckle rule and finger—construction of difficult Roman and Grecian mouldings by hand.

Students taking the City and Guilds Final Examination in Cabinet-making will find this Class suitable for the construction of the specimen of practical work to be submitted to the Examiners.

The necessary tools and a supply of ordinary timber will be provided by the Schools.

TEXT BOOK.—Bitmead: Cabinet-making.

UPHOLSTERY. I., II., III., AND IV.

GENERAL SYLLABUS—LECTURE AND PRACTICAL WORK.

76. Proper preparation of framework for upholstering. Materials used: Leather, leather-cloth, velvet, saddle-bags, tapestry, rexine, lace, etc.—use of springs—upholstering to suit various styles of furniture—treatment of couches, sofas, settees and chairs of various kinds—re-upholstering old work—re-conditioning of old materials—enamelling old frames for necessary repairs—tools and appliances used in upholstery. Measuring up for outdoor upholstery, arranging and fixing such work.

WOOD CARVING. I., II. AND III.

The course of instruction in Wood-carving includes a lecture and drawing class on one evening, practical work on one or two evenings, and a suitable Art class in drawing and design on another evening.

The practical work will be of a progressive nature and selected in each case to suit the skill of the individual student.

82. The use and names of tools used in wood-carving—sharpening of tools—stones employed—various woods made use of—treatment of the different classes of wood—the influence and effect of grain—setting out and starting a piece of work—first stage in the working of a pattern—second stage in the working of a pattern—modelling the work—finishing the work—simple patterns of carving with one or two tools—ornamental forms in soft and hard timber—carving in flat and broad treatment in yellow pine—carving in hard timber and how
to treat same—simple panels from casts—conventional foliage in different styles from cast—natural forms of foliage—how to treat practically in wood—geometrical patterns and freckhand ornament contrasted in their application to furniture and architectural work.

The work of the Italian Renaissance explained and examples given—the French Renaissance explained—natural foliage and geometrical treatment—the Gothic periods—Norman periods—Early English period—decorated period—perpendicular styles—examples of architectural treatment—carvings as applied to furniture—individuality of style explained and examples given.

**FRENCH POLISHING. I. AND II.**

90. The art of French polishing—manufacture and use of various stains and polishes—colouring and lacquering—varnishing and glazing—gums and their use—colours and their use—aniline dyes and chemicals used in stains—methods of polishing different woods, wooden carvings and statues—imitation inlay transfer papers, various methods of polishing—German, Scotch, English, American, Swedish and French.


**COACH AND MOTOR BODY BUILDING. I., II. AND III.**

**General Syllabus—Lecture, Drawing and Practical Work.**

95. Construction of scales and their use—timber used in Coach Building and Motor Body work—measuring and valuing—natural and artificial seasoning, and the use of bent timber—iron and steel: process of forging and welding—how to tell the quality of steel and iron—precautions when forging or tempering various kinds of iron and steel—aluminium and other metals used for panels, wings, etc.—designing and drawing side view, plan and back view of carts, waggonettes, landaups, victorias, broughams and other carriages, open or closed, and motor bodies—designing drawing and making joints in coach-building—sizes of poles, bars and shafts for various horses or ponies—position of tug stops and staples, etc.—varieties of undercarriages—wheels with wooden spokes, including artillery patterns—sections of hubs, spokes and tyres, channels, pneumatic tyres, etc.—sizes and shapes of axles and springs and motor axles—spring making and methods of testing springs and axles; setting them true and fixing—shock absorbers—ironwork on bodies and carriages—lever brakes—foot brakes—wind screen—ironwork for luggage, tyre carriers, grids, etc.—tools used by body builders: sketches and descriptions—common workshop appliances and machinery—designing and drawing of all kinds of motor bodies—making working drawings for use in the shop, such as drawings of ironwork, sections of framing and naves—calculating the sizes of wheels, springs, axles and the quantity of timber required—writing out workshop orders—specifying the work to be done to a carriage or motor car when worn or damaged—estimating the cost of repairs—the general principles of costing—remedying of defects such as noise or vibration—methods of overcoming difficulties of construction, as in making folding hoods and seats, movable canopies and brougham tops, landaulette pillars and door tops.

**COACH PAINTING. I. AND II.**

**General Syllabus—Lecture, Drawing and Practical Course.**

115. Painting: materials used and process of painting and varnishing—preparation of paint from crude or dry colour—properties of oils, varnishes and other materials used—lettering, crests, etc.—tools used by painters, care and use—workshop appliances.


**COACH TRIMMING. I. AND II.**

*The Course will occupy two Sessions.*

**General Syllabus—Lecture and Practical Work.**

122. Trimming materials: leather, cloth, lace, etc.—methods of sewing, stuffing, etc.—marking out materials, especially with a view to appearance and economy—flat and curved work—tools and appliances employed.
WOODCUTTING MACHINERY I, II AND III.

GENERAL SYLLABUS, LECTURE, DRAWING AND PRACTICAL WORK.

Construction of scales and their use. Measurement and construction of angles. Simple working drawings and plans. Setting out pieces of joinery and cabinet work on rods preparatory to machining and preparing cutting lists. Drawing joints used in construction of various machine finished pieces of framing—Joinery and furniture.

Timber.—Technical terms, methods of measuring, growth, conversion, seasoning, suitability for various jobs. Cutter projection scales, enlarging and diminishing mouldings.

The names and forms of common mouldings and other stock sections, including the various parts of frames and sashes, doors, etc.

Speed calculations re pulleys, saws and cutter blocks.

Practice in the following machines:—Circular saws, band saws, fret saw, surfacer and thicknesser, tenoning and scribing, chain and hollow chisel mortiser and spindle moulder. Circular saw setting and sharpening. Band saw brazing, sharpening and setting. Belt lacing and stitching. Grinding and sharpening cutters for use on tenoning, planing and vertical spindle moulder. Types of cutter blocks used on various machines and their suitability for various work.

Instruction in the use of safeguards as laid down by the Minister of Industry and Commerce, covering all classes of woodcutting machinery.

Preparation of templates for curved work and use of jigs for holding light work during machining operations.

Practice will be afforded in joinery and furniture manufacture.

BRICKLAYING (PRACTICAL). I.

135. Methods of bonding in walls of various thicknesses—preparation of foundation and footings—position of damp-proof courses—position of vents—laying and jointing of drain pipes—pointing a piece of brickwork in various ways—cutting of simple arches—cutting the skewback—simple weathering to buttresses corbelling—junctions of walls—plain tiling.

BRICKLAYING (DRAWING AND THEORY). I.


BRICKLAYING (PRACTICAL). II.


Practice will be afforded in setting out pieces of brickwork from architectural drawings.
BRICKLAYING (DRAWING AND THEORY). II.


BRICKWORK (PRACTICE). III.

SYLLABUS.

139. Practical Work: bonding irregular piers, etc.—arches, moulded and elliptical—niche hoods finished and for plastering—geometrical tiling—corbelling—splay corners to square, etc.—enamel work in walls and arches.

BRICKWORK (THEORY). III.

140. Drawing: Bricks, mortar, cements—more intimate knowledge of these materials—bonds of various kinds—arches and niche hoods—shoring and underpinning—flying, raking and dead shores—fire bricks and firework in Lancashire boilers, retorts, etc.—walls of stone, cutstone cornices, joints, means of fastening—lintels, etc.—tracery windows, etc.

COURSE IN STONECUTTING. I AND II.

GENERAL SYLLABUS—LECTURE, DRAWING AND PRACTICAL WORK.

First and Second Years.


Machinery: Use of machines for various processes.

COURSE IN LAND SURVEYING AND LEVELLING.

The Course is intended to give a sound theoretical and practical knowledge of Surveying, to give facility in the use of the various instruments, in plotting surveys, and in making finished plans. It will be found of service to students preparing for the examinations of the Institution of Civil Engineers, etc. It also covers much of the work required for the various foreign examinations for Surveyors.

The Course will comprise eighteen lectures and ten practical demonstrations—some devoted to field work, and some to office work. The dates and places for the field work will be announced in class as the Course proceeds.
All apparatus and instruments for field work are provided by the Schools, but students must provide their own plotting scales, survey book, level book, drawing instruments and materials.

SYLLABUS.


An examination in the theory and practice of surveying will be held at the close of the Course, and certificates will be awarded to successful students.

COURSE IN BUILDERS' QUANTITIES.

The Class is intended to supply a course of elementary instruction in Quantity Surveying as practised in Dublin and district, to Architects', Surveyors' and Builders' pupils and assistants, and others engaged in the building trade. Intending students should have a practical knowledge of Building Construction and Drawing and be versed in the elements of mensuration. Instruction will be given in the usual methods of taking off, abstracting and putting into estimating form the materials and labour required in the various trades.

The instruction will be given mainly by lectures illustrated by blackboard sketches; in addition, questions for homework will be set weekly.

Students will be required to provide themselves with a set of paper scales.

SYLLABUS.

191. Quantities and Specifications: general explanation of both, with their essential differences. Taking off: explanation and description of various methods of taking-off, with simple examples; squaring dimensions.

Abstracting: explanation; general hints and simple examples reducing the alternative estimates. Billing and Pricing: explanation; general hints and simple examples.

The mode of measurement and description of the following:

Excavator and Drainer: excavations over surface, and for basements and trenches; disposal of material; strutting and planking—drains; pipes, bends, junctions, traps, inspection chambers, connections to sewers. Bricklayer: concrete in foundations; floors and walls; common brickwork, including party walls; chimney breasts; boundary walls; openings; battered and circular work; work in cement; damp courses; pointing; cuttings; beam filling; trimmer and relieving arches; facings; moulded courses, etc. Mason: rubble walling; wallstone and ashlar facing; dressing, including plinths, sills; strings, cornices, copings, heads, templates; flagging steps, square and spandril; hearths; landings. Carpenter and Joiner: centring; floors; roofs; partitions; windows; doors, staircases, etc. Ironfounder and Smith: cast-iron work in pillars; pipes; beams and gutters; rolled and built steel girders; and iron roofing. Slater and
Tiler: straight, circular and vertical; eaves course; cuttings; ridges; hips and valleys. Plumber and Zinc Work: flats; gutters; cisterns; flashings; bends; stock gutters and pipes in cast-iron; bath and lavatory fittings, etc. Glazier: sheet, ground, rolled and polished plate and lead lights. Plasterer: lime-washing walls; rendering on walls; lath and plaster ceilings and partitions; cornices; enrichments; soffits; cement dadoes and skirtings. Painter: Painting on walls, wood and iron, external or internal; graining, staining, varnishing and lettering.

Text Book.—W. E. Davis: Quantities and Quantity Taking.

COURSE IN GEOMETRICAL HANDRAILING.
(Open only to Journeymen Carpenters or other qualified persons).

The accommodation available for this course being limited, preference will be given to applicants who are past students of the Schools. Those who wish to secure a place should make early application.

SYLLABUS.

152. Setting out wreath for quarter circle plan—method of obtaining the face mould and bevel—practical work—cutting wreath from the plank, bevelling, squaring and moulding—setting out wreath for semi-circular plan—arrangement of risers—how to obtain the face moulds and bevels for equal and unequal pitches—cutting wreath from the plank, bevelling and squaring, joining to straight rail, etc.—setting out terminal scroll and wreath—methods of obtaining bevels, face moulds and falling lines, jointing and moulding complete—setting out wreath over quarterspace of winders; obtaining the face mould and bevels; working and moulding wreath—setting out wreath for ship’s stair, with quadrant well and level landing, the wreath being in two pieces.

Students will require to provide themselves with the ordinary drawing instruments and drawing paper. The Schools will supply the necessary woodworking tools and timber.

COURSE IN MANUAL INSTRUCTION (WOODWORK).
I. AND II.

The main objects of the Class are to afford a training in the proper use of woodworking tools, to give a knowledge of the proper proportion and suitability of joints for different purposes, to enable students to make articles of domestic, personal or other use, and to provide a medium for the learning of mechanical drawing and sketching.

153. Drawing: Simple projection, as required for the working drawing of each model. Woodwork: Exercises in planing, sawing and chiselling—making of woodworking joints—models of a useful nature, involving the use of these joints. Theory: Construction of the various tools, grinding and sharpening of edged tools. Timber: Woods in common use, growth, sources of supply, nature and properties; seasoning of timber.

In the Second Year of the Course the work will be chiefly the making of models of a utilitarian nature, and students will be allowed some freedom in their choice of models.

The necessary tools and timber are provided by the School.

MECHANICAL DRAWING, PATTERN CONSTRUCTION AND GEOMETRICAL DESIGN.

154. The course is arranged so that students may become acquainted with the use of instruments, T-square, set-squares, compass, scales, etc., and the principles of construction of ordinary geometrical figures—special reference will continually be made to the application of geometry to the different branches of industrial art, such as designing, etc. The exercises worked in class will include the drawing of geometrical patterns—spacing of wall and other surfaces for decorative purposes—bands and borders—units of pattern—diapers—the construction of arch-forms—tracery and mouldings. In addition, exercises will be given in the projection of simple solids.

CLASS IN PLAN DRAWING AND READING.

This Class is suitable for clerks in architects’ and builders’ offices, auctioneers, land agents, those engaged in insurance work, heating, engineers and others.

155 Drawing instruments, general setting out and arrangement—construction and use of scales—lettering simple form—use of protractor—segmental and elliptical curves—simple scale drawing—
GENERAL CURRICULUM OF THE SCHOOLS
UNDER THE CONTROL OF
THE CITY OF DUBLIN VOCATIONAL EDUCATION COMMITTEE.

BOLTON STREET TECHNICAL SCHOOL
Motor Car Engineering.  Building and Allied Trades.
Gas Engineering.  Printing and Book Production.
Metal Plate Work.  Watchmaking.
Brass Finishing.  Art and Art Crafts.
Day Apprentice and specialised Daytime Technical Courses.
Day Junior Technical School.

KEVIN STREET TECHNICAL INSTITUTE
Pure and Applied Chemistry.  Domestic Science and Housecraft.
Bacteriology.  Bakery Science and Practice.
Pharmacy.  Bootmaking.
Electrical Engineering and Allied Trades.  Hairdressing.
Tailoring.

PARNELL SQUARE TECHNICAL INSTITUTE
General Commercial Subjects.  Transport.
Accountancy and Allied Subjects.  Day Trade Classes:
Local Government.  Dressmaking.
Domestic Science and Housecraft.  Shirtmaking (Power).
Languages.  Clothing Manufacture (Power).
Day School of Commerce.
Pre-Employment Day Courses for Girls.
GENERAL CURRICULUM OF THE SCHOOLS
UNDER THE CONTROL OF
THE CITY OF DUBLIN VOCATIONAL EDUCATION COMMITTEE.

PEMBROKE TECHNICAL INSTITUTE ( Ringsend and Ballsbridge)
General Commercial Subjects. Mechanical Engineering.
Languages. Oxy-Acetylene Welding.
Domestic Science and Housecraft. Building Trades.
Art and Art Crafts. Day School of Commerce.
Day Junior Technical School.

RATHMINES TECHNICAL INSTITUTE
Advertising and Publicity. Languages.
Domestic Science and Housecraft.
Day School of Commerce.
Pre-Employment Day Courses for Girls.

MARINO TECHNICAL INSTITUTE
General Commercial Subjects. Metalwork.
Languages. Science.
Domestic Science and Housecraft. Woodwork.
Day Junior Technical School.
Day School of Commerce.
Pre-Employment Day Courses for Girls.

CHATHAM ROW SCHOOL OF MUSIC (Day and Evening Classes)
Pianoforte. Wind Instruments (Wood & Brass).
Violoncello. Fifes.
Uileann and Irish War Pipes. Viola.
Elocution. Orchestra.
Violin. Drums and Flute.
Singing and Choir. Traditional Music.
Organ. Irish Harp.