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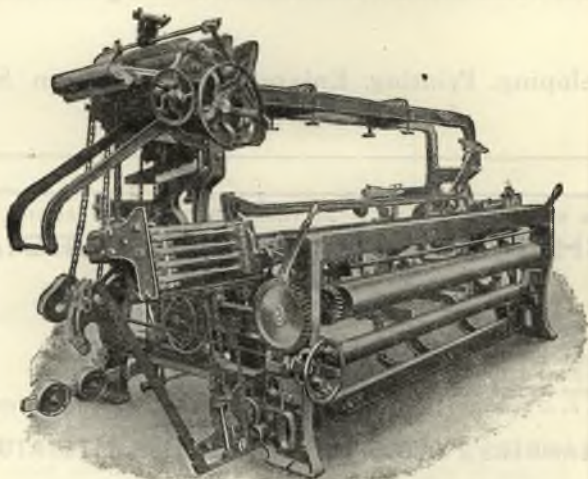
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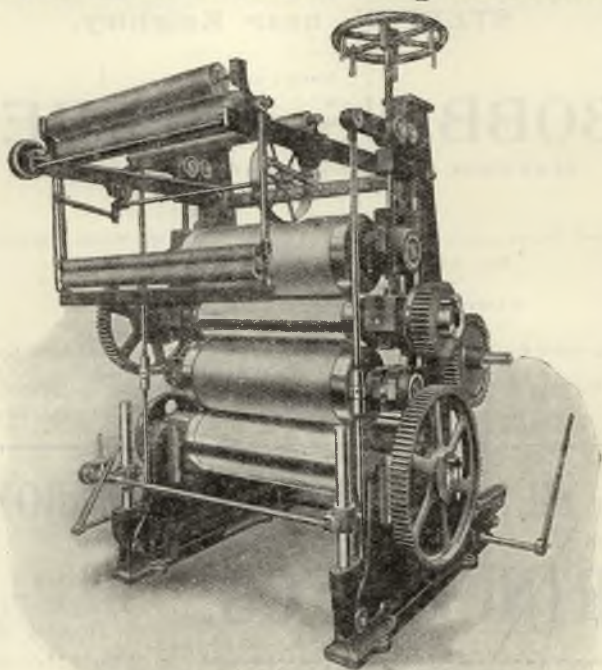
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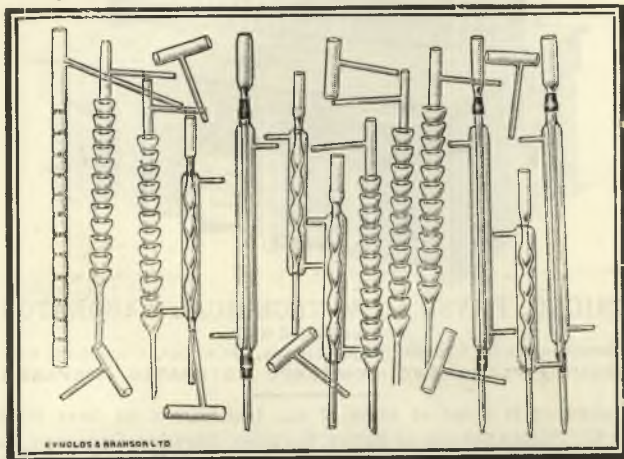
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THE  
UNIVERSITY OF LEEDS

CALENDAR, 1924-25

LEEDS  
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—  
1924

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## ALMANAC, 1924-25

OCTOBER, 1924

1	W	<b>First Term in all Faculties begins.</b> Admission of students.
2	Th	Admission of students.
3	F	
4	S	
5	S	
6	M	Winter course in Agriculture (First Term) begins.
7	Tu	
8	W	Meeting of Finance Committee.
9	Th	
10	F	
11	S	
12	S	
13	M	
14	Tu	
15	W	Meeting of Council.
16	Th	Special Meeting of Board of Faculties of Science and Technology.
17	F	
18	S	
19	S	
20	M	
21	Tu	Meeting of Board of Faculty of Arts.
22	W	
23	Th	
24	F	
25	S	
26	S	
27	M	
28	Tu	Meeting of Board of Faculty of Medicine.
29	W	
30	Th	Meeting of Board of Faculties of Science and Technology.
31	F	



## NOVEMBER, 1924

1	S	
2	S	
3	M	
4	Tu	
5	W	Meeting of Senate.
6	Th	
7	F	
8	S	Last day of entry and payment of fees for Second and Final M.B., for D.P.H., and for Final and First Professional L.D.S. examinations.
9	S	
10	M	
11	Tu	
12	W	Meeting of Finance Committee.
13	Th	
14	F	
15	S	
16	S	
17	M	
18	Tu	Meeting of Board of Faculty of Arts.
19	W	Meeting of Council.
20	Th	Meeting of Board of Faculties of Science and Technology.
21	F	
22	S	
23	S	
24	M	
25	Tu	Meeting of Board of Faculty of Medicine.
26	W	Meeting of Senate.
27	Th	
28	F	
29	S	
30	S	

## DECEMBER, 1924

1	M	Second and Final M.B. and D.P.H. examinations, and Final and First Professional L.D.S. begin.
2	Tu	Meeting of Finance Committee.
3	W	
4	Th	
5	F	
6	S	
7	S	Departmental examinations begin.
8	M	
9	Tu	Meeting of Board of Faculty of Arts.
10	W	Meeting of Council.
11	Th	Evening Class Session (First Term) ends. Winter course in Agriculture (First Term) ends. Degree Day at School of Medicine.
12	F	
13	S	
14	S	<b>Jubilee Week, 15th to 20th.</b> See 15th. See 15th. See 15th. See 15th. See 15th. <b>First Term in all Faculties ends.</b>
15	M	
16	Tu	
17	W	
18	Th	
19	F	
20	S	
21	S	<b>CHRISTMAS DAY.</b> —University closed. University closed. University closed.
22	M	
23	Tu	
24	W	
25	Th	
26	F	
27	S	
28	S	
29	M	
30	Tu	
31	W	

## JANUARY, 1925

1	Th	
2	F	
3	S	
4	S	
5	M	
6	Tu	
7	W	
8	Th	
9	F	
10	S	
11	S	
12	M	Winter course in Agriculture (Second Term) begins.
13	Tu	<b>Second Term in all Faculties begins.</b>
14	W	Evening Class Session (Second Term) begins.
15	Th	Meeting of Finance Committee.
16	F	
17	S	
18	S	
19	M	
20	Tu	Meeting of Board of Faculty of Arts.
21	W	Meeting of Council.
22	Th	
23	F	
24	S	
25	S	
26	M	
27	Tu	Meeting of Board of Faculty of Medicine.
28	W	
29	Th	Meeting of Board of Faculties of Science and Technology.
30	F	
31	S	Last day of entry for Clothworkers' Scholarships.

## FEBRUARY, 1925

1	S	
2	M	
3	Tu	
4	W	Meeting of Senate;
5	Th	
6	F	
7	S	
8	S	
9	M	
10	Tu	
11	W	Meeting of Finance Committee.
12	Th	
13	F	
14	S	
15	S	
16	M	
17	Tu	Meeting of Board of Faculty of Arts.
18	W	Meeting of Council.
19	Th	
20	F	
21	S	
22	S	
23	M	
24	Tu	Meeting of Board of Faculty of Medicine.
25	W	
26	Th	Meeting of Board of Faculties of Science and Technology
27	F	
28	S	

## MARCH, 1925

1	S	
2	M	Last day of entry and of payment of fees for the June Degree and Diploma examinations.
3	Tu	
4	W	Meeting of Senate.
5	Th	
6	F	
7	S	
8	S	
9	M	
10	Tu	
11	W	Meeting of Finance Committee.
12	Th	
13	F	
14	S	
15	S	
16	M	Last day for Return of books to Library.
17	Tu	Meeting of Board of Faculty of Arts.
18	W	Meeting of Council.
19	Th	
20	F	Evening Class session (Second Term) ends.
21	S	Winter course in Agriculture (Second Term) ends.
22	S	
23	M	
24	Tu	
25	W	Second Term in all Faculties ends.
26	Th	
27	F	
28	S	
29	S	
30	M	
31	Tu	



## APRIL, 1925

1	W	Meeting of Finance Committee.
2	Th	
3	F	
4	S	
5	S	
6	M	
7	Tu	
8	W	Meeting of Council.
9	Th	
10	F	GOOD FRIDAY. University closed.
11	S	University closed.
12	S	EASTER DAY.
13	M	University closed.
14	Tu	University closed.
15	W	
16	Th	
17	F	
18	S	
19	S	
20	M	
21	Tu	
22	W	Summer course in Agriculture begins.
23	Th	<b>Third Term in all Faculties begins.</b>
24	F	
25	S	
26	S	
27	M	
28	Tu	Meeting of Board of Faculty of Medicine.
29	W	
30	Th	Meeting of Board of Faculties of Science and Technology.

## MAY, 1925

1	F	Last day of entry for the Leighton and Salt Scholarships, and for sending in Gladstone, Ripon and Lucy Whitmell Prize Essays.
2	S	
3	S	
4	M	
5	Tu	
6	W	Meeting of Senate.
7	Th	
8	F	
9	S	
10	S	
11	M	
12	Tu	
13	W	Meeting of Finance Committee.
14	Th	
15	F	
16	S	Last day of entry and payment of fees for Second and Final M.B., for First Professional and Final L.D.S., and for D.P.H. examinations.
17	S	
18	M	
19	Tu	Meeting of Board of Faculty of Arts.
20	W	Meeting of Council.
21	Th	
22	F	
23	S	
24	S	
25	M	
26	Tu	Meeting of Board of Faculty of Medicine.
27	W	
28	Th	Meeting of Board of Faculties of Science and Technology.
29	F	
30	S	
31	S	WHIT-SUNDAY.

## JUNE, 1925

1	M	University closed.
2	Tu	University closed.
3	W	Meeting of Senate.
4	Th	
5	F	
6	S	
7	S	
8	M	
9	Tu	
10	W	Meeting of Finance Committee.
11	Th	
12	F	
13	S	
14	S	
15	M	
16	Tu	Meeting of Board of Faculty of Arts.
17	W	Meeting of Council.
18	Th	
19	F	
20	S	
21	S	
22	M	Second M.B., Final M.B., and L.D.S. and D.P.H. examinations begin.
23	Tu	
24	W	
25	Th	
26	F	
27	S	
28	S	
29	M	
30	Tu	Meeting of Board of Faculty of Medicine.

## JULY, 1925

1	W	Meetings of Examiners in Arts and Science.
2	Th	Meeting of Fellowships and Scholarships Committee.
3	F	Meeting of Board of Faculties of Science and Technology.
4	S	<b>Third Term in all Faculties ends.</b> Degree Day. Summer course in Agriculture ends.
5	S	
6	M	
7	Tu	
8	W	Meeting of Finance Committee.
9	Th	
10	F	
11	S	
12	S	
13	M	
14	Tu	
15	W	Meeting of Council.
16	Th	
17	F	
18	S	
19	S	
20	M	
21	Tu	
22	W	
23	Th	
24	F	
25	S	
26	S	
27	M	
28	Tu	
29	W	Meeting of Finance Committee.
30	Th	
31	F	

## AUGUST, 1925

1	S	Last day of entry for the Supplementary Intermediate examination in Arts, Commerce and Law, for the First M.B. and B.Ch.D. examinations, and for the Preliminary examination in Science (L.D.S.).
2	S	
3	M	BANK HOLIDAY. University closed.
4	Tu	University closed.
5	W	
6	Th	
7	F	
8	S	
9	S	
10	M	
11	Tu	
12	W	
13	Th	
14	F	
15	S	
16	S	
17	M	
18	Tu	
19	W	
20	Th	
21	F	
22	S	
23	S	
24	M	
25	Tu	
26	W	
27	Th	
28	F	
29	S	
30	S	
31	M	



## SEPTEMBER, 1925

1	Tu	
2	W	
3	Th	
4	F	
5	S	
6	S	
7	M	Supplementary Intermediate examinations in Arts, Commerce and Law, First M.B. and B.Ch.D. examinations, and Preliminary examination in Science (L.D.S.) begin.
8	Tu	
9	W	
10	Th	
11	F	
12	S	
13	S	
14	M	
15	Tu	
16	W	
17	Th	
18	F	
19	S	
20	S	
21	M	
22	Tu	
23	W	
24	Th	
25	F	
26	S	
27	S	
28	M	
29	Tu	
30	W	

## THE UNIVERSITY OF LEEDS

### THE CHARTER

EDWARD VII, by the Grace of God, of the United Kingdom of Great Britain and Ireland and of the British Dominions beyond the Seas, King, Defender of the Faith. To all to whom these presents shall come, greeting.

Whereas by Charter of Her Late Majesty Queen Victoria, dated 20th April, 1880, the Victoria University was founded and constituted having its seat in the City of Manchester.

And whereas the Owens College, Manchester, was thereby constituted a College in the University and provision was made that other Colleges might from time to time be admitted as Colleges in the University in the manner and subject to the conditions therein prescribed.

And whereas the University College, Liverpool, was by resolution of the Court of the University admitted as a College of the University on the 5th November, 1884, and The Yorkshire College, Leeds, was by resolution of the said Court admitted as a College in the University on the 3rd November, 1887, but no other College has been so admitted.

And whereas the said University College, Liverpool, has presented to Us in Our Council a humble Petition under the Common Seal of that College praying us to erect a University within the City of Liverpool.

And whereas the Owens College, Manchester, has presented to Us in Our Council a humble Petition under the Common Seal of that College praying that a new or supplemental Charter may be granted so as to constitute and continue the Victoria University as a University in Manchester without association with any College except the Owens College.

And whereas the Yorkshire College, Leeds, has presented to Us in Our Council a humble Petition under the Common Seal of that College, praying Us to erect a University having its seat in Leeds.

And whereas we have taken the said Petitions into Our Royal consideration and are minded to accede thereto.

Now therefore know ye that We, by virtue of Our Royal Prerogative and all other powers in that behalf enabling us of Our Special Grace certain knowledge and mere motion by these presents Do for Us, Our Heirs and Successors, grant, will, direct, and ordain as follows :

I. There shall be from henceforth for ever in Our said City of Leeds a University of the name and style of "The University of Leeds," which shall be and continue one body politic and corporate with perpetual succession and a common seal and with full power and capacity by and in such name to sue and be sued and to do all other lawful acts whatsoever and with full power and capacity, subject to the restrictions herein set forth, without any further licence to all persons and corporations to assure and to the University to take, by gift or otherwise purchase and hold and also to grant demise or otherwise dispose of real and personal property.

II. The University shall have the powers following :

1. To grant and confer Degrees and other academic distinctions to and on persons who shall have pursued an approved course of study in the University and shall have passed the examinations of the University under conditions laid down in its Statutes or Ordinances. Provided that degrees representing proficiency in technical subjects shall not be conferred without proper security for testing the scientific or general knowledge underlying technical attainments.

2. To admit graduates of other Universities to Degrees of equal or similar rank in the University.

3. To confer Degrees of the University on any persons who hold office in the University as Professors, Readers, Lecturers, or otherwise, or who shall have carried on independent research therein, or on any persons who, at the date of this Our Charter, are Associates of the Yorkshire College.

4. To grant Diplomas, Licentiateships, Certificates, or other distinctions to persons who have pursued a course of study approved by the University under conditions laid down by the University.

5. To confer Honorary Degrees, or other distinctions on approved persons.

Provided that all Degrees and other distinctions shall be conferred and held subject to any provisions which may be made in reference thereto by the Statutes, Ordinances, or Regulations of the University.

6. To provide for instruction in such branches of learning as the University may think fit, and also to make provision for research and for the advancement and dissemination of knowledge.

7. To examine and inspect schools and other educational institutions, to grant Diplomas and other Certificates, and to provide such lectures and instruction for persons not members of the University as the University may determine.

8. To accept the examinations and periods of study passed by students of the University at other Universities or places of learning as equivalent to such examinations and periods of study in the University as the University may determine, and to withdraw such acceptance at any time.

Provided that in no case shall the University confer a Degree in Medicine or Surgery upon any person who has not attended in the University during two years at least courses of study recognised for such Degree, or for one of the other Degrees of the University.

9. To affiliate other Colleges or institutions or branches or departments thereof, or to admit the members thereof to any of the privileges of the University, and to accept attendance at courses of study in such Colleges or institutions in place of such part of the attendance at courses of study in the University, and upon such terms and conditions and subject to such regulations as may from time to time be determined by the University.

10. To co-operate by means of joint boards or otherwise, with other Universities and Authorities for the

conduct of Matriculation examinations, for the examination and inspection of schools and other academic institutions and for such other purposes as the University may from time to time determine.

11. To enter into any agreement with the Yorkshire College for the incorporation of that College in the University, and for taking over its property and liabilities, and, if necessary, to promote a Bill in Parliament to confirm or carry out any such agreement.

12. To enter into any agreement with any other institution for the incorporation of that institution in the University and for taking over its property and liabilities, and for any other purpose not repugnant to this Our Charter.

13. To enter into any agreement with the Victoria University of Manchester or with the University of Liverpool for the division or apportionment of any of the moneys, endowments, or property of the Victoria University, with due regard to the local origin of any particular foundation, to the wishes of the Donors, and other special circumstances, and for reference to an Arbitrator in case of difference.

14. To institute Professorships, Assistant Professorships, Readerships, Lectureships, Teacherships, and any other offices required by the University, and to appoint to such offices. Also to institute and award Fellowships, Scholarships and Exhibitions and Prizes.

15. To license Halls for the residence of students.

16. To do all such other acts and things whether incidental to the powers aforesaid or not, as may be requisite in order to further the objects of the University as a Teaching and Examining Body, and to cultivate and promote Arts, Science, and Learning.

III. It shall be the duty of the University to co-operate, by means of a Joint Board or otherwise, with the Victoria University of Manchester and the University of Liverpool for the regulation and conduct of Matriculation examinations, including the conditions of exemption therefrom. Statutes of the University shall prescribe and regulate the constitution



and duties of the said Joint Board, the appointment and continuance in office of the members thereof, the filling of vacancies among the members, and all other matters relative to the Joint Board which it may be thought are proper to be so regulated and prescribed.

*Visitor*

IV. We, Our Heirs and Successors, Kings and Queens of the Kingdom and Dominions aforesaid, shall be and remain the Visitor and Visitors of the University through the Lord President of our Council for the time being, and in the exercise of the Visitorial Authority We and Our Heirs and Successors shall have the right from time to time and in such manner as We or They shall think fit to direct an inspection of the University, its buildings, laboratories, and general equipment, and also of the examination, teaching, and other work done by the University.

*Authorities of the University*

V. The Authorities of the University shall be the Chancellor, the Pro-Chancellor, the Vice-Chancellor, the Pro-Vice-Chancellor, the Court, the Council, the Senate, the Faculties, the Boards of Faculties, and the Convocation. There shall be a Treasurer and other proper officers of the University.

*The Chancellor*

VI. The Chancellor shall be the Head and Chief Officer of the University and President of its Court, Council, and Convocation, and shall, except as otherwise hereby provided, confer Degrees. He shall hold office during his life or until his resignation or until his removal for good cause by the Visitor at the instance of the Court.

Our right trusty and entirely beloved Cousin and Councillor, George Frederick Samuel, Marquis of Ripon, Knight of Our Most Noble Order of the Garter, Doctor of Laws, shall be the first Chancellor of the University.

His successors from time to time shall be elected by the Court on the nomination of the Council of the University.

*The Pro-Chancellor*

VII. In the absence of the Chancellor, or pending a vacancy in the office of Chancellor, or during the Chancellor's inability to act, the Pro-Chancellor shall exercise all the functions of the Chancellor, except the conferring of Degrees, and shall, if present, preside at any meetings of the Court and Council. Our trusty and well-beloved Arthur Greenhow Lupton, Chairman of the Council of the Yorkshire College, shall be the first Pro-Chancellor of the University, and shall hold his office for one year. Subsequent appointments to the said office shall be made annually by the Court on the nomination of the Council.

*The Vice-Chancellor*

VIII. The Vice-Chancellor shall be ex-officio Chairman of the Senate. In the absence of the Chancellor the Vice-Chancellor shall confer Degrees, except as otherwise hereby provided.

Our trusty and well-beloved Nathan Bodington, Principal of the Yorkshire College, Doctor of Letters, shall be the first Vice-Chancellor of the University, and shall hold such office for such term or terms and subject to such conditions as may from time to time be determined by the Council.

His successors from time to time shall be appointed by the Court on the nomination of the Council and shall hold such office for such term or terms and subject to such conditions as may from time to time be determined by the Council.

*The Pro-Vice-Chancellor*

IX. Subject to the Statutes and Ordinances of the University, and in the absence of the Vice-Chancellor, the Pro-Vice-Chancellor may act as Vice-Chancellor. The Pro-Vice-Chancellor shall from time to time be appointed by the Council from among the members of the Senate.

*The Court*

X. The Court shall be the governing body of the University and shall direct the form, custody, and use of the Common Seal, and shall have power to regulate and

determine all matters concerning the University, and generally shall exercise all the powers and discretions of the University, except as otherwise provided by this Our Charter or by the Statutes.

The Court shall have power by Statute to increase or diminish the number of its members, by increasing or diminishing the number to be nominated or appointed by the persons or bodies possessing the right of nomination or appointment, or by adding representatives of other bodies, or in any other manner.

The Statutes set forth in the Schedule hereto annexed shall be the first Statutes of the University under this Our Charter. The Court may amend, add to, or repeal the Statutes for the time being in force (including those set forth in the Schedule hereto), but no such amendment, addition, or repeal shall be valid or operative until allowed by Us or by a Committee of Our Council.

Ordinances may be made by the Court for the regulation of all matters not required by this Our Charter to be dealt with by Statute.

Provided (1) that it shall not be lawful for the Court, by any Statute or otherwise, to adopt or impose on any person any test whatever of religious belief or profession in order to entitle him to be admitted as a Professor, Teacher, Student, or Member of the University, or to hold office therein, or to graduate thereat, or to enjoy or exercise any privilege thereof.

Provided (2) that any Statute or Ordinance made by the Court be not repugnant to the laws of this Realm or to the general objects of this Our Charter.

Provided (3) that Statutes or Ordinances relating to Degrees, studies, and examinations shall not be adopted without report from the Senate.

Provided (4) that no change shall be made in any Statute or Ordinance altering the status, powers, or constitution of any of the Authorities of the University until such Authority shall have had an opportunity of pronouncing an opinion upon the proposed change

The Court shall have power to confer Degrees in absentia by a resolution of the Court, but save as aforesaid all Degrees shall be conferred by the Chancellor or in his absence by the Vice-Chancellor or Pro-Vice-Chancellor.

The Court shall have power to deprive any Graduate of the University who shall have been convicted of a crime or offence, or shall, in the opinion of the Court, have been guilty of scandalous conduct, of any Degree or Degrees conferred by the University and of all privileges enjoyed by him as such Graduate aforesaid.

The acts of the Court shall not be invalidated by any vacancy among its Members.

XI. Every Statute or alteration of a Statute, and every Ordinance or alteration of an Ordinance relating to any of the matters following, that is to say :

- (a) The titles of Degrees,
- (b) The establishment of new Degrees,
- (c) The periods of residence and study in the University or in any affiliated or recognised institution required for Degrees,
- (d) The conditions under which Degrees higher than the Degree of Bachelor in any faculty are to be granted,
- (e) The courses for medical Degrees and the subjects of examinations,

shall before such Statute or alteration of a Statute shall be allowed and before such Ordinance or alteration of an Ordinance shall become operative and have effect be communicated to the Victoria University of Manchester and the University of Liverpool, and if within one month after the receipt of such communication notice of objection thereto shall have been given by the said Universities or either of them the question so arising shall be considered by a Joint Committee of the three Universities, and in default of agreement any of the said Universities may within one month make a representation in regard thereto to Us or to a committee of Our Council, and, in the event last mentioned, such Statute or Ordinance or alteration therein shall not become operative and have effect until allowed by Us or by such Committee.

Statutes of the University shall prescribe and regulate the constitution and appointment of the said Joint Committee and all other matters relating to the said Committee which it may be thought are proper to be so prescribed and regulated.

*The Council*

XII. The Council shall be the Executive Body of the University and may exercise and do such of the powers, authorities, and things by this Our Charter granted to or authorised to be done by the Court, as are, or shall from time to time be assigned to the Council by Statute or by the Court, except the election of Members of the Court to be Members of the Council.

The Court shall have power by Statute to increase or diminish the number of the Council, by increasing or diminishing the number to be nominated, elected, or appointed by the persons or bodies possessing the right of nomination or appointment, or by adding representatives of other bodies, or in any other manner.

The Council shall have power to draft Statutes and Ordinances as and when they see fit, and to submit the same to the Court for consideration and enactment.

The acts of the Council shall not be invalidated by reason of any vacancy among its members.

*The Senate*

XIII. The constitution of the Senate shall be determined by Statute.

The Senate shall, subject to the Statutes and Ordinances of the University, and subject also to review by the Court, have the control and general regulation of the instruction and education within the University and shall have power to discuss and pronounce an opinion on any matter whatsoever relating to the University and such other powers and duties as may be conferred upon it by Statute or Ordinance.

*Faculties*

XIV. The University shall include the Faculties of Arts, Science, Medicine and Technology, and such other Faculties



(whether formed by the sub-division of an existing faculty or by the creation of a new faculty or otherwise) as may from time to time be constituted by Statute.

The constitution and powers of the several Faculties shall be determined by Statute.

Such Boards of Faculties shall be appointed by the Council as the Council may from time to time determine; the members of each Board (the numbers of whom shall be in the discretion of the Council) shall be appointed by the Council from among members of one or more Faculties, or from among the External Examiners of the University.

### *Convocation*

XV. The Convocation shall consist of the Chancellor, the Vice-Chancellor, the Pro-Vice-Chancellor, the Members of the Senate, the Lecturers, and the registered Graduates of the University.

The Court shall have power to fix the conditions of registration and to prescribe the annual or other fees, or a composition therefor which shall be necessary for registration.

The Chancellor, if present, shall preside at the Meetings of Convocation.

### *Powers of Convocation*

XVI. Convocation shall have the following powers:

To elect its own Chairman, who shall, in the absence of the Chancellor, preside at its Meetings.

To elect representatives as Members of the Court and Council.

To discuss and pronounce an opinion on any matter whatsoever relating to the University, including any matters referred to them by the Court or the Council.

To prescribe the mode of conducting the proceedings of Convocation and of registering the same, and of reporting the same to the Court, Council, or Senate, or any of them.

To enter into communication directly with the Court, Council, or Senate on any matter affecting the University.

*Regulations as to Procedure*

XVII. The Court, the Council, the Senate, the Faculties, the Boards of Faculties, and Convocation respectively may from time to time make regulations for governing their respective proceedings, subject to this Our Charter and to the Statutes and Ordinances of the University.

*The Treasurer*

XVIII. Our trusty and well-beloved Sir John Barran, Baronet, Treasurer of the Yorkshire College, shall be the first Treasurer of the University, and shall hold his office for one year. Subsequent appointments to the said office shall be made annually by the Court.

*Members of the University*

XIX. The Members of the University shall be the Chancellor, the Pro-Chancellor, the Vice-Chancellor, the Pro-Vice-Chancellor, the Treasurer, the Members of the University Court, the Professors, Emeritus Professors, Assistant Professors, Readers, Lecturers and Demonstrators, and such other Teachers of the University as the Court may determine, the Members of the Faculties, the holders of such other University offices as the Council may from time to time determine, the Wardens or other chief officers of Halls of Residence licensed by the University, Fellows, Graduates, and Undergraduates of the University.

The Undergraduates of the University shall be such persons attending lectures, or receiving instruction in the University as shall have matriculated under the Statutes.

*Advisory Committees*

XX. The Council may from time to time appoint Advisory Committees, consisting of members of the University, and also if the Council shall think fit, of persons who are not members of the University, and may delegate to such Committees such duties as it thinks fit as regards financial, administrative, or other matters affecting the University or any particular Faculty or Department, or the management or supervision of any buildings or property of the University,

*Examiners and Examinations*

XXI. All examinations held by the University shall be conducted in such manner as the Statutes and Ordinances shall prescribe, provided that at least one external and independent examiner shall be appointed by the Council for each subject or group of subjects forming part of the course of studies required for University degrees, but this proviso shall not apply to examinations for admission or entrance to the University.

Provided that in case of a vacancy occurring in or during any examination or of other emergency the Vice-Chancellor shall have power to appoint a substitute for that examination.

*General Provisions*

XXII. All the Degrees and courses of study of the University shall be open to women, subject to such conditions and regulations as the Court may prescribe, and women shall be eligible for any office in the University and for membership of any of its constituent bodies, and in the present Charter words implying the male sex shall be held to include the female, unless the context clearly shows the meaning to be otherwise.

XXIII. The University may from time to time found and endow Fellowships, Scholarships, Exhibitions, and other Prizes for which funds or property may, by bequest, donation, grant, or otherwise be provided, and may make regulations respecting the same and the tenure thereof, but, except as aforesaid, and except by way of prize, reward, special grant, or remuneration for services rendered or to be rendered, in the past, present, or future respectively, the University shall not make any gift, division or bonus in money unto or between any of its members.

XXIV. In addition to the buildings, lands, and premises of the University for the time being used and occupied for the immediate purposes thereof, the University shall have power to hold lands, tenements, and hereditaments of an annual value not exceeding in the aggregate, at the time or respective times of the acquisition of the same, the sum of £50,000.

XXV. The University may demand and receive such fees as the Court may from time to time appoint.

XXVI. The Court may from time to time alter, amend, or add to these presents by a Special Resolution in that behalf, and such alteration, amendment or addition shall, when allowed by Us, our Heirs, or Successors, or by any Committee of our Most Honourable Privy Council, or otherwise as We or They shall think fit, become effectual so that these presents shall thenceforward continue and operate as though they had been originally granted and made as so altered, amended, or added to. This Article shall apply to this Charter as altered, amended, or added to in any manner aforesaid.

XXVII. A Special Resolution is a Resolution passed at one meeting of the Court and confirmed at a subsequent meeting, held not less than one calendar month, nor more than three calendar months after the former, provided that the Resolution be passed at each meeting by a majority of not less than three-fourths of the Members of the Court present and voting thereon.

XXVIII. In this Our Charter "Statutes" means the Statutes set forth in the Schedule hereto and any Statutes altering, amending, adding to, or repealing the same or any of them which may hereafter be made and may be allowed by Us in Council, or by a Committee of Our Council.

"Ordinances" means Acts of the Court under the powers conferred by this Our Charter to which Our further sanction is not hereby or by Statute required.

"Regulations," except when otherwise required by the context, means Regulations made pursuant to this Our Charter or the Statutes.

XXIX. Our Royal Will and pleasure is that this Our Charter shall always be construed and adjudged in the most favourable and beneficial sense for the best advantage of the University, and the promotion of the objects of this Our Charter as well in all our Courts as elsewhere notwithstanding any non-recital, mis-recital, uncertainty or imperfection herein.

## THE SCHEDULE

## STATUTES

## I.

*The University Court*

## (a)

The University Court (hereinafter called the Court) shall consist of the following persons, viz. :

1. *Ex-officio* members, The Chancellor, the Pro-Chancellor, the Vice-Chancellor, and the Treasurer.

2 All present members of the Council of the Yorkshire College ; all future members of the University Council, during their tenure of office ; all present Perpetual and Life Governors of the College ; and all future Donors of £1,000 to the University. If a donation of £1,000 be made by a company, society, or partnership firm, one member thereof may be nominated by the Donors as a member of the Court.

Six representatives of the Clothworkers' Company of London.

One representative of the Skinners' Company of London.

One representative of the Drapers' Company of London.

One representative of the Trustees of William Akroyd's Foundation.

One representative of the West Yorkshire Coal Owners' Association.

One representative of the Yorkshire Board of Legal Studies.

3. Representatives of Public Authorities, viz. :

Six from the County Council of the West Riding of Yorkshire.

Two from the County Council of the North Riding of Yorkshire.

Two from the County Council of the East Riding of Yorkshire.



Four from the Council of the County Borough of Leeds.

Two from the Council of the County Borough of Bradford.

One from the Council of the County Borough of York.

One from the Council of the County Borough of Hull.

One from the Council of the County Borough of Halifax.

One from the Council of the County Borough of Huddersfield.

One from the Council of the County Borough of Middlesbrough.

One from the Council of each of such other County Boroughs to be created in future as may be approved by the Court.

4. Representatives of the University :

Ten from the Faculties.

Representatives (not exceeding five in all) of the Convocation, viz :—one representative for every hundred members up to 500.

5. Representatives of other Institutions, viz. :

Representatives of such Affiliated Institutions as the Court may determine, and

One representative of the Victoria University of Manchester.

One representative of the University of Liverpool.

One representative of such other English University as the Court may determine.

6. Representatives of Schools :

Eight representatives of the Head Masters and Mistresses of Secondary Schools in Yorkshire, such representatives to be appointed by the Court.

7. Other Governors :

Three persons appointed by the Crown.

Ten persons elected by co-optation by the Court.

Except as otherwise by the Charter provided, and subject to the Statutes of the University, the Court may determine all matters relating to the nomination, appointment, and election of members of the Court and Council, and their respective periods or terms of office, and all other matters relating to the constitution of the Court and Council.

(b)

The Court shall have power to delegate its functions to the Council except as otherwise provided, and to delegate to the Senate the power to award Degrees other than *ad eundem* Degrees, Degrees conferred on persons who hold office in the University, and Honorary Degrees.

The periods during which members of the Court respectively shall hold office shall be as follows :

The Chancellor, the Pro-Chancellor, the Vice-Chancellor, the Treasurer, and all future members of the University Council shall hold office during the time they occupy the positions named respectively.

All present members of the Council of the Yorkshire College, and all present Perpetual and Life Governors of the Yorkshire College, and all future donors of £1,000 to the University, and the persons nominated by the donors in the case of donations of £1,000 made by a company, society, or partnership firm, shall hold office for their respective lives, or until resignation.

All other members mentioned in clause (a) 2 above, and all members mentioned in clause (a) 3 above, shall hold office for one year from the date of appointment. Of the members mentioned in clause (a) 4, the ten representatives of the Faculties shall hold office for two years from the respective dates of appointment, and five of such members, to be selected by lot or otherwise as the Court shall determine, shall retire in each year ; provided that if a representative of a Faculty ceases to be a member of that Faculty he shall cease to be a member of the Court. The representatives of Convocation shall hold office for two years from the date of appointment. Members mentioned in clause

(a) 5 and 6, shall hold office for two years from the respective dates of appointment. Members mentioned in clause (a) 7 shall hold office for five years from the respective dates of appointment, but of the members appointed by co-optation two, to be selected by lot or otherwise as the Court shall determine, shall retire each year.

All retiring members shall be eligible for re-appointment or re-election.

Appointees or representatives need not be members of the bodies appointing.

Any member of the Court may resign such membership at any time by letter addressed to the Registrar of the University.

Any casual vacancy occurring by resignation, incapacity, or death among the appointed or representative or co-opted members shall be filled up as soon as convenient by the person or body which appointed or co-opted the member whose place has become vacant. If such member was a member for a term of years the person appointed to supply his place shall be a member of the Court for the remainder of that term.

Fifteen members of the Court shall form a quorum, and, until the above-mentioned representative members have been appointed, the other members shall form the Court.

## II.

### *The University Council*

(a) The University Council (hereinafter called the Council) shall consist of the following persons, namely:—

The Chancellor, the Pro-Chancellor, the Vice-Chancellor, and the Treasurer.

Two representatives of the West Riding County Council.

One representative of the North Riding County Council.

One representative of the East Riding County Council.

Two representatives of the County Borough of Leeds.

One representative of the County Borough of Bradford.

- One representative of the Council of the County Borough of York.
- One representative of the Council of the County Borough of Hull.
- One representative of the Council of the County Borough of Halifax.
- One representative of the Council of the County Borough of Huddersfield.
- One representative of the Council of the County Borough of Middlesbrough.
- One from the Council of each of such other Yorkshire County Boroughs already existing or to be created in future as may be approved by the Court.
- Two representatives of the Clothworkers' Company of London.
- Five representatives to be elected by the Faculties of the University.
- One member to be elected by Convocation.
- One member to be nominated by the Crown.
- Twelve members to be elected by the Court. Provided nevertheless, that at first such of the present members of the Council of the Yorkshire College as have been elected thereto by the Board of Governors of the College shall take the place of the said twelve members; and of such members of the Council of the Yorkshire College four, to be selected by lot or otherwise as the Council may determine, shall retire every three years until the number of such members has been reduced to twelve or less; and on the number of such members being reduced to less than twelve the Court shall have power to appoint any other person or persons to make up such number to twelve. Provided also that, as from the 1st May, 1920, the number of members to be elected by the Court shall be increased from twelve to sixteen. Provided also that a person of the age of 71 years or over shall not be eligible for election or re-election by the Court as a member of the Council unless he was a member on the 21st April, 1920. So soon as the number of such members shall have been reduced to twelve or less, the members of the

Council of the Yorkshire College who at that time remain members of the Council, together with such appointee or appointees of the Court as aforesaid, shall hold office for the period and be subject to the provisions as to retirement hereinafter mentioned, as if all such members and appointees as aforesaid had been elected members of the Council by the Court on the day when such number as aforesaid was reduced to twelve or less.

The members of the Teaching Staff who are members of the Council, however elected (including the Vice-Chancellor), shall not exceed one fifth of the whole Council.

(b) The periods during which the members of the Council respectively shall hold office shall be as follows :

The Chancellor, the Pro-Chancellor, the Vice-Chancellor and the Treasurer shall hold office for the time during which they occupy the positions named respectively.

All other members of the Council shall hold office for one year from the date of appointment, except as otherwise hereinbefore provided and except members elected by the Court, who shall hold office for three years (four, to be selected by lot or otherwise as the Council shall determine, retiring each year), and except the person appointed by the Crown, who shall hold office for five years. Provided that the term of office of members newly elected by the Court in or after the year 1920 (other than those appointed to fill casual vacancies) shall be four years, and that the term of office of retiring members re-elected by the Court after the year 1920 shall also be four years.

Subject to the proviso contained in the foregoing Sub-section (a) as to an age-limit for the election or re-election of members by the Court, all retiring members shall be eligible for re-appointment or re-election.

Appointees or representatives need not be members of the bodies appointing.

Any member of the Council may resign such membership at any time by letter addressed to the Registrar of the University.



Any casual vacancy occurring by resignation, incapacity, or death among the appointed or representative members shall be filled up as soon as convenient by the person or body which appointed the member whose place has become vacant. If such member was a member for a term of years the person appointed to supply his place shall be a member of the Council for the remainder of that term.

Seven members of the Council shall form a quorum, and until the above named representative members have been elected, the other members shall form the Council.

### III.

#### *Powers of the Council*

Subject to the provisions made in the Charter and Statutes, the Council shall have the following powers :

To nominate the Pro-Chancellor and the Vice-Chancellor.

To elect Professors of the University, and either to elect or to delegate to the Senate the election of any academic officers of the University other than Professors.

To elect a Registrar and other officers of the University for such periods and under such conditions as may be determined by the Council.

To institute Professorships, Assistant Professorships, Readerships, Lectureships, or other teaching offices, after giving the Senate the opportunity of reporting thereon.

To abolish or hold in abeyance, after giving the Senate the opportunity of reporting thereon, any Professorship, Readership, or other academic office in the University.

To draft Statutes and Ordinances as and when it sees fit and submit the same to the Court. Provided that any Statute or Ordinance relating to courses of study shall not be adopted without giving the Senate the opportunity of reporting thereon.

To make regulations for any purposes for which regulations are or may be authorised to be made.

To govern, manage, and regulate the finances, accounts, investments, property, business, and all affairs whatsoever of the University, and for that purpose to appoint Bankers, Deputy-Treasurers, and any other officers or agents whom it may seem expedient to appoint.

To invest any moneys belonging to the University, including any unapplied income in such stocks, funds, fully paid shares or securities as the Council shall from time to time think fit, whether authorised by the general law for the investment of trust moneys or not, and whether within the United Kingdom of Great Britain and Ireland or not or in the purchase of freehold, copyhold, or leasehold hereditaments in the United Kingdom, including rent charges, or chief rents, with the like power of varying such investments from time to time by sale and re-investment or otherwise.

To sell, buy, exchange, lease, and accept leases of real and personal property on behalf of the University.

To provide the buildings, premises, furniture, and apparatus and other means needed for carrying on the work of the University.

To enter into, vary, carry out, and cancel contracts on behalf of the University. Any contract entered into on behalf of the University may be made in any manner authorised by law for the making of contracts by or on behalf of Companies incorporated under the Companies' Acts, 1862 and 1867.

#### IV.

##### *Powers of the Vice-Chancellor*

The Vice-Chancellor shall have the sole power of suspending or dismissing any offending student, subject to the right of appeal to the Visitor. He shall exercise general supervision over the educational arrangements of the University, regulate the admission of students, and maintain the discipline of the University, for which he shall be responsible to the Council.

## V.

*The Senate*

The Senate of the University shall consist of the Vice-Chancellor and the Professors of the University, and of such other members of the Boards of Faculties hereinafter mentioned as the Court may, after report from the Senate, appoint, provided that the number of such other members appointed shall not exceed three, and that they shall hold office for such term only as the Court shall determine.

The Professors of the University within the meaning of the Charter shall include those persons who shall be appointed by the Council as such, and also the Professors of the Yorkshire College at the date of the Charter, who shall hold their Professorships upon the same conditions as those upon which they held them at the date of the Charter, until such conditions shall be modified or altered by the Council.

The Senate shall have the following powers :

To make and submit to the Council, after report from the Board or Boards of Faculties concerned, all regulations for giving effect to the Statutes and Ordinances of the University relating to courses of study.

To appoint Internal Examiners after report from the Board or Boards of Faculties concerned.

To recommend External Examiners for appointment by the Council after report from the Board or Boards of Faculties concerned.

To report to the Council, after report from the Board or Boards of Faculties concerned, on all Ordinances relating to courses of study.

To report to the Council on Statutes or Ordinances or proposed changes of Statutes or Ordinances.

To report on any matter referred to or delegated to them by the Court or the Council.

To discuss and declare an opinion on any matter whatsoever relating to the University.

To appoint on delegation of the Council, Readers, Lecturers, and other academic officers of the University not being Professors.

To formulate and modify or revise, subject to the control of the Council, schemes for the organisation of Faculties of Arts, Science, Medicine, Technology, and any other Faculties of the University, and to assign to such Faculties their respective subjects; also to report to the Council as to the expediency of the establishment at any time of other Faculties, or as to the expediency of the abolition, combination, or sub-division of any Faculties.

To fix, subject to any conditions made by the Founders which are accepted by the Court, the times and mode and conditions of competition for Fellowships, Scholarships, and other Prizes, and to award the same.

To do such other acts and things as the Court shall authorise.

No new Degree shall be established or other distinction of Honour or Merit adopted until the Senate has had an opportunity of reporting thereon.

## VI.

### *Faculties*

Each of the Faculties shall respectively consist of:—

1. The Professors assigned thereto by the Council.
2. Such Lecturers, Assistant Lecturers, and other teachers of the University as may be appointed to the Faculty by the Council on the recommendation of the Senate.
3. Such other persons as may be appointed by the Council of the University on the recommendation of the Senate.

Each of the Faculties shall have the power of electing a representative or representatives on the Court and Council of the University, but in the event of the number of Faculties being so increased that the members of the staff elected by

them would exceed the proportion limited as hereinbefore expressed, the Council shall decide by what Faculties or combinations of Faculties the election shall be made.

Each Faculty shall have the power of presenting recommendations and reports to the Senate upon all matters connected with the subjects of study embraced by the Faculty.

The Faculty of Arts shall, until otherwise provided by Statute, include Economics and Law.

The Faculty of Technology shall, until otherwise provided by Statute, include Agriculture, Dyeing, Engineering, Leather Industries, Mining, and Textile Industries.

The Vice-Chancellor shall be a member of each of the several Faculties and Boards of Faculties.

There shall be a Dean of each Faculty elected by that Faculty, or otherwise as the Council shall direct. He shall preside at the meetings of the Faculty and hold office during such period and with such powers as shall be determined by Statute or Ordinance, and shall be eligible for re-election.

## VII.

### *Powers of the Boards of Faculties*

The Boards of Faculties respectively shall have the powers following :—

To regulate, subject to the control of the Senate, the teaching and study of the subjects assigned to the Board in question.

To make recommendations as to the appointment of Examiners.

To report to the Senate on Ordinances and Regulations dealing with courses of study for degrees and other distinctions, and on any questions relating to the work of the respective Faculties.

To deal with any matter referred or delegated to them by the Senate.

## VIII.

### *Convocation*

A Register shall be kept containing the names of all persons who are members of Convocation according to the provision made by the Charter.



The Register shall be conclusive evidence that any person whose name appears therein at the time of claiming to vote in Convocation is entitled to vote, and that any person whose name does not appear therein is not so entitled.

A meeting of Convocation shall be summoned at least once in every year and at such other times as Convocation may by its by-laws determine.

A meeting of Convocation may be called by the direction of the Chairman, and shall also be called on the requisition in writing of at least twenty members.

#### IX.

##### *Auditor*

The Court shall annually appoint an Auditor, who shall be a member of the Institute of Chartered Accountants of England and Wales, or of the Incorporated Society of Accountants and Auditors, in the active practice of his profession, who shall receive such remuneration as may from time to time be determined by the Court.

Acceptance of office by an Auditor shall be deemed to carry with it an undertaking by the Auditor to the University that every certificate given by him, or passing of accounts by him, implies that he has satisfied himself by full and careful investigation (made by himself or agents, for whom he undertakes to be responsible) by every reasonable means within his power, and after the exercise of due professional skill, that the statements in the certificate are true and accurate, and that any accounts certified or passed are complete, true, and accurate.

#### X.

##### *Committee for considering objections by the Universities at Manchester and Liverpool*

The Joint Committee to be constituted pursuant to Clause XI of the Charter for considering objections made by the Victoria University of Manchester and the University of Liverpool to proposed Statutes and Ordinances, shall consist of nine members, three to be appointed by each University.

The Joint Committee shall be convened by the Registrar of the Victoria University of Manchester.

## XI.

*Committee for considering objections to proposed Statutes and Ordinances of the University of Sheffield*

Any Committee to be constituted for considering objections made by any of the Universities in Manchester, Liverpool and Leeds to proposed Statutes and Ordinances of the University of Sheffield shall consist of twelve members, three to be appointed by each of the said Universities.

Such Committee shall be convened by the Registrar of the Victoria University of Manchester.

## XII.

*Regulation and conduct of the Matriculation examination*

The Matriculation examination which must be passed by students before entering on the degree courses in the University shall be regulated and conducted by a Joint Board constituted as hereinafter prescribed.

The Joint Board shall determine the conditions and subjects of the examination, together with the exemptions and conditions of exemption from it, provided that the Senate of each University shall have power to exempt from the Matriculation examination such persons as it may judge suitably qualified by higher study or research to enter upon a course for a degree.

The Board shall, with the consent of the five Universities concerned, have power to prescribe particular subjects to be passed in the examination as a condition of admission into particular Faculties, provided that at any time after any regulation to that end shall have been prescribed by the Board any of the five Universities shall have power to cause it to cease to be operative, on the expiration of two years from the date of notice to be given to the Board, so far as concerns such University.

The regulations of the Board regarding the Matriculation examination shall not affect the power of each University (a) to require a standard higher than that of the Matriculation examination in any subject or subjects as a condition of admission into any Faculty or School; (b) to require candidates as a condition of admission into its several Faculties and Honours Schools and courses leading to a

particular degree to have passed in such of the optional subjects of the Matriculation examination as the University may determine ; (c) to admit unmatriculated students to such classes as it may think fit ; or (d) to determine how far the examinations recognised by the Joint Board as exempting from the Matriculation examination shall be accepted by the University concerned as satisfying the requirements made by the University under sections (a) and (b) of this clause.

The Joint Board shall consist of twenty members, four to be elected annually by each of the Universities in Manchester, Liverpool, Leeds, Sheffield, and Birmingham, with power to co-opt persons of educational experience to the number of six.

When any change in the regulations regarding the Matriculation examination is carried in the Joint Board by a majority consisting of less than two-thirds of the members who are present, the question at issue shall, if any four members present and voting so require, be referred to each of the five Universities, who shall each then nominate two additional members of the Board for the purpose of dealing with such question. The decision of the Board so constituted shall be final.

The Board shall send annual reports to each University.

The five Universities shall contribute to the expenses of the Joint Board in such proportions as may be hereafter determined.

### XIII.

#### *Periods of Study before Graduation*

The period of study necessary to qualify any student for graduation shall not be less than three years, all of which shall be subsequent to the date at which the student passes the Matriculation examination

This Clause shall come into operation not later than October 1st, 1906.

In the case of the Yorkshire College, and in the event of any other College or Institution, or any branch or department thereof, becoming affiliated to the University within six months from the date of the Charter, the University may

accept attendance which commenced on or subsequent to the First day of October, 1903, at courses of study in the Yorkshire College or in such other College or Institution in place of attendance at courses of study in the University for the same period.

## XIV.

*Definitions*

In these Statutes—

“Statutes” means the Statutes of the University.

“Ordinances” means Ordinances made pursuant to the Charter or Statutes.

“Regulations” means Regulations made pursuant to the Charter or Statutes.

In witness whereof We have caused these Our Letters to be made Patent.

Witness Ourself at Westminster the twenty-fifth of April in the Fourth Year of Our Reign.

By Warrant under the King's Sign Manual.

MUIR MACKENZIE.



## ORDINANCES

made by the Court in accordance with the provisions of  
Clauses X and XI of the Charter

## I. AFFILIATED COLLEGES AND INSTITUTIONS

1. Colleges and Institutions, or parts thereof, may be admitted to affiliation after report by the Senate. The Senate, before recommending the affiliation of any such College or Institution, shall satisfy itself :

- (a) That the College or Institution has attained a satisfactory standard of educational efficiency for the purposes for which affiliation is sought, and is established on a permanent basis.
- (b) That the majority of regular students in such College or Institution are of the age of sixteen years.

2. In the case of any affiliated College or Institution, or of any part of such College or Institution recognised for the purposes of this clause, students who have attained the age of seventeen years, and have passed the Matriculation examination of the University, or are exempt therefrom, shall be allowed to attend at any such College or Institution a part or the whole of a course of study, approved by the Senate of the University as exempting from such courses of study in the University as the Council may approve, provided that in no case shall the University confer a degree upon any person who has not attended in the University during two years at least the courses of study which have been recognised for such degree.

3. The Council shall, after a report from the Senate, determine the privileges to which the students of any such affiliated College or Institution shall be admitted.

4. Any College or Institution desiring to avail itself of the foregoing Ordinance shall

- (a) Make provision for the representation of the University on the body which determines the annual plan of study, in so far as it concerns the courses submitted for the approval of the University ;

*and that in every case the period of attendance with view of a candidate for a degree shall be not less than two years*



- (b) Submit for the approval of the Senate of the University day courses of study, whose duration, scope, and standard shall be equivalent to the corresponding courses of the University.
5. The University shall inspect from time to time the buildings and equipment for teaching provided in any such College or Institution, and shall satisfy itself as to the qualifications of any teacher therein appointed to conduct the courses offered in place of University courses.
6. The Council, after a report from the Senate, shall be entitled at any time to withdraw any privileges which may have been granted to any College or Institution under these Ordinances, and to remove the said College or Institution from affiliation.

#### **Affiliated Colleges**

THE COLLEGE OF THE RESURRECTION, MIRFIELD (May 18, 1904). By resolution of the Council the students of this College are exempt from attendance at the University upon the first of the three years of study required for the B.A. Ordinary or Honours degree.

THE TECHNICAL COLLEGE, HUDDERSFIELD. (March 2, 1906). By resolution of the Council, attendance upon certain classes in this College is recognised as exempting from attendance upon classes in the University in the first year of the courses required for the degrees of B.A., B.Sc. (including Engineering), and M.B. and Ch.B.

RAWDON COLLEGE, RAWDON. (May 17, 1916). By resolution of the Council (October 1, 1915), attendance upon certain courses of study in this College is recognised as exempting from attendance upon courses in the University in the first of the three years of study required for the B.A. (Ordinary and Honours Degree).

DIOCESAN TRAINING COLLEGE, YORK. (June 15, 1921). By resolution of the Council (July 19, 1921) attendance upon certain courses of study in this College is recognised as exempting from attendance upon courses in the University in the first of the three years of study required for the B.A. and B.Sc. (Ordinary and Honours) Degrees.

LEEDS CENTRAL TECHNICAL SCHOOL—PRINTING DEPARTMENT. (December 20th, 1922). Affiliation granted with a view to the recognition of classes at the Printing Department as part of the course for the degree of B.Com.

II. DEGREES IN ARTS

III. DEGREES IN COMMERCE

IV. DEGREES IN LAW

V. DEGREES IN SCIENCE

VI. DEGREES IN MEDICINE AND SURGERY

VII. DEGREES IN DENTAL SURGERY

The Ordinances governing the above-mentioned degrees—Clauses II to VII—are set out in full in subsequent pages of the Calendar.

VIII. RECOGNITION OF VICTORIA UNIVERSITY  
COURSES AND EXAMINATIONS

(a) The Senate, or any Committee of the Senate appointed for that purpose, is hereby empowered to recognise courses of study pursued and examinations passed by students of the Yorkshire College or of the University of Leeds in the Victoria University or the Victoria University of Manchester prior to January 1, 1905, as equivalent to corresponding courses and examinations in the University of Leeds.

(b) The Senate, or any Committee of the Senate appointed for that purpose, is hereby also empowered to make such concessions in exemption from examinations and from attendance on courses of study, as may be required to place a past or present student of the University or of the Yorkshire College, who has been admitted thereto before 1st October, 1904, in as favourable a position in the above respects as if he had become or had continued to be a student of the Victoria University or of the Victoria University of Manchester.

(c) A student of the Yorkshire College, who before December 31, 1904, has passed a Final examination of the Victoria University or of the Victoria University of Manchester, for the Bachelor's degree in the Faculty of

Arts, Science, Law, or Medicine shall be entitled to be admitted to the Bachelor's degree of the University of Leeds; and if he has been admitted to the Bachelor's degree of the Victoria University or the Victoria University of Manchester he shall be entitled to proceed to the higher degrees of the University of Leeds on the same conditions as if he had graduated in this University.

#### **IX. RECOGNITION OF COURSES AND EXAMINATIONS OF OTHER RESIDENTIAL UNIVERSITIES**

(a) Subject to the provisions of the Charter and Statutes, the Senate, or any Committee of the Senate appointed for that purpose, is hereby empowered to allow members of any University, in which residence is required as a condition of graduation, or members of any University who have attended courses of study at some College or other place of learning which is affiliated or associated with such University, after Matriculation at the University of Leeds, and presentation of certificates of conduct satisfactory to the Senate or Committee, to count such periods of residence passed by them at such other University as equivalent to such periods of residence at the University of Leeds as the Senate or Committee may determine, provided that no degree of this University shall be conferred on any such person unless he shall have pursued an approved course of study in this University extending over at least two years, and shall have passed the Final examination for such degree.

(b) Undergraduates of other Universities who have been admitted, under this Ordinance, as members of this University may be allowed to count examinations passed by them at such other Universities as equivalent to such examinations or portions of examinations other than the Final examination of this University as the Senate, or any Committee of the Senate appointed for that purpose, may from time to time determine.

(c) Undergraduates of the University of Leeds who are pursuing an approved course of instruction in any of the Honours Schools of the University may be allowed to count

such periods of residence passed by them at other Universities during their undergraduate course as equivalent to such periods of residence at the University of Leeds as the Senate, or any Committee appointed for that purpose, may from time to time determine, provided that no degree of this University shall be conferred upon any such undergraduate unless he shall have pursued an approved course of study in this University extending over at least two years, and shall have passed the Honours examination for such degree.

#### X. CONFERMENT OF DEGREES UPON FORMER STUDENTS OF THE YORKSHIRE COLLEGE

1. As to conferment of *ad eundem* degrees on students who have attended full courses of study at the Yorkshire College and have graduated at various Universities, but who have not been admitted to the College Associateship :

Graduates of the Victoria University shall be offered the same degrees in the University of Leeds as those which they have received from the Victoria University.

Graduates in Medicine of other Universities shall be admissible on application to the M.B. degree of the University of Leeds.

Applications from non-medical graduates of other Universities who have been students of the Yorkshire College shall be considered on their merits.

In every case of admission under the above conditions a fee of 10s. 6d. shall be charged.

2. As to Associates of the Yorkshire College :

Graduates of the Victoria University shall be offered the same degrees in the University of Leeds as those which they have received from the Victoria University.

Graduates of other Universities shall be offered the degree of Bachelor in this University in the Faculties in which they graduated elsewhere.

All Associates of the Yorkshire College admitted to degrees of the University of Leeds under these conditions shall be admitted without fee.



3. All persons admitted to degrees of the University of Leeds under the foregoing conditions shall be admissible as life members of the Convocation of the University.

4. No graduate admitted under the above conditions to a lower degree shall be precluded from proceeding in the University of Leeds to a higher degree in his particular faculty.

#### **XI. STANDING OF CERTAIN GRADUATES IN PROCEEDING TO HIGHER DEGREES**

1. Graduates of other Universities who have been admitted to degrees of equal or similar rank in this University shall be allowed, in proceeding to higher degrees, to count their standing as graduates from the date of their graduation in such other Universities.

2. Associates by examination of the Yorkshire College who have been admitted to degrees in this University shall be allowed, in proceeding to higher degrees, to count their standing as graduates from the date of admission to the Associateship.

#### **XII. AWARD OF DEGREES BY SENATE**

The Senate is hereby empowered to award degrees other than (1) *ad eundem* degrees, (2) degrees conferred on officers of the University, and (3) honorary degrees, in accordance with the provision in that behalf contained in Statute I. b.

#### **XIII. AWARD OF DEGREES BY COUNCIL**

1. The Council is hereby authorised to grant to any Professor of the University, or to any Lecturer who is the head of any department in the University, a degree not higher than that of Master in the Faculty in which he has graduated, or, in the case of a Professor or Lecturer holding no degree, such degree, not higher than that of Master, as the Council may determine.

2. The Council is authorised, if it thinks fit, to grant to any other officer of the University such degree, not higher than that of Master, as it may determine, but no such degree shall be conferred until a report thereon has been received from the Senate.



3. No Medical degree shall be conferred under either of the above provisions (1) and (2) upon a person who does not already possess a registrable medical qualification ; and no person, in virtue of a degree conferred under either of these provisions, shall be allowed to proceed to a degree higher than that to which he has been admitted.

#### **XIV. JOINT MATRICULATION BOARD AND JOINT COMMITTEES**

The Council is hereby empowered to elect annually, or as may be required :

1. Five members of the Joint Matriculation Board of the Universities of Manchester, Liverpool, Leeds, and Sheffield.
2. Three members of a Joint Committee of the Universities of Manchester, Liverpool, and Leeds, to consider objections which may be raised by one or more of those Universities, to Statutes or Ordinances proposed by any of them, or by the University of Sheffield.

#### **XV. DIPLOMAS**

Diplomas shall be granted by the University, in such subjects as the Council may from time to time determine, to students who pursue the courses of study and pass the examinations prescribed.

The Council is empowered to make from time to time Regulations under which such diplomas shall be awarded.

The award of diplomas under the provisions of this Ordinance is delegated to the Senate.

#### **XVI. REGULATIONS FOR PROCEDURE**

The Council, Senate, Faculties, Boards of Faculties, and Convocation are hereby empowered to enact Regulations for the conduct of their business and that of their Committees, subject to the provisions of the Charter and Statutes.

#### **XVII. FEES**

The Council is hereby empowered, after giving the Senate an opportunity of reporting thereon, to appoint such Registration, Examination, Class, Laboratory, and other

fees to be paid by students and others as the Council may from time to time determine, and to increase, reduce, or abolish the same.

#### **XVIII. REGULATIONS FOR EXAMINATIONS**

Subject to the provisions of the Charter, Statutes, and Ordinances of the University, the Council is hereby empowered to adopt regulations, or to delegate to the Senate the making of regulations, as to the subjects, times, modes, and standards of the examinations.

#### **XIX. ADMISSION TO EXAMINATIONS**

Before admission to any examination candidates must pay the examination fee. The admission of all students to the examinations of the University shall be subject to the approval of the Vice-Chancellor.

#### **XX. EXTERNAL EXAMINERS**

The Council is hereby empowered to appoint, on the recommendation of the Senate, such External Examiners on such conditions as to tenure of office, remuneration, and otherwise as it may from time to time determine.

#### **XXI. PRIZES**

The Council is hereby empowered, upon report from the Senate, to institute such class and other prizes as it may from time to time determine, and to vary their value and to abolish the same.

#### **XXII. EXAMINATION OF SCHOOLS, AND EXTENSION LECTURES**

The Senate is hereby empowered to examine and inspect schools and other educational institutions, and to provide lectures and instruction for persons not members of the University under such Regulations as the Council may from time to time adopt. The Senate is empowered to award certificates in connection with lectures and instruction for persons not members of the University.

#### **XXIII. TENURE OF OFFICE OF DEANS OF FACULTIES**

Deans of Faculties shall be elected for periods not exceeding two years at a time.

**XXIV. TENURE OF OFFICE OF ADDITIONAL  
MEMBERS OF THE SENATE**

Such additional Members of the Senate of the University as may be appointed by the Court under Statute V. shall be appointed for one year only, but shall be re-eligible at the end of each year.

**XXV. REGISTER OF CONVOCATION**

1. The Chancellor, the Vice-Chancellor, the Pro-Vice-Chancellor, the members of the Senate and the Lecturers shall be registered as members of Convocation without payment of any fee, and their names shall be continued upon the Register so long as they retain their qualifying offices.

2. Graduates who have been admitted to degrees of this University by reason of their having pursued courses of study in the Yorkshire College, and having been admitted to degrees of other Universities or to the Associateship of the Yorkshire College, shall be entitled to be registered immediately as life members of Convocation without payment of any further fee.

3. All graduates of this University shall be entitled to be registered as members of Convocation upon payment of a fee of 10s. 6d.

**XXVI. COMMUNICATIONS FROM COUNCIL TO  
CONVOCATION**

Convocation shall receive from the Council the draft of any Ordinance proposed which, in the opinion of the Council, would affect the status, position, rights, or privileges of Convocation or the members thereof, and further Convocation, if it so desires, may record its opinion on any draft Ordinance so submitted within one month from the date at which it has been received, and such opinion when recorded shall be taken into consideration by the Council.

**XXVII. WAIVING OF PRESENT REQUIREMENTS  
AS TO CERTAIN UNIVERSITY EXAMINATIONS  
IN THE CASE OF APPROVED STUDENTS ON  
NATIONAL SERVICE**

This clause lapsed on the expiration of twelve months from the end of the war.

**XXVIII. AEGROTAT DEGREE**

If a candidate be prevented by illness or other sufficient cause from attending the whole or part of an examination for a degree, or from presenting any dissertation or thesis which may be required in connexion with such examination, the Senate, upon report from the Internal and External examiners concerned and upon such further evidence as they shall think fit, may if satisfied, thereupon treat him as a successful candidate in such examination, or impose such conditions as they think fit the fulfilment of which shall be precedent to such treatment; provided always that a candidate in an examination for a degree with Honours shall not be placed in a class, and provided also that nothing in this Ordinance shall apply to the degrees of Medicine and Dental Surgery.

The Senate, on the recommendation of the Board concerned may allow a student whose course of study has been interrupted by illness or other sufficient cause to defer presenting himself for the examination in any Honours School for such period as is thought fit.

## THE UNIVERSITY OF LEEDS

Session 1924-1925

**Faculties of Arts (including Commerce and Law),  
Science and Technology**

### UNIVERSITY TERMS

The University session, or academic year, is divided into three terms as follows:

*First Term* ... Wednesday, October 1st, 1924, to  
Saturday, December 20th, 1924.

*Second Term* ... Tuesday, January 13th, 1925, to  
Wednesday, March 25th, 1925.

*Third Term* ... Thursday, April 23rd, 1925, to  
Saturday, July 4th, 1925.

### ADMISSION OF STUDENTS

The classes and laboratories are open to men and women on the same terms. Special arrangements are made to meet the convenience of women students.

Except in cases approved by the Vice-Chancellor, students must have reached the age of 17 before coming to the University.

All candidates for admission to the University are required to give a reference of whom inquiry may be made. Those who are under 19 years of age and have been at a school or other educational institution within one year of their application for admission are required to produce a certificate of good conduct and of fitness for entrance to the University from the Head Master or Head Mistress of the School, or from the Head of the Institution which they have last attended.

In all cases students are urged to consult their Head Master or Head Mistress before presenting themselves for admission to the University. Premature entry upon a University course is greatly to be deprecated. While the University has not thought fit to raise the minimum age for admission at the present time, such action may be taken in



future years, and in the meantime applications from students below 17 will be considered with special care, and power is retained to refuse admission on grounds of immaturity even in the case of those who have passed the Matriculation Examination.

Applications for admission to the University from persons residing out of the United Kingdom, must in all cases be accompanied by certificates of good conduct duly authenticated. Overseas students are, in addition, required to produce certificates of identity.

Students are required, prior to admission, to sign a declaration that they will observe the statutes, ordinances, and regulations of the University for the time being in force.

The Vice-Chancellor will admit students on WEDNESDAY, OCTOBER 1st, from 9.30 a.m. to 12.30 p.m. and from 2 p.m. to 5 p.m., and on THURSDAY, OCTOBER 2nd, during the same hours. The Professors and Lecturers will be present to confer with intending students and to give them advice respecting their courses of study. Women students are requested to consult the Dean of Women Students as to their studies before presenting themselves to the Vice-Chancellor. The Accountant will be in attendance to receive the fees and to register students whose courses of study have been duly approved.

All students (excepting those entering the department of Agriculture) are expected to register their names on one of the days mentioned above.

#### **REGULATIONS TO BE OBSERVED BY STUDENTS**

1. All students in regular attendance who are not living with their parents, or with relatives or personal friends, will be required to reside either at some Hall of Residence or Hostel approved by the University, or in registered lodgings, or in lodgings which, if not registered when taken by the student, shall receive the approval of the University. Students taking lodgings which have not been registered are required to report immediately to the Supervisor of Lodgings the address of such lodgings.

2. Students who do not return punctually at the beginning of the term are liable to be refused permission to keep the

term. In case of delay in entering, due to illness or other unavoidable cause, a communication must be made to the Vice-Chancellor.

3. When a student is absent through illness or other unavoidable cause a written explanation must at once be sent to the Vice-Chancellor, who will communicate it to the heads of the departments concerned. Students desiring leave of absence must obtain it from the Vice-Chancellor.

4. Students are required to keep the Registrar informed of their addresses. Any alteration of address must be communicated without delay.

5. Students are required to provide themselves with the books used in the classes which they attend.

6. A student dismissed for idleness or misconduct will forfeit all fees and privileges.

7. Students are required to replace or repair any apparatus or other property destroyed or damaged by their fault.

8. The Students' Common Rooms are under the management of the University Union, and the Committee of the Union are empowered to impose fines in case of damage done to the property in their charge. An appeal against any decision of the Union may be made to the Senate.

9. All students of the University who are reading for degrees are required to enter their names in the Matriculation Register. On attending at the Office for this purpose, students must produce a certificate of having passed the Matriculation examination or of having been exempted therefrom.

10. No student is permitted, except with the leave of the Vice-Chancellor, to attend any lecture course or laboratory work until he has received from the Accountant his class ticket, which must be presented, before his course of study is begun, to the heads of the departments which he enters.

11. All students are required to present themselves for the departmental examinations in the subjects which they have been taking, and if they fail in these examinations they may be required to repeat their courses of study. In cases of repetition of courses the full fees will have to be paid for the repeated course.

12. Students will not ordinarily be permitted, while attending courses at the University in any Faculty except that of Law, to keep terms at the Bar during their courses of study.

13. Students are not at liberty to publish, except with the specific consent of the head of the department, the results of research work done in the University, or to publish any matter given in the lectures.

#### **Vacation Study**

The Senate desire it to be understood that study is expected from students during vacations. Arrangements are made by which the laboratories are open during a portion of the Long Vacation to students capable of independent work. Application for admission must be made to the heads of departments, with whom the decision as to the suitability of students for admission rests.

In many cases the vacation time of students in technical departments can be most profitably employed in obtaining practical experience in works. Assistance to obtain admission to works will, so far as practicable, be given by the Professors. In other cases, before the vacation begins, Professors and Lecturers will be prepared to make recommendations to students as to the private study which should be carried on during the vacation in preparation for the next session.

### **ENTRANCE EXAMINATIONS**

#### **1. For Degree Students**

All students who intend to present themselves as candidates for a degree in the University of Leeds are required, before entering upon their degree course, to produce a certificate of having passed the Matriculation examination conducted by the Joint Matriculation Board of the Universities of Manchester, Liverpool, Leeds, Sheffield and Birmingham, or a certificate of exemption therefrom. The conditions which entitle a student to exemption from the Matriculation examination are fully set forth in the Matriculation syllabus. Such applications for exemption from the Matriculation examination, as are based on special grounds and are not met by the conditions set forth in the

Matriculation syllabus, are considered by the Joint Board through its Applications Committee.

The Matriculation examination is held at each University in July and September. Candidates are required to satisfy the examiners at one and the same examination in five subjects chosen as follows :

I. *Either* English Composition and English Literature,  
or English Composition and History.

II. *Either* Mathematics or Latin.

III. } *Three* other subjects not already taken under I and  
IV. } II above, chosen from the following list :  
V. }

- |                            |                          |
|----------------------------|--------------------------|
| 1. English Literature      | 9. Mathematics           |
| 2. History                 | 10. Mechanics            |
| 3. Geography               | 11. Physics              |
|                            | 12. Chemistry            |
| 4. Greek                   | 13. General Experimental |
| 5. Latin                   | Science                  |
| 6. French                  | 14. Natural History      |
| 7. German                  | 15. Botany               |
| 8. Some one other Language |                          |
| approved by the Board.     |                          |

*Provided that* (a) candidates who take Mathematics under II above must include one of the subjects 4—8 ;

(b) candidates who take Latin under II above must include one of the subjects 9—15.

Candidates will not be admitted to the courses of study for the degree of Bachelor of Arts unless they have (1) passed in Latin either as part of the Matriculation examination or as a Supplementary subject, or (2) passed with "credit" in Latin in one of the recognised School Certificate examinations, or (3) passed in Latin as a Full or as a Subsidiary subject in one of the recognised Higher School Certificate examinations, provided that translation at sight from Latin into English forms part of the examination.

A complete syllabus of the examination may be obtained from the Secretary, the Joint Matriculation Board, 315, Oxford Road, Manchester, to whom also should be addressed all applications for exemption from the Matriculation examination.



## 2. For other Students

Students under seventeen years of age who wish to pursue a course of study in the day classes of the University without proceeding to a degree are required, before entering, to have satisfied *one* of the following requirements :

- (a) To have passed the Matriculation examination.
- (b) To have passed some other public examination approved by the Vice-Chancellor.
- (c) To have gained a scholarship or exhibition awarded by the University after open competition.
- (d) To have passed an Entrance examination in each of the following subjects : Arithmetic, including decimals and proportion ; Algebra, to simple equations ; Geometry, the first book of Euclid or its equivalent ; English Composition and Dictation.

The Vice-Chancellor may dispense with the requirement of an entrance examination in the case of students who are presenting themselves for one or two lecture courses only.

## DEGREE COURSES

Candidates for degrees in Arts, Commerce, Law and Science are ordinarily required (a) to have completed not less than three years of study in the University, all of which must be subsequent to the date of passing the Matriculation examination, and (b) to have passed prescribed examinations in the subjects of study. Full particulars of the requirements of the University in these respects will be found in the Departmental Regulations.

## FEES

*All Fees are payable to the Accountant. Cheques should be made payable to "The University of Leeds," and crossed*  
*"& Co."*

*The University reserves the right to revise the fees specified below at any time, whether in the case of new students or those who have already begun their courses.*

### 1. Registration Fee

All students proposing to attend at the University for more than six hours a week, or to attend a course for which a composition fee is charged, are required to pay a Registration Fee of £2 when their application for admission to the University is accepted.



## 2. Library Fee

Students who have paid a composition fee for the year, or have paid class fees of £4 or upwards, are entitled to the use of the Library during the session without further payment. All other day students will be admitted to the use of the Library on payment of 2s. 6d. a term or 5s. a session, in addition to their class fees.

## 3. University Union Fee

The annual subscription to the University Union is £2. This subscription is to be paid to the Accountant at the beginning of each session by all students reading for degrees and also, except in special cases to be determined by the Vice-Chancellor, by all students attending the University for more than six hours a week, who have not paid the composition fee for the year. The subscription entitles students to the use of the Common Rooms (which are supplied with daily papers, periodicals, &c.), to free instruction in the University gymnasium, and to the use of the athletic grounds, fives courts and tennis courts.

## 4. Lecture and Laboratory Fees

### (a) *General Regulations*

The fees for lecture and laboratory courses are payable in advance. On presentation of a form signed by the Dean of the Faculty authorising attendance upon courses of study, and upon payment of fees, the Accountant will supply a class ticket entitling the student to attend such courses. This class ticket must be presented by the student, before commencing attendance, to the Professors or Lecturers whose classes or lectures he is authorised to attend.

In the event of a student ceasing, for any reason whatsoever, to attend at the University during the session, no claim to a return of fees is recognised.

### (b) *Composition Fees for Complete Courses\**

N.B.—Any student attending a degree course, or any other course which is regarded as a full course, will be required to pay the composition fee appropriate to the Faculty in which he is a student.

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\* These fees include the subscription to the University Union unless otherwise stated.

Students who have paid a composition fee of £33 or upwards will be admitted without further charge to any additional classes for their attendance at which they have obtained the sanction of the Vice-Chancellor and the Head of the Department.

*Arts.* £33 each session.

*Science.* £41 each session.

*Technology.* £45 each session.

In the case of a student who for three successive years has paid the Composition fee appropriate to any one Faculty, the fee payable by him for a fourth year in the same Faculty will be reduced as follows:—

*Arts.* £27 a session.

*Science.* £33 a session.

*Technology.* £37 a session.

Students entitled to this reduction must inform the Accountant at the time they pay their fees.

Students who attended as full-time students before the beginning of the session 1920-21 will be allowed a reduction on the above composition fees as follows:—

*Arts.* £28 (or £23 for a fourth or later year).

*Science.* £36 (or £29 „ „ ).

*Technology.* £40 (or £33 „ „ ).

Students in the Faculty of Arts who take classes or laboratory work or both in the Faculty of Science for more than nine hours a week will be charged the composition fee for Science.

The composition fee for Applied Science (Technology) will be applicable to all students whose courses of study entail an average attendance of six hours a week or more per session in one or more of the Technological departments.

Students of the Engineering, Mining and Fuel departments will be charged the Technological composition fee for each year of the course.

Students who have paid the composition fee, and who have been allowed to work in one of

the laboratories during the vacation, will be charged an additional fee (see section (c)).

*B.Sc. (Physiology).* Students who combine a course in Physiology with the Medical course will be required for their first year to pay the usual Science composition fee, namely £41. At the commencement of the second year a further Science composition fee of £41 will be payable, which will cover all necessary attendance in Science subjects in the second, third, and fourth years.

*Mathematics.* Candidates for the degree of B.Sc. with Honours in Mathematics will pay: first year, £41; second year, £41; third year, £33; fourth year, £27.

*Geography.* Diploma Course:

(a) If completed in one year, £22.

(b) If spread over two years, £13 a session.

*Social Organisation and Public Service.* Diploma Course (including practical work), £26 a session.

NOTE.—Non-Diploma students taking advantage of the facilities for Practical Social work will be charged a fee of £3 a session in addition to any other fee paid by them.

*Education.* Four year Course for recognised students in training, no fee.

Ditto, reduced course (second year) £10.

Course for Diploma in Education, £42 a session. (In the case of students in respect of whom a grant is paid by the Board of Education, this fee is reduced by the amount of the grant).

One year Course or Continuation School Course, £40 the session (reduced in cases where a grant is payable by the Board of Education).

*Commerce.* Degree Course, £33 each session, unless one of the subjects offered is v. (a, b, c or d) (see Final B. Com. Regulations), in which case the fee to be paid will be £45 for each of the two sessions devoted to the study of that subject.

*Law* (excluding Union Fee).

Degree of LL.B. or Final examination of the Law Society. £11 11s. a session.

*Agriculture* (including Registration Fee).

Special Winter Course, £20.

Summer Course, £10.

Complete 20 weeks Winter Course, £20.

Agricultural students who are preparing for the B.Sc. degree will be charged the Science composition fee in the first year and the Technological composition fee in later years.

*First Examination in Medicine and First Examination in Dental Surgery.* (Parts 1 and 2.) £41.

*Conjoint Board First Examination.* £41.

*Preliminary Examination in Science for the Diploma in Dental Surgery.* £41.

*Master of Arts, Science or Education.*

(a) In the case of candidates who have not graduated in the University of Leeds :—

Registration fee, £2.

Fees at the usual scale for any attendance at lectures or classes in the University, provided that the minimum fee payable by any candidate (in addition to the registration fee) shall be £4 4s.

(b) In the case of candidates who are graduates of the University of Leeds :—

No Registration fee.

Fees at the usual scale for any classes attended.

*Doctor of Philosophy (Ph.D.) (excluding Union fee).*

Fees for supervision: £8 in the Faculty of Arts, and £12 in the Faculties of Science and Technology, per session.

Fees for lectures will be at two-thirds the ordinary rate.

(c) *Fees for lectures and laboratory work when paid for separately.*

The following fees will be charged for lectures and laboratory work when paid for separately, except in the case of classes for which a special fee has been fixed.

First lecture hour per week in a course	... ..	£4 per session.
Each hour per week beyond the first	... ..	£2     "
Each hour per week of laboratory work	... ..	£2     "

For two terms three quarters of these amounts will be charged. For one term half of these amounts will be charged.

Students who are deemed by the head of the department concerned to be capable of independent work may be admitted to work in vacations only (during such times as the laboratories are open), on the following scale of fees:—

1 day a week	... ..	£1 10 0 per month
2 days     "	... ..	£3 0 0     "
3     "     "	... ..	£4 10 0     "
4     "     "     and upwards		£6 0 0     "

For students who have paid a Composition Fee in the same session, and who are admitted to vacation work the fee will be one pound per month.

*(d) Fees for Research Students*

Persons desiring to pursue original research may be admitted as research students to any of the University laboratories upon the following conditions:—

(1) Applications for admission as research students must be made to the head of the department concerned. The admission is subject to the approval of the Senate.

(2) Graduates and advanced students will, if admitted as research students, be charged £12 a session, £4 a term, £2 a month (four weeks) in term or vacation. This scale will in no case apply to students preparing for a Bachelor's degree unless they have completed the third year course of study in the University, and have paid the appropriate Composition fee for three years.

(3) Persons prosecuting private industrial investigations will, if admitted as research students, be charged £6 a month with additional charge for any special expenditure incurred by the University in connexion with the research.

(4) Research students who attend for short periods only will not be charged the library fee unless they wish to use the library.



(5) Research students will not be entitled to the use of the students' Common Rooms except on payment of the subscription to the University Union.

### 5. Examination Fees

No fee will entitle to admittance to more than *one* examination. Unless otherwise stated, the fee for a second or subsequent examination is the same as that for the first.

For the Matriculation examination, £2; but a candidate who has failed in the July examination in any year will be admitted to the September examination in the same year for £1 10s.

For the Intermediate examination for the degree of B.A., or LL.B., or B.Com., £3.

For the Final examination for the Ordinary or Honours degree of B.A., or LL.B., or B.Com., £3.

For the Final examination for the degree of B.A. in cases where no fee has been paid for the Intermediate examination, £6.

For the Final examination for a degree in Honours when the Ordinary Final examination has previously been taken, £3.

B.Sc. degree:—

- (i) A fee of £6 to be payable; £3 to be paid when the candidate presents himself for examination at the end of the first session in the University, £3 upon the second occasion on which he presents himself for examination.
- (ii) In cases where no examination is taken at the end of the first session, a fee of £6 to be payable on the first occasion on which the candidate presents himself for examination.

For the examination or report upon dissertation for the degree of M.A. or M.Sc., M.Ed. or LL.M., £3.

For the examination or report upon dissertation for the degree of Litt.D., or D.Sc., or LL.D., or Ph.D., £6.

For the examination in Education for the Government Certificate, 5s.

For the Final examination for any Diploma in the Faculty of Arts, £3.

Diplomas in 'Technology,\* £6, with the following exceptions :—

- (a) The fee for graduates of this University or for the holders of a Diploma of this University, £3.
- (b) If a Diploma be granted in addition to the degree on the results of the degree examination, the extra fee entitling to the Diploma is £1.
- (c) No additional Diploma fee is charged to a candidate who has paid for the degree examination and has been awarded a Diploma in place of a degree on the results thereof.
- (d) Fee for re examination. £3.

Candidates who are allowed to take any examination in two or more parts will be required to pay the full fee for such examination when entering for the first part.

When the regulations allow a candidate to take part of an Intermediate or Final examination separately, the following fees will be charged for re-examination, viz. :—

(a) B.A. degree :—

Additional subject at Intermediate stage, 15s.

Subsidiary subject at Final stage, 15s.

(b) B.Sc. degree in Pure Science :—

£1 for an Introductory subject.

£2 for a Subsidiary subject.

£3 for a Principal subject.

#### 6. Degree Fees

On the conferment of any degree in the Faculties of Arts (including Commerce and Law) and Science, £6.

### ENTRANCE SCHOLARSHIPS

The following Scholarships, tenable from the commencement of the session 1925-26, at day classes in the University of Leeds, will probably be offered for competition to candidates who have not been registered students of the University. Attendances on University classes or laboratories not exceeding three hours a week in any session will not be

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\* These regulations apply to students entering the University in October, 1923, or in subsequent years.

held to preclude a student from becoming a candidate for an Entrance Scholarship under this regulation. The latest date of entry for these Scholarships is *April 24th*, after which no application will be received. In most instances they are awarded in connexion with the July Higher School Certificate examination. Particulars of conditions, &c., may be obtained on application to the Clerk to the Senate.

### 1. Awarded on Results of Examinations held by the Joint Matriculation Board

Name of Scholarship.	Number offered.	Annual Value of each.	Periods for which tenable.	Departments in which tenable.
Emsley .. ..	One ..	£20	2 years	Arts, Sci., Tech. exc. Tex.
Edward Baines ..	One ..	£20	2 years	Arts, Sci., Tech. exc. Tex.
Charles Wheatley ..	One ..	£25	3 years	Arts
William Summers ..	One ..	£35	3 years	Arts
Brown .. ..	Two ..	£40	2 years	Science, Tech.
Akroyd .. ..	Two ..	£60	2 years	Science, Tech.
Craven .. ..	Two ..	£25	3 years	Tech. (Engineering).
Medical .. ..	One ..	Fees for complete course (excluding clinical instruction).		Medicine

### 2. Awarded by Special Examination or Selection

Cerbet Woodall ..	One ..	£60	3 years	Tech. (Gas Engineering)
William Cooke & Co.	One ..	£21	and renewable 3 years	Tech. (Mining)
*Thos. Broadbent and Sons Ltd. ..	One ..	Fees, &c., main-tenance allowance	3 years	Tech. (Engineering)

In addition to the above Scholarships the University offers a certain number of Advanced or Senior Scholarships, full particulars of which are given in the Scholarship Prospectus.

Scholarships tenable at the University of Leeds in scientific and technical subjects, (including Agriculture) as well as in Arts subjects, are also offered by the Leeds City Council and the County Councils of the North, East, and

\* The Scholar must have attended evening classes at the Huddersfield Technical College for at least 2 years in succession and completed at least the third year course.

West Ridings of Yorkshire. In the West Riding, Exhibitions are also offered in Coal Mining and Free Studentships tenable at the University.

In certain cases assistance is offered to students in Evening Classes.

For further information application should be made as follows :—

For Leeds City Council Scholarships: To The Director of Education (Higher Section), Education Department, Leeds.

For West Riding Scholarships: To The Education Department, County Hall, Wakefield. Applicants should ask for Section X of Part II of the Handbook of the Education Committee.

For North Riding Scholarships: To The Secretary, Education Offices, County Hall, Northallerton.

For East Riding Scholarships: To The Clerk, East Riding County Council, Beverley.

### OFFICERS' TRAINING CORPS

A contingent of the Senior Division of the Officers' Training Corps was formed at the University in July, 1909, and was accepted by the War Office.

Information as to conditions of membership, &c. may be obtained from the Commanding Officer.

### UNIVERSITY LIBRARY

All registered students who have paid the Library fee or one of the Composition fees set forth on previous pages are entitled to the use of the University Library.

The Library is open (*a*) daily during term from 9 a.m. to 5.30 p.m. (on Saturday from 9 a.m. to 1 p.m.); (*b*) during vacation from 9 a.m. to 5 p.m.

It is closed during one week at Christmas and during the public holidays when the University is closed.

### General Regulations

1. No book shall be removed from the Library unless the borrower shall have first filled in the form provided.

2. No mark of any kind may be made in the Library books or periodicals. Any loss of, or injury to, a book shall be reported to the Librarian, who shall require the person responsible to pay a sum not exceeding that which will be required to make the loss or injury good.

3. The Librarian, in consultation with the Library Committee, has power to suspend the Library privileges of any person who breaks the rules of the Library.

4. No atlases, dictionaries, or other books with special labels shall be taken out of the Library, except in so far as provided in subsequent paragraphs.

5. No person shall be allowed to take a book out of the Library if he has in his possession any book which he has kept beyond the time allowed by the regulations, or if any fine or charge which he has incurred has not been paid.

6. Persons not members of the University who are engaged in special studies may be given the right to use the Library by the Librarian on payment of 2s. 6d. a term and 5s. a session. Unless in special cases, this does not include the right to take out books.

7. The Librarian shall be at liberty to grant special facilities for the use of books during a limited time to any person entitled to the use of the Library.

8. No smoking shall be permitted within the precincts of the Library and the rooms appertaining thereto.

#### Regulations affecting Members of the Academic Staff

9. Any member of the Academic Staff shall be entitled to take out such books as he requires and to retain them until the end of term, unless he receives a notice that any of these books are overdue, in which case such book or books shall be returned without delay to the Library. A book shall be regarded as overdue when it has been in the possession of the borrower for a fortnight and is required by some other person. This regulation shall apply, *mutatis mutandis*, to books taken out at the beginning of, or during, any of the vacations.

10. A book which is not overdue according to Rule 9 may be renewed for the vacation on application in writing to the Librarian.

11. Current University Calendars and current serials may be taken out of the Library for one night only, and not before 5 p.m. Other unbound serials may be taken out of the Library for a period not exceeding 48 hours.

#### Annual Inspection

12. All books must be returned to the Library by 5 p.m. on Monday in the last week but one of the second term. No book shall be borrowed again before the following Friday morning.

12a. A fine of twopence per volume shall be imposed for every day that a book is detained beyond the time for its return for the inspection; the same shall apply to books lost, when the loss shall not have been notified to the Librarian before the days of inspection.



**Regulations affecting present and past Students  
of the University**

13. All graduates of the University and Associates of the Yorkshire College are entitled to the free use of the Library.

14. Students who have paid a composition fee for the year, or have paid class fees of £4 or upwards, are entitled to the use of the Library during the session without further payment. All other day students will be admitted to the use of the Library on payment of 2s. 6d. a term or 5s. a session, in addition to their class fees.

15. All evening students, and all past students who are not graduates are entitled to the use of the Library on payment of a fee of 2s. 6d. per session.

16. No student may have the right to borrow more than three volumes at one time. A student desiring specially to borrow more than this number of volumes should make application to the assistant in charge of the General Library.

17. Every book must be returned to the Library on or before the fourteenth day following that in which it was taken out. A book may, however, be renewed from week to week until four weeks have elapsed since its first issue, provided that no application for the use of the book by another person has been received in the meantime.

18. All books must be brought to the Librarian for renewal, except when an application for renewal has been made and granted on the day before that on which the return of the book falls due. Applications for renewal may be made personally or by post.

19. All books must be returned to the Library before the end of the second term in accordance with Regulation 12.

20. Books of reference and books which, owing to their constant use, are temporarily placed on the list of books of reference, may not be removed from the Library (except under Rule 21), until after 4 p.m., and then only on condition that they be returned before 10 o'clock on the following morning.

21. Students provided with a written recommendation from a Professor or Lecturer shall be entitled to take out books of reference, but books taken out under this rule must be returned to the Library before the person using them leaves the University buildings.

22. Any person borrowing a book under Rule 20 or Rule 21, and failing to return it by the time therein specified, shall be fined 4d. a day, and any person who does not comply with Rule 17, shall be fined 2d. if the book is returned within seven days following the day on which it is due back and 2d. a day for each day after that period. A notice shall be posted to the borrower on the business day following that on which the return of the book was due, informing him that a fine is being incurred.

23. Books may, subject to the provision of regulation 24, be taken out at the beginning of, or during, any of the vacations, and may be retained until the borrower receives notice that they are overdue. A book shall be regarded as overdue when, having been in the possession of the borrower for a fortnight, it is required by some other person. All books taken out at the beginning of the long vacation shall be returned not later than the first of September.

24. No volume which, in the opinion of the head of the department concerned, should be included in a special list of out-of-print, or especially valuable books, may be taken out of the Library except by the permission of that head of department.

### Regulations respecting Special Libraries

1. *The following are the Special Libraries*—(a) English; (b) French; (c) German; (d) History; (e) Economics; (f) Philosophy; (g) Classics (h) Law.

2. *General Status.*—Special Libraries, being departments of the University Library, are subject to the regulations of the University Library, except in so far as modified by the following rules.

3. *Admission to Special Libraries.*—(a) *Academic Staff.* A master key of all the Special Libraries shall be issued to the members of the teaching staff, on application to the Librarian.

(b) *Students.* The Librarian may further give the right of admission to each Special Library, in accordance with the procedure detailed in regulations 4 and 5, to students of the University upon the written recommendation of the professor or head of department.

(c) *Occasional Use.* The Librarian shall have the power provisionally to admit students to any of the Special Libraries, subject to the approval of the head of the department concerned.

4. *Issue of keys.*—A key shall be issued to students duly recommended in accordance with regulation 3 (b) for the use of a particular library, on payment of a deposit of ten shillings which shall be returned when the key is surrendered.

5. *Availability of keys.*—Keys thus issued to students are available until the first week of the next session. Permission to retain a key thereafter may be given to students continuing at the University, subject to the approval of the head of the appropriate department. Students desiring to continue the use of the key must accordingly notify the Librarian to that effect. Students who do not return their keys or who do not state their desire to retain them shall be notified by the Librarian, and the deposit, together with the right to the use of the Special Library in question, shall be forfeited if the key is not returned by the end of the month of December.

6. *Borrowing of Books.*—Members of the Special Libraries may borrow books by filling up a form and placing it in a box provided in the Special Library for the purpose. Such books shall be returned to the assistant in charge in the General Library and the borrower's form received back in exchange. The borrower is responsible for the book as long as the form is retained in the borrower's register. In other respects the same rules shall apply to books borrowed from the Special Libraries as to books borrowed from the General Library.

7. *Books not to be removed.*—Lists of books which must not be removed from the Special Library or be borrowed by students who are not members thereof, shall be drawn up by the Librarian in consultation with the head of the department.

8. *General use.*—In all other respects the books in the Special Libraries shall be under the same regulations as books in the General Library and may be consulted by all who are entitled to use the University Library, on application to the library staff.

## UNIVERSITY PARLIAMENTARY CONSTITUENCY

By the provisions of the Representation of the People Act, 1918, the University of Leeds forms part of the English University Constituency, which returns two members to Parliament.

Section 2 of the Act states: "A man shall be entitled to be registered as a Parliamentary elector for a University constituency if he is of full age," *i.e.* 21 years, "and not subject to any legal incapacity, and has received a degree (other than an honorary Degree) at any University forming, or forming part of the constituency."

Section 4 states: "A woman shall be entitled to be registered as a Parliamentary elector for a University constituency if she has attained the age of thirty years and . . . would be entitled to be so registered if she were a man."

The University Court, in the exercise of powers conferred upon it by section 19 of the Act has laid down the following conditions of registration:—

- (a) *Persons who have graduated before the passing of the Act* (February 6th, 1918), and who are otherwise qualified, will only be entered on the register if
  - i. they make written application to the University.
  - ii. they have paid a registration fee of £1 if they are not members of Convocation, or of 9s. 6d. if they became before August 1st, 1918, members of Convocation.
- (b) *Persons who graduate at or after Midsummer, 1918*, will if they have paid *before graduation* a special combined fee of £1, be entered on the roll of Convocation and also entered on the Parliamentary Register as soon as they have completed the qualifying age. If this special fee is not paid at the time of graduation, they will be charged a fee of £1 for registration as Parliamentary electors.

Claims may be made up to the 31st July and the 31st January in each year and the Register will come into effect from the 1st October and the 1st April following.

Application for registration must be made on the official form, which may be obtained from

The Registration Officer,  
The University, Leeds.

Change of address on the part of an elector should be notified promptly to the Registration Officer.

All communications requiring a reply should be accompanied by a stamped addressed envelope.

### ACADEMIC DRESS

All Hoods are to be of a Green shade, combined with Black, White, Scarlet, or with one another, to produce the variations required for the several Degrees, namely :

- B.A., a self-coloured Hood of Dark Green shade.
- B.Com., a Light Green Hood, lined with Dark Green.
- B.Sc., a self-coloured Hood of Middle Green shade.
- LL.B., a self-coloured Hood of Light Green shade.
- M.B. and Ch.B., a Hood of Dark Green, lined with Light Green.
- B.Ch.D., a Hood of Dark Green, lined with Middle Green.
- M.A., a Dark Green Hood, with White Lining.
- M.Sc., a Middle Green Hood, with White Lining.
- M.Ed., a Dark Green Hood, with White Lining and Band one inch of Middle Green laid on the White Silk.
- LL.M., a Light Green Hood, with White Lining.
- M.Ch., a Dark Green Hood, edged with Light Green, and lined with White.
- M.Ch.D., a Dark Green Hood, edged with Middle Green and lined with white.

All Bachelors' Hoods are to be lined, and all Bachelors' and Masters' Hoods are to be of the single or Oxford pattern.

The Gown of a Doctor (other than a Doctor of Philosophy) is to be of Scarlet, with facings and sleeve linings of the



shade of Green distinctive of his faculty. The Hood is to be of Scarlet, lined with the distinctive shade or shades of Green. The Full Dress Cap is to be of the usual pattern, with a Gold Cord, and a lining of the shade of Green distinctive of the faculty.

The Gown of the Doctor of Philosophy is to be of Green, with sleeve linings of Green, and facings of Green bound with Scarlet. The Hood is to be of Green, lined with Green, and with narrow bindings of Scarlet. The Full Dress Cap will be Black Velvet of the usual pattern.

### **ROBEMAKERS TO THE UNIVERSITY**

Ede & Ravenscroft, 93 and 94, Chancery Lane, London.

Representatives of the firm attend on Degree Days to robe those who are to be presented for degrees.

### **ARMS OF THE UNIVERSITY**

The Arms of the University are "Vert an open Book proper edged and clasped Gold inscribed with the words 'Et Augebitur Scientia' between in chief three Mulletts Argent and in base a Rose of the last seeded proper, and for the Crest on a Wreath of the Colours A Greek Sphinx sejant Gules."

### **STUDENTS' SOCIETIES**

The University Union comprises the Cricket, Football (Rugby and Association), and Tennis Clubs, and undertakes the management of the Gymnasium, the Fives Courts and the Debating Society. Among other University Societies are the Women's Representative Committee, the Literary and Historical Society, the Debating Society, the Education Society, the Cavendish Society, the Natural History Society, the Engineering Society, the Textile Society, the Agricultural Society, the Society for Social Study, the Women's Discussion Society, and the Christian Union.

The Colours of the University Union are Green, White and Maroon.

No Society is recognised as a University Society unless its current rules and regulations have received the sanction of the Senate



### GYMNASIUM

The Gymnasium is free to all members of the University Union. It is reserved for the use of women students at suitable hours, which, together with those arranged for other classes, will be announced at the beginning of the session.

### LOCKERS FOR COATS AND BOOKS

The use of a coat locker during the whole or part of one session may be obtained for the session, or a part of it, by depositing 10s. with the Hall Porter, who will lend the student a key, which will, however, remain the property of the University. A charge of 5s. per session will be made, the balance of the deposit money being repaid when the key is returned, provided the return be made not later than one week after the end of the session.

Smaller lockers, for books, &c., are also provided, and the use of one of these may be obtained on a deposit of 7s. for the session or term, 5s. of which will be repaid on the above conditions being complied with.

A student will be charged for any damage done to the lockers while in his possession, or for loss of keys. The loss of a key should be immediately reported to the Hall Porter.

### LODGING AND BOARDING HOUSES

A Register of approved lodging-houses is kept at the University, and printed lists can be sent at any time to parents, guardians, or students who desire to take lodgings.

If a student takes lodgings which are not already on the register, he must immediately apply to the Supervisor of Lodgings for a form of application for registration of lodgings. This form must be filled in and returned at once, when the lodgings will be visited on behalf of the University, and if they do not satisfy the prescribed conditions the student will be required to leave them.

No back-to-back houses will be regarded as fulfilling the prescribed conditions.

All communications with regard to lodgings should be addressed to The Supervisor of Lodgings, The University, Leeds.

## THE UNIVERSITY HALLS OF RESIDENCE

The University has provided a number of Halls of Residence for men and women respectively. Students from all departments of the University are admitted, and the residents of each Hall are encouraged to take an active part in the social as well as the academic life of the University, and to maintain within the Halls the necessary discipline for themselves. Places are reserved in the Halls of Residence for Women for Recognised Students who are accepted by the Department of Education and cannot reside at home.

## For Women

UNIVERSITY HALL	.. Warden : Mrs. MOORMAN.
LYDDON HALL ..	.. Warden : Miss A. B. MARCHBANK.
COLLEGE HALL ..	.. Warden : Miss J. HOLGATE, B.A.

These Halls are close to the University and near the University Fives Courts.

WEETWOOD HALL	.. Warden : Mrs. REDMAN KING, B.Sc.
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This Hall is situated in its own grounds, near the University Athletic Grounds, and is provided with its own tennis courts.

## For Men

DEVONSHIRE HALL	.. Warden : Professor STRONG.
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Situated at Headingley in its own grounds and provided with its own tennis courts and football field.

## Fees for Residence

*(a) Ordinary Students.*

Men : £64 per session of 32 weeks.

Residence beyond the above period, £2 2s. per week.

Women : £56 to £65 (according to the accommodation chosen) per session of 32 weeks.

Residence beyond the above period, £1 15s. per week.

*(b) Recognised Students in Training.*

Grants are paid to the University by the Board of Education on behalf of Recognised Students who reside in one of the Halls of Residence. The fees for the Education Department session, are :

Men—	..	..	..	..	..	£29
Women—	..	..	..	..	£28 to	£37

Residence beyond the period of the Education Department terms is charged for at the rate for ordinary students.

**REFECTORY**

For the convenience of students, dinners are served daily in the University Refectory, from 12.30 to 2 p.m. Cold meats may also be obtained after the latter hour ; tea, coffee, and other light refreshments up to 6 p.m. The Refectory is closed on Saturdays at 2 p.m.

Term tickets may be had on application to the Accountant, entitling students to dine at the Refectory, University Road, daily (except Saturdays) during the session. The cost of these tickets will be as follows :—

For men students—

£7 10s. per session, or £2 15s. per term for the first and second terms, and £2 10s. for the third term and

For women students—

£6 5s. per session, or £2 7s. 6d. per term for the first and second terms, and £2 for the third term.

**CECIL DUNCOMBE OBSERVATORY**

The Cecil Duncombe Observatory was opened on May 4th, 1906, by Dr. H. H. Turner, Savilian Professor of Astronomy in the University of Oxford. It is built on a site in Woodhouse Moor contributed by the Leeds City Council.

## MATRICULATION EXAMINATION

*All communications relating to this examination should be addressed to "The Secretary to the Board, Joint Matriculation Board, 315, Oxford Road, Manchester."*

The Matriculation examination is conducted by a Joint Board representing the Victoria University of Manchester, the University of Liverpool, the University of Leeds, the University of Sheffield, and the University of Birmingham. Candidates for degrees in any one of these Universities are required to have passed this examination, or to have obtained exemption therefrom, before beginning a degree course. Any application for exemption must be addressed to the Joint Matriculation Board, and must be accompanied by the certificate or certificates upon which the application is based. Grants of exemption will be subject to and conditional upon the payment of the registration fee of £2. The conditions which entitle a student to exemption from the Matriculation examination are fully set forth in the Matriculation syllabus. The examination is held in July and September of each year in the buildings of each University. The July examination is held at such other centres as the Board may authorise. Information as to the conditions may be obtained from the Secretary to the Joint Board.

The fee for the examination is £2. Cheques and postal and money orders should be made payable to "The Secretary, Joint Matriculation Board," and crossed "Williams Deacon's Bank, Ltd., Chorlton-on-Medlock Branch."

## DEGREES IN ARTS

**Ordinance.** 1. The degrees in Arts shall be :

Bachelor of Arts (B.A.)

Master of Arts (M.A.)

Master of Education (M.Ed.).

Doctor of Philosophy (Ph.D.).

Doctor of Letters (Litt.D.).

### DEGREE OF BACHELOR OF ARTS

2. The degree of Bachelor of Arts shall be conferred either as an Ordinary degree or as a degree with Honours.

3. All candidates for the degree of Bachelor of Arts shall be required to have passed the Matriculation examination, and thereafter to have pursued approved courses of study for not less than three academic years.

**Regulation.** Candidates will not be admitted to the courses of study for the degree of Bachelor of Arts unless they have (1) passed the Matriculation examination in Latin, or (2) passed with "credit" in Latin in one of the recognised School Certificate examinations, or (3) passed in Latin as a Full or as a Subsidiary subject in one of the recognised Higher School Certificate examinations, provided that translation at sight from Latin into English forms part of the examination.

Candidates of non-European descent, who are natives of Asia or Africa, may be allowed to substitute one of the following languages for Latin, provided that they shall also give evidence of possessing a sufficient knowledge of English ; Arabic, Sanskrit, Persian, Pali, Classical Chinese.

**Ordinance.**

### Ordinary Degree of Bachelor of Arts

4. The complete course of study for the Ordinary degree of Bachelor of Arts shall be divided into two parts, called respectively the Intermediate course and the Final course.

5. Every candidate shall be required to pass two examinations, the Intermediate and the Final.



6. The Intermediate and Final examinations shall ordinarily be held in June of each year. There shall also be a supplementary Intermediate examination in September, at which those candidates only may present themselves who have obtained the permission of the Senate.

7. Candidates who have failed at an Intermediate examination in June, and have obtained permission to present themselves at the following supplementary examination, may be excused such part of the supplementary examination as the combined examination committee, on report from the separate examination committee concerned, may determine.

8. All candidates shall be required, before presenting themselves for the Intermediate or Final examination, to furnish to the Registrar certificates testifying that they have regularly attended the prescribed courses of study, and performed the class exercises to the satisfaction of the Professor or Lecturer, in each of the subjects which they offer at the examination. Some modification of the amount of attendance required may, in exceptional cases, be made by the Vice-Chancellor, on the recommendation of the head of the department concerned.

N.B.—In 1925 the latest date of entry and of payment of fees for the Intermediate and Final examinations held in June will be MONDAY, MARCH 2nd.

#### Intermediate Course and Examination

9. Every candidate shall be required, after passing the Matriculation examination, to attend during one academic year approved courses of study in four subjects, and to pass in each of the subjects selected, viz. :

- i, ii. Two languages from the following list : Greek ; Latin ; French ; German ; Hebrew ; Russian ; Spanish ; one of which must be Greek or Latin.
- iii. *Either* (a) English Literature ; *or* (b) History (Ancient or Modern) ; *or* (c) Economics ; *or* (d) Geography.
- iv. *Either* (a) Logic ; *or* (b) Mathematics ; *or* (c) Preparatory Military Science ; *or* (d) Music *or* (e) any subject under i, ii, iii, not already selected, provided that no candidate may take both Ancient and Modern History.

10. Every candidate is further required, at some time during his course, to attend an approved course of study and pass in an additional subject at the Intermediate standard, selected from the following: Logic, Mathematics, Physics, Chemistry, Zoology, Botany, Geology, Geography, Preparatory Military Science, Music. Except that when Preparatory Military Science be taken as a subject under Group iv. (Article 9), then the additional subject shall be one of the other subjects named in Group iv.

The examination in each modern language shall include an oral examination.

Regulations. *Detailed subjects of study and of examination*

GREEK :

Prose composition. Translation at sight from Greek into English.

Prescribed books: portions from two authors, one prose and one verse, to be studied in their literary and linguistic aspects.

*Books prescribed for 1924-25*

Lysias, *Eratosthenes* and *Agoratus*; Euripides, *Phænissæ*.

LATIN :

Prose composition. Translation at sight from Latin into English.

Prescribed books: portions from two authors, one prose and one verse, to be studied in their literary and linguistic aspects.

*Books prescribed for 1924-25*

Livy v, 15-49, Horace, *Odes* i, ii, (omitting i, 25; ii, 5).

FRENCH :

Prose composition. Syntax of the French language. Translation at sight from French into English. Prescribed books: at least two texts, including both prose and verse, to be studied in their literary and linguistic aspects. Dictation, reading aloud and conversation in French.

*Books prescribed for 1924-25*

Balzac, *la Peau de Chagrin* and *le Colonel Chabert*; Rostand, *Cyrano de Bergerac*.

GERMAN :

Prose composition. Syntax of the German language. Translation at sight from German into English. Prescribed books: two texts, one prose and one verse, to be studied in their literary and linguistic aspects. Dictation, reading aloud and conversation in German.

*Books prescribed for 1924-25*

E. Zahn, *Bergvolk*, pp. 9-126. Schiller's *Ballads*, ed. Johnson (Heath and Co.)

HEBREW :

Accidence. Easy translation from short set portion of Old Testament, and re-translation. Easy composition. Vocabulary to be given so far as not taken from the set portion. Pointing passages from set portion.

*Book prescribed for 1924-25*

II Samuel, chapters 18 and 19.

RUSSIAN :

Prose composition. Grammar of the Russian Language. Translation at sight from Russian into English. Prescribed books : at least two texts to be studied in their literary and linguistic aspects. Dictation, reading aloud and conversation in Russian.

SPANISH :

Prose composition. Grammar of the Spanish Language. Translation at sight from Spanish into English. Prescribed books : at least two texts to be studied in their literary and linguistic aspects. Dictation, reading aloud and conversation in Spanish.

ENGLISH LITERATURE :

Introduction to the study of English Literature. The study and practice of English Composition.

*Texts selected for 1924-25*

(i) For detailed study : Chaucer, *Nun's Priest's Tale* (ed. Pollard, Macmillan) ; Extracts ii, xv from *Fourteenth Century Prose and Verse* (Sisam, Oxf. ; edn. with glossary) ; Spenser, *Two Cantos of Mutability* (Oxford Spenser) ; Milton, *Samson Agonistes* (Clarendon Press) ; Keats, *Hyperion* (Clarendon Press).

(ii) Texts suggested as part of a course of general reading in the period 1645-1700 : Milton, *Sonnets*, *Paradise Lost* Bk. i ; Browne, *Urn-Burial* ; Marvell, *Poems* (Muses' Library) ; Walton, *Compleat Angler* ; Dryden, *Absalom and Achitophel*, Part I ; Bunyan, *Grace Abounding* ; Cowley, *Essays* ; Congreve, *The Way of the World* ; Evelyn's *Diary* (Everyman).

NOTE.—For a general view of the period Macaulay's *History of England*, cc. i-iii, may be consulted.

ANCIENT HISTORY :

Introduction to Ancient History, with special reference to selected periods of Greek and Roman History.

*Special Subjects for 1924-25*

Plutarch's *Lives of Cato, Lysander, Sulla, Lucullus, Kimon*.

MODERN HISTORY :

A selected period of Modern History.

*Period prescribed for 1924-25*

Modern European History from 1763 to 1900.

**ECONOMICS :**

The organisation of industry and commerce. The nature of the national income. The forces governing value and distribution. Conditions of economic progress.

**GEOGRAPHY :**

General Principles of Geography, with special reference to the Major Natural Regions.  
Practical work—about 50 hours.

**LOGIC :**

The elements of Deductive and Inductive Logic.

**MUSIC :**

Harmony, to include—

- (a) Aural test in recognising chords, both singly and in succession ; also in recognising the various cadences used in music.
- (b) Harmonising given Bass-parts.
- (c) Harmonising of Melodies.
- (d) Analysing of selected passages of Music.

Counterpoint (Strict and Free) up to and including four parts or voices.

Form in Music, including the analysis of the structure of specified works.

The General History of Music.

(N. B.—Students who wish to take Music as one of the optional subjects for the degree of B.A. are urged to take it as one of the subjects in the School Certificate Examination of the Joint Matriculation Board.

No student will be admitted to the course who cannot satisfactorily pass Sight Reading and Ear-Tests of the same standard as those set by the Board of Education in their Final examination for the Teacher's Certificate).

**MATHEMATICS :**

Trigonometry, Calculus, Statics and Dynamics.

**PHYSICS :**

The properties of matter. The chief phenomena of Sound, Heat, Light, Electricity and Magnetism, treated in an elementary manner. Practical Physics.

**CHEMISTRY :**

The general principles of Inorganic Chemistry and their application. The elements of Organic Chemistry. Practical Chemistry.

**ZOOLOGY :**

The structure and life-history of animals as exemplified by a progressive series of selected types. Outlines of embryology. Practical Zoology.

**BOTANY :**

The structure and mode of life of a flowering plant. The naming of plants with the help of a flora. Fruits and vegetables. Spring buds and branches. The mechanism of flowers. The sexual process in plants. The transmission of characters to the offspring. Mendelism. The evolution of plants. The origin of species. Bacteria and disease. Practical Botany.

**GEOLOGY :**

General Physical and Stratigraphical Geology, and Geology in relation to the study of Geography. Practical Geology.

**Final Course and Examination**

No candidate shall be permitted to enter on the Final Course, or any part thereof, until he has passed the Intermediate Examination. Regulation.

11. Every candidate shall be required to attend approved courses of study in three principal subjects and one subsidiary subject, and to pass in each of the subjects selected. The same subject may not be taken both as a principal and as a subsidiary subject. Ordinance.

12. The course of study in each principal subject shall extend over two academic years, and the course of study in the subsidiary subject shall extend over one academic year.

13. The principal subjects shall be selected from the following list : Greek, Latin, French, German, English Language and Literature, Hebrew, Russian, Spanish, History, Geography, Philosophy, Social Science, Economics, Education, Mathematics. Every candidate shall be required to take as a principal subject one of the following : Greek, Latin, French, German. The examination in each modern language shall include an oral examination.

14. The subsidiary subjects shall be selected from the following list : English Literature, History, Ecclesiastical History, Geography, Philosophy, Social Science, Economics, Education, Mathematics, Music. The course of study in a subsidiary subject may be taken either in the first or second year of the Final course.

15. Candidates who have attended, during the first year of their Final course, the prescribed course of study in a subsidiary subject, may present themselves in June of that year for examination in such subsidiary subject. Part of the examination in Education, to be defined by Regulation, may also be taken at the end of the first year of the Final course.



## Regulations.

*Detailed subjects of study and of examination**1. Principal Subjects, studied for Two Years*

## GREEK :

Prose composition. Translation at sight from Greek into English. The study of portions from various authors, three of which (two prose and one verse, or one prose and two verse) will be prescribed as subjects of the Final examination.

*Books prescribed for 1924-25*

Herodotus I, cc. 1-130 (omitting cc. 57-8, 95-106); Plato, *Protagoras*; Euripides, *Iphigeneia in Tauris*.

## LATIN :

Prose composition. Translation at sight from Latin into English. The study of portions from various authors, three of which (two prose and one verse, or one prose and two verse) will be prescribed as subjects of the Final examination.

*Books prescribed for 1924-25*

Cicero *Philippic* ii; Horace, *Satires* i, 5, 6, 9; ii, 5, 6; Virgil, *Aeneid* iv.

## FRENCH :

The study of various texts, three of which (two prose and one verse, or one prose and two verse) will be prescribed as subjects of the Final examination. Translation at sight from French into English. Principles of Phonetics and Principles of Historical Grammar. Composition and the study of style. A period or periods of French Literature. Dictation, reading aloud and conversation in French.

*Books prescribed for 1924-25*

J. J. Rousseau, *Lettres à Dalember* and *Extraits*.

*Periods prescribed for 1924-25*

- (a) French Classical Tragedy to the end of the 17th Century.
- (b) The Life and Works of J. J. Rousseau.

## GERMAN :

The study of various texts, three of which (two prose and one verse, or one prose and two verse) will be prescribed as subjects of the Final examination. Translation at sight from German into English. Principles of Phonetics and Principles of Historical Grammar. Composition and the study of style. A period or periods of German Literature. Dictation, reading aloud, and conversation in German.

*Books prescribed for 1924-25*

Schiller, *Die Räuber* (Clarendon Press); Schiller, *Wilhelm Tell* (Pitt Press); Fiedler, *Book of German Verse* (Clarendon Press); Herder, *Volkslieder* (Cottas Weltliteratur); Lessing, *Emilia Galotti* (ed. Poll, Ginn & Co.)

*Period prescribed for 1924-25*

1740-1832.

ENGLISH LANGUAGE AND LITERATURE :

English Literature

Outlines of the history of English Literature to the present day.

In each year the study of one or more selected periods of English Literature, with representative texts. The study and practice of English Composition.

NOTE.—Attention is drawn to the importance, for these studies, of a knowledge of the outlines of English History.

*Period selected for 1924-25*

1645-1700.

*Texts selected for 1924-25*

*Treasury of Seventeenth Century Verse* (Macmillan); Milton, \**Paradise Lost* Bks i, ii, *Areopagitica*; Browne, \**Urn-Burial*; Hobbes, *Leviathan* cc. 1-13 (Everyman); Herrick, *Hesperides* (Muses' Library); Marvell, \**Poems* (Muses' Library); Vaughan, *Silex Scintillans* (Temple Classics); Walton, *Compleat Angler*; Dryden \**Absalom and Achitophel*, Part I; *MacFlecknoe*, *Essay of Dramatic Poesy*; Butler, *Hudibras*, Cantos 1, 2; Bunyan, *Grace Abounding*; Congreve, *The Way of the World*; Wycherley, *The Plain Dealer*; Otway, *Venice Preserved*; Evelyn's *Diary*; Pepys' *Diary*.

NOTE.—The texts marked with an asterisk are prescribed for detailed study.

English Language

This course is pursued, in the last year of their studies for the B.A.

Degree, by students taking English as a principal subject. It comprises an introductory study of Old and Middle English (Language and Literature) with selected texts (prose and verse) and unseen translation.

*Texts selected for 1924-25*

Sweet, *Anglo-Saxon Primer*; Sweet, *Anglo-Saxon Reader* (9th ed.) extracts ii, vii, ix, xvii, xxvi; Emerson, *M.E. Reader* (Macmillan), Part I, A1, B6, Part II, A6, B2; Chaucer, *Nun's Priest's Tale*, *The Tale of Sir Thopas*, *To Rosamonde*, *Truth*, *Gentilesse*.

RUSSIAN :

The study of various texts, three of which (two prose and one verse, or one prose and two verse) will be prescribed as subjects of the Final examination. Grammar of Russian Language. Translation at sight from Russian into English. Outlines of Russian History including study of Russian Institutions. Composition and the study of style. A period or periods of Russian literature. Dictation, reading aloud and conversation in Russian.

**SPANISH :**

The study of various texts, three of which (two prose and one verse, or one prose and two verse) will be prescribed as subjects of the Final examination. Grammar of Spanish Language. Translation at sight from Spanish into English. Composition and the study of style. A period or periods of Spanish literature. Dictation, reading aloud and conversation in Spanish.

**HEBREW :**

- (i) Translation, exegesis, re-translation, pointing, and grammar of specified portions of the Old Testament (one paper).
- (ii) Two of the following sections, one of which must be (a), and either (b) or (c), at the choice of the candidate (one paper) :—
  - (a) Introduction and subject-matter of the books from which the specified portions are taken.
  - (b) General questions on the contents of the Old Testament ; history, religious and moral development. General introduction to the following books : Pentateuch, Isaiah, and the Books of Psalms. In case Isaiah be one of the specified portions of the Old Testament under (i) above, Jeremiah to be substituted therefor, and if Psalms be one of the set books, Job to be substituted therefor.
  - (c) Unprepared translation and pointing from narrative portions of the Old Testament. Hebrew Syntax and Composition.

NOTE.—Candidates are required to satisfy the Examiners in each paper.

*Prescribed Books for 1924-25*

Isaiah, chapters 49-55, and the book of Malachi with critical introduction to the whole Books of Isaiah and Malachi and Exodus, chapters 1-24, with critical introduction to the Book of Exodus.

**HISTORY :**

*First Year Course :* A general sketch of European History from the third century A.D., or a special period.

*Second Year Course :* Two prescribed periods of History, studied in connection with some of the original authorities and selected from the following : Greek, Roman, English, Constitutional, Economic History.

*Periods prescribed for 1924-25*

*First Year Course :* Mediaeval History or Constitutional History of England.

*Second Year Course :* Greek History, from 445 to 362 B.C.; Roman History, to 133 B.C.; English History, 1625-1714.

**GEOGRAPHY :**

*First Year :* Regional Geography of the British Isles, together with either Physical or Economic Geography.

*Second Year*: A special Region (in 1921-22 The Mediterranean Region); and either Physical or Economic Geography (if not taken in first year).

Practical work—about 50 hours each year.

#### PHILOSOPHY

Two of the following :

History of Ancient Philosophy : general outlines of Greek Philosophy, with the special study of selected works.

History of Modern Philosophy : general outlines of Modern Philosophy from Bacon to Kant, with the special study of selected works.

Psychology : systematic Psychology, with more detailed study of some part of the subject.

Ethics : the general principles of Ethics, with the special study of selected ethical systems.

Theory of Knowledge : general outlines with the special study of selected works.

#### SOCIAL SCIENCE :

Elements of Political Theory.

Elements of Sociology.

#### ECONOMICS :

General principles of Economics, together with *two* of the following :—

(a) Commercial and Financial Organisation.

(b) Public Finance and Administration.

(c) Social Science and Administration.

(d) Economic History.

#### EDUCATION :

The course extends over three years, and is divided into two parts, Part I., Theory of Education, extending over two years, with an examination at the end of the second year; and Part II., History of Education, extending over one year. Candidates presenting themselves for examination in Part II. must present their other principal subjects at the same examination. Candidates ordinarily attend the courses of instruction in Part I. during the year of their attendance on the Intermediate Course for the degree, and the first year of their attendance on the Final Course.

##### Part I. Theory of Education.

Functions and agents of Education. The ethical, logical, and psychological bases of mental and moral Education. The general principles of teaching, with application to the primary school curriculum. The general principles of discipline, with applications to school life. School organisation. The general principles of physical training with reference to the work of the school; school hygiene.

## Part II. History of Education.

General outline of the history of educational thought in Europe from the Renaissance to the present time, with special reference to England and special emphasis on the Nineteenth Century. A prescribed book or subject.

## MATHEMATICS :

Trigonometry, Calculus, Statics and Dynamics, Hydrostatics, Pure and Analytical Geometry of two and three dimensions, Nomography, Easier portions of Higher Algebra, Differential Equations, Attractions and Astronomical Dynamics, Other selected branches of Applied Mathematics.

*II. Subsidiary Subjects, studied for One Year.*

## ENGLISH LITERATURE :

A selected period of English Literature, with representative texts. Outlines of the History of English Literature to the present day, English Composition.

*Periods and texts selected for 1924-25*

As for English Literature as a principal subject.

## HISTORY :

The Constitutional History of England to 1485 *or* Mediaeval History.

## ECCLESIASTICAL HISTORY :

History of the Christian Church to A.D. 451 (general paper).

## GEOGRAPHY :

The first year's work for Geography as a principal subject.

## PHILOSOPHY :

One of the subjects prescribed for Philosophy taken as a principal subject.

## SOCIAL SCIENCE :

*Either* Elements of Political Theory *or* Elements of Sociology.

## ECONOMICS :

General principles of Economics, together with the outlines of recent economic history.

## EDUCATION :

Part I. of the course prescribed for Education taken as a principal subject.

## MUSIC :

Harmony of a more advanced nature, including the writing original passages to illustrate various modulations or changes of key.

(a) Aural tests of a more advanced character.

(b) The working of exercises as a preparation for writing for—

(i) String Quartette, (ii) the Organ, (iii) the Pianoforte, (iv) Voices.



The General Principles of composition in Music, as a preparation for original work.

Double Counterpoint and Fugue (Analytical and Synthetical).

Writing for the Orchestra.

History of Music (with a specified period for detailed study).

Acoustics.

Original Composition.

#### MATHEMATICS :

Trigonometry, Calculus, Statics and Dynamics, Hydrostatics, Pure and Analytical Geometry of two dimensions, elements of Nomography.

### Degree of Bachelor of Arts with Honours

1. Candidates for the degree of Bachelor of Arts with Honours shall, except as hereinafter stated, be required to furnish certificates of having attended courses of instruction approved by the University and extending over not less than three academic years in one of the Honours Schools of the University hereafter enumerated. Ordinance

2. Every candidate for the degree of Bachelor of Arts with Honours shall be required to present himself for examination at the end of the third or fourth academic year from the time when he has entered upon one of the courses of instruction approved by the University for such degree, unless he shall present a medical certificate of illness satisfactory to the Senate. This examination shall ordinarily be held in June of each year.

3. Candidates for the degree of Bachelor of Arts with Honours may present themselves for examination in any of the following Honours Schools on furnishing certificates of having pursued, to the satisfaction of the Senate, the courses required for such Honours Schools in the University, viz. :

Classics

English Language and Literature

Modern Languages and Literatures

French Language and Literature.

German Language and Literature.

Russian Language and Literature

History

Geography.

Philosophy

Economic and Political Science

4. Candidates who have passed the Final examination for an Ordinary degree of Bachelor of Arts may, with the sanction of the Senate and on furnishing certificates of having attended, during the academic year following such Final examination for the Ordinary degree, the third year's, or, during the two academical years following such Final examination, the second and third years' course approved by the University for any one of its Honours Schools, present themselves for examination for the degree of Bachelor of Arts with Honours in such School.

5. No candidate for a degree of Bachelor of Arts with Honours shall be admitted more than once to examination in the same Honours School ; but students who have passed the Final examination in any of the Honours Schools may be admitted to the Final examination in any other Honours School after the expiration of one or two years, on presenting certificates of having attended, during the period in question, courses approved by the University.

Provided that in the said other Honours School selected, candidates shall not present themselves for the Final examination more than two academic years after the Final examination in Honours already passed by them, and also that no candidate be admitted to examination in any Honours School after a longer period than five years has elapsed since the date of his first entrance upon a prescribed course of study for an Honours School.

6. Names of candidates who have passed the examination for the degree of Bachelor of Arts with Honours shall be published in such form as to distinguish the Honours School in which severally they may have passed ; the names of those who have passed in Honours being drawn up in three classes, and each class being arranged in alphabetical order.

7. Candidates who have not acquitted themselves so as to deserve Honours may be excused the whole or such part of the examinations for the Ordinary degree as the combined examination committee may determine.

N.B.—In 1925 the latest date of entry and of payment of fees for the examinations in the Honours Schools will be MONDAY, MARCH 2nd.

## Classics

Candidates for the degree of Bachelor of Arts with Regulations Honours in Classics shall be required to pursue courses of study and to submit themselves for examination in the following subjects:

Translation from prescribed Greek and Latin books.

Translation at sight from Greek and Latin authors.

Greek and Latin Composition.

Greek and Latin Literature.

*Two* of the following :

Ancient History

Ancient Philosophy

A special subject connected with Greek or Latin literature.

Attendance in the subjects of the school shall be required as follows: Not less than ten hours a week in the first and second years, and eight hours a week in the third year. Attendance on the full course for the Intermediate examination for the Ordinary degree of Bachelor of Arts may be accepted as the required attendance for the first year of the Honours course, provided that the subjects chosen by the candidate are substantially and to the satisfaction of the Board of the Faculty of Arts those required for the first year's course of the Honours School of Classics.

*Examination*

Greek Prose Composition, one paper.

Latin Prose Composition, one paper.

Greek Unprepared Translation, one paper.

Latin Unprepared Translation, one paper.

Translation from prescribed Greek books, with questions on grammar and subject matter, two papers.

Translation from prescribed Latin books, with questions on grammar and subject matter, two papers.

Critical and Essay paper.

*Two* of the following :

Ancient History, one paper.

Ancient Philosophy, one paper.

Special subject in Greek or Latin Literature, one paper.

Greek and Latin Verse Composition, one paper (optional).

*Books prescribed for 1924-25*

GREEK: Homer, *Iliad* i, vi, xviii; Homer, *Odyssey*, ix, xi, xiii;

Pindar, *Olympian Odes*; Aeschylus, *Prometheus Vinculus*,

\**Agamemnon*; Sophocles, *Antigone*; Euripides, \**Bacchae*;

Aristophanes, *Clouds*, \**Frogs*; Herodotus viii; Thucydides \*ii, vii; Plato, *Republic* i, ii, iii; Demosthenes, \**De Corona*; Aristotle, *Poetics*.

*Books prescribed for 1924-25*

LATIN: Plautus, *Captivi*; Catullus 1-5, 11-14, 22, 31, 34, 38, 39, 46, 49, 51, 53, 61, 70, 76, 84, 85, 86, 93, 95, 96, 101, 109; Lucretius \*v; Virgil, *Georgics* ii, iv; *Aeneid* i, \*ii, iv, \*vi; Horace, *Odes*, i, \*ii, \*iii, *Epistles* i; *Satires* i, 5, 6, 9, ii, 5, 6; Juvenal \*i, \*iii, \*x, xi, xiv; Cicero, *Philippics*, i, \*ii; *Letters*, Tyrrell's Selection, 4, 5, 8, 9, 10, 13, 14, 17, 18, 20, 23, 26, 28, 30, 38, 40, 41, 42, 50, 60, 61, 66, 67, 73; Livy, xxi, xxii, Tacitus, *Annals* \*iv, *Agricola*.

N.B.—The books marked with an asterisk are to be studied with special care in all their bearings, textual, grammatical, literary, historical, etc.

### English Language and Literature

In this School there shall be alternative schemes of study; Scheme A, in which special attention will be paid to Literature; and Scheme B, in which special attention will be paid to Language. Under both schemes a competent knowledge of one classical and at least one modern European language, and of the outlines of English social and political history, shall be required for the attainment of high Honours.

Honours students, under either scheme, will, as a rule, be expected to take the Intermediate B.A. examination at the end of their first year.

The course of study for the first academic year shall embrace the following four subjects of the Intermediate course for the Ordinary Degree of B.A.: (i) Latin or Greek, (ii) French or German, (iii) English Literature, (iv) Modern History, and in addition (v) English Language and Early English Literature, as studied in the first year of the Honours course.

(Candidates who have passed the Intermediate examination as above, but are unable to continue their Honours course, may apply to the Senate for permission to proceed to the Final course and examination for the Ordinary degree of B.A.)

Some modification of the First year Course and Examination may be made, subject to the approval of the Board of the Faculty of Arts, in the case of students who have obtained a Higher School Certificate.



Candidates who, instead of the above-mentioned examination, have passed the Intermediate examination for the Ordinary B.A. degree, may be permitted to enter on an Honours Course in English at the beginning of their second year, on condition that before entering on their second year course, they satisfy the head of the department that they possess a sufficient knowledge of the English Language to enable them to profit by the subsequent courses in that subject.

### *Scheme A*

Candidates shall be required to attend the following courses in the subjects of the School: in the first year, three hours a week in English Literature, and three hours a week in English Language; in the second year, not less than six hours a week in English Literature and Language; in the third year, not less than five hours a week in English Literature and Language.

The first year course in English Language will comprise the outlines of the History of the English Language to the close of the Fourteenth Century, and the special study of West Saxon texts and of the language of Chaucer. The following texts will be used:—

Sweet, *Anglo-Saxon Primer*; Sweet, *Anglo-Saxon Reader* (9th edn.) extracts i, ii, iv, ix, x, xvi., xxi, xxvi; Chaucer, *Nun's Priest's Tale*; Sisam, *Fourteenth Century Verse and Prose* (Oxf. edn. with glossary), extracts ii, viii a, xv.

### *Final Examination*

Translation of unseen passages in Old and Middle English, with literary and historical questions, one paper.

Selected texts in Old and Middle English, with literary and historical questions suggested by them, one paper.

Chaucer, one paper.

Outlines of the History of English Literature, one paper.

Outlines of the History of the English Language, one paper.

Special period of English Literature, studied in selected texts and with reference to contemporary authorities, two papers.

An English author (usually Shakespeare), or selected subject from English Literature, one paper.

History of Criticism, with selected texts, one paper.

Oral examination.

In addition, candidates shall be required to present a dissertation on a subject approved by the Board of the Faculty of Arts.



*Texts and Period selected for 1924-25*

- (a) Selected Texts in Old and Middle English: \* *Beowulf* (ed. Klaeber: Heath and Co.); Sweet's *Anglo-Saxon Reader* (9th edn.) Sections I and II; \* *Sir Gawain and the Green Knight* (ed. Gordon and Tolkien: Oxford); Emerson, *Middle English Reader* (Macmillan), especially Part I, A i, ii, B i, vi; Part II, B ii, iv, v; Sisam, *Fourteenth Century Verse and Prose* (Oxford University Press), especially extracts i, ii, iii, vi, viii, ix, x, xia, xiii, xiv, xv, xvii.

Texts marked \* will be the subjects of special courses and are proposed for study in all their bearings, literary, linguistic, and historical.

- (b) Chaucer.  
 (c) Special Period: 1579-1645.  
 (d) Texts for study with Special Period: To be announced.  
 (e) Special Author: Shakespeare.  
 (f) History of Criticism:

Special Texts suggested for study: Aristotle, *Poetics*; Horace, *Ars Poetica*; Longinus, *On the Sublime*; Dante, *De Vulgari Eloquentia*, *Convivio*; du Bellay, *Deffence et Illustration de la Langue françoise*; Sidney, *Defence of Poesy*; Ben Jonson, *Discoveries*; Dryden, *Essay of Dramatic Poesy*; Boileau, *L'Art poétique*; Johnson, *Preface to Shakespeare*; Lessing, *Laoköon and Hamburgische Dramaturgie*; Wordsworth, Prefaces and Appendices to *Lyrical Ballads*; Shelley, *Defence of Poetry*; Coleridge, *Biographia Literaria*; Charles Lamb, *Literary Criticisms*; Victor Hugo, *Préface de Cromwell*; Arnold, *Essays in Criticism*, Second Series.

*Scheme B*

Candidates shall be required to attend the following courses in the subjects of the School: (i) during three academic years courses in English Language, including the History of the Language and Early English prose and verse, such courses amounting to not less than three hours a week for the first year and not less than four hours a week for the second and third years; (ii) during two academic years courses of three hours a week on periods of English Literature; (iii) during one academic year a course on the Outlines of English Literary History.

Candidates shall also be required to attend an approved course in *one* of the following subjects: Gothic, Old Icelandic, Old High German, Old French, Mediaeval Welsh, Elementary Palaeography.

First year courses in English Language: as for Scheme A.

*Final Examination*

Translation of unseen passages in Old and Middle English, with literary, historical, and linguistic questions, two papers.

Selected texts in Old and Middle English, with literary, historical and linguistic questions suggested by them, two papers.

Outlines of the History of English Literature, with selected texts, one paper.

Chaucer, one paper.

An English author (usually Shakespeare), or selected subject from English literature, one paper.

History of the English language, with reference to allied languages and to the general principles of linguistic study, one paper.

A paper on *one* of the following: Gothic, Old Icelandic, Old High German, Old French, Mediaeval Welsh, Elementary Palæography.

Oral examination.

In addition Candidates shall be required to present a dissertation on a subject approved by the Board of the Faculty of Arts, *or* to offer one of the above subjects (Gothic, Old Icelandic, &c.) not already taken.

NOTE:—Students are requested to give notice of their choice of subject, or subjects, not later than the beginning of their second year. Courses in Old Icelandic and Gothic are given in the department each year; courses in any other of the above subjects may be arranged through Mr. Tolkien.

*Texts for 1924-25*

- (a) Selected Texts in Old and Middle English: as for Scheme A, with the addition of Section III of Sweet's *Anglo-Saxon Reader*; Hall, *Layamon's "Brut" Selections* (Oxford).
- (b) Additional Texts (proposed for voluntary reading course): Cynewulf's *Elene* (ed. A. S. Cook, Ginn & Co.); *Lay of Havelok the Dane* (ed. Sisam-Skeat; Oxford).
- (c) Chaucer: as for Scheme A.
- (d) Outlines of the History of English Literature:

A general knowledge of English Literature from the earliest times, together with a study of the following texts:

Spenser, *Shepherd's Calendar* (ed. Herford); Shakespeare, *Richard II*, *Twelfth Night*, *King Lear*; Marlowe, *Faustus*; Jonson, *Every Man in his Humour*; Bacon, *Advancement of Learning*; *Characters of the Seventeenth Century* (ed. Nichol Smith); Milton, *Samson Agonistes*, *Areopagitica*; Dryden, *Religio Laici*, *Essay of Dramatic Poesy*, *Preface to the Fables*; Pope, *Moral Essays*; Johnson, *Preface to the Dictionary*, *Preface to Shakespeare*, *Lives of the Poets* (M. Arnold's selection); Selections from Boswell's *Life of Johnson* (Clarendon Press); Burke, *Reflections on the French Revolution*; *Lyrical Ballads* (with Wordsworth's

Prefaces); Lamb, *Letters* (Dent); Shelley, *Prometheus Unbound*, *Adonais*; Keats, *Odes*; Tennyson, *In Memoriam*; Browning, *Selections* (Smith, Elder); Carlyle, *Sartor Resartus*; Ruskin, *Unto this Last*; Palgrave, *Golden Treasury* (with Additional Poems); English Critical Essays: 19th Century (World's Classics); *Yorkshire Dialect Poems* (1673-1915), ed. Moorman.

(e) Old Icelandic: Sweet, *Old Icelandic Primer*; *Hrafnkels-Saga* (and other texts as arranged).

(f) Gothic: Wright, *Gothic Grammar* (Oxford).

### Modern Languages

The languages studied in the School shall be French, German, English.

Candidates for the degree of Bachelor of Arts with Honours in the School of Modern Languages shall be required to pursue courses of study and to submit themselves for examination in any two of the above subjects.

Candidates shall also be required to study auxiliary subjects, of which Latin shall ordinarily form part. Exemptions may be granted to specially qualified candidates.

The names of candidates, who, being placed in the First or Second Class, have shown conspicuous merit shall be distinguished in the class list by some mark to indicate the subject or subjects in which they have shown such merit.

#### I. FRENCH AND GERMAN:

The course of study and subjects of examination in French or German shall be: Prescribed texts of before 1500, studied from a literary and linguistic standpoint; prescribed texts of after 1500, studied in the same way; unprepared translation; literature (outlines and special periods); the history of the language (including phonetics, versification, &c.); composition.

Candidates taking French or German shall be required to attend for at least two years classes in composition, translation and phonetics; for one hour a week for each of three years a class in Literature; for three hours a week for two years, and at least two hours a week for one of the three years

classes on the history of the language, and the linguistic and literary study of texts prior to 1500; for one hour a week for two terms in one year a class in French or German Institutions.

## II. ENGLISH :

The courses of study and subjects of examination in English are as follows :

*Language.* During the first year, a course of not less than three hours a week in the English Language. During the second and third years, a course, or courses, in the English Language of not less than two hours a week.

*Literature.* During each year, a course in English Literature of not less than two hours a week, together with an additional course of one hour a week, during one of these years.

### *Examination*

The examination in each subject of the School shall consist of an oral examination and of the following papers :

#### FRENCH OR GERMAN :

Composition and Essay, one paper.

Unprepared Translation, one paper.

Prescribed Texts of before 1500, with literary and linguistic questions, one paper.

Prescribed Texts of after 1500, with literary and linguistic questions, one paper.

Literature, one paper.

Grammar : History of the language and versification, one paper.

#### ENGLISH :

Translation of unseen passages in Old and Middle English) as for Scheme A), with literary and historical questions, one paper.

Translation from selected English texts in Old and Middle English (as for Scheme A), with literary and historical questions suggested by them, one paper.

Special period of English literature studied in selected texts, and with reference to contemporary authorities, two papers, or Chaucer and Shakespeare, two papers. *For Candidates attached to Scheme B: either Chaucer or Shakespeare, one paper; and History of the English Language (as for Scheme B), one paper.*

Outlines of the History of English literature, one paper.



## I. FRENCH :

*Books and Periods prescribed for 1924-25*

Books before 1500: A certain number of texts including *Vie de St. Alexis*; *Vie de St. Gilles*; *Works of Francois Villon*.

Books after 1500: Selected authors of the Sixteenth Century; Corneille, *Le Cid*, *Polyeucte*; Molière, *Le Misanthrope*, *Les Femmes Savantes*; Racine, *Britannicus*; Pascal, *Provinciales*; Rousseau, *Lettres sur les Spectacles* and *Extraits*; Chateaubriand, *Genie du Christianisme*; Victor Hugo, *Notre Dame*; Sully Prudhomme, *Poésies de 1866 à 1872*.

Periods of Literature: (a) French Tragedy from 1550-1700

(b) The Life and Works of Rousseau.

(c) The French Novel from 1820-1850

## II. GERMAN : •

*Books and Periods prescribed for 1924-25*

Books before 1500: Braune, *Althochdeutsches Lesebuch*, ii, iv, vi, ix, xv, xvi (1-8), xvii, xxiii (1-5), xxviii-xxxi, xxxii (1, 4, 21), xxxiii, xxxiv, xxxvi, xxxix; Bartsch, *Das Nibelungenlied* (Deutsche Klassiker des Mittelalters), *Liederdichter*, xxi; Wright, *Middle High German Primer* iii, vii (Clarendon Press); Meier Helm-brecht, ed Panzer.

Books after 1500: Keller, *Ausgew. Werke des Hans Sachs* (Diesterweg, Frankfurt); Goethe, *Faust I* (ed. Thomas, Heath & Co.); Goethe, *Iphigenie* (ed. Breul, Pitt Press); Schiller, *Räuber* (Clarendon Press), *Wilhelm Tell* (Pitt Press); Herder, *Volkslieder* (Cottas Weltliteratur); Lessing, *Emilia Galotti* (ed. Poll, Ginn & Co.); Fiedler, *Book of German Verse* (Clarendon Press); Heine, *Buch der Lieder* (ed. Lees Manchester University Press).

*Period of Literature*: 1740-1832.

*Books and Periods prescribed for 1925-26*

*Books before 1500*: As for 1924-25.

*Books after 1500*: as for 1924, but substituting Goethe, *Götz* (Ginn & Co.), and *Egmont* (Clarendon Press) for Goethe *Faust I* and *Iphigenie*.

*Period of Literature*: 1740-1832.

## III. ENGLISH :

(a) Language

*Texts selected for 1924-25*

Old and Middle English: as for English Honours, Scheme A.

(b) Literature

*Texts and Period selected for 1924-25*

(a) Outlines of the History of English Literature.

(b) Special period and texts as for English Honours, Scheme A.



**French Language and Literature**

Candidates for the degree of Bachelor of Arts with Honours in French Language and Literature shall be required to pursue the following courses of study and to submit themselves to the following examinations.

The course of study for the first academic year shall as a rule embrace the following subjects, as for the Intermediate examination for the Ordinary degree of B.A.: (1) French Language and Literature; (2) Latin or German or Spanish; (3) Latin or German or Spanish (if not taken under (2) or English Literature, or Economics or another approved subject; (4) Modern History with special reference to France. An examination will be held in these subjects at the end of the first year.

(Candidates who have passed the above Intermediate examination, but are unable to continue their Honours course, may apply to the Senate for permission to proceed to the Final course and examination for the Ordinary degree of B.A.)

Students who have passed the Higher School Certificate examination in any of these subjects may be excused attendance and examination in such subjects, except that all candidates will be required to attend the lectures upon the History of France.

During the second year candidates shall be required to attend courses in the subjects of the School of not less than eight hours a week, such courses to include lectures on (a) French Institutions, (b) the Geography of France.

The third term of the second year will normally be spent at the University of Caen.

During the third year candidates shall be required to attend courses in the subjects of the School of not less than eight hours a week, such courses to include additional lectures on Literature.

Candidates may be required in any year to attend courses of lectures given in other Departments which may be helpful to their studies in the subjects of the School.

In addition to the subjects of the School, each candidate will be required to pursue a prescribed course in one other subject included in the Faculty of Arts and approved by the Head of the Department of French for a period extending over three years. At the end of his third year, he must present himself for examination in this qualifying subject at the Final Examination for the Ordinary Degree of B.A. The Class obtained by him in the Honours School will not be published until he has satisfied the examiners in this qualifying subject ; but in the event of his failure to do so, he may present this subject alone at any subsequent Final examination.

#### *Final Examination*

The examination shall consist of an oral examination and of the following papers :—

Prescribed texts of before 1500 with literary and linguistic questions, one paper.

Prescribed texts of after 1500 with literary and linguistic questions, one paper.

Essay and Composition, one paper.

Unprepared translation, one paper.

History of the language and versification, one paper.

Literature, two papers.

History and Institutions of France, one paper.

In addition, candidates shall be required to present a dissertation on a subject approved by the Board of the Faculty of Arts.

#### **German Language and Literature**

Candidates for the degree of Bachelor of Arts with Honours in German Language and Literature shall be required to pursue the following courses of study and to submit themselves to the following examinations :—

The course of study for the first academic year shall as a rule embrace the following subjects, as for the Intermediate examination for the Ordinary degree of B.A. : (1) German Language and Literature ; (2) Latin or French or English Language ; (3) a second subject from (2) or English Literature, or Economics, or another approved subject ; (4) Modern History, with special reference to Germany. An examination will be held in these subjects at the end of the first year.

(Candidates who have passed the above Intermediate examination, but are unable to continue their Honours course, may apply to the Senate for permission to proceed to the Final course and examination for the Ordinary degree of B.A.)

Students who have passed the Higher School Certificate examination in any of these subjects may be excused attendance and examination in such subjects, except that all candidates will be required to attend the lectures on the History of Germany.

During the second year candidates shall be required to attend courses in the subjects of the School of not less than eight hours a week, such courses to include lectures on (a) German Institutions, (b) the Geography of Germany.

The third term of the second year will normally be spent at some University where the medium of intercourse is German.

During the third year candidates shall be required to attend courses in the subjects of the School of not less than eight hours a week.

Candidates may be required in any year to attend courses of lectures given in other departments which may be helpful to their studies in the subjects of the School.

In addition to the subjects of the School, each candidate will be required to pursue a prescribed course in one other subject included in the Faculty of Arts and approved by the Head of the Department of German for a period extending over three years. At the end of his third year, he must present himself for examination in this qualifying subject at the Final Examination for the Ordinary Degree of B.A. The Class obtained by him in the Honours School will not be published until he has satisfied the examiners in this qualifying subject ; but in the event of his failure to do so, he may present this subject alone at any subsequent Final examination.

*Final Examination*

The examination shall consist of an oral examination and of the following papers :—

Prescribed texts of before 1500 with literary and linguistic questions, one paper.

Prescribed texts of after 1500 with literary and linguistic questions, one paper.

Essay and Composition, one paper.

Unprepared translation, one paper.

History of the language and versification, one paper.

Literature, two papers.

History and Institutions of Germany, one paper.

In addition, candidates shall be required to present a dissertation on a subject approved by the Board of the Faculty of Arts.

**Russian Language and Literature**

Candidates for the degree of Bachelor of Arts with Honours in Russian Language and Literature shall be required to pursue the following courses of study and to submit themselves to the following examinations :—

The course of study for the first academic year shall as a rule embrace the following subjects, as for the Intermediate examination for the Ordinary degree of B.A. :—

- (1) Russian Language and Literature ;
- (2) Greek or Latin or French or German or English Language ;
- (3) A second subject from (2) or English Literature ; or Economics, or another approved subject ;
- (4) Modern History, with special reference to Russia ; the history and geography of Russia.

An examination will be held in these subjects at the end of the first year.

(Candidates who have passed the above Intermediate examination, but are unable to continue their Honours course, may apply to the Senate for permission to proceed to the Final course and examination for the Ordinary degree of B.A.)

Students who have passed the Higher School Certificate examination in any of these subjects may be excused attendance and examination in such subjects, except that all candidates will be required to attend the lectures on the History of Russia.



During the second year candidates shall be required to attend courses in the subjects of the School of not less than eight hours a week, such courses to include lectures on (a) Old Church Slavonic, (b) the History of Literature up to 1800.

The third term of the second year will normally be spent at some University where the medium of intercourse is either Russian or any other Slavonic language.

During the third year candidates shall be required to attend courses in the subjects of the School of not less than eight hours a week.

Candidates may be required in any year to attend courses of lectures given in other departments which may be helpful to their studies in the subjects of the School.

In addition to the subjects of the School, each candidate will be required to pursue a prescribed course in one other subject included in the Faculty of Arts for a period extending over three years or less. The candidate must present himself for examination in this qualifying subject at the Final Examination for the Ordinary Degree of B.A. The Class obtained by him in the Honours School will not be published until he has satisfied the examiners in this qualifying subject ; but in the event of his failure to do so, he may present this subject alone at any subsequent Final examination.

#### *Final Examination*

The examination shall consist of an oral examination and of the following papers :—

Old Church Slavonic :

Prescribed Texts from Ostromirov Evangelie to be translated into Russian ; Philology, one paper.

The History and Philology of the Russian Language :

An outline of the Slavonic group of languages in Europe and their geographical distribution, one paper.

Prescribed texts of after 1500 with literary and linguistic questions, one paper.

Essay and Composition, one paper.

Unprepared translation, one paper.

Literature, two papers.

History, especially Social History, of Russia, one paper.



(Candidates will be required to show such a knowledge of the outlines of Social History of Russia as is necessary to the understanding of the Literature ; also the influence of English, French and German Philosophy and Literature on the Russian Literature and Social Ideals.)

In addition, candidates shall be required to present a dissertation on a subject approved by the Board of the Faculty of Arts.

### History

Candidates for the degree of Bachelor of Arts with Honours in History shall be required to pursue courses of study as follows :

The course of study for the first academic year shall embrace the following subjects of the Intermediate course for the Ordinary degree of B.A. : (1) Latin or Greek ; (2) French or German ; (3) Logic or English Literature, or a third Language ; (4) History ; (5) Economics. An examination will be held in these subjects at the end of the first year, which must be passed by candidates before they proceed to further study.

(Candidates who have passed the above Intermediate examination, but are unable to continue their Honours course, may apply to the Senate for permission to proceed to the Final course and examination for the Ordinary degree of B.A.)

Some modification of the First Year Course and Examination may be made, subject to the approval of the Board of the Faculty of Arts, in the case of students who have obtained a Higher School Certificate.

Attendance on the full course for the Intermediate examination for the Ordinary degree of Bachelor of Arts may also be accepted by the Senate as the required attendance for the first year of the Honours course.

At the end of the second academic year candidates will be examined as follows :

#### *Honours Examination (Part I)*

Outlines of European History, two papers.

General British History *or* Historical Geography, one paper.

Set Books, one paper.

Candidates must satisfy the examiners in this examination before proceeding with further study.

At the end of the third year candidates will take the following examination :

*Honours Examination (Part II)*

Essay in General History, one paper.

English (including Constitutional) History, two papers.

Special period, studied in connection with the original authorities, two papers.

Political Theory, one paper.

In addition, candidates shall be required to present a dissertation on some subject approved by the Board of the Faculty of Arts.

Candidates shall also be required to show in the examination some knowledge of at least one foreign language (ancient or modern).

Oral Examination.

*Special Periods for 1924-25*

- (1) Roman History, 31 B.C.-37 A.D.; (2) European History, 1789-1804; (3) The Reign of Richard II; (4) England and France 1558-1603; (5) England and France (1865-1875).

The following is the list (subject to revision) of the original authorities set for the Honours periods :

1. Selections from Tacitus, *Annals*, books i-vi; Suetonius, *Augustus* and *Tiberius*; Velleius Paterculus, *Historia Romana*, book ii, cc. 84-131, *Res Gestae Divi Augusti* (ed. Cagnat-Peltier or Diehl); selected Inscriptions illustrating the period.
2. The Constitutional Documents in Legge's *Select Documents of the French Revolution*; a selection from Morse Stephen's *Orators of the French Revolution*; *England and Napoleon in 1803* (Oscar Browning's edition of Lord Whitworth's despatches); a selection from Napoleon's correspondence.
3. Selected passages from Walsingham, *Historia Anglicana* (Rolls Ser.); Knighton, *Chronicon* (Rolls Ser.); Malverne's Chronicle in Higden, *Polychronicon*, vol. ix (Rolls Ser.); *Annales Ricardi Secundi* (Rolls Ser.); Calendars of Patent and Close Rolls; Rolls of Parliament, vol. iii.
4. *Statutes and Constitutional Documents* relating to the Reign of Queen Elizabeth (Prothero); *The Leicester Correspondence* (Camden Society); Selection from Hakluyt's Voyages (in Payne and Beasley's "*Voyages of the Elizabethan Seamen*"); Spenser's *View of the State of Ireland*; Selections from the Spanish Calendars, and from Isambert's *Recueil des anciennes lois Françaises*.
5. Morley's *Life of Gladstone*; Ollivier, *L'Empire Libéral*, vol. xiv.; Bismark, *Reflections and Recollections*; Oakes and Mowat, *Great Treaties of the Nineteenth Century*.

**Geography**

Candidates for the Degree of Bachelor of Arts with Honours in Geography shall be required to pursue courses of study as follows :—

In the first academic year the course shall embrace the following subjects of the Intermediate course for the Ordinary Degree :—

1. Geography.
2. A language other than English.
3. Economics.
4. Geology.
5. *Either* modern History *or* Physics.

An examination in these subjects will be held at the end of the first year, which must be satisfactorily passed by candidates before they proceed to further study.

(Candidates who have passed the above examination and are unable to continue their Honours course may apply to the Senate for permission to proceed to the Final Course for the Ordinary Degree).

Subject to the approval of the Board of the Faculty of Arts, the first year's course may be modified in the case of students who have obtained the Higher School Certificate.

The full course for the Intermediate examination for the ordinary degree of B.A., may be accepted by the Board of the Faculty of Arts as a substitute for the first year of this Honours course.

During the second year of their course, candidates shall be required to attend an approved course in either History or Economics.

At the end of the second academic year, candidates will be examined as follows :—

**SCHEME A.***Honours Examination (Part I.).*

Physical Geography	.. ..	two papers.
General and Regional Geography	one	paper.
Principles of Human Geography	one	paper.
Either History or Economics	one	paper.

or

## SCHEME B.

Physical Geography	.. ..	one paper.
General and Regional Geography	.. ..	one paper.
Principles of Human Geography	.. ..	one paper.
Economics	.. ..	one paper.
Economic History	.. ..	one paper.

Candidates must satisfy the examiners in this examination before proceeding with further study.

At the end of the third year, candidates will be examined as follows:—

## SCHEME A.

*Honours Examination (Part II.).*

Essay	.. ..	one paper.
General and Regional	.. ..	two papers.
Human Geography	.. ..	two papers.
Oral and practical examination.		

or

## SCHEME B.

Essay	.. ..	one paper.
Human Geography	.. ..	one paper.
A Special Region	.. ..	one paper.
A Selected Industry	.. ..	one paper.
International Trade	.. ..	one paper.
Oral and practical examination		

In addition, candidates shall be required to present a dissertation on a subject approved by the Board of the Faculty of Arts.

N.B.—Candidates shall be required to show in the examination a knowledge of at least one modern foreign language.

## Philosophy

Candidates for the degree of Bachelor of Arts with Honours in Philosophy shall be required to pursue the following courses of study, and to submit themselves to the following examinations:

The course of study for the first year is the same as that for the Intermediate examination for the Ordinary degree, provided that Logic must be taken as the fourth subject, and that a second philosophical subject may be



taken as the fifth subject. Candidates must pass an examination on the first year's course before proceeding to further study.

(Candidates who have taken the second philosophical subject in the above examination, and have passed the examination, but who are unable to continue their Honours course, may apply to the Senate for permission to proceed to the Final course and examination for the Ordinary degree of B.A.)

Some modification of the First Year Course and Examination may be made, subject to the approval of the Board of the Faculty of Arts, in the case of students who have obtained a Higher School Certificate.

Subject to the approval of the Board of the Faculty of Arts, suitably qualified candidates may be permitted to proceed to the course for Honours without taking the Intermediate course and examination.

During the second and third years candidates shall be required to attend approved courses in Philosophy of not less than five hours a week in each year.

They shall also be required to attend, during the second and third years, approved courses of lectures on other subjects, the number of lectures amounting to not less than two hours a week in each year.

#### *Examination*

Essay, one paper.

General Questions, one paper.

Logic, Deductive and Inductive, one paper.

Psychology, one paper.

Ethics, one paper.

Advanced Psychology *or* Moral and Political Philosophy, one paper.

*Either* History of Ancient Philosophy, one paper, and two papers on *one* of the following :

Descartes, Malebranche, Spinoza.

Spinoza and Leibniz.

English Philosophy from Locke to Hume, with reference to Bacon and Hobbes and to Reid and the Scottish Philosophy.

Kant.

Some other subject approved by the Board of the Faculty of Arts.



Or, History of Modern Philosophy, one paper, and two papers on *one* of the following :

Greek Philosophy before Socrates.

Socrates and Plato.

Aristotle.

Post-Aristotelian Philosophy.

Some other subject approved by the Board of the Faculty of Arts.

### Economic and Political Science

Candidates for the degree of Bachelor of Arts with Honours in Economic and Political Science shall be required to pursue courses of study, and to submit themselves to examination, as follows :—

The course of study for the first academic year shall include the following subjects of the Intermediate course for the Ordinary degree of B.A., (1) Latin or Greek ; (2) French or German ; (3) Modern History ; (4) Economics ; (5) Geography or English Literature, or Mathematics, or, if not taken under (2) French or German. An examination will be held in these subjects at the end of the first year, which must be passed by candidates before they proceed to further study.

(Candidates who have passed the above Intermediate examination, but are unable to continue their Honours course, may apply to the Senate for permission to proceed to the Final Course and examination for the Ordinary degree of B.A.).

Some modification of the First Year Course and Examination may be made, subject to the approval of the Board of the Faculty of Arts, in the case of students who have obtained a Higher School Certificate.

Attendance on the full course for the Intermediate examination for the degree of B.A. may also be accepted by the Senate as the required attendance for the first year of the Honours course.

During the second and third years candidates shall be required to attend approved courses in the subjects of the school of not less than five hours a week in each year.

They shall also be required to attend, during the second and third years, approved courses of lectures on other subjects, the number of lectures amounting to not less than two hours a week in each year.

#### *Examination*

Essay, one paper.  
 Principles of Economics, two papers.  
 History of Economic Theory, one paper.  
 Economic History, one paper.  
 Political Theory, one paper.  
 Constitutional Law, one paper.  
 A special Economic subject, one paper.

In addition, candidates shall be required to present a dissertation on a subject approved by the Board of the Faculty of Arts.

### DEGREE OF MASTER OF ARTS

#### I

Ordinance. 1. The degree of Master of Arts may be conferred, on payment of the proper fee, upon registered Bachelors of Arts when of not less than one year's standing from the date of their graduation as Bachelors, subject to the conditions contained in the following paragraphs.

2. Bachelors of Arts who have graduated with Honours may proceed to the degree of Master of Arts on presenting a dissertation satisfactory to the Senate on a subject approved by the Board of the Faculty of Arts.

3. Bachelors of Arts who have obtained the Ordinary degree shall be required to pass an examination in a subject or group of subjects upon which instruction is given in the Faculty of Arts, and to present a dissertation satisfactory to the Senate on a subject approved by the Board of the Faculty of Arts, or, if they do not present a dissertation, to pass a more extended examination. In special cases it shall be in the power of the Senate, on the application of the candidate and on the special recommendation of the Board of the Faculty of Arts, to award the degree upon a dissertation only. Candidates wishing to apply for such remission must make application to the Board of the Faculty of Arts not later than the end of the October preceding the examination. Regulations shall determine the subjects and groups of subjects in which the

examination will be held. Certificates of attendance on courses of study in the University shall not be required. Bachelors of Arts who have obtained Honours in any school after the Ordinary degree shall be held to have satisfied the requirements of this clause.

4. All candidates who offer a dissertation either as sole test or in combination with other tests, may be called upon to present themselves for an examination—written, or oral, or both—in the theme of their dissertation.

5. The names of candidates who have passed the examination for the degree of Master of Arts shall be arranged in alphabetical order without distinction of classes.

## II

6. Graduates or persons who have passed the Final examination for a degree of other approved Universities shall, if they present evidence satisfactory to the Senate that they are qualified to pursue a course of advanced study or research, be permitted to enter the University and to become candidates for the degree of M.A., without taking the B.A. degree, after not less than two years of such advanced study or research.

7. Persons who are not graduates (nor have passed the Final examination for a degree) of an approved University, may, if they satisfy the Senate that their educational attainments are adequate and that they are qualified to pursue a course of advanced study or research, be permitted to enter the University and to become candidates for the degree of M.A., without taking the B.A. degree, after not less than three years of such advanced study or research.

8. Candidates admitted under the provisions of either of the two paragraphs preceding shall be required to fulfil the following conditions:—

- (a) To be registered as students of the University.
- (b) To pursue a course of advanced study or research under the supervision of the Head of the Department concerned.
- (c) To attend a course or courses of lectures at the University for at least one year, except so far as this requirement is suspended or reduced by the Senate.

They shall be further required to give evidence to the Senate at the end of the first year of their period of study that their work has been satisfactory, and at the end of their course they shall be required to present a dissertation, and to satisfy such further test, if any, as the Senate shall deem expedient. They will, as a rule, be called upon to present themselves for an examination—written, or oral, or both—in the theme of their dissertation.

N.B.—In 1925 the latest date of entry and payment of fee for candidates presenting themselves for examination will be MONDAY, MARCH 2nd, and the examination held under I, 3, will be held in June. Candidates proceeding to the degree of M.A. by dissertation only must make their entry, pay the prescribed fee, and send in their dissertations not later than FRIDAY, MAY 1st. It is desirable that all candidates who present a dissertation should furnish at least two copies of such dissertation.

### Examination

Regulations Bachelors of Arts who have obtained the Ordinary degree and are candidates for the degree of Master of Arts may present themselves for examination *either in one of the following subjects, viz., Greek, Latin, French, German, English Language and Literature, History, Philosophy, Economics, Education, Geography, or in two of the following: Greek, Latin, French, German, English Language and Literature, History, Philosophy, Economics, Geography.* Candidates who offer two subjects must submit their choice of subjects for approval by the Board of the Faculty of Arts.

### Greek

#### I. As a single subject.

Translation from Greek books selected, as a rule, from those prescribed for Honours in Classics, one paper.

Translation at sight and questions on the subject matter of the specified books, one paper.

Translation at sight and Greek prose composition, one paper.

A dissertation on some subject approved by the Board of the Faculty of Arts.

#### II. In combination with another subject.

As above, with the omission of the dissertation.

#### Books prescribed for 1924-25

Homer, *Iliad* i, vi, *Odyssey* ix; Sophocles, *Antigone*; Euripides, *Bacchae*; Aristophanes, *Clouds*; Demosthenes, *De Corona*; Plato, *Protagoras*, Aristotle, *Poetics*.

## Latin

## I. As a single subject.

Translation from Latin books selected, as a rule, from those prescribed for Honours in Classics, one paper.

Translation at sight and questions on the subject matter of the specified books, one paper.

Translation at sight and Latin prose composition, one paper.

A dissertation on some subject approved by the Board of the Faculty of Arts.

## II. In combination with another subject.

As above, with the omission of the dissertation.

*Books prescribed for 1924-25*

Plautus, *Captivi*; Lucretius v; Catullus 1-5, 11-14, 31, 34, 39, 49, 51, 61, 84, 85, 86, 101; Horace, *Odes* i, ii, iii, *Epistles* i; Virgil, *Aeneid* i, ii, iv, vi; Cicero, *Philippic* ii; Livy xxi  
Tacitus, *Agricola*; Juvenal i, iii, x, xiv.

## French

## I. As a single subject.

Composition and essay, one paper.

Prescribed texts in Old and Modern French, including literary and linguistic study, one paper.

Unprepared translation and historical grammar, one paper.

French Literature (general outlines and special period or periods), one paper.

Oral examination.

A dissertation on some subject approved by the Board of the Faculty of Arts.

## II. In combination with another subject.

As above, with the omission of the dissertation.

*Books prescribed for 1924-25*

G. Paris et Langlois, *Chrestomathie du Moyen Age*; Darmesteter et Hatzfeld, *Morceaux Choisis des Ecrivains du 16<sup>e</sup> Siècle* (verse only); Molière, *Le Misanthrope*, *Les Femmes Savantes*; Racine, *Britannicus*; Rousseau, *Extraits*; Victor Hugo, *Notre Dame*.

*Period of Literature prescribed for 1924-25*

The Life and Works of J. J. Rousseau.

## German

## I. As a single subject.

Composition and essay, one paper.

Prescribed texts in Middle High German and New High German, including literary and linguistic study, one paper.

Unprepared translation and historical grammar, one paper.

German Literature (general outlines and special period or periods), one paper.

Oral examination.

A dissertation on some subject approved by the Board of the Faculty of Arts.



## II. In combination with another subject.

As above with the omission of the dissertation.

*Books prescribed for 1924-25*

Bartsch, *Liederdichter* xxi; Wright, *Middle High German Primer*; iii, vii; Lessing, *Laokoon*, ed. Hamann (Clarendon Press); Schiller, *Wilhelm Tell*, ed. Breul (Pitt Press); Goethe, *Gotz* (Ginn & Co.) and *Egmont* (Clarendon Press); Heine, *Buch der Lieder* (Manchester University Press); Poems by Goethe, Schiller, and Uhland, in Fiedler, *Book of German Verse* (Clarendon Press).

*Period of Literature prescribed for 1924-25*

1700-1832.

## English Language and Literature

## I. As a single subject.

*Either*

A (a) A dissertation.

(b) Examination, written or oral or both, in subjects connected with the candidate's dissertation.

(c) Outlines of the History of English Literature with selected texts, two papers.

*Or*

B (a) An essay, one paper.

(b) Translation from selected texts in Old and Middle English, and unseen translation, two papers.

(c) Outlines of the History of English Literature with selected texts, two papers.

(d) One of the following:

(i) History of the English Language, one paper.

or (ii) Chaucer, one paper.

or (iii) Shakespeare, one paper.

## II. In combination with another subject.

*Either*

A (a) An essay, one paper.

(b) Outlines of the History of English Literature with selected texts, two papers.

(c) A special author or subject, one paper.

*Or*

B (a) An essay, one paper.

(b) Translation from selected texts in Old and Middle English, and unseen translation, two papers.

(c) History of the English Language, one paper.

*Texts and Periods for 1924-25*

*I. As a single subject.*

- A (a) Outlines of the History of English Literature, with selected texts, as for English Honours, Scheme B.
- B (b) Selected texts in Old and Middle English, as for English Honours, Scheme A.
- (c) Outlines of the History of English Literature, with selected texts, as for English Honours, Scheme B.
- (d) A general knowledge of *either* (i) the history of the English Language from the earliest times to the present, *or* (ii) Chaucer's Poems and Language, *or* (iii) Shakespeare's Plays and Poems.

*II. In combination with another subject.*

- A (b) Outlines of the History of English Literature, with selected texts, as for English Honours, Scheme B.
- (c) Shakespeare, *Tragedies*.
- B (b) Selected texts in Old and Middle English, as for English Honours, Scheme A.
- (c) A general knowledge of the history of the English Language from the earliest times to the present.

**History**

*I. As a single subject.*

An essay, one paper.

*Either* Ancient History (to 337 A.D.) General, two papers with special period in Ancient History, two papers.

*Or* Mediæval History (300 to 1500 A.D.), General, two papers, with special period in Mediæval History, two papers.

*Or* Modern History (since 1500 A.D.), General, two papers, with special period in Modern History, two papers.

Candidates may substitute a dissertation for the essay and the two papers on the special period.

*II. In combination with another subject.*

- (a) Ancient or Medieval or Modern History, one paper.
- (b) A special subject in the period taken under (a), two papers.

Candidates must in every case satisfy the Board of the Faculty of Arts that the subjects they offer under (a) and (b) form a suitable combination.

*Special Periods prescribed for 1924-25*

- (1) Roman History (31 B.C.-37 A.D.); (2) The Reign of Richard II; (3) England and France (1558-1603); (4) European History, (1789-1804); (5) England and France (1865-1875).

**Philosophy***I. As a single subject.*

- (a) General Questions, one paper.
- (b) *Three* of the following :
  - Logic, one paper.
  - Psychology, one paper.
  - Ethics, one paper.
  - History of Philosophy, Ancient or Modern, one paper.
  - Advanced Psychology *or* Moral and Political Philosophy, one paper.
- (c) *One* of the following special subjects, one paper.
  - Greek Philosophy before Socrates.
  - Socrates and Plato.
  - Aristotle.
  - Post-Aristotelian Philosophy.
  - Descartes, Malebranche, Spinoza.
  - Spinoza and Leibniz.
  - English Philosophy, from Locke to Hume, with reference to Bacon and Hobbes, and to Reid and the Scottish Philosophy.
  - Kant.

Candidates may as an alternative present a dissertation on a subject approved by the Board of the Faculty of Arts and present themselves for examination in three papers from section (b) or in two papers from section (b) and one paper from section (c).

*II. In combination with another subject.*

- History of Philosophy, Ancient or Modern, one paper.
- Logic, or Ethics, or Psychology, or History of Philosophy, Modern or Ancient, one paper.
- A special subject, approved by the Board of the Faculty of Arts, one paper.

**Economics***I. As a single subject.*

- (a) An essay, one paper.
- (b) English Economic History, including the special study of a set period, two papers.
- (c) *One* of the following :
  - General Principles of Economics, two papers.
  - A special Economic subject, two papers.
  - History of Economic Theory, including the special study of the work of a particular economist, two papers.

Candidates who have taken Economics as a subject for the degree of B.A. may not offer General Principles of Economics.

Candidates may as an alternative present a dissertation on a subject approved by the Board of the Faculty of Arts, and present themselves for examination in (b) or in one subject of (c). Such candidates may not offer a special Economic subject and a dissertation on the same subject.

*II. In combination with another subject.*

English Economic History or History of Economic Theory, one paper.

A special Economic subject, two papers.

The 19th Century Economist for special study for 1923-24.

Adam Smith.

**Geography**

*I. As a single subject.*

(a) (1) General Questions, one paper, together with *two* of the following :

(2) Regional Geography, one paper.

(3) Human Geography, one paper.

(4) Economic Geography, one paper.

(b) A dissertation on some subject approved by the Board of the Faculty.

*II. In combination with another subject.*

(a) above.

**Education**

(A) A dissertation on some subject related to Education and approved by the Board of the Faculty of Arts.

And (B) *Either* The Theory of Education, two papers, one of the following topics :

(1) The ultimate aim of education, and its relation to subordinate aims, with special consideration of the concepts of liberal culture, formal discipline, and vocational training.

(2) Heredity and environment in education.

(3) The general process of psychological development in relation to education, with a detailed investigation of the psychological processes involved in some one form of educative influence.

(4) The literature and practice of experimental psychology as applied to education, with records (if any) of personal investigation.

(5) The theoretical bases of the process of learning, with special study of methodology applied to some part of the curriculum approved by the Board of the Faculty of Arts.

(6) The principles and methods of religious and moral education.

(7) The aim and organisation of systems of education as determined by social, economic, political, moral and religious conditions and ideals, with a study of the functions and relations of educational agencies.

(8) Physical development, including the study of fatigue.

(9) Psychology and physiology of skill with its educational implications.

(10) Any specific educational problem approved by the Board of the Faculty of Arts.

*Or* The History of Education—two papers on one of the following periods, with study of certain original authorities, as arranged after consultation with the Professor, viz :

- (1) From beginnings of Greek education to 400 A.D.
- (2) 400 A.D.—1000 A.D.
- (3) 1000 A.D.—1400 A.D.
- (4) 1400 A.D.—1760 A.D.
- (5) 1760 A.D. to present time.

*Or* a detailed study, based on personal knowledge, of the educational system of any one country, selected by the candidate with the approval of the Board of the Faculty of Arts. The examination on this subject may consist of an inspection of the reports and note books presented by the candidate.

#### DEGREE OF MASTER OF EDUCATION (M.Ed.)

**Ordinance** 1. The degree of Master of Education (M.Ed.) may be conferred, upon payment of the proper fee, on graduates of the University of not less than two years' standing from the date of their graduation as Bachelors, who have obtained the Diploma in Education of the University, subject to the conditions contained in the following paragraphs.

2. Each candidate for the degree of M.Ed. shall be required to present a thesis, consisting of a record of original work or research, or independent study or criticism, on some educational subject approved by the Senate. Each candidate shall further be required to submit himself for examination (oral or written, or both) in the subject of his thesis, unless the Senate on application waives this requirement.

3. (a) Candidates who have obtained the Diploma in Education of the University shall be entitled to present the thesis not less than one academic year after obtaining the Diploma with or without further attendance at the University.

(b) Graduates of the University who have satisfied the examiners in the subjects of Education at the Final examination for the degree of Bachelor of Arts or Bachelor of Science, may become candidates for the degree of



M.Ed., notwithstanding that they have not obtained the Diploma in Education, provided that they have had, after graduation, either (1) not less than one year's approved study, or (2) not less than one year's experience in the practical work of education and have proved efficient therein, and, subsequently shall have pursued for an additional year an approved course of advanced study or research in Education.

(c) Graduates of the University, may, by permission of the Senate, substitute for the Diploma in Education of the University, the Diploma or Certificate in Education of another approved University. Such candidates shall be required to pursue a course of advanced study or research in Education in the University for one year.

4. Graduates, or persons who have passed the Final examination for a degree of other approved Universities shall, if they produce evidence satisfactory to the Senate that they are qualified to pursue a course of advanced study or research be permitted to enter the University and to become candidates for the degree of M.Ed. without having previously graduated in this University. Such candidates shall be subject to the requirements set forth in paragraph 2 above, and shall further be required to pursue a course of study and research in Education in the University for a period of two years, except in so far as the Senate approves of study and research conducted in some other institution during one of the required years.

N.B.—In 1925 candidates must make their entry, pay the prescribed fee, and send in their thesis not later than FRIDAY, MAY 1st. It is desirable that at least two copies of the thesis submitted should be furnished.

#### **DEGREE OF DOCTOR OF PHILOSOPHY (Ph.D.)**

1. The Degree of Doctor of Philosophy (Ph.D.) is conferred, on payment of the proper fee, on persons who are registered graduates of the University of Leeds, or who have obtained at an approved University or Institution of Ordinance.

University rank a degree or appropriate diploma awarded upon an approved course of study extending over not less than three years, or have passed the Final examination for such a degree at an approved University, provided that in all cases the conditions laid down in the following paragraphs have been satisfied.

2. All Candidates for the Degree of Doctor of Philosophy are required to pursue in the University for at least two academic years an approved full-time course of advanced study and research, under the direction of the Head of the Department concerned or of a member of the University staff appointed by the Senate on his recommendation ;

provided that, after completion of the first year of the course, candidates may be permitted to devote such periods as may be deemed advisable by the Senate to full-time study and research in other approved Universities or institutions, while remaining under the direction of the University or of persons nominated by the University.

3. Before entering on the course of advanced study and research, candidates are required

- (a) To have attained the age of 21 years.
- (b) To submit to the Senate for its approval the course of advanced study and research proposed by them and to present evidence satisfactory to the Senate that they are qualified to undertake the proposed course.
- (c) To register as students of the University and to pay the prescribed fees for tuition.

4. On completing the course of advanced study and research candidates are required

- (a) To present a thesis on the subject of their advanced study and research, and to satisfy the examiners that it contains original work worthy of publication, and that it is of a sufficient standard of merit to qualify for the degree of Doctor of Philosophy.
- (b) To submit themselves for an oral examination on matters relevant to their thesis and, if required, for a written examination and to satisfy the examiners in the examination as well as in the thesis presented.

5. The application of a candidate for admission to the course for the degree must give particulars of his educational career and qualifications as well as the subject of his proposed course of advanced study and research. The application should be addressed to the Clerk to the Senate. Regulations

NOTE.—A candidate is advised, before making application to the Clerk to the Senate, to consult the Head of the Department which is concerned with the subject which he proposes to study.

6. A candidate is required during his course to devote his whole time to his advanced study and research ; but in exceptional cases the Senate is prepared to allow the candidate to undertake a limited amount of outside work which, in its judgment, would not interfere with the prosecution of his proposed course of advanced study and research.

7. A candidate will not be permitted to submit as his thesis one for which a degree has been conferred upon him in this or any other University ; but he shall not be precluded from incorporating in his thesis any part of the work already submitted by him with a view to a degree for which he has been a successful candidate, provided that in his application to the University for admission to the course he states his desire to do so, and in the thesis itself indicates the part of the work which has been so incorporated.

8. It will be generally convenient that the candidate's course should begin either at the opening of the academic year in October, or during the previous Long Vacation ; but the Senate is prepared to consider applications for leave to begin the course at some other time in the academic year. The course must in any case extend over two academic years or their equivalent.

9. Towards the completion of his course the candidate, giving if possible three months' notice to the Clerk to the Senate, must make application to be examined and must submit, as soon as possible afterwards, at least one copy of his thesis, which should be accompanied by a short abstract. The copy of the thesis will be retained by the University.

**DEGREE OF DOCTOR OF LETTERS**

Ordinance 1. The degree of Doctor of Letters shall be conferred by the University upon registered Masters of Arts or Doctors of Philosophy of the University who shall be deemed by the Senate, after considering a report from the Board of the Faculty of Arts, to have distinguished themselves by special research or learning.

Provided that the Senate may, in such cases as it shall think fit, after considering a report from the Board of the Faculty of Arts, also require candidates to pass such an examination as it may from time to time determine.

2. A Master of Arts or a Doctor of Philosophy of the University may make application for the degree of Doctor of Letters in the sixth or any subsequent year from the date of his admission to the Bachelor's degree.

3. Such applications shall be made in writing to the Registrar, and shall contain a full statement of the grounds on which the claim for the degree is based, together with one or more copies of any thesis, whether in print or in manuscript, which the applicant may desire to submit in support of the application.

4. If the application be approved by the Senate, the degree may be conferred at the expiration of not less than six years from the date of admission to the Bachelor's degree.

N.B.—In 1925 the latest date for application and payment of fee will be MONDAY, MARCH 2nd.

**DIPLOMAS IN ARTS**

Ordinance Diplomas shall be granted by the University, in such subjects as the Council may from time to time determine, to students who pursue the courses of study and pass the examinations prescribed.

The Council is empowered to make from time to time Regulations under which such Diplomas shall be awarded.

The award of Diplomas under the provisions of this Ordinance is delegated to the Senate.

Regulations Candidates for Diplomas are required to give satisfactory attendance upon all the subjects which form part of their course of study, and to present themselves for any class



examinations that may be held in the same. Those who do not pass satisfactorily in these examinations in any year will be disqualified for the Diploma unless they repeat the course in whole or in part, as may be required by the Senate.

At the close of the course, candidates will be required to present themselves for such examination in the main subject of study as may be prescribed.

Some deviation from these courses may be sanctioned in special cases, and students who on entering upon a Diploma course produce evidence that they possess a sufficient knowledge of the work done during a part of the course will be allowed to dispense with a certain amount of attendance. Applications for exemption from attendance should be made to the head of the department concerned, who shall bring them before the Standing Committee of the Senate appointed to deal with such matters.

### **Diploma in Education**

Candidates for the diploma in Education must be graduates of some University in the United Kingdom or must have obtained such other academic qualifications as shall be approved by the Senate of the University. Regulations

The session for students in this department will open about the beginning of September and will close about the middle of July.

The course is both theoretical and practical. At least sixty days will be devoted to class work in school.

Students will attend the following lectures :

- (a) The principles and methods of education and teaching.
- (b) The psychological bases of education.
- (c) Physical, intellectual, and moral development of the child.
- (d) The history of education (with selected work or works).
- (e) Educational systems.
- (f) Experimental education (with laboratory practice).
- (g) Modern problems in education.
- (h) Phonetics and voice production.

NOTE.—All the courses may be taken in one academic year, or they may be spread over two years.



### Practical Work

This will be carried on under the immediate supervision of members of the staff, and of certain teachers of special subjects in the practising schools.

Students who wish to specialise in one or more subjects of the school curriculum will be definitely attached throughout the year to certain selected schools which provide special opportunities for the required training.

For some time previous to the opening of the ordinary University session at the beginning of October, students may be in continuous attendance at selected schools for the purpose of observing methods of organisation, teaching, discipline, &c.

Throughout the University session systematic observation and teaching in school will be done by each student.

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The written examination for the diploma will take place in June, at the same time as the degree examinations.

The tests in practical skill will consist in the delivery of lessons and in an inspection of records of the candidates' practical work in school. Importance will be attached to reports on the candidates' work and skill from the teacher of the school under whom they have worked, and from the staff of the University Education department.

Graduates in Arts or Science of this University who have included Education in the Final examination for their degree may obtain the diploma in Education after a further year's attendance on a course approved by the Board of the Faculty in which the degree was taken. Such course must include :

- (a) Attendance in schools as specified in II above ;
- (b) Attendance on course I (g) ;
- (c) Attendance on a course of study in Arts or Science (not included in those taken for a degree), approved by the Board of the Faculty as at least equivalent to the subject of Education taken as part of the Final course for the degree.

The examination for the diploma in Education will in these cases consist of the tests of practical skill, and the paper in the Practice of Education, but the diploma will not be issued until the candidate has also passed the degree examination in the subject or subjects included under (c).

The list of successful candidates will be issued in alphabetical order.

No diploma will be issued until the candidate has passed in both the written and the practical parts of the examination; but a candidate who fails in the practical part only may, on the recommendation of the examiners, be allowed by the Senate to present that part at a subsequent date without further written examination. In such cases the candidate must produce a satisfactory report from the head teacher of the school in which she has been teaching, and must submit records of work done.

### **Diploma for Teachers of French**

The examinations for the diploma, to be conducted annually, will be:

1. The First examination of the same standard as the Final examination in French for the Ordinary degree of B.A., including the study of prescribed authors in their literary and linguistic aspect. The study of periods of literature will not be required.
2. The Second examination, in methods of teaching and in phonetics.

Candidates for the diploma will be required

- (1) To pass the First examination, or to give satisfactory evidence that their knowledge of the French language is not below the standard of that examination.
- (2) To attend for at least one year the University class preparatory to the Second examination.
- (3) To pass the Second examination.

### **Diploma for Teachers of German**

The regulations for this diploma are the same as above, with the substitution of "German" for "French" throughout.

N.B.—In 1925 the latest date of entry and of payment of fees for the First and Second examinations held in June will be MONDAY, MARCH 2nd.

### Diploma for Teachers of Geography

Candidates for the diploma must be graduates of a recognised University or must be on the Teachers' Register and have obtained such other academic qualifications as shall be approved by the Senate.

Candidates must give full time attendance for one year, or an equivalent amount of time spread over a longer period. If the course is completed in one year, full time attendance will be required.

If the course is spread over two years, a student will attend on Saturday morning (three hours) and on one evening or one afternoon in each week on a day to be arranged after consultation with the students.

The course will consist of two parts—the first comprising the work required of a student in Geography when taking that subject as a Principal subject for the Ordinary Degree of B.A. The examination will be of the same standard and normally on the same papers as in the Final Examination for the degree. The second part of the course will comprise methods of teaching Geography, and will include teaching practice in School. The examination on this part will also include a practical test. (If a student is actually engaged in teaching Geography in an approved school his work in that school may be recognised, after inspection by the University, for the purposes of the practical portion of Part II of the diploma course).

N.B.—In 1925 the latest date of entry and of payment of fees for the First and Second examinations held in June will be MONDAY, MARCH 2nd.

## COURSES IN ARTS

## CLASSICS

## GREEK LANGUAGE AND LITERATURE

## Int. Intermediate Course

The work in this course will comprise composition, translation at sight and the special study of Lysias, *Eratosthenes* and *Agoratus*; Euripides, *Phoenissae*.

Four hours to be arranged later.

*Books recommended*

Lysias; *Orationes XVI.* (ed. Shuckburgh, Macmillan).

Euripides; *Phoenissae* (ed. Pearson, Cambridge Press).

North and Hillard's *Greek Prose Composition* (Rivington).

## F1. Final Course (First Year)

The work in this course will comprise composition, translation at sight, and the special study of Demosthenes *First Philippic* and *Olynthiacs*, and of other books to be selected when the class meets.

Four hours to be arranged later.

*Books recommended*

Sidgwick's *Greek Prose Composition* (Rivington).

Demosthenes, *First Philippic and Olynthiacs* (ed. Sandys, Macmillan).

## F2. Final Course (Second Year)

The work in this course will comprise composition, translation at sight, and the special study of Herodotus i., cc. 1-130 (omitting cc. 57-8; 95-106); Plato, *Protagoras*, Euripides, *Iphigeneia in Tauris*.

Four hours to be arranged later.

*Books recommended*

Plato, *Protagoras* (ed. Adam, Cambridge Press).

Euripides, *Iphigeneia in Tauris* (ed. England, Macmillan).

## H. Honours and M.A. Course

The work in this course will comprise composition, translation at sight, and the study of books prescribed for the examinations for Honours in Classics, and for the M.A. degree in Greek.

Six hours to be arranged later.

## SPECIAL CLASSES

## S1. Elementary Class

This class is intended for beginners; it will not be held unless there is a reasonable number of promising applicants.

Two hours to be arranged later.

## S2. Higher Elementary Class

The work in this class will comprise grammar, elementary composition, translation at sight, and the special study of two Greek books. The class will not be held unless there is a reasonable number of promising applicants.

Text books will be recommended by the lecturer at the beginning of the session.

Two hours to be arranged later.

## LATIN LANGUAGE AND LITERATURE

## Int. Intermediate Course

The work in this course will comprise composition, translation at sight, and the special study of Livy v, cc. 15-49, and Horace, *Odes* i, ii (omitting i, 25; ii, 5).

Mondays and Wednesdays throughout the session and Fridays during the first and second terms, at 10 a.m., with a composition class on *either* Tuesdays at 11 a.m. *or* Thursdays at 10 a.m. throughout the session.

*Books recommended*

Livy v, Whibley (Pitt Press).

Horace, *Odes* i, ii, Gow (Pitt Press).



### F1. Final Course (First Year)

The work in this course will comprise composition, translation at sight, and the special study of selected books, one of which will be Virgil, *Aeneid* iv.

Mondays, Wednesdays, and Fridays, at 12 noon, and a composition class on Tuesdays, at 12 noon.

*Books recommended.*

Virgil, *Aeneid*, iv, Page (Macmillan).

### F2. Final Course (Second Year)

The work in this course will comprise more advanced composition, translation at sight, and the special study of Cicero, *Philippic* ii ; Virgil, *Aeneid* iv.

Mondays and Fridays at 3 p.m., and Wednesdays at 12 noon, and a composition class on Tuesdays at 12 noon.

*Books recommended.*

Cicero, *Second Philippic*, Mayor (Macmillan).

Virgil, *Aeneid* iv, Page (Macmillan).

### H. Honours and M.A. Course

The work in this course will comprise composition, translation at sight, and the study of books prescribed for the examinations for Honours in Classics and for the M.A. in Latin.

Mondays at 12 noon, Tuesdays at 3 p.m., and Fridays at 12 noon, and a composition class at a time to be arranged.

#### *Books recommended for Classical Students*

Such books as the following will be found useful by classical students :

Murray's Ancient Greek Literature, Jevons's Greek Literature, Mahaffy's Greek Classical Literature, Croiset's Abridged History of Greek Literature, Mackail's Latin Literature, Wight Duff's Literary History of Rome, Vaughan's Types of Tragic Drama, Gordon's English Literature and the Classics.

Sandys' History of Classical Scholarship, Saintsbury's History of Criticism, Evelyn Abbott's Hellenica, Butcher's Aspects of the Greek Genius and Harvard Lectures on Greek Subjects, Jebb's Essays and Addresses,

Dickinson's Greek View of Life, Tucker's Life in Ancient Athens, Whibley's Companion to Greek Studies, G. F. Hill's Greek and Roman Coins, P. Gardner's Grammar of Greek Art, E. A. Gardner's Handbook of Greek Sculpture, Michaelis' Century of Archaeological Discoveries, Reinach's Apollo, Marquand's Greek Architecture, Burrows' Discoveries in Crete, Hawes' Crete the Forerunner of Greece.

Jebb's Growth and Influence of Classical Greek Poetry, Symonds' Studies of the Greek Poets, Mackail's Lectures on Greek Poetry, Butcher's Aristotle's Theory of Poetry and the Fine Arts, Jebb's Introduction to Homer, Gilbert Murray's Rise of the Greek Epic, Browne's Homeric Study, Haigh's Attic Theatre and Tragic Drama of the Greeks, Decharme's Euripide et l'esprit de son Théâtre, Jebb's Attic Orators.

Tyrrell's Latin Poetry, Sellar's Roman Poets of the Republic and Roman Poets of the Augustan Age (Virgil, Horace), Glover's Studies in Virgil, Martha's Poème de Lucrèce, Boissier's Cicéron et ses amis, Warde Fowler's Rome (Home University Library), Social Life in the Age of Cicero, and Religious Experience of the Roman People, Greenidge's Roman Public Life, Sandys' Companion to Latin Studies.

Giles's Comparative Philology, V. Henry's Comparative Grammar of Greek and Latin, Goodwin's Greek Moods and Tenses, Gildersleeve's Greek Syntax, Monro's Homeric Grammar, the Latin Grammars of Roby, Madvig, Gildersleeve and Lodge, Sidgwick's Lectures on Greek Prose Composition.

## HEBREW LANGUAGE AND LITERATURE

### Int. Intermediate Course

The work in this course will include (1) the mastery of the Elements of Hebrew Grammar (McFayden's Edition of Davidson's Grammar), (2) the translation and exegesis of a selected portion of prose from the Old Testament. For the session 1924-25, 2 Samuel, chs. 18 and 19, (3) (a) the history of the Hebrews from the Conquest to Ezra ; OR (b) easy composition, vocabulary to be given so far as not taken from the prescribed chapters, and pointing passages from the prescribed chapters.

Tuesdays and Thursdays, two hours, at times to be arranged throughout the session.

## F1. Final Course (First Year)

The work in this course will comprise composition, translation at sight, pointing, and the special study of Exodus, chs. 1-24 with critical introduction to the whole book of Exodus.

Tuesdays, Wednesdays and Fridays, one hour each at times to be arranged, with an additional class for unseens and composition, at Rawdon College.

Books necessary: Hebrew English Lexicon, by Brown, Driver and Briggs, Davidson's Hebrew Syntax, and Robertson's Hebrew Exercises. An unpointed Hebrew Bible must also be procured.

## F2. Final Course (Second Year)

The work will comprise more advanced composition, translation at sight and the special study of Isaiah, chs. 49-55 and the book of Malachi with critical introduction to the whole book of Isaiah and the book of Malachi.

Instead of the study of syntax, composition, and translation at sight, as an alternative students may take up the history of the Old Testament and especially the history of the development of moral and religious ideas. This is provided for in class.

Four hours weekly as may be arranged, in some of which the classes of the First Final Year and the Second Final Year meet together, at Rawdon College.

Books as above. Gesenius-Kautzsch Hebrew Grammar (Collins & Cowley) and Driver's Hebrew Tenses are strongly recommended.

Isaiah, vol. 2, in Camb. Bible for Schools (Skinner) and Malachi, Century Bible Minor Prophets, vol. 2 (S. R. Driver) and Exodus, Camb. Bible for Schools (Driver).

## ENGLISH LANGUAGE AND LITERATURE

## Int.1 Intermediate Course (Literature)

The work in this course is intended to serve as an introduction to English Literature, and, academically (i) as an introduction, *for both Pass and Honours students*,

to the Final Course (F1), and (ii) for *Honours students*, as a companion to the Intermediate Course in Language (Int. 3). It will comprise (i) the detailed study of certain representative texts, (ii) the more general study of a selected period of English literature.

(i) For detailed study: Chaucer, *Nun's Priest's Tale* (ed. Pollard, Macmillan); Extracts ii and xv of *Fourteenth Century Verse and Prose* (Sisam, Oxford; edn. with glossary); Spenser, *Two Cantos of Mutability* (Oxford Spenser); Milton, *Samson Agonistes* (Clarendon Press); Keats, *Hyperion* (Clarendon Press).

(ii) Texts suggested as part of a course of general reading in the period 1645-1700: Milton, *Sonnets*, *Paradise Lost*, Bk. i; Browne, *Urn-Burial*; Marvell, *Poems* (Muses' Library); Walton, *Compleat Angler*; Dryden, *Absalom and Achitophel*, Part I; Bunyan, *Grace Abounding*; Cowley, *Essays*; Congreve, *The Way of the World*; Evelyn's *Diary* (Everyman).

NOTE.—For a general view of the period Macaulay's *History of England*, cc.i-iii, may be consulted.

Mondays and Fridays, at 11 a.m. throughout the session.

### Int.2. Intermediate Course (Composition)

The work in this course will comprise the study and practice of English Composition.

Wednesdays at 11 a.m., and in weekly tutorial groups at times to be arranged.

#### *Text-book recommended*

Fowler, *The King's English*, abridged ed. (Oxford Univ. Press).

Quiller-Couch, *The Art of Writing*.

NOTE.—A limited number of students from other Departments will be admitted to this course on application.

### Int.3. Intermediate Course (Language)

This course is intended for Honours students in their first year. The work will comprise the outlines of the history of the English Language to the close of



the Fourteenth Century, and the special study of West Saxon texts and of the language of Chaucer.

The following texts are selected for study in 1924-25 : Sweet, *Anglo-Saxon Primer* ; Sweet, *Anglo-Saxon Reader* (Oxf., 9th edn.), extracts i, ii, iv, ix, x, xvi, xxi, xxvi ; Chaucer, *Nun's Priest's Tale* (ed. Pollard : Macmillan) ; Sisam, *Fourteenth Century Verse and Prose* (Oxf.), extracts ii, viii, xv.

Mondays and Fridays at 3 p.m., and Thursdays at 12 noon.

#### *Books Recommended*

- Wright, *Old English Grammar* (Oxford).  
 Wyld, *Short History of English* (Murray).  
 Jespersen, *Growth and Structure of the English Language* (Blackwell).  
 Bradley, *The Making of English* (Macmillan).  
 Ker, *English Literature, Mediæval* (Home Univ. Library).  
 Pollard, *Chaucer Primer* (Macmillan).  
 Coulton, *Chaucer and his England* (Methuen).

#### FI. Final Course (English Literature)

Students taking English in the Final course may offer English Literature and Language as a principal subject ; or English Literature alone as a subsidiary subject. Attention is drawn to the importance for these studies of a knowledge of the outlines of English History.

The work of the course will comprise :

(i) The continued study and practice of English Composition.

(ii) The History of English Literature from 1645 to 1700, with special reference to the following selected texts : *Treasury of Seventeenth Century Verse* (Macmillan) ; Milton, *\*Paradise Lost*, Bks. i, ii, *Areopagitica* ; Browne, *\*Urn-Burial* ; Hobbes, *Leviathan*, cc 1-13 (Everyman) ; Herrick, *Hesperides* (Muses' Library) ; Marvell, *\*Poems* (Muses' Library) ; Vaughan, *Silex Scintillans* (Temple Classics) ; Walton, *Compleat Angler* ; Dryden, *\*Absalom and Achitophel*, Part I, *MacFlecknoe*,



*Essay of Dramatic Poesy* ; Butler, *Hudibras*, cantos 1, 2 ; Bunyan, *Grace Abounding* ; Congreve, *The Way of the World* ; Wycherley, *The Plain Dealer* ; Otway, *Venice Preserved* ; Evelyn's *Diary* ; Pepys' *Diary*.

NOTE.—The texts marked with an asterisk are prescribed for detailed study.

### (iii) Outlines of the History of English Literature.

In the third term Short Courses will usually be given, open to all students of the School, on such subjects as Contemporary English Literature and the Art of Writing, and on various questions of Literary Technique.

Mondays, Wednesdays and Fridays, at 11 a.m. throughout the session.

#### *Books recommended*

Macaulay, *History of England*, cc, i-iii.  
Green, *Short History of the English People* (Macmillan).  
Saintsbury, *Short History of English Literature* (Macmillan).  
Chambers' *Cyclopædia of English Literature*.  
Saintsbury, *Manual of English Prosody* (Macmillan).  
Raleigh, *Style* (Arnold).

NOTE.—The rotation of Periods is as follows : 1579-1645 ; 1645-1700 ; 1700-1765 ; 1765-1832 ; 1832-1890.

### F2. Final Course (English Literature and Language)

The work in this course is intended for students taking English as a principal subject, and will comprise, in addition to what is entered under F1, an introductory study of Old and Middle English (Language and Literature). The following texts will be used :—

Sweet, *Anglo-Saxon Primer* ; Sweet, *Anglo-Saxon Reader* (9th edn.), extracts ii, vii, ix, xvii, xxvi ; Emerson, *M. E. Reader* (Macmillan), Part 1, A1, B6, Part 2, A6, B2 ; Chaucer,  *Nun's Priest's Tale*, *The Tale of Sir Thopas*, *The Canon's Yeoman's Tale*, *To Rosamonde*, *Truth*, *Gentillesse*.

Two hours a week throughout the session for students in the second year of their Final course.

## FINAL HONOURS AND M.A. COURSES

*A. Literature.***Ha1. (Scheme A and B) First Year**

Essays and Discussions.

In tutorial groups at times to be arranged.

**Ha2. (Scheme A and B) Second Year**

Essays and Discussions.

In tutorial groups at times to be arranged.

**Ha3. (Scheme A and B) Third Year**

Early English Literature.

Thursdays at 11 a.m.

**Ha4. (Scheme A and B) Second Year**

Chaucer.

Thursdays at 12 noon.

**Ha5. (Scheme A) Second Year**

Shakespeare.

Wednesdays at 12 noon.

**Ha6. (Scheme A) Third Year**

History of Literary Criticism, and Prosody.

Fridays at 12 noon.

**Ha7. (Scheme A) Third Year**

Essay Class.

Fridays from 9.30 to 11 a.m. The work will take the form of discussions, following upon papers read by students to the Class. Subjects for 1924-25: The Elizabethan Age (1579-1645).

*B. Language.***Hb1. (Scheme A and B) Second Year**

The History of English.

Mondays and Wednesdays at 12 noon.

**Hb2. (Scheme A and B) Second Year**

Old and Middle English Readers.

Mondays at 10 a.m.

**Hb3. (Scheme A and B) Second and Third Year**

Middle English Texts.

- (i) Scheme A and B: Third Year. *Sir Gawain and the Green Knight*.

Thursdays at 12 noon.

- (ii) Scheme B: Second Year. *Layamon's "Brut" (Selections)*.

Thursdays at 11 a.m.

**Hb4. (Scheme A and B) Third Year**

Old English Heroic Poetry, with special study of *Beowulf*.

Mondays and Wednesdays at 12 noon.

**Hb5. (Scheme B) Third Year**

Linguistic study of Old and Middle English Texts.

Fridays at 11 a.m.

**Hb6. (Scheme B) Third Year**

Introduction to Germanic Philology.

Thursdays at 10 a.m.

**Hb7. (Scheme B) Second and Third Year**

Old Icelandic.

- (i) Second Year, Fridays at 2 p.m.

- (ii) Third Year (voluntary).

Mondays at 11 a.m.

**Hb8. (Scheme B) Second Year**

Gothic.

Thursdays at 10 a.m.

**Hb9. (Scheme B) Second and Third Year**

Essays and discussions.

Fridays from 9.30 to 11 a.m. The work will usually take the form of discussions following papers read by students, on subjects connected with early English Literature and history, the English language, and general linguistic questions.

Hons. Modern Language Students who offer the History of the English Language may attend this class.

A voluntary reading class for the study of additional Old and Middle English texts of literary and linguistic importance is held (Fridays at 12 noon), and is open to any Second or Third Year students.

Students desiring to join should apply at the beginning of the session ; the suggestion of texts other than those proposed for reading will then be considered.

## FRENCH LANGUAGE AND LITERATURE

### Int. 1, Int. 2, Int. 3. Intermediate Courses

The work done in these two courses is the same in every respect. It will comprise grammar, composition, dictation, translation at sight, conversation in French, and the special study of Balzac, *La Peau de Chagrin* and *Le Colonel Chabert*, and Rostand, *Cyrano de Bergerac*.

Course Int. 1 and course Int. 2 will be held on Mondays, Wednesdays and Fridays at 12 noon, and course Int. 3 on Mondays, Tuesdays and Fridays at 9 a.m.

#### *Books recommended*

Balzac, *La Peau de Chagrin*, *Le Colonel Chabert* (1 vol. Nelson).  
Rostand, *Cyrano de Bergerac* (1 vol., Eng. Fasquelle, Paris).

### Int. 4. French Literature (B)

Lectures in French on the Life and Works of Balzac and Rostand will be given on Tuesdays at 3 p.m. during the first term.

Students taking French for the Intermediate examination are expected to join this class.

Fee, £2.

### FI. Final Course

The work in this course will comprise more advanced syntax and composition, translation at sight, the elements of historical grammar and phonetics, and the special study of Rousseau, *Lettre à Dalember* and *Extraits*.

Mondays, Tuesdays and Fridays, at 2 p.m.

*Additional books recommended for students preparing for the B.Com.*

Ch. Gide, *Principes d'Economic Politique*, 19th edition, 1918.

**F2. French Literature (A)**

Lectures on The Life and Works of J. J. Rousseau will be given in French on Tuesdays at 3 p.m. during the session.

No entry will be taken for less than two terms.

Fee, £4 for the session ; £3 for two terms.

**H. Honours Course**

Honours lectures on Monday, 3 p.m., 4 p.m. ; Tuesday, 9 a.m., 10 a.m., 12 noon ; Thursday, 2 p.m. ; Friday, 2 p.m. ; Saturday, 10 a.m.

Students taking Honours should consult the Head of the Department as to the lectures they must attend.

**SPECIAL CLASSES****Sr. Saturday Morning Training Course (A)**

This class will meet on Saturdays, from 10.15 a.m. to 12.15 p.m., beginning October 4th. (N.B. The hours may be slightly altered to meet the convenience of students living outside Leeds.)

The course will cover the work in language required for the First examination in connection with the University Diploma for teachers of French, but students who are not candidates for the Diploma will also be admitted on satisfying the Professor that they are sufficiently qualified.

There will be a short examination at the first meeting of the class for students wishing to enter for the first Diploma examination at the end of the session.

Special fee, £4.

*Books recommended.*

Corneille, *Polyeucte*.

Diderot, *Paradoxe sur la comedien*.

Stendhal, *Le Rouge et le Noir*.

**S2. Saturday Morning Training Course (B)**

This class usually meets on Saturdays, from 10.15 a.m. to 12.15 p.m., beginning October 4th. (N.B. The hours may be slightly altered to meet the convenience of students living outside Leeds.)



The course will cover the work in phonetics and methods of teaching required for the Second examination in connection with the University Diploma for teachers of French, but students who are not candidates for the Diploma will also be admitted on satisfying the Professor that they are sufficiently qualified.

Special fee, £4.

## GERMAN LANGUAGE AND LITERATURE

### Int. Intermediate Course

Mondays and Fridays at 3 p.m., and Thursdays at 11 a.m. or 2 p.m. (If necessary, the hours of this class on *Thursdays* will be altered).

This course is intended for candidates entering for the Intermediate examination in Arts, Science, and Commerce, and for general students who wish to acquire a greater proficiency in German. In addition to the prescribed work, syntax, dictation, and composition will be studied, and the class will have practice in German conversation.

#### *Books recommended*

Kuno Meyer, *German Grammar*, parts i and ii (Sonnenschein).

E. Zahn, *Bergvolk*.

*Third German Reader Reader and Writer* (Sonnenschein).

Schiller's *Ballads*, ed. Johnson (Heath).

### F. Final Course

Mondays, Wednesdays and Fridays, at 10 a.m.

The work of this class comprises revision of German syntax, the elements of historical grammar and phonetics, study of advanced texts, and composition. The class will be taught in German.

#### *Books recommended*

Schiller, *Die Räuber* (ed. Willoughby, Clarendon Press).

Schiller, *Wilhelm Tell* (ed. Breul, Pitt Press).

Kirk, *Introduction to Historical Study of N.H.G.* (Manchester University Press).

### H. Honours and M.A. Course

Mondays, Wednesdays and Fridays at 11 a.m.

The work of this class will comprise Historical Grammar Old and Middle High German Grammar and Literature, and

interpretation of Old High German and Middle High German texts. Part of the work taken in this course is also suitable for graduates reading for the M.A. examination.

Books and periods will be found under the Honours School of Modern Languages and Literatures for the B.A. degree with Honours.

### SPECIAL CLASSES

#### S1a. Lower Elementary Class for Science Students

Mondays and Fridays at 2 p.m.

This class is intended for beginners. Special attention will be given to students of science and technology.

*Books recommended.*

Fiedler-Sandbach, *First German Course for Science Students* (Clarendon Press).

*Twenty Stories from Grimm* (ed. Rippmann, Pitt Press).

#### S1b. Lower Elementary Class for Arts Students

Two hours per week.

This class is intended for beginners who desire later to take part in Intermediate and Final work.

*Books recommended.*

Kuno Meyer, *German Grammar*, parts i and ii (Kegan Paul, Trench, Trübner & Co.).

*First German Reader and Writer* (Sonnenschein).

#### S2. Higher Elementary Class

Mondays and Fridays at 4 p.m.

This course is intended for students who already possess an elementary knowledge of German. In addition to the study of grammar and composition, the work of this class will include books of general literary interest, as well as texts bearing on various branches of science. German conversation will be practised.

*Books recommended.*

Kuno Meyer, *German Grammar*, parts i and ii (Sonnenschein).  
*Second German Reader and Writer* (Sonnenschein).

*Drei kleine Lustspiele* (ed. Wells, Heath & Co.)

Hodges, *Scientific German* (Heath & Co.).

### S3. German Literature

Lectures on the Life and Works of Goethe will be given on Tuesdays, at 4 p.m.

Fee, £4 for the session ; £3 for two terms ; £2 for one term.

### S4. German History and Institutions

Two hours a week at times to be arranged.

### S5. Saturday Morning Training Course (A)

This class will meet on Saturdays, from 10 a.m. to 12 noon, beginning on October 4th. (N.B. The hours may be slightly altered to meet the convenience of students living outside Leeds.)

The course will cover the work required for the First examination in connection with the University Diploma for teachers of German, but students who are not candidates for the Diploma will also be admitted on satisfying the Professor that they are sufficiently qualified.

There will be a short examination at the first meeting of the class for students wishing to enter for the first Diploma examination at the end of the session.

Special fee, £4.

*Books recommended.*

Keller, *Zwei Novellen* (N.Y. Oxford University Press).

Grillparzer, *Sappho* (Macmillan).

Heine, *Buch der Lieder* (ed. Lees, Manchester University Press).

Longman's *German Composition* (Longman).

Meyer's *German Grammar*, part i and ii (Sonnenschein).

Kirk, *Introduction to Historical Study of N. H. G.* (Manchester University Press).

### S6. Saturday Morning Training Course (B)

This class will meet on Saturdays, from 10 a.m. to 12 noon, beginning October 4th. (N.B. The hours may be slightly altered to meet the convenience of students living outside Leeds.)

The course will cover the work in phonetics and methods of teaching required for the Second examination in connection with the University Diploma for teachers of German, but students who are not candidates for the Diploma will

also be admitted on satisfying the Professor that they are sufficiently qualified. The titles of the books used in this class will be announced at the beginning of the first term.

Special fee, £4

## RUSSIAN LANGUAGE AND LITERATURE

The School of Russian Studies was founded in 1917. Its object is to study the language, literature, history, institutions, economy, and the achievements of Russian scholars in art and science.

The subject is recognised for a University degree both for the ordinary degree and for the degree with Honours. Russian can also be taken under the regulations for the Degree or Diploma in Commerce.

The donor, in endowing the "School of Russian Studies," wrote that he "was of opinion that it would be an illusion to expect that adequate advantage could be taken of Russia as an outlet for our manufactures unless we can be represented out there by our own countrymen equipped with the knowledge of the Russian language."

A certificate (without matriculation or degree) is conferred by the University on students who, after due preparation, can show in examination a thorough practical acquaintance with the Russian language. The course for this certificate extends over not less than two sessions.

### Int. Intermediate Course

Three hours a week at times to be arranged.

This course is intended for candidates entering for the Intermediate examinations in Arts, Science, and Commerce, and for general students who wish to acquire a greater proficiency in Russian. In addition to prescribed books, grammar, composition, dictation, and commercial correspondence, there will be practice in Russian conversation.

### F. Final Course

Three hours a week at times to be arranged.

The work of this class comprises the study of prescribed texts (both prose and verse), the outlines of Russian History,

a period or periods of Russian literature, together with grammar, composition, commercial correspondence, and conversation in Russian.

### SPECIAL CLASSES

#### S1. Lower Elementary Class

Hours to be arranged.

This class is intended for beginners. The work of the first year will consist of acquiring a vocabulary (about 800 words), the study of grammar, reading and writing. There will also be practice in Russian conversation.

#### S2. Higher Elementary Course

Hours to be arranged.

This course is intended for students who already possess an elementary knowledge of Russian. The work will comprise grammar, composition, commercial correspondence, the reading of Russian books and conversation. Special attention will be given to students of Science, Technology, and Commerce.

#### S3. Russian Literature

One hour a week (to be arranged).

## SPANISH LANGUAGE AND LITERATURE

### Int. Intermediate Course

Three hours a week at times to be arranged.

This course is intended for candidates entering for the Intermediate examinations in Arts, Science, and Commerce, and for general students who wish to acquire a greater proficiency in Spanish. In addition to prescribed books, grammar, composition, and dictation will be studied and there will be practice in Spanish Conversation.

#### *Books recommended.*

*First Spanish Course*, by Mills & Ford.

Becquer, *Legends, Tales and Poems*, ed. by E. W. Olmsted (Ginn & Co).

*Las Cien Mejores Poesias* (Gowans & Grey, Edinburgh).



**F. Final Course**

Three hours a week at times to be arranged.

The work of this class comprises the study of prescribed texts (both prose and verse), a period or periods of Spanish literature, together with grammar, composition and conversation in Spanish.

*Books recommended.*

*Ten Spanish Farces*, ed. by G. T. Northrop (George Harrop & Co.).

*Pereda-Pedro Sanchez*, ed. by R. E. Bassett (Ginn & Co.).

**SPECIAL CLASSES.****S1. Lower Elementary Class**

Hours to be arranged.

This class is intended for beginners.

**S2. Higher Elementary Class**

Hours to be arranged.

This course is intended for students who already possess an elementary knowledge of Spanish. The work will comprise grammar, composition, the reading of Spanish books and conversation.

**S3. Spanish Literature**

One hour a week (to be arranged).

**HISTORY****INTERMEDIATE COURSES****Int. 1. Outlines of Greek and Roman History**

Tuesdays and Thursdays at 12 noon.

Greek History to the death of Alexander.

Roman History from 390 B.C. to 14 A.D.

*Text Books recommended*

For Greek History :

Oman, *A History of Greece* (Longmans) or  
Bury, *History of Greece for Beginners* (Macmillan).

For Roman History :

\* J. L. Myres, *A History of Rome* (Rivingtons), or  
J. Wells, *A Short History of Rome* to 14 A.D.

The following Lives in Plutarch will be studied in connection with this course:—*Cato, Lysander, Sulla, Lucullus, Kimon.*

The text used will be the translation of Stewart and Long in Bohn's Library. The above Lives are all contained in Vol. II, which can be procured separately.

**Int.2. Modern History from 1763 to 1900**

Two hours a week at times to be arranged.

N.B.—No students will be admitted to the Honours course in History who have not completed their Intermediate examination *including the additional subject* at the end of the first year.

**FINAL COURSES**

*First Year: Final*

**F1. English Constitutional History to 1485**

Tuesdays and Thursdays, at 12 noon.

**F2. European History: Mediæval Life and Thought**

Tuesdays and Thursdays at 11 a.m.

This course will deal with various aspects of English and European culture and art. Some of the lectures will be illustrated.

This is also a course for candidates for the Special Intermediate examination for candidates for the B.A. degree with Honours in English. Candidates taking History as a subsidiary subject are also recommended to take this course.

*Second Year: Final*

**F3. Greek History from 445 to 362 B.C.**

Wednesdays and Fridays at 12 noon.

**F4. Roman History to 133 B.C.**

Tuesdays and Thursdays at 10 a.m.

**F5. English History—1625-1714**

Mondays and Wednesdays at 10 a.m.

Candidates for the Final examination for the B.A. degree are recommended to take F5, and either of the other courses.

**F6. The History of the British Empire**

One hour a week at times to be arranged.

**Ecclesiastical History**

Rev. A. C. UNDERWOOD, M.A., B.D., B.Litt.,  
at Rawdon College.

The regular course of instruction in Ecclesiastical History at Rawdon College deals with the period from 70 A.D. to 451 A.D. This is divided into two sections, viz., (a) 70 A.D. to 313 A.D., and (b) 313 A.D. to 451 A.D., which are taken in alternate years. Two lectures are given each week, at times arranged at the beginning of each session. The text-book is Foakes-Jackson's *History of the Christian Church to 461 A.D.*, with Gwatkin's *Selections from Early Christian Writers* and Bindley's *The Oecumenical Documents of the Faith* as source-books.

Other books recommended are Gwatkin's *Early Church History* to A.D. 313, Rainy's *The Ancient Catholic Church*, Lindsay's *The Church and the Ministry in the Early Centuries*, and Harnack's *The Mission and Expansion of Christianity in the First Three Centuries*. For the general social and religious background the student may read with advantage Dill's *Roman Society from Nero to Marcus Aurelius*, Glover's *Life and Letters in the Fourth Century*, and Dill's *Roman Society in the Last Century of the Western Empire*.

Courses on other periods of Ecclesiastical History are given from time to time by special arrangement.

**HONOURS AND M.A. COURSES****H1. Roman History 31 B.C. to 37 A.D.**

Mondays and Wednesdays at 11 a.m.

**H2. The same**

For students in their third year.

Fridays at 10 a.m.

**H3. The Reign of Richard II**

Wednesdays and Fridays at 12 noon.

**H4. Mediæval Industrial and Municipal Organisations**

Dr. SELLERS

Mondays at 12 noon.

This course is taken along with H3 as part of the special period for Honours in History.

**H5. English Constitutional History to 1485**

Tuesdays and Thursdays at 12 noon.

**H6. Guilds and Trading Companies in the Sixteenth and Seventeenth Centuries (Dr. SELLERS)**

One hour a week at times to be arranged.

**H7. Outlines of European History**

Tuesdays and Thursdays at 10 a.m.

**H8. The History of England and France from 1865 to 1875**

Mondays and Wednesdays at 11 a.m.

**H9. The History of England and France from 1558 to 1603**

A supplementary class for students in their third year.

Fridays at 10 a.m.

**H10. Essay Class**

One hour a week at times to be arranged.

**H11. Political Theory (Professor GILLESPIE)**

At times to be arranged.

**H12. The History of the British Empire (Mr. HAGGEN)**

One hour a week at times to be arranged.

**H13. Special Class on other Set Books for Honours  
Students in their second year**

One hour a week.

The following is a provisional list of the books to be studied :—*The Speeches of Thucydides*; Plato's *Republic* (Bks. ii and viii); Polybius on the *Roman Constitution*; Pliny's *Letters* (selection); Dante's *Divine Comedy*; Machiavelli's *Prince*; Burke's *American Speeches*; *The Covenant of the League of Nations*.

## GEOGRAPHY

### INTERMEDIATE COURSE

Tuesdays and Fridays at 9 a.m.

Laboratory work at times to be arranged. This applies also to Final and Honours Courses.

General principles of geography, with special reference to the Major Natural Regions.

### FINAL COURSES

F1. Courses A, B (i) or (ii), and C.

F2. Courses D and B (i) or (ii), or E.

A.—Regional Geography of the British Isles (one lecture per week).

B.—Physical Geography: (i) Climate; (ii) Geomorphology (each one lecture per week).

C.—Principles of Human Geography (one lecture per week).

D.—Regional Geography of North Americas and one other region in 1924-25 (each one lecture per week).

E.—Elements of Economic Geography (one lecture per week).

### HONOURS COURSES

Honours lectures and Discussion class about 8 hours at times to be arranged.

## PHILOSOPHY

### Int. Intermediate Course: Logic

Two Lectures a week throughout the session at times to be arranged.

This course deals with the elements of logic, deductive and inductive. Students will find it useful to familiarise themselves with the elementary formal logic, in some such text-book as *Mellone* before entering the class.

### F1. Final Course: Ethics

Two lectures and a tutorial class each week throughout the session, at hours to be arranged.



*Subjects:* The outlines of ethical theory, together with the elementary psychology of the will, and the study of selected ethical systems.

**F2. Final Course : History of Ancient Philosophy**

Two lectures and a tutorial class each week throughout the session, at hours to be arranged.

*Subjects:* The outlines of the history of Greek philosophy with more detailed study of special books.

Candidates for Honours in Classics attend this class.

**F3. Final Course : History of Modern Philosophy**

Two or three lectures each week throughout the session, at hours to be arranged.

*Subjects:* The outlines of the history of modern philosophy.

**H. Honours Courses**

Lectures will be delivered on Kant and other subjects for the Honours degree, as required, at hours to be arranged.

Lectures on Social Philosophy will be delivered as required by candidates for the Diploma in Social Organization and students attending courses for Welfare Supervision. Particulars on application to the Professor.

## **ECONOMICS**

### **INTERMEDIATE COURSE**

#### **Int. General Economics**

The evolution of modern economic conditions. Modern industrial, commercial and social organisation. The national income. Value and distribution.

Tuesday and Thursday at 10 a.m.

### **FINAL COURSES**

#### **F1. Financial and Commercial Organisation**

Business Organisation and management; Large and small businesses; joint stock enterprise; the trust movement.

Land and Water Transport. Insurance. Currency and banking, the money market, stock exchange and foreign exchanges. The organisation of foreign trade.

Tuesday and Thursday at 11 a.m.

#### **F2. Public Finance and Administration**

Public expenditure and revenue. Rates, taxes, and public debts. The Budget. Relations of central and local administration. Local Rates. Grants in Aid. Municipal finance and administration. National and Municipal Industries.

Two hours a week at times to be arranged.

#### **F3. Social Science and Administration**

The influence of industrial conditions on social life ; the problems of poverty, housing, sweating and unemployment. Some social aspects of industry. Employment of women and children. Schemes of industrial betterment. Industrial and social legislation.

Two hours a week at times to be arranged.

#### **F4. Economic History**

A general course beginning with the Manor and ending with the Nineteenth Century, with special attention to a particular period. In connexion with this course Dr. Maud Sellers will lecture in the Spring and Summer terms on "Mediæval Industrial and Municipal Institutions."

Two hours a week at times to be arranged.

#### **F5. Labour Organisation**

Methods of remuneration ; trade union organisation ; conciliation and arbitration ; joint industrial councils, works committees, etc. Industrial fatigue. Trades Boards. Factory legislation.

Friday at 10 a.m.

#### **F6. Economic Theory**

Tutorial instruction at a time to be arranged.

**HONOURS AND M.A. COURSES****H1. Advanced Economic Theory****H2. History of Economic Thought****H3. Economic History : Special Period**

This class will cover the general Economic History of the period 1485 - 1660, and will include the use of documents. One hour a week. Dr. Maud Sellers will also lecture one hour a week on "Gilds and Trading Companies in the Sixteenth and Seventeenth Centuries."

Two hours a week.

**H4. Political Theory**

The nature and duties of the State and the basis of Citizenship.

Two hours a week at times to be arranged.

**H5. Constitutional Law**

Two hours a week at times to be arranged.

**Special Courses**

Students in the Economics department may attend other courses provided for students in the department of commerce and social organisation. Courses will normally be offered on The Theory of Statistics ; The interpretation of Social Statistics, Local Government, and The Social History of the XIXth century. When required special courses will be given on The Organisation of Foreign Trade ; Business Finance ; The Banking systems of the chief modern states ; and on the economics of the following industries : mining, engineering, iron and steel manufacture, textile manufacture, and transport by land and sea.

**EDUCATION**

The courses of study organised in connection with the Department of Education are (1) a Four Year Course, (2) a Course for the Diploma in Education, (3) One Year Courses, (4) Post-graduate Courses for the higher degrees of M.A. (Education) or M.Ed. Students may enter upon one or other of the first three courses either as Recognised Students in Training under the

Regulations of the Board of Education or without such recognition. In the former case, subject to certain conditions, grants are paid by the Board of Education towards tuition and maintenance. Recognised Women Students must reside either at home or in a University Hall of Residence; Men Students who cannot live at home reside in a University Hall of Residence or in registered lodgings.

#### I. Four Year Course

This course leads to the degree of B.A., B.Sc., or B.Com., together with the Diploma in Education, or the Certificate of the Board of Education. It is open to students who have passed the matriculation examination or its equivalent. The first three years are mainly occupied with academic work for the degree, one half-day a week being set apart for professional work. The fourth year is post-graduate and wholly devoted to professional training. This is the normal course for Recognised Students.

The work in this course is divided into (a) Academic (leading to a degree), and (b) Professional (leading to the Diploma).

##### (A) ACADEMIC

The academic Courses are those for the Degrees of B.A., B.Sc., and B.Com. of the University of Leeds. Honours Courses may be taken by those qualified to enter upon them. The standard of attainments for admission to an Honours Course is that of a satisfactory pass at one of the Higher School Certificate Examinations.

##### (B) PROFESSIONAL

#### I. *Lectures and Laboratory Work*

- (a) The principles and methods of education and teaching.
- (b) The psychological bases of education.
- (c) Physical, intellectual, and moral development of the child.
- (d) The History of Education (with selected work or works).
- (e) Educational Systems.
- (f) Experimental Education (with laboratory practice).
- (g) Modern Problems in Education.
- (h) Phonetics and voice production.

## II. Practical Training

The training includes (a) demonstrations in teaching by members of the staff of the Department, by other members of the University, and by teachers in the University Demonstration Schools ; (b) Criticism lessons and other teaching exercises by the students themselves ; (c) Visits to various schools, elementary, continuation, central and secondary, for observation and practice ; (d) visits to special schools and institutions, such as schools for the blind and the deaf and dumb, open-air schools, school clinics, feeding centres, play-centres, and social clubs for girls and boys.

Courses in Music are provided but are optional.

The Certificate of the Board of Education is granted on the results of the degree examinations together with the satisfactory completion of the professional course.

Recognised students who do not complete their first year satisfactorily may be required to relinquish their academic work for a degree and to spend a further year in training.

## II. Post-graduate Course for Diploma in Education

This course is open to graduates of the University of Leeds or other approved University, and normally extends over one year. The scope of the work is the same as given above under (B) *Professional*. For those who wish to teach in Secondary Schools the course is arranged to lead to the Diploma in Education for teachers in Secondary Schools. The practical training is taken mainly in Secondary Schools under specialist teachers.

Candidates for the Diploma in Education who have graduated with Honours, may, if they so desire, apply for admission as Recognised Students. If admitted they will be eligible for tuition and maintenance grants subject to certain conditions as to future teaching.

## III One Year Courses

These courses have for the present been suspended.



## IV. Higher Degree Courses

## M.A. (EDUCATION)

Education is one of the subjects which may be taken for the degree of M.A. which is open to graduates in Arts of at least one year's standing of the University of Leeds or other approved university. It is awarded for a dissertation or thesis on some educational subject approved by the Board of the Faculty of Arts, together with an examination in one of the branches of the Theory or History of Education. In special cases it is within the power of the Senate on the application of the candidate and on the special recommendation of the Board of the Faculty of Arts, to award the degree on submission of a dissertation only. All candidates may be called upon to present themselves for examination, written or oral, on the theme of their dissertation.

Graduates of approved universities are required to present evidence satisfactory to the Senate that they are qualified to pursue a course of advanced study or research in Education, and to present themselves for the degree of M.A. after not less than two years of such advanced study or research.

## M.ED.

The degree of Master of Education has been established to promote advanced study, independent criticism, and original research in education.

## RESIDENCE

## (Recognised Students)

Men students who do not live with parents or guardians are required to live in lodgings registered and inspected by the University Authorities, or may apply to reside in the University Hall of Residence for Men.

Women students who do not live with parents or guardians are required to reside in one of the University Halls of Residence for Women.

Recognised Students who live at home or in lodgings receive a maintenance grant from the Board of Education (£20 per annum for men and £15 for women). These grants are paid to the University and are handed over to Recognised Students after deductions have been made for University and Union fees in cases where these are due.

## ADMISSION AS RECOGNISED STUDENTS

### A. Application for a Four Year Course

1. Normally candidates must be over 18 years of age on August 1st of the year in which they wish to be admitted, but under special circumstances, candidates who are over 17 years of age and under 18 years on that date may be admitted.

2. The qualifying examination must have been passed, as a rule, within the two years and six months preceding the 1st of August in the year of entering the Training Department.

3. Persons who have been recognised as Bursars or as Pupil Teachers under the Board of Education's Regulations for the Preliminary Education of Elementary School Teachers, will not be admitted to the Training Department until the termination of their period of recognition.

4. A candidate is required to have qualified for admission to the University as an undergraduate. (See Regulations as to Entrance Examinations for Degree Students).

5. The qualification for admission as a Recognised Student in Training is covered by the qualification for admission as an undergraduate.

Full information of the Examination Qualifications required by the Board can be obtained from List 176 of the Board of Education, which gives the conditions of admission to Training Colleges (price 1d. from H.M. Stationery Office, Imperial House, Kingsway, London, W.C.2).

6. In the selection of candidates, preference is given to those who have been placed in the First Division at the Matriculation Examination or have passed in one of the groups at a Higher Certificate Examination, or have obtained High Honours at one of the Senior Local Examinations.

Candidates who have passed one of the qualifying Examinations previous to the year in which they seek admission are required to give evidence of progress in their studies during the year before admission. They are advised to widen their reading in English Literature and History (English or European). Those

proposing to take up an Arts Course should in addition progress in their study of Latin and one other language ; those proposing to undertake a Science Course should similarly make progress in Physics, Mathematics and a branch of Natural Science. A pass in one of the groups of subjects at a Higher Certificate Examination will be considered as satisfying the above requirement and may be considered as satisfactory evidence for entering on an Honours Course.

#### **B. General Conditions for all Recognised Students**

1. Candidates, before being accepted, are required by the Regulations of the Board of Education to be examined by the Medical Officer of the Department, and can only be admitted if reported as without physical defect or organic disease, strong and in good health and capable of entering on their course without undue strain.

2. Candidates must be British subjects ordinarily resident in the United Kingdom unless this condition is specially waived by the Board of Education.

3. Candidates will be required to furnish certificates of good character.

4. Candidates on admission will be required to sign a Declaration to the effect that they intend to adopt and follow the profession of teacher in an approved school and acknowledge that in entering a Training College they take advantage of the Parliamentary Grants by which it is aided in order to qualify themselves for the profession of teacher and for no other purpose.

An approved school includes any Public Elementary School, and any Secondary Continuation or Central School, Pupil Teacher Centre or Training College in respect of which grants are paid by the Board out of moneys provided by Parliament, and any other School which in the case of any teacher the Board approves in writing for the purpose.

5. Candidates who are in any doubt as to the nature of their qualifications for admission, or for exemption from the Matriculation Examination of the Joint Board, should forward to the Professor in Education an exact and full account of the examinations they have passed, giving date of passing, subjects passed, standard attained in each subject and class obtained. Advice as to the nature of their qualification and of the steps to be taken to qualify for admission will be given on application.

## DEGREES IN SCIENCE

### (a) Degrees in Pure Science

1. The degrees in Pure Science<sup>1</sup> shall be :

Ordinance

Bachelor of Science (B.Sc.)

Master of Science (M.Sc.)

Doctor of Philosophy (Ph.D.)

Doctor of Science (D.Sc.)

### DEGREE OF BACHELOR OF SCIENCE

2. The degree of Bachelor of Science shall be conferred either (i) as an Ordinary degree, or (ii) as a General Honours degree, or (iii) as a Special Honours degree.

3. All candidates for the degree of Bachelor of Science shall be required to have passed the Matriculation examination or obtained a certificate of exemption therefrom, and thereafter to have pursued courses of study for not less than three academic years.

The record of students at their departmental examinations may be taken into account in deciding the results of degree examinations. Regulations

Candidates may, with the consent of the Dean of the Faculty in the case of Ordinary and General Honours Degrees or of the Head of the Department in the case of a Special Honours School, present subjects more in number and higher in grade than those required by the Ordinances for those proceeding to a degree.

Candidates presenting a subject at a higher grade and failing to pass therein may, at the option of the examiners, be recommended for a pass in a lower grade.

Candidates who satisfy the examination requirements of the Ordinary degree in two sessions must pursue a course of study in the third session approved by the Board of Science and Technology.

### *Concessions to Higher School Certificate Holders.*

Students taking a Science Degree may be exempted by the Board of Science and Technology from the Introductory courses and corresponding examinations

<sup>1</sup> Graduates in Pure Science may also proceed to the degree of Master of Education (M.Ed.)



in the subjects already passed in the Higher School Certificate examination, or in an equivalent examination, provided that they have passed the examination at a sufficiently high standard and pursue an approved alternative course of study.

Applications for such exemptions should be made by the student (*a*) to the Head of the Department in which he is presenting himself for Honours in the case of a Special Honours candidate (*b*) to the Dean of the Faculty of Science in the case of any other candidate.

### **Ordinary Degree of Bachelor of Science**

Ordinance 4. Every candidate shall be required to attend approved courses of study and to pass the prescribed examination either (i) in two Principal and two Introductory subjects, or (ii) in two Principal and one Subsidiary subjects, or (iii) in one Principal, two Subsidiary and one Introductory subject.

5. The courses of study shall extend over at least three years for a principal subject, two years for a subsidiary subject and one year for an introductory subject.

6. The whole examination in any subject must be taken at one and the same time ; but candidates may present themselves for examination in any subject or subjects when they have completed the prescribed course or courses. The examinations will ordinarily be held in June of each year.

7. Candidates may choose from the subjects specified in the Regulations for the Ordinary degree, provided that either Mathematics or Physics be taken as one of the subjects, and that such other restrictions as are set forth in the Regulations be observed.

### **Degree of Bachelor of Science with Honours**

(N.B.—The following Articles 8-13 apply to both the General Honours and the Special Honours Schools).

8. All candidates shall be required to attend approved courses of study extending over three or four years, and to pass the prescribed examinations, as defined under the Regulations for the General Honours degree and the various Special Honours Schools.



9. Names of candidates who have passed the examination for the degree of Bachelor with Honours will be published in such form as to distinguish the Honours School in which severally they may have passed ; the names of those who have passed in Honours being drawn up in three classes, and each class being arranged in alphabetical order.

10. Candidates who have not acquitted themselves so as to deserve Honours, but have reached the standard of the Ordinary degree may be recommended for that degree. They will not be allowed to present themselves a second time for the same Honours examination.

11. Subject to the provision of Articles 18 and 22 below, every candidate for the degree of Bachelor of Science with Honours shall ordinarily be required to present himself for examination at the end of the third or fourth or fifth academic year from the time when he has entered upon one of the courses of instruction approved by the University for such degree, unless he shall present a medical certificate of illness satisfactory to the Senate. The examination shall ordinarily be held in June of each year.

12. Candidates who have passed the examination for the Ordinary degree of Bachelor of Science may, during the following session, proceed with the course of study in an Honours School and may present themselves for examination for the Honours degree in the fourth or fifth session of their University course.

13. Candidates who have passed the Honours examination in any of the Honours Schools may during the following session proceed with the course of study in another Honours School and may thereafter present themselves for examination in this second Honours School in the fourth or fifth session of their University course.

### **General Honours School**

14. The General Honours degree shall be awarded on an examination of a higher standard than that required for the principal subjects of the Ordinary degree examination.

15. Candidates shall present themselves for examination in not fewer than three subjects, to be taken at one and the same time.

16. The class awarded to a candidate shall be determined on the results of the examination taken as a whole, but no credit will be given for any subject in which the candidate falls below a minimum standard prescribed by the Senate.

17. Candidates for the General Honours degree will be required to attain either before or after entry to the University such a standard of proficiency in the principles of Physics as the Senate shall from time to time determine.

18. Candidates who propose to proceed afterwards to Special Honours, Medicine, Applied Science or other approved courses of study, may be examined at the end of their second year if approved by the Senate after reports from the Heads of Departments concerned. In no case will a candidate be admitted to a degree until he has completed attendance on approved courses for three academic years (see Article 3).

19. Candidates are allowed a choice of the subjects specified in the Regulations, for the General Honours degree, subject to such restrictions as there set forth.

### **Special Honours Schools**

20. Candidates may choose one of the Special Honours Schools specified in the Regulations, for the Special Honours degree, and must follow the course of study prescribed for each Special Honours School.

21. Candidates who shall present evidence satisfactory to the Senate that they are qualified to enter upon a course of research may receive permission to pursue such a course, and to offer a thesis on their work in place of part or the whole of the Honours examination; but no candidate shall be excused the whole of the Honours examination unless he shall have satisfied the examiners

in the subject of his Honours School as a principal subject for the Ordinary degree and in the other subjects prescribed for that Special School.

Each application for the recognition of research work must be made to the Senate not later than the last day of the October preceding the Honours examination, together with a statement of the intended subject of research, and a summary of the course of work actually pursued must be presented not later than the first day of the May preceding the Honours examination.

Candidates whose thesis does not satisfy the examiners shall not receive the Honours degree, but may be recommended for the Ordinary degree.

22. Candidates in one Special Honours School who propose to proceed afterwards to another Special Honours School, Medicine, Applied Science or other approved courses of study, may be examined at the end of the second year if approved by the Senate after reports from the Heads of Departments concerned. In no case will a candidate be admitted to a degree until he has completed attendance in approved courses for three academic years. (See Article 3).

## DEGREES OF BACHELOR OF SCIENCE IN PURE SCIENCE

### 1. Ordinary Degree

1. Introductory, subsidiary and principal subjects can be selected as follows, subject to the restrictions laid down in the Ordinances for the Ordinary degree, Articles 3-7 :— Regulations

#### *Introductory :*

Mathematics  
Physics  
Chemistry  
Zoology

Botany  
Geology  
Geography

*Subsidiary :*

Mathematics	Physiology
Statistics	Geology
Physics	Geography
Chemistry	Human and Comparative
Zoology	Anatomy
Botany	Bacteriology

*Principal :*

Mathematics	Geology
Physics	Geography
Chemistry	Human and Comparative
Zoology	Anatomy
Botany	Bacteriology
Physiology	

2. Geology and Geography shall not be taken together as principal subjects; students intending to offer Geography as a principal subject must pass in Geology at the Introductory Stage.

3. Students taking Mathematics as a principal or subsidiary subject may take Statistics S. and Mathematical Laboratory M.L. in place of an introductory subject.

4. Candidates presenting Human and Comparative Anatomy as a principal or subsidiary subject are required to take Introductory Zoology in their first year of study.

5. Candidates presenting Physiology or Bacteriology as a principal or subsidiary subject are required to take Introductory Botany and Introductory Zoology in their first year of study.

6. In the Final examination a paper will be set containing passages of French and German for translation into English, relating to the principal subject or subjects of a candidate's degree course. All candidates may take this paper, and marks will be awarded for correct renderings of such passages. Candidates will be allowed the use of dictionaries at this Language Test examination.

7. Examiners will take account of the command of English language shown by candidates.



## II. General Honours School

N.B.—Students who enter for this School with no other qualification than a Matriculation Certificate will not in general be able to attain the necessary standard in the three subjects in less than four years.

1. Candidates must choose at least three subjects from the following list :—

Mathematics	Physiology
Physics	Geology
Chemistry	Geography
Zoology	Human and Comparative
Botany	Anatomy

2. Candidates presenting Physiology as a subject for the General Honours degree are required to take Introductory Botany and Introductory Zoology in their first year of study.

3. Candidates presenting Human and Comparative Anatomy as a subject for the General Honours degree are required to take Introductory Zoology in their first year of study.

4. Geology and Geography shall not be taken together as General Honours subjects.

5. In the Final examination a paper will be set containing passages of French and German for translation into English, relating to the principal subject or subjects of a candidate's degree course. All candidates may take this paper, and marks will be awarded for correct renderings of such passages. Candidates will be allowed the use of dictionaries at this Language Test examination.

## III. Special Honours Schools

1. Candidates may choose a Special Honours School from the following list :—

Mathematics	Physiology
Physics	Geology
Chemistry	Human and Comparative
Zoology	Anatomy
Botany	Bacteriology



2. In the Final examination a paper will be set containing, for translation into English, a passage of French and a passage of German, relating to the subject in which the candidate is presenting himself for Honours. All candidates will be required to take this paper, and to satisfy the examiners in the translation of both these passages. Candidates will be allowed the use of dictionaries at this Language Test examination.

3. All candidates will be required to present themselves for a Degree examination in each subject of their Honours School on completion of their course in that subject.

### **Degree and Departmental Examinations**

#### *1. Degree Examinations :*

- (a) Degree examinations as laid down by Regulation will usually be held in June.
- (b) Every candidate will be required to present himself at the degree examination in each subject at the end of the session in which he has completed his course of study in that subject, unless he has obtained the permission of the Board of Science and Technology to defer his examination.

#### *2. Departmental Examinations :*

- (a) In addition to the Degree Examinations, Departmental Examinations will be held at times and on conditions determined by the Head of the Department concerned. All students studying for a degree are required to submit themselves to such departmental examinations in their subjects of study.
- (b) In courses extending over more than one session students may not commence the more advanced work of a succeeding session unless they have done the work required throughout the course to the satisfaction of the Head of the Department and have passed the Departmental examinations.

### 3. Conditions of entry :

Entries for the June examinations—both Degree and Departmental—shall in all cases be made through the Clerk to the Senate. Only those students whose lecture and laboratory attendances are approved by the Heads of Departments concerned, and whose entry forms are received before March 1st, will be admitted to the examinations.

N.B.—The attention of students is drawn to the General Regulations for Students, Clause 11, respecting departmental examinations.

## Prescribed Subjects of Study and Examination

### I. Ordinary Degree

#### MATHEMATICS.

*Introductory Course* (one session).

*Subsidiary Course* (two sessions) :—

1st year : Mathematics Intro.

2nd year : Mathematics F1 and F2.

*Principal Course* (three sessions) :—

1st year : Mathematics Intro.

2nd year : Mathematics F1 and F2.

3rd year : Mathematics F3 and F4.

#### PHYSICS.

*Introductory Course* extends over one session. Three lectures in each week with three hours in the laboratory.

*Subsidiary Course* (two sessions) :—

1st year : Physics Intro.

2nd year : Physics F1, with six hours laboratory.

*Principal Course* (three sessions) :—

1st year : Physics Intro.

2nd and

3rd years : Physics F1 and F2 with six hours laboratory each week.

#### CHEMISTRY.

*Introductory Course* (one session.) Chemistry Intro., with laboratory work.

*Subsidiary Course* (two sessions) :—

Two of the following courses :—

Chemistry Intro.

Chemistry F1.

Chemistry F2.

Chemistry F3.

With laboratory work.

*Principal Course* (three sessions) :—

Chemistry Intro., F<sub>1</sub>, F<sub>2</sub>, F<sub>3</sub>, together with one Honours Course and laboratory work in the Inorganic, Organic and Physical Chemistry laboratories.

## ZOOLOGY.

*Introductory Course* :—

Zoology Intro., two lectures and four hours laboratory weekly.

*Subsidiary Course* (two sessions) :—

1st year: Zoology Intro., with four hours laboratory.

2nd year: Zoology F Course (A) or (B), according to the session. Three lectures and 6 hours laboratory work throughout one session.

*Principal Course* (three sessions) :—

1st year: Zoology Intro., with four hours laboratory.

2nd and

3rd years: Zoology F Courses (A) and (B) (two successive sessions). Three lectures and at least six hours laboratory work weekly.

## BOTANY.

*Introductory Course* :—

Botany Intro., six hours a week for session.

*Subsidiary Course* (two sessions) :—

1st year: Botany Intro. or Botany F<sub>1</sub> (A or B), with three hours laboratory.

2nd year: Botany F<sub>1</sub> (A or B), with six hours laboratory.

*Principal Course* (three sessions) :—

1st year: Botany Intro.

2nd and

3rd years: Botany F<sub>1</sub> (A and B), with six hours laboratory work for two sessions.

## PHYSIOLOGY.

(1) *Subsidiary Course* :—

1st year: Introductory subjects.

2nd year: Physiology II. and I.B. (first three terms).

(2) *Principal Course* :—

1st year: Introductory subjects.

2nd year: Physiology I.A. and I.B.

3rd year: Physiology IV.A. and V.A.

NOTE.—It is not contemplated that candidates taking Physiology as a subsidiary subject for the Ordinary Degree will be medical students.

GEOLOGY.

*Introductory Course :—*

Geology Intro : Three hours' lectures, three hours laboratory. Field work: three expeditions (one in each term).

*Subsidiary Course (two sessions) :—*

1st year : Geology Intro.

2nd year : Geology F1 (three hours), with six hours laboratory.

Geology Field Course : alternate Saturdays throughout the session.

*Principal Course (three sessions) :—*

1st year : Geology Intro.

2nd and

3rd years : Geology F1 and F2 three hours ; Scheme A (Palaeontology) lecture course, two hours ; Scheme B (Petrology), lecture course, two hours, with six hours laboratory.

Geology Field Course : alternate Saturdays throughout the session.

GEOGRAPHY.

*Introductory Course :—*

Geography Intro., with three hours laboratory.

*Subsidiary Course (two sessions) :—*

1st year : Geography Intro.

2nd year : Geography F1, with six hours laboratory.

*Principal Course (three sessions) :—*

1st year : Geography Intro.

2nd year : Geography F1, with six hours laboratory.

3rd year : Geography F2, with six hours laboratory.

BACTERIOLOGY.

*Subsidiary Course (two sessions) :—*

1st year : See Regulation 5.

2nd year : Bacteriology IV. in 1st and 3rd terms.  
Bacteriology VA. in 2nd term.

*Principal Course (three sessions) :—*

1st year : See Regulation 5.

2nd year : Bacteriology IV. and VA. as above.

3rd year : Bacteriology VB. and Laboratory Work.

II. General Honours Degree

MATHEMATICS.

(Three sessions).

Mathematics F1, F2, F3, F4, G, together with a Course in the History of Mathematics.

**PHYSICS.**

(Three sessions).

Physics Intro., F<sub>1</sub>, F<sub>2</sub> and S, with nine hours laboratory each week for the last two sessions. In addition special reading will be prescribed.

**CHEMISTRY.**

(Three sessions).

Chemistry Intro., F<sub>1</sub>, F<sub>2</sub>, F<sub>3</sub>, together with one Honours Course and laboratory work in the Inorganic, Organic and Physical Chemistry laboratories.

**ZOOLOGY.**

(Three sessions).

1st year : Zoology Intro., with four hours laboratory.

2nd and

3rd years : Zoology F, Courses (A) and (B), extending over two consecutive sessions (three lectures and a minimum of six hours laboratory work weekly).

Zoology H. Discussion class, one hour weekly.

(Students will be exempted from part or the whole of the Introductory Course only when they can submit satisfactory evidence of proficiency).

**BOTANY.**

(Three sessions).

The Principal Course for the Pass B.Sc., together with attendance at the Honours lectures during one session.

NOTE.—Usually the requirements of this course can only be fulfilled by students who are sufficiently prepared to commence work upon the Final Course in their first year.

**PHYSIOLOGY.**

1st year : Introductory subjects.

2nd year : Physiology I<sub>A</sub>. and I<sub>B</sub>.

3rd year : Physiology IV<sub>A</sub>. and V<sub>B</sub>.

**GEOLOGY.**

(Three sessions).

1st year : Geology Intro.

2nd and

3rd years : Geology F<sub>1</sub> and F<sub>2</sub>, with six hours laboratory Scheme A or Scheme B as for Principal Course.

Attendance at the Honours lectures (two hours per week) will be required in the third session.

Geology Field Course : alternate Saturdays throughout the session.



GEOGRAPHY.

- 1st year : Geography Intro., Geology Intro.  
 2nd and 3rd years : Geography F1 and F2, with one  
 Honours Course and six hours  
 laboratory in each session.  
 Seminar : One Meeting in each week.

III. Special Honours Degree

MATHEMATICS.

Students taking the Special Honours School of Mathematics will take the Special Honours Courses in Mathematics together with one selected Additional subject, from Arts, Science, or Applied Science up to the standard of a subsidiary subject in Science after consultation with the Head of the Department of Mathematics. Students wishing to take this additional subject at the standard of a Principal subject may upon producing satisfactory evidence of their knowledge of the subject be excused the Intermediate or Introductory course. Students may be allowed with the consent of the Head of the Department of Mathematics, to substitute for one subject at the Subsidiary standard (i) two additional subjects at the Intermediate or Introductory standard, or (ii) Statistics and one additional subject at the Intermediate or Introductory standard.

STATISTICS (*as a Subsidiary subject*).

- 1st year : Mathematics for Applied Science students.  
 2nd year : Statistics S. and M.L.

PHYSICS

*Three Years Course :—*

- 1st year : Physics Intro. and F1.  
 Mathematics F1 and F2.  
 Chemistry Intro.  
 2nd year : Physics F2 and H, with twelve hours laboratory.  
 Mathematics F3 and F4.  
 3rd year : Physics H, with twelve hours laboratory.

*Four Years Course :—*

- 1st year : Physics Intro.  
 Mathematics Intro. and F2.  
 Chemistry Intro.  
 2nd year : Physics F1 and F2.  
 Mathematics F1 and F3.  
 3rd year : Physics H.  
 Mathematics F4.  
 4th year : Physics H.

Together with the equivalent of twelve hours laboratory for two sessions.

## CHEMISTRY.

(Three or four sessions).

*Chemistry*: Intro. F<sub>1</sub>, F<sub>2</sub>, F<sub>3</sub>, H<sub>1</sub>, H<sub>2</sub>, H<sub>3</sub>, together with two or more special courses (S) on selected subjects and laboratory work in the Inorganic, Organic and Physical Chemistry laboratories.

*Physics*: Intro., and F<sub>1</sub>, with laboratory work.

*Mathematics*: Mathematics J (for Applied Science students), together with some approved additional subject (other than Mathematics) including a minimum attendance of two hours weekly for one session or Mathematics F<sub>3</sub> and F<sub>4</sub>. Attendance on the Introductory courses may be remitted if satisfactory evidence of previous knowledge can be produced.

In special circumstances approval may be given to other courses in Mathematics or Physics. Mathematics or Physics may also be replaced by another approved subject after consultation with the Head of the Department.

## ZOOLOGY.

For this Course a student's full time is expected to be devoted to Zoology during his last year, so that four years are required unless the student is sufficiently prepared to be admitted to his Subsidiary or Final Courses upon entrance to the University.

The Course is based on that for Zoology under General Honours, to be followed by a year's research or advanced study in a special approved subject.

Subjects approved for the second principal subject:—

Physiology, Geology (including Palaeontology), Botany, Agriculture.

Subjects approved for the two Subsidiary subjects:—

Physiology, Geology, (including Palaeontology), Botany, Organic Chemistry, Anatomy (including Anthropology).

These requirements are waived in the case of students who have been awarded a class in the General Honours Examination. Such students may proceed at once to research or advanced study in a special Zoological subject approved by the Head of the Department.

An Honours Degree in Zoology may also be obtained after a fourth year's study in the Department by candidates who have taken the course laid down for the first three years of the Special Course D. for Honours in Agriculture.

**BOTANY.**

Four Years' Course (which may be shortened to three years provided that previous knowledge of the subject enables the student to commence attendance upon the F1 Course in the first session).

1st year : Botany Intro.  
Physics Intro. (or Mathematics for Applied Science students).  
Chemistry Intro. (unless satisfactory evidence of previous knowledge of this subject can be given).  
One other Introductory Course.

2nd and  
3rd years : Botany F1 (A and B) together with attendance at Honours lectures in third year, with six hours laboratory.  
One other principal subject or two Subsidiary subjects.

4th year : Botany H., with full-time Laboratory work, including the necessary study of a special problem with a view to presentation of a thesis as an integral part of the Honours Examination.

An Honours degree in Botany may also be obtained after a fourth year's study in the Department, by candidates who have taken the course laid down for the first three years of the Special Course C. for Honours in Agriculture.

**PHYSIOLOGY.**

1st year : Physics Intro.  
Chemistry Intro.  
Zoology Intro.  
Botany Intro.  
2nd year : Physiology IA. and B.  
Chemistry F3.

Candidates must attain a satisfactory standard in the Departmental Examination in F3.

3rd year : Physiology IVA., IVB. and Vc.

4th year : Physiology VIII.

Candidates must take *one* other subject at a Principal standard or *two* other subjects at a Subsidiary standard. The subjects approved are :—

For Principal : Chemistry (in this case H1 or H3 must be taken as Additional), Physics, Botany, Zoology.

For Subsidiary : Chemistry, Physics, Botany, Zoology, Anatomy, Bacteriology.

Candidates should consult the Professor of the subject or subjects selected in regard to the work required. All such courses must be taken before the commencement of the candidate's fourth year of study.

**GEOLOGY.**

(Three or four sessions).

1st year : Geology Intro.  
 Physics Intro.  
 Two of the following : Mathematics for  
 Applied Science students, Chemistry Intro.,  
 Botany Intro., Zoology Intro.

Later  
 sessions : Geology F1, F2, H1, Mineralogy, with 12  
 hours laboratory.  
 (Schemes A. or B.—Palaeontology or  
 Petrology—will be taken to a higher  
 standard).  
 One other Principal subject or two Subsidiary  
 subjects.

In addition, candidates will be required to  
 conduct some original research and present  
 a thesis upon their work.

**BACTERIOLOGY.**

The following Courses are prescribed for students taking this  
 Honours School. Course A or Course B may be followed. The  
 latter is suitable for students proceeding to a medical degree.  
 Students who have an elementary knowledge of Chemistry are  
 recommended to take Chemistry F2 in their first year, F3 in their  
 second year, and H1 in their third year.

*Course A :—*

1st year : Physics Intro.  
 Chemistry Intro. or F2.  
 Zoology Intro.  
 Botany Intro.

2nd year : Bacteriology VA.  
 Chemistry F2 or F3.  
 Physiology I., or Physics F1, or Zoology F1,  
 or Botany F1.

3rd year : Bacteriology IV.  
 Chemistry F3, or H1, or H3.  
 Physiology Vc. or VI., or Zoology F1, or  
 Botany F1.

4th year : Honours work in Bacteriology.  
 Bacteriology VB. and Research.

*Course B :—*

Candidates may take the normal course for the M.B., Ch.B.  
 degrees, taking in addition in their second year Bacteriology  
 VA., and Chemistry F2 or F3 ; and in their third year Chemistry  
 F3 or H1 or H3. Subsequently to passing Part I. of their Final  
 M.B. they shall pursue the fourth year's Honours Course in  
 Bacteriology. This fourth year shall be entirely devoted to  
 bacteriological work.



**(b) Degrees in Applied Science**

1. The degrees in Applied Science<sup>1</sup> shall be :—

Ordinance

Bachelor of Science (B.Sc.)

Master of Science (M.Sc.)

Doctor of Philosophy (Ph.D.)

Doctor of Science (D.Sc.)

**DEGREE OF BACHELOR OF SCIENCE**

2. The degree of Bachelor of Science shall be conferred either (i) as an Ordinary degree, or (ii) as a Special Honours degree.

3. All candidates for the degree of Bachelor of Science shall be required to have passed the Matriculation examination or obtained a certificate of exemption therefrom, and thereafter to have pursued courses of study for not less than three academic years.

The record of students at their departmental examinations may be taken into account in deciding the results of degree examinations. Regulations

Candidates may, with the consent of the Dean of the Faculty in the case of Ordinary and General Honours Degrees or of the Head of the Department in the case of a Special Honours School, present subjects more in number and higher in grade than those required by the Ordinances for those proceeding to a degree.

Candidates presenting a subject at a higher grade and failing to pass therein may, at the option of the examiners, be recommended for a pass in a lower grade.

Candidates who satisfy the examination requirements of the Ordinary degree in two sessions must satisfactorily pursue a course in the third session approved by the Board of Science and Technology.

*Concessions to Higher School Certificate Holders.*

Students taking a Science Degree may be exempted by the Board of Science and Technology from the Introductory courses and corresponding examinations

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1. Graduates in Applied Science may also proceed to the Degree of Master of Education (M.Ed.)



in the subjects already passed in the Higher School Certificate examination, or in an equivalent examination, provided that they have passed the examination at a sufficiently high standard and pursue an approved alternative course of study.

Applications for such exemptions should be made by the student (*a*) to the Head of the Department in which he is presenting himself for Honours in the case of a Special Honours candidate, (*b*) to the Dean of the Faculty of Science in the case of any other candidate.

### Ordinary Degree of Bachelor of Science

- Ordinance 4. Every candidate shall be required to attend courses of study as set forth in the Regulations for his particular School of Applied Science.
5. The courses of study in each School of Applied Science shall extend over at least three years.

### Degree of Bachelor of Science with Honours

6. Candidates shall be required to attend the prescribed courses of study as defined under the Regulations for the various Special Honours Schools of Applied Science and to pass the prescribed examinations.

7. Names of candidates who have passed the examination for the degree of Bachelor with Honours will be published in such form as to distinguish the Honours School in which severally they may have passed ; the names of those who have passed in Honours being drawn up in three classes, and each class being arranged in alphabetical order.

8. Candidates who have not acquitted themselves so as to deserve Honours, but have reached the standard of the Ordinary degree, may be recommended for that degree. They will not be allowed to present themselves a second time for the same Honours Examination.

9. Every candidate for the degree of Bachelor of Science with Honours shall ordinarily be required to present himself for examination at the end of the third

or fourth or fifth academic year from the time when he has entered upon one of the courses of instruction approved by the University for such degree, unless he shall present a medical certificate of illness satisfactory to the Senate. The examination shall ordinarily be held in June of each year.

10. Candidates who have passed the examination for the Ordinary degree of Bachelor of Science may, during the following session, proceed with the course of study in a Special Honours School and may present themselves for examination for the Honours degree in the fourth or fifth session of their University course.

11. Candidates who have passed the Honours examination in any of the Special Honours Schools may during the following session proceed with the course of study in another Special Honours School, and may thereafter present themselves for examination in this second Honours School in the fourth or fifth session of their University Course.

### **Special Honours Schools**

12. Candidates may choose one of the Special Honours Schools in Applied Science specified in the Regulations for the Special Honours Degree in Applied Science, and must follow the course of study as prescribed in the Regulations for each Special Honours School in Applied Science.

13. Candidates who shall present evidence satisfactory to the Senate that they are qualified to enter upon a course of research may receive permission to pursue such a course, and to offer a thesis of their work in place of part or the whole of the Honours examination; but no candidate shall be excused the whole of the Honours examination unless he shall have satisfied the examiners in the subject of his Honours School of Applied Science up to the standard of the Ordinary degree in that School.

Each application for the recognition of research work must be made to the Senate not later than the last day

of the October preceding the Honours examination, together with a statement of the intended subject of research, and a summary of the course of work actually pursued must be presented not later than the first day of the May preceding the Honours examination.

Candidates whose thesis does not satisfy the examiners shall not receive the Honours degree, but may be recommended for the Ordinary degree.

### DEGREE OF BACHELOR OF SCIENCE IN APPLIED SCIENCE

#### Ordinary and Honours Degrees

**Regulations** Candidates may choose an Applied Science School (Ordinary or Honours) from the following list :—

Civil Engineering  
Mechanical Engineering  
Electrical Engineering  
Mining Engineering  
Gas Engineering  
Fuel and Metallurgy  
Chemistry of Leather Manufacture.  
Colour Chemistry and Dyeing  
Agriculture  
Textiles

#### Ordinary Degree in Applied Science

In the Final examination a paper will be set containing passages of French and German for translation into English relating to the principal subject or subjects of a candidate's degree course. All candidates may take this paper, and marks will be awarded for correct renderings of such passages. Candidates will be allowed the use of dictionaries at this Language Test examination.

Examiners will take account of the command of English language shown by candidates.

#### Honours Degree in Applied Science

In the Final examination a paper will be set containing, for translation into English, a passage of French and a passage of German, relating to the subject in which

the candidate is presenting himself for Honours. All candidates, except Engineering candidates, will be required to take this paper, and to satisfy the examiners in the translation of both these passages. Engineering candidates may take this paper, and marks will be awarded for correct renderings of such passages. Candidates will be allowed the use of dictionaries at this Language Test examination.

N.B.—Detailed subjects of study for degrees in Applied Science (Ordinary or Honours) will be found set forth in the various Departmental prospectuses.

## **Degree and Departmental Examinations**

### *1. Degree Examinations :*

- (a) Degree examinations as laid down by Regulation will usually be held in June.
- (b) Every candidate will be required to present himself at the degree examination in each subject at the end of the session in which he has completed his course of study in that subject, unless he has obtained the permission of the Board of Science and Technology to defer his examination.

### *2. Departmental Examinations :*

- (a) In addition to the Degree Examinations, Departmental Examinations will be held at times and on conditions determined by the Head of the Department concerned. All students studying for a degree are required to submit themselves to such departmental examinations in their subjects of study.
- (b) In courses extending over more than one session students may not commence the more advanced work of a succeeding session unless they have done the work required throughout the course to the satisfaction of the Head of the Department and have passed the Departmental examinations.



### 3. *Conditions of entry :*

Entries for the June examinations—both Degree and Departmental—shall in all cases be made through the Clerk to the Senate. Only those students whose lecture and laboratory attendances are approved by the Heads of Departments concerned, and whose entry forms are received before March 1st, will be admitted to the examinations.

N.B.—The attention of students is drawn to the General Regulations for Students, Clause 11, respecting departmental examinations.

## DEGREE OF MASTER OF SCIENCE

Ordinance I. The degree of Master of Science may be conferred, on payment of the proper fee and subject to the conditions laid down in paragraphs 2 and 3 :—

- (a) Upon Bachelors of Science of the University who have graduated with Honours of not less than one year's standing and other Bachelors in any Faculty of not less than two years' standing ;
  - (b) Upon Graduates of other Universities, who have been accepted by the Senate as candidates for the degree of M.Sc., and who have prosecuted approved research in the University for not less than two years ;
  - (c) Upon persons whose qualifications have been accepted by the Senate in lieu of a degree, and who have prosecuted approved research in the University for a period of two years or more, as determined by the Senate in each case.
2. Candidates for the degree of Master of Science shall in all cases prosecute research on a subject approved by the Board of the Faculty of Science and Technology, and shall thereafter present to the Senate a thesis embodying the results of their research. They shall also submit themselves to an examination if required.
3. Candidates who are required under paragraph 1, § (b), (c) to prosecute research in the University for a period of two or more years may obtain permission



from the Senate to spend one or more years in acquiring a competent knowledge of a new subject provided that the whole of the final year is devoted to post-graduate study and research.

1. Candidates shall be required to fulfil the following Regulations conditions :—

- (a) To be registered as students of the University.
- (b) To pursue a course of advanced study or research under the supervision of the Head of the Department concerned.

2. They shall be further required to give evidence to the Senate at the end of the first year of their period of study that their work has been satisfactory, and at the end of their course they shall be required to present a dissertation, and to satisfy such further test, if any, as the Senate shall deem expedient. They may be called upon to present themselves for an examination—written, or oral, or both—in the theme of their dissertation.

#### **DEGREE OF MASTER OF EDUCATION**

(see under Degrees in Arts).

#### **DEGREE OF DOCTOR OF PHILOSOPHY**

(see under Degrees in Arts).

#### **DEGREE OF DOCTOR OF SCIENCE**

1. The degree of Doctor of Science is conferred by the University upon registered Masters of Science or Doctors of Philosophy of the University who shall be deemed by the Senate, after considering a report from one or more of the Boards of Faculties, to have distinguished themselves by special research or learning. Ordinance

Provided that the Senate may, in such cases as it shall think fit, after considering a report from one or more of the Boards of the Faculties, also require candidates to pass such an examination as it may from time to time determine.

Some deviation from these courses may be sanctioned in special cases, and students who on entering upon a Diploma course produce evidence that they possess a sufficient knowledge of the work done during a part of the course will be allowed to dispense with a certain amount of attendance. Applications for exemption from attendance should be made to the Head of the department concerned, who shall bring them before the Standing Committee of the Senate appointed to deal with such matters.

Diplomas are granted by the University in the following subjects :—

- Civil Engineering
- Mechanical Engineering
- Electrical Engineering
- Mining Engineering
- Fuel and Metallurgy
- Gas Engineering
- Dyeing
- Colour Chemistry
- Leather Manufacture.
- Textiles (Post-graduate).
- Textile Industries (Technological).

(For Regulations governing the award of these Diplomas see the respective departmental prospectuses).

## COURSES IN SCIENCE

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### MATHEMATICS

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#### Intro. Introductory Course in Mathematics

Mondays and Fridays at 2 p.m. and Wednesdays at 9 a.m.

*Subjects* : Trigonometry, Calculus, Statics and Dynamics, etc.

#### J. Mathematics for Applied Science Students

Mondays, Tuesdays, Wednesdays and Fridays at 9 a.m.

*Subjects* : Trigonometry, Calculus, Analytical Geometry, Statics, Dynamics, Hydrostatics, etc.

#### F1. Mixed Mathematics

Mondays, Wednesdays and Fridays at 12 (noon).

*Subjects* : The subjects of the Introductory Course carried to a more advanced stage ; Hydrostatics, etc.

#### F2. Pure Mathematics

Tuesdays and Thursdays at 9 a.m. (or 12 noon if necessary).

*Subjects* : Higher Algebra, Pure and Analytical Geometry of two dimensions, etc.

#### F3. Pure Mathematics

Mondays, Wednesdays and Fridays at 10 a.m.

*Subjects* : Further portions of Higher Algebra ; Differential Equations ; Analytical Geometry of three dimensions ; Mathematical laboratory, etc.

**F4. Applied Mathematics**

Mondays, Wednesdays and Fridays at 12 (noon).

*Subjects* : Easier portions of more advanced theoretical Mechanics ; other selected branches of Applied Mathematics.

**G. Pure and Applied Mathematics**

At hours to be arranged.

*Subjects* : Selected portions of more advanced branches of Pure and Applied Mathematics.

**S. Statistics**

At hours to be arranged.

*Subjects* : Mathematical theory of Statistics including practical applications.

**M.L. Mathematical Laboratory.**

*Subjects* : Graphics and methods of numerical computation.

**PHYSICS**

Chair endowed in 1884 by public subscription in memory of the late Lord Frederick Cavendish, first President of the Yorkshire College

**LECTURE COURSES**

**Introductory Courses**

**INTRO. B.**

The following subjects, experimentally illustrated, will be included in the course : Electricity, Magnetism, Sound, Light, Heat, and Properties of Matter. Suitable Text Books will be recommended by the lecturer.

**INTRO. C.**

A course similar to Intro. B., but intended particularly for Medical and Dental Diploma students.

**F1. Final Course**

This course is intended for students taking Physics as a subsidiary subject.

**F2. Final Course**

This course is intended for students taking Physics as a principal subject.

Prospective students must have obtained at least a second class in the Introductory Departmental examinations or in default are required to take the Introductory course again concurrently with this course, unless specially exempted by the Senate.

Acquaintance with the principles of the Differential and Integral Calculus is necessary in this course.

**H. Honours Course**

The complete course extends over two sessions.

Reading references, including both text books and original papers, are freely given during the course.

**S. Special Courses**

Special **short** courses on particular subjects will be arranged from time to time. These courses may be attended, voluntarily, by any student of Physics, beyond the Introductory standard, and in approved cases by students not normally working in the Department.

For the present session it is hoped to arrange short courses on the following subjects:—

1. Some results of Modern Physics.
2. Applied Optics.
3. Experimental Mechanics (for first year students desiring to attend).

The times will be arranged, so far as is practicable, to suit the convenience of students wishing to attend.



The following time table shows the hours at which lectures are expected to take place :—

	9 to 10.	10 to 11.	11 to 12.	12 to 1.	3 to 4.
MON. ..	..	Intro. <i>c</i>	F <sub>1</sub> ; H	..	F <sub>2</sub>
TUE. ..	..	Intro. <i>b</i> H	..	..	F <sub>2</sub>
WED. ..	..	Intro. <i>c</i>	F <sub>1</sub> ; H	..	
THU. ..	..	Intro. <i>b</i> H	..	..	
FRI. ..	..	Intro. <i>c</i>	F <sub>1</sub> ; H	..	F <sub>2</sub>
SAT. ..	..	Intro. <i>b</i> H	F <sub>2</sub>		

### PHYSICS LABORATORIES

The Introductory, Final and Honours laboratories are open between the hours of 9.30 and 12.30 in the mornings, and between 2 and 5 in the afternoons, but students' times of attendance are arranged at the beginning of the session, and must not be altered subsequently without permission.

The *minimum* of laboratory attendance required from students of various grades is indicated below :—

Introductory B.Sc. course

three hours per week for 3 terms.

First M.B. course .. three .. .. 3 ..

Final courses :—

Subsidiary .. six .. .. 3 ..

Principal .. .. six .. .. 6 ..

Honours (General) nine .. .. 6 ..

Honours (Special) twelve .. .. 6 ..

### CHEMISTRY

#### LECTURE COURSES

##### Introductory Course

Mondays, Wednesdays, and Fridays, at 12 (noon), throughout the session.

**Intro. a**

Mondays, Thursdays and Fridays, at 2 p.m. throughout the session. This course is similar to the above, but is intended for medical and dental students.

In connection with these courses a tutorial class will be held one hour weekly throughout the session at times to be arranged.

**Analytical Chemistry**

Two short courses of lectures at times to be arranged.

**Course A.**

This is intended for first year students, and will deal chiefly with qualitative analysis.

**Course B.**

This is intended for more advanced students, and will deal with both qualitative and quantitative work.

**FINAL COURSES****F1. Inorganic Chemistry**

Mondays, Wednesdays, and Fridays, at 10 a.m., throughout the session.

**F2. Physical Chemistry**

Tuesdays, Thursdays, and Saturdays, at 10 a.m., throughout the session.

**F3. Organic Chemistry**

Tuesdays, Thursdays, and Saturdays, at 12 (noon), throughout the session.

**HONOURS COURSES****H1. Inorganic Chemistry**

Tuesdays and Thursdays, at 9.30 a.m. throughout the session.

**H2. Physical Chemistry**

Mondays and Fridays, at 9.30 a.m. throughout the session.

### H3. Organic Chemistry

Wednesdays and Saturdays, at 9.30 p.m. throughout the session.

#### SPECIAL COURSES

Special Courses (S) of about 10 lectures will be given at times to be arranged.

The subjects to be dealt with during the session 1924-5 will include say,

- (1) History of Chemistry.
- (2) Electro-Chemistry.
- (3) Spectroscopy.
- (4) Chemistry of Food and Drugs.
- (5) Organic Chemistry.

### PRACTICAL CHEMISTRY

#### General Laboratory Courses

Laboratory Courses of instruction are provided in Inorganic, Organic and Physical Chemistry. Students must have received a thorough training in chemical manipulation and in analytical methods before proceeding to any special branch of practical work.

Each student will be furnished with a separate working bench, a set of re-agents, water and gas, and will be required to provide himself with a regulation set of apparatus on entry,<sup>1</sup> and also, if necessary, a few of the more costly re-agents, and any expensive materials which he may need for the purposes of original investigation. Apparatus of a special or expensive character may be obtained on loan, subject to such conditions as may be prescribed by the Professors.

#### Practical Course in Sanitary Chemistry

Tuesdays and Thursdays, from 2 to 5 p.m.,<sup>2</sup> during the second and third terms.

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<sup>1</sup> For the convenience of students a supply of apparatus is kept at the University, and may be purchased from the laboratory steward.

<sup>2</sup> These hours are subject to re-arrangement.

This course is arranged on the lines laid down by the General Medical Council and is designed to meet the requirements of the Medical Officers of Health.

It will include practical instruction or demonstrations in the sanitary examination of water, air and food, and on the properties of gases, and the laws of heat.

Special fee £8 8s.

## INSTITUTE OF CHEMISTRY

Students wishing to qualify for admission to the Institute of Chemistry should consult the Regulations obtainable from the Registrar, Institute of Chemistry, 30, Russell Square, London, W.C.1.

## ZOOLOGY

### LECTURE COURSES

#### Intro. Introductory Course

Lectures on Mondays and Fridays at 11 a.m. throughout the session. Practical work on Tuesdays from 2 to 4 p.m. and on Wednesdays from 10 to 12 (noon) throughout the session.

*Subjects:* General principles of animal organisation, physiology and reproduction. Elementary comparative anatomy. The outlines of embryology.

*Practical Work:* Amœba, a Flagellate, Monocystis, Hydra, Fasciola, Taenia, Earthworm, Cockroach, Culex, Amphioxus, Dogfish, Frog, Rabbit.

#### Intro. a. Course for First M.B. Examination

The Zoological part of the course for the First M.B. examination in Biology coincides with the Introductory course above.

Practical class on Tuesdays, 11 to 1, and Thursdays, 11 to 1.

#### F. Final Course (Principal)

Lectures on Tuesdays and Thursdays at 11 a.m. throughout the session, and at another hour to be arranged.

Groups A and B will be taken in alternate years, each occupying one session.

Laboratory work and tutorial class, seven hours per week. Students are also expected to take part in field excursions and to spend part of the Easter or Summer vacation at the Yorkshire Universities' Marine Laboratory at Robin Hood's Bay.

A. (1) MORPHOLOGY OF INVERTEBRATA. Two lectures a week.

Term i.—A selected Class examined in detail.

„ ii.—Systematic Survey of Invertebrata.

„ iii.—Arachnida and Insecta.

(2) BIONOMICS AND INVERTEBRATE EVOLUTION. One lecture a week.

Term i.—First Principles.

„ ii.—Primary Aquatic Life.

„ iii.—Terrestrial and Secondary Aquatic Life.

B. (3) MORPHOLOGY OF CHORDATA, with EMBRYOLOGY. Two lectures a week.

Term i.—Protochordata and a Vertebrate Class examined in detail.

„ ii.—Comparative Anatomy of Vertebrata.

„ iii.—General Embryology, Budding and Regeneration.

(4) BIONOMICS AND VERTEBRATE EVOLUTION. One lecture a week.

Term i.—Cytology and Genetics.

„ ii.—Osteology, Palæontology and Geographical Distribution.

„ iii.—Development of Evolutional Theory.

Final Course (Subsidiary)

Students offering Zoology as a subsidiary subject will take, according to the year, *either A or B.*



### H. Honours Courses

The hours for special Honours lectures will be arranged with students at the beginning of the session.

### S. SPECIAL COURSES

#### S. 1. Genetics and Parasitology

Two lectures weekly, with practical work.

This course is recognised as a subject for the First M.B. examination for candidates conditionally exempted from Physics, Zoology or Botany.

#### S. 2. General Biology (short course)

One lecture a week throughout the first term.

Recognised as a course for the Diploma in Education.

*Syllabus* :—The general principles of vital organisation, physiology, and reproduction. Gradations of structure : their relation to physiological advances and changed conditions. The individual and the species. The species and its environment. The factors of change. Natural selection and the regulation of evolution. Heredity and sex. The evolution of family and social life in animals. Play, courtship, and the development of æsthetics.

#### S. 3. General Biology (full course)

Lectures and demonstrations three hours weekly throughout the session.

The course is recognised as an Additional subject at Intermediate standard for the B.A. degree, and may be approved in special cases as an alternative Introductory subject for the B.Sc. degree except in the case of students who propose to proceed to higher courses in Zoology, Physiology, Human and Comparative Anatomy, Agriculture or Geology scheme A (Palæontology), for whom the normal Introductory course in Zoology is alone permissible.

*Syllabus* :—As for the short course in the same subject, but treated more fully and with a wider range of examples

## ZOOLOGICAL LABORATORY

The Zoological laboratory will be open daily from 9.30 a.m. to 5 p.m. (Saturdays, from 9.30 a.m. to 12.30 p.m.).

Each student is required to provide himself with a pocket lens, a set of *dissecting instruments* (a suitable case is made by Reynolds & Branson, Ltd., Leeds, and sold at 13s. 6d.), and a *biological drawing book* (to be obtained in the laboratory).

*Microscopes* may be had on loan from the University at the rate of 15s. each per session for elementary work, and £1 1s. each per session for advanced work.

First M.B. students can obtain the loan of Microscopes for their courses in both Zoology and Botany at the rate of 15s. each per session; other students taking both Zoology and Botany may pay a composite fee of £1 2s. 6d. per session for elementary work or £1 10s. per session for advanced work.

These fees must be paid in advance to the Accountant immediately after the student has arranged with the Laboratory Steward for the loan of a Microscope.

## BOTANY

### LECTURE COURSES

#### Intro. Introductory Course.

On Tuesdays and Thursdays from 9 to 10 a.m. and from 11 a.m. to 1 p.m. throughout the session.

This course includes the study of the life history of the flowering plant with especial reference to the relation of form and structure to function.

Experimental study of the simpler problems in plant metabolism, transpiration, &c.

Study of the life cycle in types illustrating Gymnosperms, Ferns, Mosses, Liverworts, Algæ and Fungi, accompanied by microscopic investigation of the morphology and internal structure of these types.

The principles of classification and systematic botany will be briefly considered in the case of the flowering plants, and students will obtain practical experience in the use of a flora.

Each student is required to provide himself with a microscope, a pocket lens, a biological drawing book, two razors, a strop, a scalpel and a pair of forceps.

#### **Intro. a. Course for First M.B. examination**

Tuesdays (2 to 5 p.m.) and Wednesdays (10 a.m. to 12 noon) during the second and third terms only.

This course includes the study of the life history of the flowering plant with especial reference to the relation of form and structure to function.

Experimental study of the simpler problems in plant metabolism, involving an elementary study of tissue respiration, photo-synthesis, translocation of food substances, &c.

The study of the life history of some Algæ and Fungi in especial relation to the phenomena of saprophytism and parasitism in contrast to the normal metabolism of the green plant.

Experimental methods for investigation of relations between micro-organisms such as yeast and the medium in which it grows. Study of fermentation processes with methods of pure cultures.

#### **FI. Final Course : Botany**

Lectures on Mondays, Wednesdays and Fridays at 10 a.m. throughout the session. Courses A and B will be taken in alternate years, each occupying one session. Either of these courses, in a somewhat modified form, will rank as a subsidiary course for the degree.

The details of the course, for students taking Botany as a subsidiary course, will be arranged in consultation with the Professor.

- A. Comparative morphology: Algæ, Fungi and Bryophyta.  
Physiology of growth and irritability. The protoplasmic membrane, phenomena of surface tension and permeability.
- B. Comparative morphology: Pteridophyta, Gymnosperms and Angiosperms.  
Ecology.  
Physiology of metabolism.  
Cytology, Evolution and Heredity.

A course of laboratory work on one of the above courses will be provided each session.

The two years' course will prepare for the Final B.Sc. examination.

#### H. Honours Course

Special additional courses of Lectures will be given for Honours students at 11 a.m. on Mondays, Wednesdays and Fridays throughout the Session. They will include advanced lectures in morphology and physiology in the form of short courses on special topics.

Laboratory courses will be arranged in consultation with the Professor.

#### SPECIAL CLASSES

##### SI. Nature Knowledge (Plant Life)

This class will meet on Saturdays throughout the session, at hours to be arranged, beginning September 20th. The course embraces such botanical topics as can be readily adapted to school work. No formal lectures will be given. The method of treatment followed, will be, as nearly as possible, that which could be put into practice in classes of children. Numerous experiments will be performed, but without *special* apparatus, and the natural objects studied will be confined to those which can be gathered with little trouble by the teacher or the children.

Fee for course, £4.

**S2. Experimental Plant Physiology**

This class is in part the same as S1. It is intended for teachers of Horticulture, and is held in connection with a two years' course in Horticulture.

Fee £3 3s.

**BOTANICAL LABORATORY**

The Botanical laboratory will be open daily from 10 a.m. to 5 p.m. except on Saturdays.

Microscopes may be had on loan from the University at the rate of 15s. each per session for elementary work, and £1 1s. each per session for advanced work.

First M.B. students can obtain the loan of Microscopes for their courses in both Zoology and Botany at the rate of 15s. each per session; other students taking both Zoology and Botany may pay a composite fee of £1 2s. 6d. per session for elementary work or £1 10s. per session for advanced work.

These fees must be paid in advance to the Accountant immediately after the student has arranged with the Laboratory Steward for the loan of a Microscope.

**PHYSIOLOGY**

For courses in this department, see Medical Prospectus.

**GEOGRAPHY**

Students intending to offer Geography as a Principal subject must pass in Geology at the Introductory Stage.

**LECTURE COURSES****Intro. Introductory Course**

Tuesdays and Fridays 9 to 10 a.m.

F1. Courses A, B (1) or (2), and C and Laboratory.

F2. Courses D and B (2) or (1), or E and Laboratory.

A—Regional Geography of British Isles (one lecture per week).



B.—Physical Geography. Climate and Geomorphology (each one lecture per week).

C—Principles of Human Geography (one lecture per week).

D—Regional Geography—North America and one other region—in 1924-5. (each one lecture per week).

#### E. Surveying and Cartography

Principles of triangulation. The major and minor triangulations of Britain. Methods of fixing points, and of filling in topographic detail. The chief instruments employed and their uses.

Chain survey, plane-table survey, traversing.

The map representation of the facts surveyed. Scales. Symbols. Representation of relief by contours, hachures, and hill-shading.

A study of the more important series of topographic maps, *e.g.*, the British Ordnance Survey maps, the U.S. topographic maps, the Carte topographique de France, etc., etc., the International 1/M map of the world, Admiralty charts.

#### *Map Projections*

The principles, methods of construction and calculation of the errors of the projections ordinarily used in atlases, *e.g.*, Mercator, Mollweide, Sinusoidal, the Conic and its modification, Lambert's, etc.

## GEOLOGY

### LECTURE COURSES

#### Intro. Introductory Course

Lectures on Mondays, Wednesdays and Fridays at 11 a.m. throughout the session.

*Subjects* : Cosmogonies ; The Earth's position in the Universe ; the form, size, density and movements of

the earth; the elements of mineralogy; igneous, sedimentary and metamorphic rocks; processes of denudation and deposition; oceanography; movements of earth's crust and their effect upon topography; volcanoes; earthquakes—their cause and effects; Historical Geology; the interpretation of fossil fauna and flora; the building of the British Isles.

*Practical Work:* Three hours per week throughout the Session.

*Subjects:* Examination of hand specimens of common rock forming minerals, ores and other minerals of economic importance; rocks and fossils; interpretation of geological maps, elementary crystallography.

*Field Work:* Three excursions to important districts in Yorkshire will be made during the session.

#### FINAL COURSES

##### **F1. Final Course in Geology**

Mondays, Wednesdays and Fridays at 2 p.m. throughout the session; for students taking Geology as a subsidiary subject and for students taking Geology as a principal subject in the first year of their Final Course.

*Subjects:* The earth viewed as a whole; the deep interior of the earth; volcanic activity ancient and modern; deformations of the earth's crust; orogenic and epeirogenic movements; isostasy; permanence of continents and ocean basins—past and present theories; detailed study of sedimentation as exhibited at the present day; glacial geology; the last ice age in Britain; the principles and elements of stratigraphical Geology and Palaeontology.

##### **F2. Advanced Geology**

Three lectures a week throughout the session at hours to be arranged, for students taking Geology as a principal subject in the second year of their Final course.

*Subjects* : The Stratigraphical Geology of the British Isles in detail ; foreign deposits which assist in the interpretation of this area.

### F3. Final Courses in Palaeontology

F. 3*a*.—One lecture a week throughout the session for all students taking Geology as a principal subject in the first year of their Final course.

*Subjects* : The general outlines of Palaeontology ; Morphology of Selected groups of Invertebrates ; Relation of Geology and Palaeontology ; the principal faunal assemblages.

F. 3*b*.—One lecture a week for all students presenting Palaeontology at Final and Honours (Scheme B) Standard.

*Subjects* : Taxonomic and Evolutionary study of the Invertebrates ; Zonal Palaeontology ; Faunal Provinces ; Vertebrate Palaeontology and Palaeobotany.

### F4. Final Courses in Petrology

F4*a*.—One lecture a week for all students taking Geology as a principal subject in the first year of their Final course.

*Subjects* : Rock-forming minerals and their optical properties. Classification of Igneous and Sedimentary Rocks ; Metamorphic Rocks.

F4*b*.—One lecture a week for all students presenting Petrology at Final and Honours (Scheme A) standard.

*Subjects* : The Genesis of Igneous Rocks. Distribution of Igneous Rocks ; Petrographical Provinces. Detailed examination of Sedimentary Rocks.

## HONOURS COURSES

**H1. Honours Course in Geology**

Special additional courses of lectures will be given for students reading for Honours at times to be arranged.

**H2. Mineralogy**

A course of 30 lectures and demonstrations will be given for students reading for Honours Geology (Scheme A); for students of Mining Engineering and others.

Times to be arranged.

*Subjects:* Principles of Crystallography; Physical and Chemical Properties of Minerals. The Genesis of Ore deposits; Metasomatism and Secondary enrichment. Important mining districts of the World with special reference to the British Isles.

## SPECIAL CLASSES

**S1. Agricultural Geology**

A course of about 60 Lectures will be given during the first and second terms on Wednesdays at 10 a.m. and Fridays at 12 noon.

*Subjects:* The position of the earth in the Solar System and its movements; determination of temperature Zones; Seasons. Igneous, Sedimentary and Metamorphic Rocks. Processes of denudation and soil formation; deposition of sediments; warp; forms of stratification; simple earth movements. Stratigraphical Geology with special reference to Yorkshire; drift deposits; Yorkshire soils. Elementary considerations of water supply, road and building stones, etc.

*Practical Work:* Thursdays from 2 to 5 p.m. Examination of common minerals and rocks. Interpretation and use of Geological Maps (solid and drift).

*Field Geology:* One or more excursions will be arranged in the second term.

**S2. Geology applied to Coal Mining**

Tuesdays at 4 p.m. during the second and third terms.

*Subjects:* Common rock forming minerals; their chemical composition and physical properties. Classification of Rocks. Denudation, transport and accumulation of rocks. Movements of the earth's crust; types of folding and faulting. General outline of Historical Geology. Detailed description of the Carboniferous system with special reference to Yorkshire coalfield; search for coal under the newer rocks; the drift deposits; how they affect the discovery and working of coal.

The Lecture will be followed by Practical work in the Laboratory from 5.30 p.m. to 7 p.m.

**Field Course**

For all students other than those taking Introductory Geology.

A course of practical instruction in the field will be given on alternate Saturdays during the session. Visits will be made to districts within reach of Leeds to study the geological features and also to map certain areas.

During the Easter Vacation one week will be devoted to the study of some special area not accessible in the ordinary course.



# THE HISTORY OF THE

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## CHAPTER I

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## DEPARTMENT OF ECONOMICS AND COMMERCE

The Department of Economics and Commerce offers opportunities for the study of industrial, commercial and social questions. Students who have specially entered in this department may qualify for the Ordinary or Honours Degree of Bachelor of Commerce after three years training. In addition to this special training, lectures are given within the Faculty of Arts itself, and students may proceed to a Degree in Arts after taking classes in social and economic subjects. The Honours course in Economics and Political Science offers a broad training to those who desire to take an Honours degree in Arts, while giving special attention to the study of social and industrial questions.

The department has thus been created to meet more than one need. In the first place, business education is still far less organised in England than in some other countries. Academic instruction cannot take the place of the numerous details on which success in business depends, but, on wider matters of policy, knowledge of detail cannot take the place of some training in industrial causation and tendencies.

In the second place, there is an increasing demand for knowledge on social affairs. Public and private enquiry have made available a great mass of ascertained facts regarding many aspects of the problem of work and wages in relation to social welfare. The Universities are the natural channel for the communication of this knowledge, which is otherwise apt to be shelved and neglected.

Finally, there is the need in every industrial centre for research and investigation into local industries and affairs. This requires trained faculties, a knowledge of the right questions to ask, and of how to use figures.

## The Degree in Commerce

Appended are the Ordinances and Regulations for the degree in Commerce and the syllabus of the subjects comprising the commercial group in that degree. The following explanatory remarks may prove useful to the intending student.

There are obvious differences between a Commerce degree and a degree in Law, Medicine or Applied Science. In each of the latter the chief subjects are intimately connected with or essential preliminaries to professional practice. There are no subjects which have a similar bearing upon the whole field of commerce; nor is there any comparable clinical material upon which the student can work. Again, Commerce, in the sense in which it is employed for the purpose of this degree, does not merely mean buying and selling, but covers a wide range of organising and administrative functions, both in public departments and in private industry and commerce. The appropriate training for the many forms of economic activity for which a commerce degree has been established can only be provided, therefore, by offering a wide choice of subjects. Nevertheless, there is a group of subjects which should be studied by all who seek a career in the world of business and in some branches of public administration; and this group provides the nearest approach which seems possible towards the technical subjects in the other degrees to which reference has been made.

The degree course is thus made up of two parts.

The first part, which must be taken by all students, comprises Economics, Commercial Law, Accountancy and *either* Mathematics and Statistics *or* Geography.

The course in Economics extends over three years. In the first year it will consist of general economic principles; in the second it will include the organisation of industry, commerce and finance. In the third year the student will be required, among other things, to make a detailed study of a special problem to which further reference is made below. The prescribed course in Commercial Law is taken

during the first two years, and a course in Accountancy (including systems of costing and business administration) in the third year.

During the first two years, the student must have taken a prescribed course *either* (a) in Mathematics (first year) and Statistics (second year), *or* (b) in Geography.

The second part contains a large number of options which may be illustrated by a few typical cases. Students who aim at becoming textile manufacturers or woollen merchants for the wholesale trade will doubtless desire to devote part of their time to the study of textile manufacture, though not so much as is given to it by bleachers or dyers, whose training is mainly highly technical. In that event they will attend the intermediate course in physics, and, in the first part, will choose Mathematics and Statistics, the study of the latter being important for the textile industry, the former being an essential introduction to statistics and allied to physics. The special economic subject to be studied in the third year would be the Economics of the Textile Industries. The full course would thus be constituted as follows :—

*First year* : Economics ; Commercial Law ; Mathematics ; Physics.

*Second year* : Economics ; Commercial Law ; Statistics ; Textile Manufacture.

*Third year* : Economics ; Accountancy ; Textile Manufacture.

The substitution of Engineering for Textile Manufacture, and the Economics of the Steel and Engineering Industries for the Economics of the Textile Industries would provide the appropriate degree course for the commercial and administrative branches of engineering.

As a further illustration may be considered the case of a student who intends to go abroad as foreign agent. He would naturally take Geography in the first part of the scheme and, in the second part, two languages, one studied for three years, the other for the first two years. The special economic subject to be studied in

the third year would be the organisation of foreign trade and the banking systems of selected countries. The full course might be constituted as follows:—

*First year*: Economics; Commercial Law; Geography; French; Spanish.

*Second year*: Economics; Commercial Law; Economic Geography; French; Spanish.

*Third year*: Economics; Accountancy; French (or Spanish).

It will thus be seen that the degree in Commerce approaches closely to a degree in Arts on one flank, and, on the other, to a degree in Applied Science. Many combinations are possible, all of which, however, include Economics, Commercial Law and Accountancy.

### **Degree of Bachelor of Commerce**

- Ordinance
1. The degree in Commerce shall be that of—  
Bachelor of Commerce (B.Com.)
  2. The degree of Bachelor of Commerce shall be conferred as an Ordinary degree or as a degree with Honours.
  3. All candidates for the degree of Bachelor of Commerce shall be required to have passed the Matriculation examination, and thereafter to have pursued approved courses of study for not less than three academic years.

#### **Ordinary Degree of Bachelor of Commerce**

4. The complete course of study for the Ordinary degree of Bachelor of Commerce shall be divided into two parts, called respectively the Intermediate course and the Final course.
5. Every candidate shall be required to pass two examinations, the Intermediate and the Final.
6. The Intermediate and Final examinations shall ordinarily be held in June. There shall also be a supplementary Intermediate examination in September, at which those candidates only may present themselves who have obtained the permission of the Senate.



7. Candidates who have failed at an Intermediate examination in June, and have obtained permission to present themselves at the following supplementary examination may be excused such part of the supplementary examination as the combined examination Committee, on report from the Examination Committee of the degree of Bachelor of Commerce, may determine.

8. All students shall be required, before presenting themselves for the Intermediate or Final examination, to furnish certificates testifying that they have regularly attended the prescribed courses of study, and performed the class exercises to the satisfaction of the Professor or Lecturers, in each of the subjects which they offer at the examination.

#### **Intermediate Course and Examination**

Every candidate shall be required, after passing the Matriculation examination, to attend, during not less than one academic year, approved courses of instruction and to pass an examination in each of the following subjects:—

- i. Economics.
- ii. Commercial Law.
- iii. One of the following groups (a) and (b):—
  - (a) (i.) Mathematics, and (ii.) Physics or Geology or Chemistry.
  - (b) (i.) Mathematics or Geography, and (ii.) *Two* of the following:—French, German, Spanish, Russian, English Literature, Modern History, Logic, Geography (if not selected under (i.)), Mathematics (if not selected under (i.)).

The examination in each modern foreign language shall include an oral examination.

#### **Final Course and Examination**

Every candidate shall be required to attend approved courses of instruction, and to pass an examination in

each of the following subjects, studied either for two years as principal subjects or for one year as subsidiary subjects as hereinafter prescribed, viz. :—

- i. Economics : principal subject.
- ii. Commercial Law : subsidiary subject.
- iii. Accountancy : subsidiary subject.
- iv. Either Statistics or Economic Geography : subsidiary subject.
- v. *One* of the following :—
  - (a) Engineering (principal subject).
  - (b)<sup>1</sup> Textiles (principal subject).
  - (c) Mining (principal subject).
  - (d) Agriculture (principal subject).
  - (e) Printing\* (principal subject).
  - (f) One principal *and* one subsidiary subject from the following lists :—

*Principal subjects* : French, German, Spanish, Russian, English, History, Philosophy, Law (including Constitutional and International).

*Subsidiary subjects* : French, German, Spanish, Russian, English, History, Philosophy, International Law, Constitutional Law, Mathematics,† Geography.

Provided that no candidate shall be admitted to the Final courses (a) in Statistics unless he has taken Mathematics for Applied Science students in the Intermediate course ; (b) in Engineering or Textile manufacture unless he has taken Mathematics for Applied Science Students and Physics in the Intermediate course ; (c) in Mining, unless he has taken Mathematics for Applied Science students and Geology in the Intermediate course ; (d) in Agriculture, unless he has taken Chemistry in the Intermediate course.

<sup>1</sup> If this subject is selected, Textiles Introductory must be taken in the first year.

\* A special prospectus relating to the degree in Commerce for Printing students may be obtained on application to the Registrar.

† i.e., Mathematical classes F3 and F4.

Provided further that no candidate shall be admitted to the final course in Printing in the third year unless he has (a) taken Mathematics and Physics in the Intermediate course and Statistics as a subsidiary subject ; (b) attended a prescribed course in Engineering during the second year and prescribed courses in Printing during the first two years.

The examination in each modern foreign language shall include an oral examination.

An English essay shall also form part of the examination.

Candidates who have taken the course of study in a subsidiary subject in the first year of the Final course may present themselves at the end of that year for examination in such subject. The same subject may not be taken as a principal and subsidiary subject. The course in Accountancy may not be taken before the third year.

N.B.—These regulations do not entitle a candidate to the right of presenting himself for examination in a subject in which the University may, for the time being, be unable to provide instruction. Regulations

## **Degree of Bachelor of Commerce with Honours**

1. Candidates for the degree of Bachelor of Commerce with Honours shall, except as hereinafter stated, be required to furnish certificates of having attended courses of instruction approved by the University and extending over not less than three academic years in the Honours School hereinafter specified. Ordinance

2. The Honours School referred to in this Ordinance shall be, unless otherwise stated, the Honours School of Economics as defined by the Regulations for the Degree of Bachelor of Commerce with Honours.

3. Every candidate for the degree of Bachelor of Commerce with Honours shall be required to present himself for examination at the end of the third or fourth academic year from the time when he has entered upon

one of the courses of instruction approved by the University for such degree unless he shall present a medical certificate of illness satisfactory to the Senate. This examination shall ordinarily be held in June of each year.

4. Candidates for the degree of Bachelor of Commerce with Honours may present themselves for examination in the Honours School on furnishing certificates of having pursued, to the satisfaction of the Senate, the courses required for such Honours School.

5. Candidates who have passed the Final examination for an ordinary degree of Bachelor of Commerce may, with the sanction of the Senate, and on furnishing certificates of having attended, during the academic year following such Final examination for the ordinary degree, the third year's, or during the two academic years following such Final examination, the second and third years' course approved by the University for the Honours School, present themselves for the degree of Bachelor of Commerce with Honours.

6. No candidate for a degree of Bachelor of Commerce with Honours shall be admitted more than once to examination in the Honours School.

7. Students who have passed the Final examination for the degree of Bachelor of Science with Honours, or the degree of Bachelor of Arts with Honours in any other School than that of Economic and Political Science, may be admitted to the Final examination for the degree of Bachelor of Commerce with Honours after the expiration of one or two years, on presenting certificates of having attended, during the period in question, courses approved by the University.

Provided that candidates shall not present themselves for the Final examination in the Honours School more than two academic years after the Final examination in Honours already passed by them, and also that no candidate shall be admitted to examination in the Honours School after a longer period than five years has elapsed since the date of his first entrance upon a prescribed course of study for an Honours School.



8. Names of candidates who have passed the examination for the degree of Bachelor of Commerce with Honours shall be published in three classes, each class being arranged in alphabetical order.

9. Candidates who have not acquitted themselves so as to deserve Honours may be excused the whole or such part of the examination for the Ordinary degree as the Combined Examination Committee may determine.

#### **Honours Course and Examination**

Candidates for the degree of Bachelor of Commerce with Honours in Economics shall be required to pursue courses of study, and to submit themselves to examination, as follows : Regulations

The course of study for the first academic year shall include the following subjects : (1) Economics, (2) Mathematics, (3) Modern History, (4) French or German or Spanish or Russian, and (5) one of the following :—Logic, English, Geography, Constitutional Law, International Law, Modern Language (if not already taken), Physics, Chemistry or Geology. An examination will be held in these subjects at the end of the first year, and must be passed before proceeding to further study.

(Candidates who have passed the above Intermediate examination, but are unable to continue their Honours course, may apply to the Senate for permission to proceed to the Final course and examination for the Ordinary degree of B.Com.)

Some modification of the First Year course and examination may be made, subject to the approval of the Board of the Faculty of Arts, in the case of students who have obtained a Higher School Certificate.

Attendance on the full course for the Intermediate Examination for the Ordinary degree of B.Com., or (if Mathematics has been taken as one of the subjects) B.A., may also be accepted by the Senate as the required attendance for the first year of the Honours Course.



During the second and third years candidates shall be required to attend approved courses in the subjects of the School of not less than five hours per week in each year.

They shall also be required to attend, during the second and third years, approved courses of lectures on other subjects amounting to not less than two hours a week in each year.

#### *Examination*

Essay, one paper.

Economics (including Industrial and Commercial Organisation), three papers.

Economic History, one paper.

Geography or Statistics, one paper.

Commercial Law, one paper.

A special economic subject, one paper.

In addition candidates shall be required to present a dissertation on some subject approved by the Board of the Faculty of Arts.

Candidates shall also be required to show in the examination some knowledge of at least one foreign language.

### **Diploma in Commerce**

In addition to the Degree of Bachelor of Commerce the University offers a post-graduate Diploma in Commerce, the course of study for which extends over one year. Further particulars of the course may be obtained on application to the Registrar.

The following ordinances indicate the position occupied by Economics in the degree of B.A.

#### **Ordinary Degree of B.A.**

Ordinance The Ordinary degree of B.A. can be taken with Economics as a Principal Subject at the Final Standard.

#### **Honours Degree of B.A.**

Candidates for the degree of Bachelor of Arts with Honours in Economics and Political Science shall be required to pursue courses of study, and to submit themselves to examination, as follows:—

The course of study for the first academic year shall include the following subjects of the Intermediate

course for the Ordinary degree of B.A., (1) Latin or Greek ; (2) French or German ; (3) Modern History ; (4) Economics ; (5) Geography or English Literature, or Mathematics, or, if not taken under (2) French or German. An examination will be held in these subjects at the end of the first year, and must be passed before proceeding to further study.

(Candidates who have passed the above Intermediate examination, but are unable to continue their Honours course, may apply to the Senate for permission to proceed to the Final Course and examination for the Ordinary degree of B.A.)

Some modification of the First Year Course and Examination may be made, subject to the approval of the Board of the Faculty of Arts, in the case of students who have obtained a Higher School Certificate.

Attendance on the full course for the Intermediate examination for the degree of B.A. may also be accepted by the Senate as the required attendance for the first year of the Honours course.

During the second and third years candidates shall be required to attend approved courses in the subjects of the school of not less than five hours a week in each year.

They shall also be required to attend, during the second and third years, approved courses of lectures on other subjects, the number of lectures amounting to not less than two hours a week in each year.

#### *Examination*

Essay, one paper.

Principles of Economics, two papers.

History of Economic Theory, one paper.

Economic History, one paper.

Political Theory, one paper.

Constitutional Law, one paper.

A special Economic subject, one paper.

In addition, candidates shall be required to present a dissertation on a subject approved by the Board of the Faculty of Arts.

### **Courses of Study**

The following syllabus explains more in detail the nature of the various courses.

#### **Economics**

##### **INTERMEDIATE COURSE**

###### **Int. General Economics**

The evolution of modern economic conditions. Modern industrial, commercial and social organisation. The national income. Value and distribution.

Tuesday and Thursday at 10 a.m.

##### **FINAL COURSES**

###### **F1. Financial and Commercial Organisation**

Business Organisation and management; Large and small businesses; joint stock enterprise; the trust movement. Land and Water Transport. Insurance. Currency and banking, the money market, stock exchange and foreign exchanges. The organisation of foreign trade.

Two hours a week at times to be arranged.

###### **F2. Public Finance and Administration**

Public expenditure and revenue. Rates, taxes and public debts. The Budget. Relations of central and local administration. Local Rates. Grants in Aid. Municipal finance and administration. National and Municipal Industries.

Two hours a week at times to be arranged.

###### **F3. Social Science and Administration**

The influence of industrial conditions on social life; the problems of poverty, housing, sweating and unemployment. Some social aspects of industry. Employment of women and children. Schemes of industrial betterment. Industrial and social legislation.

Two hours a week at times to be arranged.

###### **F4. Economic History**

Two hours a week at times to be arranged.

**F5. Labour Organisation**

Methods of remuneration ; trade union organisation ; conciliation and arbitration ; joint industrial councils, works committees, etc. Industrial fatigue. Trades Boards. Factory legislation.

One hour a week at a time to be arranged.

**F6. Economic Theory**

One hour per week at a time to be arranged.

When required the following special courses will be provided :—

- S1. The organisation of Foreign Trade.
- S2. Business Finance.
- S3. The Banking systems of selected countries.
- S4. Insurance.
- S5. The organisation of Stock and produce markets.
- S6. Public Administration.
- S7. Municipal Finance and Administration.
- S8. The economics of any one or more of the following industries : Agriculture ; mining ; iron and steel ; engineering ; textiles ; printing ; transport by land and sea.

**HONOURS AND M.A. COURSES**

- H1. Advanced Economic Theory
- H2. History of Economic Thought
- H3. Economic History : Special Period
- H4. Industrial and Financial Organisation

Classes in the above subjects will be held at times to be arranged.

**H5. Political Theory**

The nature and duties of the State and the basis of Citizenship.

Two hours a week at times to be arranged.

**H6. Constitutional Law**

Two hours a week at times to be arranged.

**Accountancy (Third Year)**

[NOTE.—A knowledge of Book-keeping will be assumed in this course].

Financial Accounts: Cost Accounts: Business Administration.

Times to be arranged.

**Mathematics (Intermediate Course)**

(a) The Introductory course in Mathematics, 2 hours per week.

(b) Algebra and Calculus preparatory to the study of Statistics, 1 hour per week.

**Statistics (Final Course)**

Theory of Statistics.

**Statistics (for Honours B.Com.)**

More advanced treatment of Statistical Theory.

**Geography**

Intermediate: Principles of Geography.

Final: Economic Geography.

**Commercial Law**

First year: 1 hour per week at a time to be arranged.

Second year: 1 hour per week at a time to be arranged.

For Honours B.Com. students, more advanced treatment of the above.

## **DIPLOMA IN SOCIAL ORGANISATION AND PUBLIC SERVICE**

The courses of study for the Diploma in Social Organisation are designed to provide specialised training for students who are preparing to engage in social work, either voluntarily or in salaried positions.

As administrative social work becomes more standardised there is a marked tendency to demand of candidates for salaried posts a sound knowledge of economic and social conditions. Government departments, Municipal Authorities, progressive employers and others now realise that the well-trained administrator should see the interests and problems of life as a whole,



and not in isolated sections. This may be observed, for example, in the Public Health Services and in the selection of Welfare Workers, Probation Officers, Relieving Officers, Juvenile Advisory Committee Officers, and the paid officials of social agencies.

The growth of the teaching of Civics or Citizenship also demands of the teachers some knowledge of social history, industrial conditions and the machinery of central and local government.

Efficient voluntary social work depends increasingly upon the accuracy with which members of voluntary bodies can conduct investigations, interpret evidence and statistics, and devise remedies appropriate to the problems presented. Councils of Social Service, Guilds of Help, Friendly Societies, Trade Unions, Co-operative Societies and the numerous clubs and religious and educational agencies, offer a very wide field to the trained social student.

#### **Admission to the Course**

Candidates for the Diploma should have passed the matriculation examination of the Joint Matriculation Board, or some equivalent examination. Non-matriculated candidates will be required to present evidence that their experience and education have been such as to enable them to profit by the course.

#### **Courses of Study**

The full course for the Diploma extends over two years, and consists of lectures in the University together with practical work under the direction of the Tutor in Practical Work.

##### *First Year Lectures :*

ECONOMICS	.. ..	Two hours a week
INDUSTRIAL AND SOCIAL		
HISTORY	.. ..	One hour a week.
SOCIAL PSYCHOLOGY	.. ..	One hour a week.
LOCAL GOVERNMENT	.. ..	One hour a week.
PUBLIC HEALTH AND		
HYGIENE	.. ..	One hour a week.

*Second Year Lectures :*

SOCIAL SCIENCE AND ADMINISTRATION (including Industrial Legislation)	Two hours a week.
SOCIAL ETHICS .. ..	One hour a week.
SOCIAL STATISTICS ..	One hour a week.
OPTIONAL SUBJECTS* ..	Two hours a week.

**Practical Work**

In each year of the course the equivalent of two full days a week will be devoted to practical social work under the direction of the Tutor in Practical Work.

**Examinations**

An examination will be held at the end of each year of the course. The Diploma will be awarded to students who have passed both first and second year examinations and have presented a satisfactory thesis on their practical work.

The course will begin in October in each year.

**Separate Classes**

Students who are unable to devote two years to the full Diploma course will be admitted by special arrangement to such of the classes as may suit their requirements on payment of the fees for the separate classes in addition to the Library fee.

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\* The majority of candidates will probably take a special course on Labour Organisation, but other subjects may be taken if they are more suitable for the particular career the candidate has in view.

## THE DEPARTMENT OF LAW

### Introduction

This department is concerned with men who are about to become or are already in the process of becoming practical lawyers, and it seeks to make its contribution to their training for this purpose.

There are two methods of approach to the study of law. There is the purely theoretical, which is suited to the needs of some. If we read the life of a writer on politics such as Sidgwick, we find that at one period he is immersed in books upon law. He wishes to see in what way Justice manifests itself in legal rules which are to be binding upon citizens. He would never, however, have undertaken to advise a man who was knocked down by a motor car, or who wished to invest trust funds upon mortgage. As distinct from this theoretical study there is the handicraft ideal, where the aim is to turn out men who can do things in their own sphere of work ; who not only know principles but can apply them. The Department of Law seeks to supplement the office training of the lawyer in such a way that the instruction received under articles, and the instruction received at the University combine towards one end—a sound legal training, which shall equip a man worthily for a responsible profession. In what various ways the University can assist remains to some extent to be discovered in the future, but undoubtedly the first question to be faced is the relation of the University degree courses to the professional examinations required from a man seeking to qualify as a solicitor or as a barrister. We may illustrate the point by taking the Intermediate Examination and the Final Examination of the Law Society. No one would deny that these professional examinations demand a great and concentrated effort from a student. Two questions arise therefore :—

- I. Should anything be demanded from a student who wishes to take a law degree which is not demanded by these professional examinations.

2. If so, is it reasonable to ask a man to take a degree as well as his professional examinations.

The Department of Law has answered both these questions in the affirmative. Up to the present year every student for a law degree has had to take an additional Arts subject for his intermediate examination. This is now abolished, but two branches of law are required for the Intermediate LL.B. which are not required by the Law Society in their intermediate examination. These are Roman Law, and Constitutional Law. No one can deny that an all-round lawyer should acquaint himself with these subjects. The department aims at presenting to the student a living idea of Roman institutions and legal ideas rather than a mass of antiquarian knowledge, for which a considerable facility in Latin would be essential.

The main effort in the Intermediate LL.B. however, is to ground students in the elements of English Law in such a way that when they take up their Final courses they may have broken the ground, and may be able to make progress straightway with the more advanced studies necessary for a knowledge of English Law. The work done for the Intermediate LL.B. in this respect, together with supplementary instruction, amply covers what is necessary for a student who is entering for the intermediate examination of the Law Society.

With regard to the Final LL.B. Examination, Jurisprudence is retained. When the student has gained a substantial acquaintance with English Law, it is illuminating and useful to touch upon the Science of Law, in its larger aspect, dealing with questions which have arisen in the course of practical experience and previous study, *e.g.* the distinction between property and possession, between negligence and intention, and so forth. So far from being an additional burden to the mind, it is generally found that the study of Jurisprudence affords pleasure and understanding in returning to the immediate technicalities of the Law of which it seeks to give a scientific exposition. Jurisprudence apart, the subjects studied for the Final LL.B. must in



general correspond with those required for the Final Examination of the Law Society.

The Law Department undertakes that a student who has followed its courses for the LL.B. degree, will have covered thoroughly all that is required for the Professional Examinations, both Intermediate and Final, with the exception of such subjects as P., D. and A., and Ecclesiastical Law, provision for which is made by the Department in the year which normally intervenes between the LL.B. examination and that for the Law Society Final, together with attendance at revision classes to deal with any important cases which have arisen in this intervening year.

### **The Machinery of the Law Department**

The aim is to take the student by steady stages through his courses. For this purpose we ask students to come to us for two afternoons a week during term time over a period of three years, with an extra hour at some stage of the Final course, for two, or possibly three, terms. We recognise that the work done in the office is as essential a part of legal education as work done in the University. By the use of duplicated summaries of lectures distributed to students when a class assembles, the time available will be spent in explanation of difficulties and guidance in reading rather than in monotonous dictation of lectures.

### **The Arrangement of Courses**

As new needs develop the Department hopes to meet them. At present the courses are organised with a view more particularly to the LL.B. degree and the Examinations of the Law Society. They are as follows:—

#### **Intermediate Courses**

1. *Roman Law* :

One hour per week, for three terms.

2. *Elements of English Law* :

Two hours per week, for three terms.

3. *Constitutional Law* :

One hour per week, for three terms.



### Final Courses

The following four courses, covering the whole of the English Law necessary for the LL.B. degree and also, with the exception of such subjects as P., D. and A. for the Law Society Final have been arranged. Each course extends over two years. They will be of one hour per week each.

1. *Common Law, i.e. Contract, Tort, Sale of Goods, Negotiable Instruments, Carriers, &c.*
2. *Criminal Law, Evidence, and Procedure*: together with Bankruptcy.
3. *Property and Conveyancing.*
4. *Equity, including Partnership and Company Law.*

Further courses will be arranged if there is demand for them. *Students for the bar* and for other examinations in Law are invited to state their requirements to the Head of the Department.

The hours and fees for the above courses are arranged as indicated below, the Final and Intermediate Courses being grouped together in order to save unnecessary journeys by students.

Students wishing to take Honours in the LL.B. and the Final Examination of the Law Society, are invited to consult the Head of the Department as to the possibilities provided by the regulations for them to specialise in the LL.B. courses upon lines likely to be useful in their future practice.

### Courses in Commercial Law

The Law Department conducts courses in Commercial Law for students engaged upon the Degree of Bachelor of Commerce. Men in practical occupations to whom these courses would be of service are invited to communicate with the Head of the Department with a view to attendance.

### Conclusion

In conclusion, the position for a man who is about to enter the legal profession may be summarised as follows: If he decides to read Law with a view to its practical

application, rather than be content with a quick cram before his examination, the University can be of service to him. The day for opposing theory to practice is over. Much nonsense has been talked by advocates of the one side or the other, who have failed to recognise that it is good for a man to know the principles he is applying in practice, and to practice the principles in the office while he is in the process of knowing them.

The young lawyer must then decide whether he wishes to take a degree or not. Let us suppose he wishes to take a degree. He may follow either of the following courses :—

- (a) He may take his degree first, and so secure two years exemption from his articles. Many principals would favour this course, since a man comes to them knowing something of the law he is about to apply. It is largely a matter for personal choice.
- (b) He may enter articles without any exemption from the period of five years. In this case, he may cover practically the whole ground required for his Professional Examination at the end of three years. If he wishes he can work for a good Honours degree and take it at the end of the fourth year. This would leave an interval of one year before the Final Examination of the Law Society.
- (c) He may enter articles with an exemption of one year due to having been placed in the first class of the Matriculation Examination, in which he took Latin as a subject. In this case he may take a degree at the end of the third year, leaving one year's interval before the Law Society Final.
- (d) He may enter articles and omit the Law Society Intermediate. If he reads for his degree, the LL.B. will exempt him from the legal part of the Law Society Intermediate, so that he will only have the Book-keeping and the Final Examination to be dealt with.

If it is decided not to take a degree, then the Law student can attend those courses which deal with the subjects required for the Professional Examinations, omitting others which are necessary to the degree student.

The aim of the Department is a progressive acquisition of legal knowledge, in close touch with its practical application. The courses are moulded for the student who wishes to grow into a firm acquaintance with the Law by steady effort, a process which experience has shown to be the only one which can give confidence in a searching examination, and in dealing with unexpected situations in practice.

A detailed statement of the Ordinances and Regulations for the degrees in Law conferred by the University, will be found on subsequent pages.

### **Syllabus of Lecture Courses**

In connection with the courses referred to above the following summary information may be useful.

### **Composition Fees**

Students pursuing the requisite course of study for a University Degree in Law or the Final Examination of the Law Society, will be charged a fee of £11 11s. per session of three terms. They will also pay the Union subscription of £2.

### **Railway Fares**

The Yorkshire Board of Legal Studies will pay half the 3rd Class Railway Fares of Articled Clerks coming from a distance to Leeds, to attend the Law Classes at the University. A pass should be taken or return fares paid as in each case is found to be most economical.

Applications for repayment of the amount expended should be sent in at the close of the session, addressed to the Treasurer, Herbert Denison, Esq., 10, East Parade, Leeds.

### **Degree of Bachelor of Laws**

The courses are arranged so as to give preparation for the Intermediate Examination in one session, and

for the Final Examination in two sessions. (The fees stated below only apply to students who are not preparing for the LL.B. Degree).

Intermediate Course

1. *Roman Law* : Mr. HAGGEN.  
One hour per week.  
Fee for the course, £3.  
Time : Tuesday at 3 p.m.
2. *Elements of English Law* : Mr. H. R. BURRILL.  
Two hours per week.  
Fee for the course, £6.  
Time : Tuesday and Thursday at 2 p.m.
3. *The Law and Custom of the English Constitution* :  
Mr. HAGGEN.  
One hour per week.  
Fee for the course, £3.  
Time : Thursday at 3 p.m.

Final Course

1. *Property and Conveyancing* : Professor HUGHES.  
One hour per week for two years.  
Fee for the course, £3 per session.  
Time : Friday at 2 p.m.
2. *Equity, including Partnership and Company Law* :  
Professor HUGHES.  
Hours and Fees as for Property and Conveyancing.  
Time : Friday at 3 p.m.
3. *Common Law, I.*, including Contract, Tort, Bills of Exchange, Sale of Goods, Carriage, and kindred branches of the Common Law : Mr. HAGGEN.  
Hours and Fees as for Property and Conveyancing.  
Time : Wednesday at 2 p.m.
4. *Common Law, II.*, Criminal Law, Evidence, Procedure, including Bankruptcy : Mr. HAGGEN.  
Hours and Fees as for Property and Conveyancing.  
Time : Wednesday at 3 p.m.

5. *Jurisprudence* : MR. HAGGEN.

One hour per week for one year.

Fee for the course, £3.

Time : To be arranged.

**Examinations of the Law Society****Intermediate Examination**

*The Elements of English Law* : MR. H. R. BURRILL.

Two hours per week.

Subject : Stephen's Commentaries on the Laws of England.

This class is mainly tutorial.

Fee for the course : £6.

Time : Tuesday and Thursday at 2 p.m.

**Final Examination**

The first four courses described under the Final Examination for the degree of LL.B. will provide a student with instruction covering all the ground required for the Final Examination of the Law Society, with the exception of such subjects as P., D. and A. and Ecclesiastical Law. Instruction in Probate, Divorce, and Admiralty Law, and in Ecclesiastical Law will be given by the department by arrangement with students, who have entered for other Final Courses given by the Department.

**Tutorial Classes**

It is anticipated that the ground will be covered more than once in the Courses for the Final Examination, so that special tutorial classes will be unnecessary, except for students who, having taken their degree, wish to revise their work with a view to the Final Examination of the Law Society. Arrangements will be made for such classes as they become necessary. An additional fee will be charged for such attendance



**Exemptions by the Law Society  
consequent upon the passing of  
Examinations in the University**

(a) The certificate of the Joint Matriculation Board of the Universities of Manchester, Liverpool, Leeds and Sheffield is accepted by the Law Society in lieu of the Preliminary Examination, provided Latin be one of the subjects taken.

(b) The same certificate, provided that the candidate is placed in the First Division of the Matriculation Examination, that all the subjects have been taken at one examination, and that one of them is Latin, exempts a student from one year of articles.

(c) Students who take the LL.B. degree before entering into articles are exempted from two years of service.

(d) Students who have passed the Joint Matriculation Examination, Latin being one of the subjects taken, and who have passed the Intermediate LL.B. Examination, before entering into articles, are exempt from one year of service.

(e) Students who have taken their LL.B. degree, whether before or after entering upon their articles, are exempt from the legal portion of the Law Society Intermediate Examination.

The Law Society require that certificates showing that these conditions have been satisfied should be produced before registering the articles of clerkship, if a student claims the exemption.

**Solicitors Act 1922**

The Law Department of the University of Leeds is a School approved by the Law Society for instruction of students seeking to fulfil the requirements of attendance at an approved School of Law for one year. Students who wish to attend lectures with this object should write personally to the Professor of Law, who will be pleased to consult with them as to the best course to follow.

## DEGREES IN LAW

- Ordinance    1. The degrees in Law shall be :
- Bachelor of Laws (LL.B.)
  - Master of Laws (LL.M.)
  - Doctor of Philosophy (Ph.D.)
  - Doctor of Laws (LL.D.)

### Degree of Bachelor of Laws

2. The degree of Bachelor of Laws shall be conferred either as an Ordinary degree or as a degree with Honours.
3. All candidates for the degree of Bachelor of Laws shall be required to have passed the Matriculation examination, except those who may have been exempted therefrom, and thereafter to have pursued approved courses of study for not less than three academic years.

#### Ordinary Degree of Bachelor of Laws

4. The complete course of study for the Ordinary degree of Bachelor of Laws shall be divided into two parts, called respectively the Intermediate course and the Final course.
5. Every candidate shall be required to pass two examinations, the Intermediate and the Final.
6. The Intermediate and Final Examinations shall ordinarily be held in June of each year.
7. All candidates shall be required, before presenting themselves for the Intermediate or Final examination, to furnish certificates testifying that they have regularly attended the prescribed courses of study, and performed the class exercises to the satisfaction of the Professor or Lecturer, in each of the subjects which they offer at the examination. Some modification of the amount of attendance required may, in exceptional cases, be made by the Vice-Chancellor, on the recommendation of the head of the department concerned.

#### Intermediate Course and Examination

8. Every candidate shall be required, after passing the Matriculation examination or after obtaining exemption therefrom, to attend during one academic year courses of instruction approved by the University, and to pass in each of the subjects of the course so approved.

Every candidate shall be required after passing the Matriculation Examination, or securing exemption therefrom, to attend during one academic year approved courses of study and to pass in each of the following subjects :—

- i. Constitutional Law.
- ii. Elements of English Law.
- iii. Roman Law.

Provided that for the course and examination in Elements of English Law there may be substituted, with the approval of the Senate, an equivalent course and examination in some other branch or branches of legal study (other than Roman Law or Constitutional Law as understood in these Regulations) or in some combination of such other branch or branches together with such part of the course in Elements of English Law as may be deemed desirable.

*Detailed Subjects of study and of examination*

CONSTITUTIONAL LAW :

*Dicey's Law of the Constitution ; Anson's Law of the Constitution, Part I.*

ELEMENTS OF ENGLISH LAW :

*Stephen's Commentaries, vols. I., II., III.*

ROMAN LAW :

*The Institutes of Gaius, edited by Poste.* The subjects of Intestate Succession and procedure are to be studied in outline only. The students will from the lectures gain a historical outlook on Roman Law, regarding it especially from the point of view of the growth of legal ideas and institutions.

*Intermediate Examination*

Constitutional Law, one paper.

Elements of English Law, two papers.

Roman Law, one paper.

**Final Course and Examination**

9. Every candidate shall be required to attend during two academic years courses of study approved by the University, and to pass in each of the subjects of the course so approved.

No candidate shall be permitted to enter for the Final examination, or any part thereof, until he has passed the Intermediate examination.

Every candidate shall be required to attend during two academic years the following courses of study, and to pass in each of the subjects of the course:—

- i. Property, Real and Personal (including Conveyancing).
- ii. Equity (including Company Law).
- iii. Common Law (including Criminal Law and Bankruptcy).
- iv. Evidence and Procedure.
- v. Jurisprudence.

Provided that for the courses and examination in Property, Real and Personal, and in Equity, there may be substituted, with the approval of the Senate, equivalent courses and examination in some other branch or branches of legal study (other than Courses iii, iv and v above) or in some combination of such other branch or branches together with such part of the courses in Property, Real and Personal, and in Equity as may be deemed desirable.

#### *Final Examination*

Common Law, Evidence and Procedure, two papers.

Property, real and personal, two papers

Equity, two papers.

Jurisprudence, one paper.

### **Degree of Bachelor of Laws with Honours**

*Ordinance* 1. Candidates for the degree of Bachelor of Laws with Honours shall, except as hereinafter stated, be required to furnish certificates of having attended courses of instruction approved by the University and extending over not less than three academic years in the Honours School of Law.

2. Every candidate for the degree of Bachelor of Laws with Honours shall be required to present himself for examination at the end of the third or fourth academic year from the time when he has entered upon one of the courses of instruction approved by the University for such degree unless he shall present a medical certificate of illness satisfactory to the Senate. This examination shall ordinarily be held in June of each year.



3. Candidates who have passed the Final examination for an Ordinary degree of Bachelor of Laws may, with the sanction of the Senate, and on furnishing certificates of having attended, during the academic year following such Final examination for the Ordinary degree, the third year's course approved by the University for the Honours School of Law, present themselves for examination for the degree of Bachelor of Laws with Honours.

Provided that where the Ordinary degree of Bachelor of Laws was conferred prior to the existence of the Honours School of Law the certificate of attendance at the third year's course above-mentioned need not show that such attendance has immediately followed the passing of the Final examination for the Ordinary degree.

4. No candidate for a degree of Bachelor of Laws with Honours shall be admitted more than once to examination in the Honours School of Law, but students who have passed the Final examination in any of the other Honours Schools of the University may be admitted to the Final Examination in the Honours School of Law after the expiration of two years, on presenting certificates of having attended, during the period in question, courses approved by the University.

5. Names of candidates who have passed the examination for the degree of Bachelor of Laws with Honours shall be published in three classes, each class being arranged in alphabetical order.

6. Candidates who have not acquitted themselves so as to deserve Honours may be excused the whole or such part of the examination for the Ordinary degree as the Combined Examination Committee may determine.

Candidates for the degree of Bachelor of Laws with Honours shall be required to pursue courses of study and to submit themselves for examination as follows. Regulations

#### **Intermediate Course and Examination**

Every candidate shall be required after passing the Matriculation Examination, or securing exemption therefrom, to attend during one academic year approved



courses of study and to pass in each of the subjects, as required for the Intermediate Course and Examination for the Ordinary degree of Bachelor of Laws.

#### **Final Course and Examination**

No candidate shall be permitted to enter for the Final examination or any part thereof until he has passed the Intermediate examination.

Every candidate shall be required to attend during two academic years courses of study and to submit himself for examination, according to the following regulations; that is to say, either:—

- (a) Candidates may attend courses and submit themselves for examination in the subjects approved for the Ordinary degree of Bachelor of Laws; *or*
- (b) Candidates may elect to pursue courses of study and to submit themselves for examination according to the following groups. They must take all the subjects in Group I, and one subject from each of Sections (i.) and (ii.) in Group II.

#### *Group I*

- i. Real and Personal Property (including Conveyancing).
- ii. Equity (excluding Company Law).
- iii. Contract and Tort.

#### *Group II*

- i. One subject chosen by the candidate for special treatment and development from the following branches of English Law—
    - Conveyancing, Law and Practice.
    - Commercial Law.
    - Trusts and Settled Estates.
    - Company and Partnership Law.
    - Local Government Law.
- Any other branch of English Law may be suggested, and chosen by the candidate, with the approval of the Board of the Faculty of Arts.

- ii. One subject chosen by the candidate, from the following branches of legal study, or from allied branches of study—

Jurisprudence.

International Law.

The Law of England upon matters involving a foreign element (conflict of Laws).

Comparative Constitutional Law.

Industrial Law.

Political Science.

Public Finance.

Economics.

Roman Law.

Any other branch of legal or allied study may be suggested and chosen by the candidate with the approval of the Board of the Faculty of Arts.

N.B.—These Regulations do not entitle a candidate to the right of presenting himself for examination in a subject in which the University may for the time being be unable to provide instruction.

#### **Honours Examination**

- (a) For candidates who submit themselves for examination in the subjects approved for the ordinary degree, special honours papers will be set, the same in number and distribution as for the candidates for the Ordinary degree.
- (b) For candidates who submit themselves for examination under the alternative scheme, papers will be set as follows:—
- i. Real and Personal Property, one paper.  
Equity, one paper.  
Contract and Tort one paper.
  - ii. A general paper upon Common law, equity and property, one paper.
  - iii. The subject chosen from Group II.
    - i. in the above regulations, two papers.
  - iv. The subject chosen from Group II.
    - ii. in the above regulations, one paper.

**Degree of Master of Laws****I**

Ordinance

1. The degree of Master of Laws may be conferred, on payment of the proper fee, upon registered Bachelors of Laws, when of not less than one year's standing from the date of their graduation as Bachelors, subject to the conditions contained in the following paragraphs.

2. Bachelors of Laws who have graduated with Honours may proceed to the degree of Master of Laws on presenting a dissertation satisfactory to the Senate on a subject approved by the Board of the Faculty of Arts.

3. Bachelors of Laws who have obtained the Ordinary degree shall be required to pass an examination in a subject or group of subjects upon which instruction is given in the Department of Law, and to present a dissertation satisfactory to the Senate on a subject approved by the Board of the Faculty of Arts, or if they do not present a dissertation, to pass a more extended examination. In special cases it shall be in the power of the Senate, on the application of the candidate and on the special recommendation of the Board of the Faculty of Arts, to award the degree upon a dissertation only. Candidates wishing to apply for such remission must make application to the Board of the Faculty of Arts not later than the end of October preceding the examination. Regulations shall determine the subjects and groups of subjects in which the examination will be held. Certificates of attendance on courses of study in the University shall not be required.

4. All candidates who offer a dissertation either as sole test or in combination with other tests, may be called upon to present themselves for an examination—written, or oral, or both—in the theme of their dissertation.

5. The names of candidates who have passed the examination for the degree of Master of Laws shall be arranged in alphabetical order without distinction of classes.

## II

Graduates in Law or persons who have passed the Final examination for a degree in Law, of other approved Universities shall, if they present evidence satisfactory to the Senate that they are qualified to pursue a course of advanced study or research, be permitted to enter the University and to become candidates for the degree of LL.M. without taking the LL.B. degree, after not less than two years of such advanced study or research.


Such candidates shall be required to fulfil the following conditions :—

- (a) To be registered as students of the University.
- (b) To pursue a course of advanced study or research under the supervision of the Head of the Department of Law.
- (c) To attend a course or courses of lectures at the University for at least one year, if required by the Professor of Law.
- (d) To pay a minimum fee (including Registration and Library fee) of four guineas per annum.

They shall be further required to give evidence to the Senate at the end of the first year of their period of study that their work has been satisfactory, and at the end of their second year they shall be required to present a dissertation, and to satisfy such further test if any as the Senate shall deem expedient. They will as a rule be called upon to present themselves for an examination, written, oral, or both, in the theme of their dissertation.

NOTE.—A Member of the University who graduated as Bachelor of Laws before the institution of the degree of LL.B. with Honours, may proceed to the degree of Master of Laws under the old Regulations.

### Degree of Doctor of Philosophy (Ph.D.)

I. The Degree of Doctor of Philosophy (Ph.D.) is Ordinance conferred, on payment of the proper fee, on persons who are registered graduates of the University of Leeds, or who have obtained at an approved University  for

Institution of University rank a degree or appropriate diploma awarded upon an approved course of study extending over not less than three years, or have passed the Final Examination for such a degree at an approved University, provided that in all cases the conditions laid down in the following paragraphs have been satisfied.

2. All Candidates for the Degree of Doctor of Philosophy are required to pursue in the University for at least two academic years an approved full-time course of advanced study and research, under the direction of the Head of the Department concerned or of a member of the University staff appointed by the Senate on his recommendation ;

provided that, after completion of the first year of the course, candidates may be permitted to devote such periods as may be deemed advisable by the Senate to full-time study and research in other approved Universities or Institutions, while remaining under the direction of the University or of persons nominated by the University.

3. Before entering on the course of advanced study and research, candidates are required

- (a) To have attained the age of 21 years.
- (b) To submit to the Senate for its approval the course of advanced study and research proposed by them and to present evidence satisfactory to the Senate that they are qualified to undertake the proposed course.
- (c) To register as students of the University and to pay the prescribed fees for tuition.

4. On completing the course of advanced study and research candidates are required

- (a) To present a thesis on the subject of their advanced study and research, and to satisfy the examiners that it contains original work worthy of publication, and that it is of a sufficient standard of merit to qualify for the degree of Doctor of Philosophy.



- (b) To submit themselves for an oral examination on matters relevant to their thesis, and, if required, for a written examination and to satisfy the examiners in the examination as well as in the thesis presented.

5. The application of a candidate for admission to the course for the degree must give particulars of his educational career and qualifications as well as the subject of his proposed course of advanced study and research. The application should be addressed to the Clerk to the Senate. Regulations

NOTE.—A candidate is advised, before making application to the Clerk to the Senate, to consult the Head of the Department which is concerned with the subject which he proposes to study.

6. A candidate is required during his course to devote his whole time to his advanced study and research ; but in exceptional cases the Senate is prepared to allow the candidate to undertake a limited amount of outside work which, in its judgement, would not interfere with the prosecution of his proposed course of advanced study and research.

7. A candidate will not be permitted to submit as his thesis one for which a degree has been conferred upon him in this or any other University : but he shall not be precluded from incorporating in his thesis any part of the work already submitted by him with a view to a degree for which he has been a successful candidate, provided that in his application to the University for admission to the course he states his desire to do so, and in the thesis itself indicates the part of the work which has been so incorporated.

8. It will be generally convenient that the candidate's course should begin either at the opening of the academic year in October, or during the previous Long Vacation ; but the Senate is prepared to consider applications for leave to begin the course at some other time in the academic year. The course must in any case extend over two academic years or their equivalent.

9. Towards the completion of his course the candidate, giving if possible three months' notice to the Clerk to the Senate, must make application to be examined and must submit, as soon as possible afterwards, at least one copy of his thesis, which should be accompanied by a short abstract. The copy of the thesis will be retained by the University.

### Degree of Doctor of Laws

Ordinance 1. The degree of Doctor of Laws shall be conferred by the University upon registered Masters of Laws or Doctors of Philosophy of the University who shall be deemed by the Senate, after considering a report from one or more of the Boards of Faculties, to have distinguished themselves by special research or learning.

Provided that the Senate may, in such cases as it shall think fit, after considering a report from one or more of the Boards of Faculties, also require candidates to pass such an examination as it may from time to time determine.

2. A Master of Laws or a Doctor of Philosophy of the University may make application for the degree of Doctor of Laws in the sixth or any subsequent year from the date of his admission to the Bachelor's degree.

3. Such application shall be made in writing to the Registrar, and shall contain a full statement of the grounds on which the claim for the degree is based, together with one or more copies of any thesis, whether in print or in manuscript, which the applicant may desire to submit in support of the application.

4. If the application be approved by the Senate, the degree may be conferred at the expiration of not less than six years from the date of admission to the Bachelor's degree.

N.B.—The latest date of entry and of payment of fees will be MARCH 2nd. The LL.M. examination and the LL D. examination, if required, will be held in June.

## DEPARTMENT OF CIVIL & MECHANICAL ENGINEERING

The work of this Department is intended to provide a systematic training in the application of scientific principles to engineering purposes, and is not intended in any way to supersede the usual routine of engineering works and offices. An apprenticeship or pupilage in such works is essential for every Engineering student.

The scientific training at the University must be regarded as a means of acquiring the principles that underlie the art of Engineering, and the training in the Works as necessary for acquiring the art itself.

It is desirable that all students, whether taking up Civil, Mechanical or Electrical Engineering, should have at least one year's practical experience in Engineering Works before taking up the University course.<sup>1</sup> West Riding County Council and other scholars who have not been in works are recommended to make application to have their scholarships postponed for one year, for the purpose of getting the necessary preliminary practical experience.

Though the Engineering courses are designed primarily to suit students intending to be Civil or Mechanical, or Electrical Engineers, the subjects in the Civil Engineering course are such as should be studied by Mining Engineers, and by Architects, and the course prescribed for Mechanical Engineers, or parts of it, would be found of direct practical utility to students who are afterwards to be engaged in any occupations connected with manufactures.

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<sup>1</sup> See a pamphlet published by the University on "The Training of Professional Engineers." The Registrar will forward a copy on application.

It is hoped that all Engineering Students will join the Students' Engineering Society and the Officers' Training Corps.

### COURSES OF STUDY

The basis upon which the courses have been organised may be briefly stated as follows :—

In the first year of their studies all Engineering students will concentrate mainly upon the pure sciences, viz., Mathematics, Physics and Chemistry.

In the Second Year they will continue with their Mathematical studies, and, at the same time will be placed in a position to acquire a broad perspective view of all the Applied Sciences bearing upon Engineering practice to which their First Year studies are fundamental. No specialisation is attempted in the First and Second Years. All students, whether Civil, Mechanical, or Electrical, pursue the same courses.

In the Third Year specialisation under the three branches of Civil, Mechanical and Electrical is provided. During this year in addition to their specialised Engineering studies, the Mechanical Engineering students will pursue a course in Fuel and Metallurgy, and the Civil Engineering students a course in Geology, while the Electrical Engineering students will continue with certain of the applied sciences of the mechanical group. All the students will also take a short course in Applied Economics.

The Courses are set out in detail below. Students pursuing them may prepare for any one of the following :

*B.Sc. Degree (Honours) in Mechanical Engineering.*

*B.Sc. Degree (Honours) in Civil Engineering.*

*B.Sc. Degree (Ordinary) in Mechanical Engineering.*

*B.Sc. Degree (Ordinary) in Civil Engineering.*

*Diploma in Mechanical Engineering.*

*Diploma in Civil Engineering.*

**Courses for Honours and Ordinary Degree of B.Sc. in  
Mechanical Engineering and Civil Engineering, and  
for Diplomas in Mechanical Engineering and Civil  
Engineering**

*First Year :*

Mathematics for Applied Science students.  
Physics Introductory.  
Physics Laboratory.  
Chemistry Introductory.  
Chemistry Laboratory.  
General Engineering I.

*Second Year :*

General Engineering II.—

Strength of Materials ..	..	IIA.
Heat Engines ..	..	IIB.
Theory of Machines ..	..	IIC.
Hydraulics ..	..	IID.
Surveying <sup>2</sup> ..	..	IIE.
Electrical Engineering ..	..	IIF.
Engineering Laboratory ..	..	
Drawing & Design (Mech.) ..	..	IIx.
Mathematics, F3, F4.		

*Third Year :*

**MECHANICAL ENGINEERING :**

Mechanical Engineering—

Structures .. ..	..	IIIA.
Heat Engines .. ..	..	IIIB.
Dynamics of Machines ..	..	IIIC.
Hydraulics .. ..	..	IIID.
Engineering Laboratory ..	..	
Drawing and Design ..	..	IIIx.

Metallurgy.

Applied Economics.

**CIVIL ENGINEERING :**

Civil Engineering—

Structures .. ..	..	IIIA.
Surveying <sup>1</sup> .. ..	..	IIIE.
Hydraulics .. ..	..	IIID.
and Water Supply ..	..	IIIG.
Structural Design ..	..	IIIV.
(including Graphics)		
Engineering Laboratory ..	..	

Geology.<sup>2</sup>

Applied Economics.

<sup>1</sup> Easter Vacation Course in addition.

<sup>2</sup> Field work plus Vacation Course (optional) in addition.



### DEGREE AND DIPLOMA EXAMINATIONS

Students are strongly recommended to take the B.Sc. Degree Course in Civil or Mechanical Engineering (Ordinary or Honours). Students intending to read for a degree must pass, or obtain exemption from, the Matriculation examination conducted by a Joint Board of the Universities of Manchester, Liverpool, Leeds, Sheffield, and Birmingham, before taking the Engineering course. Mechanics and the mathematics paper of the Higher Certificate examination should always be included in the subjects chosen.

Provided certain conditions are fulfilled, the Oxford and Cambridge Local examinations will be accepted for Matriculation purposes. Applications for exemption should be made to the Secretary, Joint Matriculation Board, 315, Oxford Road, Manchester.

Candidates for Diplomas are required :—

- (a) To give satisfactory attendance in the subjects which form part of the course of study.
- (b) To present themselves for any Departmental examinations that may be held in the subjects forming part of their course of study.
- (c) To make formal entry, on the prescribed form, not later than March 1st of the last session of the course, and to pay at the same time the prescribed examination fee.
- (d) To pass the Diploma examination held at the end of the course. The record of students at their Departmental examinations will be taken into account in deciding the results of the Diploma examination.

A Diploma may be granted to a student reading for a degree upon the results of the degree examination, provided a satisfactory standard is attained.

A student producing evidence of adequate previous scientific training may, upon application to the Senate, be exempted from a portion of the normal course and may qualify for the diploma upon a shortened period of study.

The subjects of examination are detailed below.

**Honours Degree of B.Sc. in Mechanical Engineering  
and Civil Engineering**

*Intermediate examination.*

Mathematics for Applied Science Students.  
Physics Introductory.  
Chemistry Introductory.  
General Engineering I.

*Final examination.*

**MECHANICAL ENGINEERING :**

General Engineering II.<sup>1</sup>  
Mechanical Engineering.  
Laboratory, two days.  
Engineering Mathematics (Honours).<sup>1</sup>  
Fuel and Metallurgy.  
Applied Economics.

**CIVIL ENGINEERING :**

General Engineering II.<sup>1</sup>  
Civil Engineering.  
Laboratory, two days.  
Engineering Mathematics (Honours).<sup>1</sup>  
Geology.  
Applied Economics.

**Ordinary Degree of B.Sc. and Diploma in  
Mechanical Engineering and Civil Engineering**

*Intermediate examination.*

Mathematics for Applied Science Students.  
Physics Introductory.  
Chemistry Introductory.  
General Engineering I.

*Final examinations.*

**MECHANICAL ENGINEERING :**

General Engineering II.<sup>1</sup>  
Mechanical Engineering.  
Laboratory, one day.  
Engineering Mathematics (Pass).<sup>1</sup>  
Fuel and Metallurgy.  
Applied Economics.

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<sup>1</sup> May be taken at end of second year.

**CIVIL ENGINEERING :**General Engineering II.<sup>1</sup>

Civil Engineering.

Laboratory, one day.

Engineering Mathematics (Pass)<sup>1</sup>.

Geology.

Applied Economics.

**The Institution of Civil Engineers**

All Engineering students, whether following Mechanical, Civil or Electrical Engineering, should aim at ultimately becoming Members of the Institution of Civil Engineers.

The first step is to become a Student of the Institution. Application should be made to the Secretary of the Institution for the regulations relating to the admission of students.

All Engineering Students of this University who have passed the Matriculation Examination or its equivalent, and in addition have passed the June examinations at the end of their First Year Engineering Course, are eligible for election as Students of the Institution. Those who have not passed the Matriculation should take the Preliminary Examination of the Institution particulars in regard to which may be obtained from the Secretary.

Only those students who have attended their various classes to the satisfaction of the Professors and Lecturers concerned and have done reasonably well in their class examinations will be proposed for admission to the Institution. After admission they are entitled to attend the Meetings and Excursions of the Local Association of the Institution of Civil Engineers and to receive two volumes of Proceedings per annum. Miller Scholarships and Prizes, value from £10 to £120, are awarded by the Institution for papers read by students at either the Local Associations or at Headquarters.

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<sup>1</sup> May be taken at end of second year.

Students who have obtained the Honours or Ordinary B.Sc. Degree in Civil, Mechanical or Electrical Engineering will not be required to take Sections A and B of the Associate Membership examination of the Institution. All candidates however, must pass Section C of that Examination.

Students who have not obtained a degree must take Sections A and B of the Associate Membership Examinations as well as Section C.

For the subjects to be taken the Institution's syllabus should be consulted.

Prior to election as Associate Member, candidates must fulfil the requirements as regards practical training and experience in accordance with the schemes set out in the Bye-Laws of the Institution.

#### **Institution of Mechanical Engineers**

All Mechanical Engineering Students should also aim at ultimately becoming Members of the Institution of Mechanical Engineers. The first step is to become a Student Member of the Institution. Full particulars as to procedure for enrolment in this grade may be obtained from the Secretary of the Institution of Mechanical Engineers, Storey's Gate, St. James's Park, London, S.W.1.

Students who have passed the Matriculation Examination of the Northern Universities under certain conditions are exempt from the Studentship Examination of the Institution. A complete list of the exempting examinations may be obtained from the Secretary of the Institution.

The Ordinary and Honours Degrees of B.Sc. in Engineering of this University exempt students from Sections A and B of the Associate Membership Examination which is a necessary qualification for the higher grades of Graduate and Associate Member.

All candidates, however, must take Section C of that Examination unless they hold a Degree in Commerce.

There is a Local Branch of the Institution of Mechanical Engineers which promotes visits to Engineering establishments and provides lectures on Engineering topics. The meetings and visits are open to all classes of members.

#### Marine Engineers

The Engineering Department of this University is recognised by the Marine Department of the Board of Trade as an institution in which candidates for Marine Engineering certificates can obtain a portion of their training.

### SYLLABUS OF COURSES

#### General Engineering I

(Engineering Lecture Theatre)

*First and Second Terms:* Mondays and Fridays at 10 a.m.

Materials ; Boilers ; Steam engines ; Steam turbines ; Internal combustion engines ; Air compressors and motors ; Refrigerators ; Hydraulic machinery ; Transmission of power.

Geometrical and machine drawing.

(Engineering Lecture Theatre)

*Third term.*—Electrical Engineering (see syllabus, under Courses in Electrical Engineering).

Geometrical and machine drawing.

(Drawing Office).

*First, Second and Third Terms:* Thursday afternoons.

#### General Engineering II

##### IIA. Strength of Materials

(Engineering Lecture Theatre)

*First Term:* Thursdays at 12 noon.

*Second and Third Terms:* Mondays, Wednesdays, at 11 a.m., Thursdays at 12 noon.

Elasticity ; Beams ; Struts ; Torsion ; Springs ; Flat plates ; Thick cylinders.



**IIb. Heat Engines**

(Engineering Lecture Theatre)

*First Term* : Mondays at 11 a.m.

*Second and Third Terms* : Tuesdays, Thursdays and Fridays at 11 a.m.

Thermodynamics ; Combustion ; Boilers ; Theory of the Steam Engine ; Theory of the Internal Combustion Engine.

**IIc. Theory of Machines**

(Engineering Lecture Theatre).

*First Term* : Wednesdays at 11 a.m.

Kinematics of Machines ; Belts ; Gears ; Friction of dry and lubricated surfaces ; Roller and ball bearings.

**IId. Hydraulics**

(Engineering Lecture Theatre).

*First Term* : Tuesdays, Thursdays, and Fridays at 11 a.m.

Hydrostatic pressure ; floating bodies.

Principles of Hydraulics ; Discharge from orifices, notches and weirs ; Fluid friction ; Flow in pipes and channels.

**IIe. Surveying**

(Engineering Lecture Theatre)

*First, Second and Third Terms* : Tuesdays at 9 a.m.

Chain Surveying ; Surveying Instruments ; Traverse Surveying ; Measurement of Heights and Levelling.

**IIF. Theory of Electrical Machines**

(Engineering Lecture Theatre)

*First, Second and Third Terms* : Tuesdays and Thursdays at 10 a.m.

For syllabus see Course IIF in Electrical Engineering Section.

**IIx. Machine Drawing and Design**  
(Drawing Office)

*First, Second and Third Terms :* Mondays and Fridays afternoons.

The design of Bearings, Couplings, Clutches, Spur, Bevel and Spiral Gearings, etc. and Engine Details.

**Mechanical Engineering**

**IIIA. Theory and Design of Structures**  
(Engineering Lecture Theatre)

*First, Second and Third Terms :* (Times to be arranged later).

Theory of Statically Determinate Structures ; Plate girders and Braced girders under moving loads ; Curved girders ; Arches ; Suspension bridges ; Statically Indeterminate Structures ; Masonry Structures ; Reinforced concrete.

**IIIB. Theory of Heat Engines**  
(Engineering Lecture Theatre)

*First, Second and Third Terms :* (Times to be arranged later).

Advanced theory of Steam Engines ; Steam Turbines ; Internal Combustion Engines ; Transmission of power and compressed air ; Mechanical Production of Cold.

**IIIC. Dynamics of Machines**  
(Engineering Lecture Theatre)

*First, Second and Third Terms :* (Times to be arranged later).

Dynamics of the Steam Engine ; Balancing ; Flywheels ; Governors ; Velocity and Acceleration Diagrams ; Vibration ; Whirling of Shafts ; Gyroscopes.

**IIID. Hydraulics**  
(Engineering Lecture Theatre)

*First, Second and Third Terms :* (Times to be arranged later).

Hydraulic Machinery ; Reciprocating Pumps ; Turbines ; Centrifugal Pumps.

**IIIx. Drawing and Design (Mechanical)**

*First, Second and Third Terms :* (Times to be arranged later).

The production of a complete design and working drawings for a machine tool or some form of prime mover or pump.

**Civil Engineering**

**IIIa. Theory and Design of Structures**

See times and syllabus under Mechanical Engineering.

**IIIe. Surveying**

*First, Second and Third Terms :* (Times to be arranged later).

Advanced Theory of Surveying Instruments ; Base line measurement ; Triangulation ; Plane table Surveying ; Hydrographic Surveying ; Tacheometry ; Setting out of lines and levels of works including railway curves ; Earthwork calculations ; Application of Astronomy to Surveying.

**IIId. Hydraulics**

See times and syllabus under Mechanical Engineering.

**IIIg. Water Supply**

*First, Second and Third Terms :* (Times to be arranged later).

Rainfall, its variation and laws ; Flow in Streams and Rivers ; Storage Reservoirs, calculation of capacity in relation to demand and supply, etc. ; Reservoir Embankments and Dams ; Purification of Water ; Aqueducts and systems of distribution ; Supply from Rivers ; Design of Weirs ; Underground Water and methods of making it available.

**IIIv. Structural Design (including Graphics)**

*First, Second and Third Terms :* (Times to be arranged later).

Graphical determination of maximum and minimum forces in Structures subject to moving loads ; Design of Girders ; Roof Trusses and other steel structures.

Graphical treatment of Arches ; Suspension Bridges ; Retaining Walls ; Dams, etc.

**Engineering Laboratory**

Experimental work in connection with the various classes will be conducted in the Engineering Laboratories throughout the course.

**First Year Time Table**

	9 to 10	10 to 11.	11 to 12.	12 to 1.	2 to 5.
MON. ..	Maths. J.	Gen. Engrg. I.	—	Chemistry.	—
TUES. ..	Maths. J.	Physics.	Physics Laboratory.	Chemistry Laboratory.	Chemistry Laboratory.
WED. ...	Maths. J.	Chemistry Laboratory.	Chemistry.	—	—
THURS. ..	—	Physics.	Physics Laboratory.	Drawing Office.	—
FRI. ..	Maths. J.	Gen. Engrg. I.	—	Chemistry	—
SAT. ..	—	Physics.	—	—	—

**Second Year Time Table**

	9 to 10.	10 to 11.	11 to 12.	12 to 1	2 to 5.
MON. ..	—	Maths. F3.	Gen. Eng. II. 1st Term IIb. 2nd & 3rd Terms IIa.	Maths. F4.	Drawing.
TUES. ..	General Engineering IIe.	General Engineering IIc.	Gen. Eng. II. 1st Term IIb. 2nd & 3rd Terms IIa.	—	Laboratory IIa, IIb and IIc.
WED. ...	—	Maths. F3.	Gen. Eng. II. 1st Term IIc. 2nd & 3rd Terms IIa.	Maths. F4.	—
THURS. ..	—	General Engineering IIc.	Gen. Eng. II. 1st Term IIb. 2nd & 3rd Terms IIa.	Gen. Eng. II. 1st 2nd & 3rd Terms IIa.	Laboratory IIb & IIc
FRI. ..	—	Maths. F3.	Gen. Eng. II. 1st Term IIb. 2nd & 3rd Terms IIa.	Maths. F4.	Drawing.

## DEPARTMENT OF ELECTRICAL ENGINEERING

The work of this department is intended to provide a systematic training in the application of scientific principles to electrical engineering purposes, and is not intended to supersede the usual routine of electrical engineering works and offices. An apprenticeship in such works is essential to every electrical engineering student.

The scientific training at the University must be regarded as a means of acquiring the principles that underlie the art of engineering, and the training in works as necessary for acquiring the art itself.

It is desirable that students taking up Electrical Engineering must have at least one year's practical experience in engineering works before taking up the University course. West Riding County Council and other scholars who have not been in works should make application to have their scholarships postponed for one year, for the purpose of getting the necessary preliminary practical experience.

### COURSES OF STUDY

The basis upon which the courses have been organised may be briefly stated as follows :—

In the first year of their studies all engineering students will concentrate mainly upon the pure sciences, viz., Mathematics, Physics and Chemistry.

In the second year they will continue with their Mathematical studies, and, at the same time will be placed in a position to acquire a broad perspective view of all the Applied Sciences bearing upon engineering practice to which their first year studies are fundamental. No specialisation is attempted in the first and second years. All students, whether Civil, Mechanical, or Electrical, pursue the same courses.



In the third year specialisation under the three branches of Civil, Mechanical and Electrical is provided. During this year, in addition to their specialised engineering studies, the Mechanical Engineering students will pursue a course in Fuel and Metallurgy, and the Civil Engineering students a course in Geology, while the Electrical Engineering students will continue with certain of the applied sciences of the mechanical group. All the students will also take a short course in Applied Economics.

The courses are set out in detail below. Students pursuing them may prepare for any one of the following :

B.Sc. Degree (Honours) in Electrical Engineering.

B.Sc. Degree (Ordinary) in Electrical Engineering.

Diploma in Electrical Engineering.

**Courses for Honours and Ordinary Degree of B.Sc.  
in Electrical Engineering, and for Diploma in  
Electrical Engineering**

*First Year :*

Mathematics for Applied Science Students.

Physics Introductory.

Physics Laboratory.

Chemistry Introductory.

Chemistry Laboratory.

General Engineering I.

*Second Year :*

General Engineering II.—

Strength of Materials	..	IIA.
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Heat Engines .. ..	..	IIB.
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Theory of Machines	..	IIC.
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Hydraulics .. ..	..	IID.
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Surveying .. ..	..	II E.
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Electrical Engineering		II F.
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Engineering Laboratory.

Electrical Engineering Laboratory.

Drawing and Design (Mech.)		IIx.
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Mathematics, F<sub>3</sub>, F<sub>4</sub>.

*Third Year :*

ELECTRICAL ENGINEERING—

Electrical Machinery .. ..	..	IIIF.
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Power Trans. .. ..	..	IIIH.
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Drawing and Design (Elec.) ..	..	IIIZ.
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Electrical Engineering

Laboratory.

**SUPPLEMENTARY MECHANICAL ENGINEERING—**

Heat Engines .. ..	IIIB.
Dynamics of Machines ..	IIIC.
and Hydraulics .. ..	IIID.
Engineering Laboratory (Mechanical).	
Applied Economics.	

**DEGREE AND DIPLOMA EXAMINATIONS**

Students are strongly recommended to take the B.Sc. Degree Course in Electrical Engineering (Ordinary or Honours). Students intending to read for a degree must pass, or obtain exemption from, the Matriculation examination conducted by a Joint Board of the Universities of Manchester, Liverpool, Leeds, Sheffield and Birmingham, before entering the course. Mechanics and the mathematics paper of the Higher Certificate Examination should always be included in the subjects chosen.

Provided certain conditions are fulfilled the Oxford and Cambridge Local examinations will be accepted for Matriculation purpose. Application for exemption should be made to the Secretary. Joint Matriculation Board, 315, Oxford Road, Manchester.

The Diploma Regulations are as given under the head of Civil and Mechanical Engineering.

The subjects of examination are detailed below :—

**Honours Degree of B.Sc. in Electrical Engineering**

*Intermediate examinations*

Mathematics for Applied Science Students.  
Physics Introductory.  
Chemistry Introductory.  
General Engineering I.

*Final examinations*

**ELECTRICAL ENGINEERING—**

General Engineering II.<sup>1</sup>  
Electrical Engineering III.  
Electrical Engineering Laboratory (two days).  
Engineering Mathematics (Honours).<sup>1</sup>  
Subsidiary Mechanical Engineering III.  
Applied Economics.

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<sup>1</sup> May be taken at end of second year.

**Ordinary Degree of B.Sc. and Diploma  
in Electrical Engineering***Intermediate examinations*

Mathematics for Applied Science Students.  
Physics Introduction.  
Chemistry Introduction.  
General Engineering I.

*Final examinations***ELECTRICAL ENGINEERING—**

General Engineering II.<sup>1</sup>  
Electrical Engineering III.  
Electrical Engineering Laboratory (one day).  
Engineering Mathematics (Pass).<sup>1</sup>  
Subsidiary Mechanical Engineering III.  
Applied Economics.

**The Institution of Electrical Engineers**

All Electrical Engineering students should aim at ultimately becoming members of the Institution of Electrical Engineers.

The first step is to become a Student Member of the Institution. Full particulars as to the procedure for enrolment in this grade may be obtained from the Secretary of the Institution of Electrical Engineers, Savoy Place, Victoria Embankment, London, W.C.2.

All Electrical Engineering students of this University are eligible for election as Students of the Institution.

The Diploma in Electrical Engineering, the Ordinary and Honours Degrees of B.Sc. in Civil, Electrical, Mechanical and Mining Engineering exempt students from the Associate Membership Examination, which is a necessary qualification for the higher grade of Associate Member.

There is a local Centre of the Institution. Papers accepted by the Institution are read and discussed at the meetings of the Local Centre. The meetings are open to all classes of members.

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<sup>1</sup> May be taken at end of Second Year.

There is in addition a Local Students' Section, controlled by a Chairman, Secretary and Committee, elected by the students themselves, which selects its own papers and arranges its own visits to engineering establishments.

## SYLLABUS OF COURSES

### General Engineering I

#### Mechanical Engineering

For Syllabus see under Courses in Mechanical Engineering.

#### Electrical Engineering

(Elec. Engineering Theatre).

*Third Term* : Mondays and Fridays at 10 a.m.

Fundamental principles, Ohms. law and Kirchhoff's laws applied ; Elementary principles of electric machinery, measuring instruments ; Secondary batteries.

#### II F. Theory of Electrical Machines

(Engineering Lecture Theatre)

*First, Second and Third Terms* : Tuesdays and Thursdays at 10 a.m.

Theory of direct current generators and motors, and their control ; Electric lighting and Photometry ; Theory of alternating current circuits and machinery ; Alternating current measurement.

#### III F. Theory of Electricity

(Electrical Engineering Theatre)

*First, Second and Third terms* (Times to be arranged later).

Commutation in direct current machines ; theory of transformers, alternators, synchronous and asynchronous motors ; Converters and rectifiers ; Phase advancers.

#### III H. Power Transmission

(Electrical Engineering Theatre)

*First, Second and Third terms* (Times to be arranged later).

Operation of Central Station Plant; Switchgear and protective systems; Cables, feeders and networks for direct and alternating currents; insulation measurements on live systems; Electric traction.

### IIIz. Design and Drawing (Electrical)

(Electrical Engineering Lecture Theatre  
and Drawing Office)

*First, Second and Third terms* (Times to be arranged later).

*Lecture Course.*—Methods of design of direct current and alternating current machinery.

*Drawing.*—Design and preparation of drawings of a direct current machine and an alternating current machine or transformer.

### Electrical Engineering Laboratory

Experimental work in connection with the various electrical engineering classes will be conducted in the Electrical Engineering Laboratories in the Second and Third Years of the course.



## DEPARTMENT OF MINING

Assisted by the Drapers' Company of the City of London, and  
by the West Yorkshire Coal Owners' Association, and the  
West Riding County Council

The University, which is situated in the heart of a mining district possessing some of the deepest and best equipped of modern English collieries, enjoys the cordial support of the owners and managers of mines, who give the Department every facility for instructing its students. As the University is moreover, provided with excellent Physical, Chemical, Metallurgical and Engineering (Mechanical and Electrical) laboratories, it has every facility for giving its students both a theoretical and practical training in the art of Mining.

The work of the Department is carried on under the immediate direction of the Head of the Department, acting in conjunction with the Mining Advisory Committee, composed of prominent mining engineers and coal owners of the district.

The Degree Courses arranged are primarily intended for the systematic training of students who can devote at least three years to the study of the scientific principles underlying the practice of the various industries for which they are preparing themselves. They are not intended to supersede the usual "apprenticeship" in a mine or works, but rather as a preparatory or supplementary course to such a practical training, which actual experience on a works can alone adequately supply. Special facilities will be provided for postgraduate research work both in the laboratories of the Department and in mines and works outside, and every help will be afforded to graduates who, on passing into the industry, find themselves confronted with problems which can be advantageously worked out in conjunction with a well equipped scientific laboratory. Provision will also be made to meet the requirements of duly qualified students who wish to take advantage of part of the regular courses of instruction, whilst graduates of other Universities will be admitted as research students.

**COURSES OF STUDY**

There are four distinct courses of study arranged in this department to meet the requirements of different classes of students, viz :

- I. A three years' course leading to the degree of B.Sc. in Mining.
- II. A three years' course qualifying for the Diploma in Mining Engineering.
- III. A four years' course in Coal Mining for miners and sub-officials.
- IV. Course on Mine Surveying.

Students entering for the degree course are required to have passed (or obtained exemption from) the Matriculation examination conducted by the Joint Board of the Universities of Manchester, Liverpool, Leeds, Sheffield and Birmingham. Those entering for Course II. must have passed either the Matriculation examination or some other approved examination (including Mathematics), or they will be required to pass a special entrance examination in each subject.\*

**Colliery Managers' Certificates of Competency  
under the Coal Mines Act, 1911**

Graduation as B.Sc. in Mining Engineering, or the possession of the Diploma in Mining Engineering of the University of Leeds, has been recognised by the Secretary of State for the Home Office as equivalent to two years' experience at a mine for the purposes of the Colliery Managers' Certificate under the Coal Mines Act, 1911. Further information may be obtained on application to the Secretary to the Board for Mining Examinations, Mines Department, Dean Stanley Street, Westminster, London, S.W.1

The University of Leeds is an institution approved by the Secretary of State in respect of its Degree of B.Sc. in Mining Engineering and Diploma in Mining Engineering.

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\*All inquiries regarding the Matriculation examination, including applications for exemption, should be addressed to the Secretary to the Board, the Joint Matriculation Board, 315, Oxford Road, Manchester, from whom also a complete syllabus of the examination may be obtained.

## **Surveyors' Certificates under the Coal Mines Act, 1911**

The University of Leeds is one of the Institutions approved by the Secretary of State for the purpose of training students for Surveyors' Certificates under the Coal Mines Order.

The following courses at the University have been approved to enable candidates to obtain exemption from two of the four years practical experience required :—

1. Ordinary B.Sc. Degree Course in General Mining.
2. Diploma Course in Mining Engineering.
3. The Course in Mine Surveying.

### **I. Ordinary B.Sc. Degree Course in General Mining (Three Years' Course) \***

This course of instruction is arranged for students who desire to qualify themselves as Mining Engineers, Surveyors, or Assayers, and also for those who intend, in the future, to take charge of mining and prospecting operations in the colonies or foreign countries. Students are required to devote the vacations to obtaining practical experience in mines, and they should call upon the Head of the Department, immediately before the Christmas vacation of their first year at the University, to obtain advice regarding the necessary arrangements.

Part of the Final Examination for the Ordinary Degree of B.Sc. in Mining Engineering will consist in the writing of a short thesis by each candidate on some mining process, method, appliance, machinery or problem, studied in actual practice by the student during his practical experience in vacations. The choice of subject for the thesis rests with the candidate but must be approved by the Head of the Department.

In addition to the subjects specified in the time tables, students are advised to study a modern language.

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\*Graduation as B.Sc. on the Mining course prescribed has been recognised by the Secretary of State for the Home Office as equivalent to two years' experience at a mine for the purposes of the Colliery Manager's Certificate.

Students who are unable to afford time for the complete course may be admitted to the Mining, Surveying, and Assaying courses on furnishing proof that they possess sufficient knowledge to follow the instruction given.

Students reading for the degree are required to attend the courses specified in the following Syllabus.

First and second, as well as third year students, should attend, whenever possible, the excursions to mines and works, specially announced during the session.

Syllabus			
First Year		Second Year	
	Hours per week.		Hours per week.
Mathematics for Applied		General Engineering II ...	16
Science students ...	4	Geology ...	6
Physics, Introductory ...	3	Mining ...	4
Physics, Laboratory ...	3	Fuel ...	1
Chemistry, Introductory ...	3		
Chemistry, Laboratory ...	6		
General Engineering I ...	5		
Mining ...	1		
Third Year			
			Hours per week.
Mining (Mining, Ore Dressing, Surveying, Assaying) ...	...		20
Geology ..	...		6
Industrial Economics...	...		1

### Honours B.Sc. Degree

The Honours Course in Mining will be the same as the course for the Ordinary degree, except that Mathematics F<sub>1</sub> and F<sub>2</sub> will be taken in the first year and Mathematics F<sub>3</sub> and F<sub>4</sub> in the second year.

### II. Diploma Course in Mining Engineering\* (Three Years' Course)

This course is arranged for those who intend to devote their attention to Coal Mining at home, and who, at the same time, desire to obtain a liberal training in the scientific principles underlying their profession, but for some reason are unable to take the B.Sc. Degree Course.

\*The possession of the Leeds University Diploma in Mining Engineering has been recognised by the Secretary of State for the Home Office as equivalent to two years' experience at a mine for the purposes of the Colliery Manager's Certificate.



First and second, as well as third year students, should attend, whenever possible, the excursions to mines and works, specially announced during the session.

Candidates for the Diploma in Mining Engineering are required :—

*I. During the Course—*

- (a) To attend the same course as candidates for the Ordinary B.Sc. Degree in Mining.
- (b) To present themselves for any Departmental examinations that may be held in the subjects forming any part of their course of study. The record of students at their Departmental examinations will be taken into account in deciding the results of the Diploma examination.
- (c) To make formal entry, on the prescribed form, not later than March 1st of the last session of the course, and to pay at the same time the prescribed examination fee.
- (d) To obtain four months' experience at a mine during the vacations, unless the candidate shows to the satisfaction of the Head of the Department that he has had previous experience at mines before entering on the course.

*II. At the end of the Course—*

- (a) To reach a satisfactory standard in any Final examination which may be set. In the subject of Mining Engineering, a Diploma student takes for his Final examination the same Final Principal Mining Engineering papers as are set for the Ordinary degree of B.Sc.
- (b) To translate into English a passage of French or German relating to the principal subject of the Diploma Course. A foreign student who can show that he has received a good general education will be exempted from this language test.



- III.* A Diploma may be granted upon the degree course provided that the subjects studied for the degree include those prescribed for the Diploma, and that the other conditions are complied with.

A student producing evidence of adequate previous scientific or practical training may, upon application to the Senate, be exempted from a portion of the normal course and may qualify for the Diploma upon a shortened period of study.

### **III. Four Years' Coal Mining Course**

This course is intended for miners and sub-officials who are occupied in or about collieries, and can only attend for one afternoon per week, but desire to qualify themselves for Managers' Certificates under the Coal Mines Act, 1911, and particularly for those who have attended complete courses of instruction in Mining at one of the local centres appointed by the West Riding County Council,\* or have attended the preparatory evening courses of the Leeds City Council.†

Students who have reached 22 years of age may be admitted to this course at the discretion of the Head of the Department.

Students resident in the City of Leeds\*, who are under 22 years of age, will be required to produce certificates of satisfactory attendance at the preparatory evening courses in Mining of the Leeds City Council for at least two sessions, or to have made satisfactory attendance at the West Riding Mining Course of Fourth Year grade, or to give evidence of possessing equivalent knowledge in the subjects of Mathematics, Mechanics and English.

Students resident in the West Riding Administrative Area, who are under 22 years of age, desiring to enrol for the four

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\*Particulars regarding Mining Courses available in the West Riding may be obtained from the Education Department, County Hall, Wakefield.

†Particulars regarding progressive Mining Courses available in Leeds may be obtained at the City Education Department.

years' course in the Mining department, will be required to produce evidence of satisfactory attendance at courses of at least the Fourth Year grade in a Technical School or Class within the Riding, if available†; or evidence that they have taken a similar course in a Technical School elsewhere.

For students who cannot satisfy these tests an Entrance examination will be held.

The course extends over four years.

The instruction in Engineering, Electrical Engineering and Geology will be given in the respective departments, the remaining subjects in the Mining Department. Students will be given mining data in the examples set, and will be required to copy these out into an indexed pocket-book to form a nucleus for the observations which they subsequently make as a result of their own experience. A similar mode of treatment will be adopted for the Chemistry course, the properties of matter and chemical change being illustrated as far as possible from ordinary examples to be met with at a coal mine. In addition to the course of Surveying drawing, a course of practical work in the use of surveying instruments is given during the third term. Lectures will be given in connection with the two Surveying courses as they become necessary to explain the work in hand.

A Certificate will be awarded to each student completing the Course whose attendance at the lectures and work in the examinations has been satisfactory to the examiners.

Students who wish to repeat an examination, or go in for one from which they have been absent, or to complete work which should have been done by them, may do so in any subsequent session without repeating attendance on the lectures or laboratory work in question. All decisions affecting the award of this Certificate in any case, will rest finally with the examiners concerned. The Certificate will be filled in at the end of a student's fourth year of attendance.

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†Particulars regarding progressive Mining Courses available in Leeds may be obtained at the City Education Department.

The attention of students attending this course is directed to the information respecting Scholarships, Laboratory Work, Office Work, &c., contained in subsequent pages.

Candidates for Surveyors' Certificates and others who desire to do extra work in Mine Surveying are advised to attend the ordinary lecture course in Mine Surveying and to do additional Practical and Office Work in this subject.

### Syllabus

*First Year*  
Mathematics  
Engineering  
Engineering  
Laboratory  
Mining

*Second Year*  
Mining  
Chemistry of Coal  
Mining  
Mine Surveying  
Geology  
Geology Laboratory

*Third Year*  
Mining  
Electricity  
Electrical  
Engineering  
Laboratory

*Fourth Year*  
Mining  
Electricity  
Electrical Engineering Laboratory

### First Year Time Table

	3 to 4.	4 to 5.	5.30 to 7.
1st TERM MON. ..	Mathematics.	Engineering.	Engineering Laboratory.
2nd TERM MON. ..	Mining.	Mathematics.	Engineering Laboratory.
3rd TERM MON. ..	Mining.	Engineering.	Engineering Laboratory.

### Second Year Time Table

	3 to 4.	4 to 5.	5.30 to 7.
1st TERM. TUE. ..	Mining.	Chemistry of Coal Mining.	Mine Surveying, Drawing, and Calculations, Geological Lab.
2nd TERM. TUE. ..	Mining.	Geology.	Geological Lab.
3rd TERM. TUE. ..	Mining.	Geology.	Practical Mine Surveying.

Third Year Time Table.

	3 to 4.	4 to 5.	5 to 5.30.	6 to 7.
MONDAY ..	Electricity (Tutorial).	Electricity.	Mining Problems.	Mining.

Fourth Year Time Table.

	3 to 4.	4 to 5.30.	6 to 7.
MONDAY .. ..	Electricity in Mines.	Electrical Engineering Laboratory.	Mining.

Fee for each year in the above course £1 is.

#### IV. Course on Mine Surveying

This includes the courses in Mine Surveying, Office Work, and Field and Underground Work in Surveying, particulars of which are given in subsequent pages.

To meet the convenience of external students all lectures and practical instruction in Surveying will be given on one day only, Thursday.

#### LECTURE COURSES

##### Mining Engineering F<sub>1</sub>, F<sub>2</sub> and F<sub>3</sub>

The object of these lectures will be to explain to students the methods, operations and appliances commonly employed in mining, with illustrations from actual practice in various districts and countries and to indicate the principles which should influence the selection of methods and the introduction of such variations in them as local circumstances may demand.

##### Preparation of Minerals and Coal F<sub>4</sub>

A course of one lecture a week will be given during the first and second terms, on Fridays.

**Mine Surveying\* F5**

(Third Year, Degree Course I, Diploma Course II)

During the session a course of two lectures a week will be given on one day a week at hours to be arranged.

The syllabus will be as follows :—

1. Introduction and general remarks on the aims and objects of surveying and mine surveying.
2. Errors in observed data, their amount, influence, and elimination.
3. Fundamental considerations concerning the form and size of the earth together with the consideration of geographical and astronomical relations, as far as these affect the work of the surveyor and mine surveyor.
4. Principles underlying the methods of linear and angular measurements used by the mine surveyor.
5. Accessories, devices, parts and attachments common to many surveying instruments. Consideration of their uses, objects, causes of failure, design, improvement, testing, and adjustment.
6. Instruments used for the direct measurement of length; accuracy attainable, use, testing, and adjustment.
7. Instruments used for the measurement of angles; use, testing, and adjustment.
8. Instruments depending on the earth's magnetism and instruments for recording the continual changes in the direction of the magnetic meridian; their testing, use and adjustment.
9. Levelling instruments and instruments used for determining the relative position of points vertically with regard to one another or to a given datum.
10. Mine surveying methods, work and problems.
11. Determination of the direction of the astronomical and magnetic meridians.

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\*This course should, if possible, be taken by candidates for Certificates as Surveyors under the Coal Mines Act, 1911; but such candidates should consult the Head of the Department as to the conditions with which they must comply.



12. Connection of surface and underground surveys by various methods, their relative accuracy and suitability in various cases.
13. Tacheometry, plane table work.
14. Setting out railway connections, railway sidings, curves, gradients, roadways, levels, drifts, headgears, engine-foundations, cuttings, embankments, pipe-lines, and engineering work generally.
15. Office work; calculations from observed data connected with survey work, the checking and adjustment of errors and data, the graphical representation of data on plans and sections, the use and limitations of graphical records, calculation and determination of areas, volumes; preparation and reproduction of plans, sections, &c.; Ordnance Survey publications, their construction and use.
16. Care of instruments.

### PRACTICAL WORK

Through the kindness of the local Coal Owners and Colliery Managers, arrangements have been made for the instruction of students at mines in the neighbourhood, not only in underground surveying and in the connection of underground and surface surveys, but also in general Mining work. The equipment of the department has therefore been designed to serve three purposes:

- (a) To supplement the general training received by the student in the other departments of the University, and direct it to Mining applications.
- (b) To provide apparatus and instruments for the investigation of problems at the mines, and for testing the consumption of power and general efficiency of haulage, winding, pumping, ventilating, and coal washing plants.
- (c) To establish conditions and provide appliances which are not to be met with in the neighbouring mines, as for example, in the equipment for the study of Ore Dressing, and in the provision of chambers and galleries for experimental work with safety lamps under various conditions.

The equipment embraces the following :

*For Surveying.*

Hand instruments for prospecting and rough surveying including box sextant, Abney level, prismatic compass, Brunton's Mine Transit, &c.

Chains, tapes, steel bands, standard steel band.

Miners' dials, with sliding centre and with three tripod outfit.

Theodolites (Transit and Tacheometric).

Mining Theodolite, by E. R. Watts.

Levels. Levelling Staves. Ranging Poles, &c.

Transit instrument for connection of underground and surface surveys.

Shaft-Plumbing outfit for the same.

A Calculating Machine. Fuller's Slide Rule. Computing Scale.

An Observatory has been established by the University and contains an 18 in. equatorially mounted reflector, 4½ in. transit instrument, astronomical clock, chronograph, and a series of meteorological instruments.

Astronomical work in connection with surveying may be done by students at the Observatory.

*For Work at Pits.*

Steam engine indicators, ordinary and continuous.

Various indicator reducing gears.

Electrical measuring instruments.

Portable thermoelectric pyrometers.

Steam calorimeter and gauges.

Tachometers, revolution counters, stop watches, &c.

Anemometers and water gauges.

*For Laboratory Work.*

Small sample crushing and grinding plant, with screens, &c.

Small jigs, shaking tables, slime frames, upward current classifiers and settling boxes ; pan, batea, vanning shovels. Assaying furnaces and balances for testing the cleaned ores.

Experimental fan, fitted with transmission dynamometer, and galleries for illustrating the principles of mine ventilation.

Anemometer testing machine.

Chambers for experiment with safety lamps and for gas testing.

Gallery for testing lamps in explosive currents of high velocity.

12 ft. Photometric bench, standard lamp and photometers.

Apparatus for the Analysis of Mine Air.

Apparatus for the study of Froth Flotation.

Magnetic Separator.

In addition to the above an Ore Dressing shed has been erected on a site adjacent to the General Mining Laboratory for the accommodation of larger plant, which includes the following :—

Large rock breaker

3-head battery of Californian stamps

Pair of roll-crushers

2 shaking tables, bucket elevator, &c.

Slimes settling pits and direct driven Centrifugal Pump.

Hand Screens.

### **Laboratory Work**

The work in the Laboratories will include the following :—

1. The analysis and testing of fuels and refractory materials.
2. The assaying of ores and metallurgical products.
3. Experimental work in ore dressing and coal washing under different conditions.
4. Efficiency tests of crushing and dressing machinery, fans, pumps, winding engines, haulage systems, &c.
5. The testing of safety lamps under different conditions.
6. The analysis of mine atmospheres, the detection of mine gases by practical tests, &c.
7. The examination of mine dusts.

### **Office Work**

The work in the Drawing Office will include the following :

1. Calculations and practical exercises connected with work and problems in mine surveying.
2. The preparation and reproduction of mine plans and sections.
3. The drawing and design of mining machinery and plants and mine structures.

The Office Work will be based upon the lectures on Mining Engineering and Mine Surveying given during the session.

Every student will be held responsible for the instruments, apparatus or machinery with which he is working, and will be required to make good any damage caused by him. A

deposit of 10s. 6d. will be required from which the cost of stationery supplied will be deducted. The balance will be returned in the event of no damage being done to instruments, apparatus or machinery, but the student's liability is not limited to the amount of the deposit.

In the case of occasional students and of students taking additional or extra work in the Laboratory or in Surveying, the Fees will depend on the time spent on such work, as set out on the tinted inset of this Prospectus.

### **Field and Underground Work in Surveying**

During the session, at times to be arranged, instruction will be given in Field Work and Underground Surveying. Students will be required to go through a systematic course of work in the following:—

1. The use of surveying instruments.
2. Determination of the constants of instruments.
3. Errors of instruments; their elimination and adjustment.
4. Methods of securing the degree of accuracy necessary in particular kinds of work.
5. Adjustment of observations.
6. Astronomical observations for azimuth.
7. The survey of the surface of a mineral property including reconnaissance, triangulation, traversing, levelling, tacheometry, and detail work.
8. The survey of the underground excavations of a mineral property, including traversing and detail work.
9. The connection of surface and underground surveys.
10. Curve-ranging and setting-out work in general.

At the end of the course, students will be required to produce evidence of having carried out surveying work on the surface and underground at a mine. Arrangements will be made whereby such work may be carried out on the surface and underground at a neighbouring mine during the vacations. Incidental expenses for the carriage, storing, loan or insurance of instruments may be liquidated by a

charge on each student not exceeding 10s. Any balance remaining after settling accounts will be returned to students.

### **Mining Excursions**

During the session excursions will be made to mines and works where mining machinery is manufactured. The object of these excursions will be to give students an insight into practical methods and mining practice generally.

After each excursion and before the next excursion, each student will be required to hand in to the Head of the Department, a short report in duplicate of the chief points noted, illustrated with his own sketches.

The result of Practical Examinations held at the end of the courses will depend partly on the standard of the Excursion Reports handed in by each student during the session.

These reports will form the basis of the practical work in Mining Machinery Design. The duplicate reports will be filed by the Department for the use of all students in the Department. The reports will be written on special forms and attention will be devoted to helping students to observe fully and write complete notes of all they see in practice, and in the collection of mining statistics, &c.

Whole and half-day excursions for Degree and Diploma students will be held during the session.

At the end of the third term a week's Mining Excursion for Degree and Diploma students will be arranged, so that Mining methods and practice in other coalfields and mining districts may be studied.

Further particulars will be announced during the session.



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## DEPARTMENT OF COAL GAS AND FUEL INDUSTRIES

### WITH METALLURGY

This department of the University was established in 1907 and was the first of its kind in the British Universities. The buildings now occupied were erected and equipped in the year following out of funds provided by the West Yorkshire Coal-owners, supplemented by a special donation of £1,000 by Messrs. George Bray & Co. Ltd. At the death of the late Sir George Livesey in 1910, a fund was raised by the Institution of Gas Engineers to provide a memorial to him, and this was applied to the endowment of the Chair filled by the Head of the Department. The work of the Department is carried out with the help of an Advisory Committee known as the Coal Gas and Fuel Industries (Livesey Professorship) Committee. Through the generosity of Mr. Henry Woodall, the department has since been enlarged by the donation of an experimental gas plant which will form a permanent memorial to the late Sir Corbet Woodall. Several private firms have cooperated in providing parts of the plant which is specially designed for experimental work.

### Courses of Study

The courses of study in this department have been drawn up to meet the requirements of students who are preparing for responsible positions in the Fuel and Metallurgical industries.

The courses in Gas Engineering and the Technology of Fuel will deal chiefly with the manufacture and distribution of coal gas, by-product coking processes, the production and application of gaseous fuels for heating, lighting and power purposes and the properties and uses of fuels in general.

The metallurgical courses will deal with general methods for the treatment of ores, the extraction of metals, the construction and control of furnaces, with the production of

cast iron, wrought iron and steel, and with the microstructure, physical properties, and heat treatment of steel and other industrial alloys.

A course in the manufacture, properties and uses of Refractory Materials is given to all students in the department.

### B.Sc. Course

Students who can devote three years to attendance at the University are strongly recommended to take the B.Sc. degree course, either in Gas Engineering or in Fuel and Metallurgy. Before commencing the degree course, however, students must pass or obtain exemption from the Matriculation examination, conducted by the Joint Matriculation Board of the Universities of Manchester, Liverpool, Leeds, Sheffield and Birmingham. (See the Syllabus of the Joint Matriculation Board obtainable from the Secretary, 315, Oxford Road, Manchester.)

During the first year of the degree course the student will normally attend classes and take examinations in Mathematics, Physics, Chemistry, Fuel and Engineering. The student will, during his second year, continue the study of Chemistry, and will also take courses in Mechanical and Electrical Engineering, the Properties of Gases, and Fuel and Metallurgy, supplemented by work in the Fuel and Metallurgical laboratories. During the third year the student will mainly devote his attention to his special subject (*i.e.*, Gas Engineering, or Fuel and Metallurgy), but may also attend courses in Organic Chemistry, Colour Chemistry, Civil Engineering, Applied Economics and Metallurgy, etc. In the second and third year the student will attend the special courses on industrial practice which are arranged from time to time. The three years' course will thus include systematic training in Mathematics, Physics, Chemistry, General Engineering and Mechanical Drawing in addition to the study of the special branch of Applied Science (Gas Engineering or Fuel and Metallurgy). The student will qualify for the B.Sc. degree by passing the prescribed Final examination in either Gas Engineering or Fuel and Metallurgy, as *principal* subject, together with Chemistry and Engineering as *subsidiary* subjects.

# I. Ordinary B.Sc. Degree Course in (i) Gas Engineering and (ii) Fuel and Metallurgy

All students will take the same course in their first year after matriculation, as follows :—

	Hours per week
Mathematics for Applied Science students ...	4
Physics, Introductory ... ..	3
Physics Laboratory ... ..	3
Chemistry, Introductory ... ..	3
Chemistry Laboratory ... ..	10½
Engineering I (2 hrs. lectures, 3 hrs. drawing)	5

The courses during the second and third years will be somewhat differentiated, according to the respective needs of gas engineers and metallurgists, as follows :—

## Second Year Course

*All students* must take the following :—

	Hours per week
Chemistry F2 (or as recommended) ... ..	3
Engineering (including Electrical) ... ..	3
Fuel II (1st and 2nd terms) ... ..	1
Fuel IIa (1st and 2nd terms) ... ..	1
Chemical Laboratory, or Fuel and Metallurgical Laboratory }	15
Engineering Laboratory ... ..	3

*Metallurgical students* will also attend in addition to the above :—

Metallurgy VIII (General) ... ..	1
Metallurgy IX (Non-Ferrous) ... ..	1

## Third Year Course

*Gas Engineering students* must attend :—

Fuel III ... ..	1
Fuel IIIa ... ..	1
Fuel and Metallurgical Laboratory ... ..	22
Fuel and Metallurgical Colloquium ... ..	1

and may also attend courses chosen in consultation with the Head of the Department from the following: Organic Chemistry F3, Colour Chemistry IV, Civil Engineering, Applied Economics, German and General Metallurgy.

*Metallurgical students must attend :—*

	Hours per week.
Fuel III ... ..	I
Metallurgy X ... ..	2
Metallurgy XI ... ..	I
Metallurgy XII ... ..	I
Fuel and Metallurgical Laboratory ... ..	22
Fuel and Metallurgical Colloquium ... ..	I

*Special Lecture Courses to be taken during the second or third years*

In addition to the above lectures, students must also attend, during either the second or third year, the special lectures given in the department by outside lecturers in the following or similar subjects :—\*

METALLURGICAL STUDENTS	GAS ENGINEERING STUDENTS
By-Product Coking Processes	By-Product Coking Processes
Refractory Materials	Manufacture of Coal Gas
	Distribution and Uses of Coal Gas
	Refractory Materials

## II. Honours B.Sc. Course

Honours in Gas Engineering or Fuel and Metallurgy will be awarded to candidates who, having obtained the Ordinary degree, with either Gas Engineering or Fuel and Metallurgy as a principal subject, and being recommended as suitable to proceed with an Honours course, shall have spent one year in research or advanced study, or in the preparation of a thesis on some industrial process, to the satisfaction of the examiners, attendance at the University during this fourth year not being compulsory.

A degree student in Gas Engineering or Fuel and Metallurgy who with the approval of the Senate carries out research work and submits a thesis upon it, and who also satisfies the conditions for the pass degree, may be awarded an Honours degree at the end of the third year.

## III. Ph.D. Course

The Degree of Ph.D. will be awarded to graduates of this and other approved Universities who complete a course of advanced study and research extending over two years in the Department, and also satisfy the other conditions laid down for this Degree.

\* This list is subject to variation, either by substitution or addition, according to the arrangements for special lecture courses which may be in vogue during any particular session or sessions.



#### **IV. Diplomas and Degree Courses for Post-Graduate Students**

(a) A Diploma in either (i) Gas Engineering or (ii) Fuel and Metallurgy will be awarded to graduates of this or some approved University who, having graduated with Chemistry, Engineering, or Metallurgy as a principal subject, shall have attended for at least one year an approved course of lectures and laboratory work, and have passed an examination thereon. Students taking this special Diploma course must put in a full attendance at the University for at least one year.

Honours in Gas Engineering or Fuel and Metallurgy may also be conferred upon candidates who, having graduated in Science at this or an approved University, with Chemistry or Engineering as a principal subject, shall have subsequently (1) completed the course and passed the examination required for the diploma in Gas Engineering or Fuel and Metallurgy; and (2) spent an additional year in research in the department, to the satisfaction of the examiners.

#### **Diplomas and Diploma Courses**

Diplomas in (1) GAS ENGINEERING:

(2) FUEL AND METALLURGY:

Candidates for either of the above Diplomas are required:—

##### **I. *During the Course—***

- (a) To give satisfactory attendance upon the subjects which form any part of the course of study.
- (b) To present themselves for any Departmental examinations that may be held in the subjects forming part of their course of study. The record of students at their Departmental examinations will be taken into account in deciding the results of the Diploma examination.
- (c) To make formal entry, on the prescribed form, not later than March 1st of the last session of the course, and to pay at the same time the prescribed examination fee.

II. *At the end of the Course—*

- (a) To reach a satisfactory standard in any final examination which may be set.
- (b) To translate into English a passage of French or German technical literature. A foreign student who can show that he has received a good general education will be exempted from this language test.

III. A Diploma may be granted upon a degree course provided that the subjects studied for the degree include those prescribed for the Diploma, and that the other conditions are complied with. In such case, if the candidate is a graduate of this University, the fee for the Diploma is reduced to £1.

A student producing evidence of adequate previous scientific or practical training, may, upon application to the Senate, be exempted from a portion of the normal course and may qualify for the Diploma upon a shortened period of study.

The University Diploma in Gas Engineering or Fuel and Metallurgy, will be granted to candidates who have taken one of the courses following, to the satisfaction of the Head of the Department. These courses are arranged for Gas Engineers and Metallurgists who, while wishing to secure a certificate of successful study, cannot for any reason take the B.Sc. degree:—

- (a) a three years' course, the same as for the B.Sc. degree.
  - (b) a two years' course for students exceptionally prepared in general science.
  - (c) a two years' course for students exceptionally prepared in technical subjects.
  - (d) a four years' course to be arranged for students serving an apprenticeship or its equivalent in Gas Engineering or Metallurgy. This course might occupy three days per week or equivalent time for the first year, and at least two and a half days per week or its equivalent in the three succeeding years. A works' report in this case might be submitted for consideration in applying for the Diploma.
- (a), (b), (c) and (d) would lead up to the same Diploma.

There will be a final examination for the diploma which will be the same as that in the principal subjects of the final examination for the degree of B.Sc. in Gas Engineering or Fuel and Metallurgy. The Fee for this examination is £6.

## SYLLABUS OF LECTURE COURSES

### I. Fuel—Introductory

One hour a week throughout the session.

*This Course is specially intended for Engineering Students and others who wish to acquire a general knowledge of fuel ; it will also form part of the first year's course for students taking the B.Sc. Degree in either (i) Gas Engineering or (ii) Fuel and Metallurgy. An elementary knowledge of chemistry is essential in taking this course.*

### II. Fuel

One hour a week (first and second terms).

Subjects of Course I. will be treated in greater detail in these lectures.

#### IIa. The Physical Properties of Gases

One hour a week (first and second terms).

### III. Fuel

(Carbonisation of Coal. Gaseous Fuels.)

One hour a week (first and second terms).

#### IIIa. The Chemical Properties of Gases

One hour a week (first and second terms).

The following three Courses (IV to VI inclusive) will be given by specially appointed outside lecturers

### IV. The Manufacture of Coal Gas

A special Course of 12 Lectures (Wednesdays at 6 and 8 p.m.) during the *second* term (January to March), to be delivered in *alternate* sessions.

**V. The Distribution and Uses of Coal Gas**

Special Courses of Lectures (Wednesdays at 6 and 8 p.m.) during the *second* term (January to March), to be delivered in *alternate* sessions by specially appointed lecturers.

**VI. By-Product Coking Processes**

A special Course of 8 Lectures on Tuesdays, at 6 p.m. during the *second* term in *alternate* sessions by specially appointed lecturers.

**VII. Refractory Materials**

A special course of 12 Lectures on Tuesdays, at 6 p.m. during the *second* term in *alternate* sessions.

**VIII. Metallurgy—General**

One hour a week throughout the session.

The course is intended both as a general introduction to the study of metallurgy and to meet the requirements of students of the Engineering department.

**IX. Metallurgy—Non-Ferrous**

One hour a week throughout the session.

This course covers the principal processes for the extraction of non ferrous metals.

**X. Metallurgy—Iron and Steel**

Two hours a week throughout the session.

**XI. Metallography and Alloys**

One hour a week throughout the session.

This will take the form of special lectures, demonstrations, &c., in which the constitution, micro-structure and heat treatment of industrial alloys will be explained.

**XII. Metallurgy—Principles of Analysis**

One hour a week.

**Fuel and Metallurgical Colloquium**

There will be a weekly colloquium held in the department on Thursdays, at 4 p.m., for the discussion of questions relating to the technology of gases, fuel and metallurgy, and for the review of the current literature of those subjects.

### **Fuel and Metallurgical Laboratories**

The departmental equipment includes a general chemical laboratory, furnace and machine room, calorimeter room, dark room for photometric and micrographic work, museum and a workshop with skilled mechanics in charge. There is a separate building specially designed for the study of the heating and ventilating efficiency of gas appliances. The Corbet Woodall gas plant is specially designed for experimental work on the carbonisation of fuel. It comprises a setting of two horizontal retorts by Gibbons & Co. (Dudley) Ltd., two vertical retorts by the Woodall Duckham & Jones Ltd., machinery by the Bryan Donkin Co., Chesterfield, meter by Parkinson and W. B. Cowan Ltd., condensing, purifying plant and two 1,000 cubic feet gas-holders by Clayton, Son & Co., Leeds, and gas-fired steam boiler by Spencer-Bonecourt, Ltd.

The Laboratories will be open during the session from 9.30 a.m. to 1 p.m. and from 2 to 5 p.m. except on Saturday afternoons.

The practical instruction and research will cover the following subjects :

- (a) Examination of solid and liquid fuels.
- (b) Analysis of gases.
- (c) Preparation, compression and liquefaction of gases.  
Use of high pressure gas.
- (d) Chemical and physical examination of refractory materials.
- (e) Examination of raw materials and by-products of the manufacture of coal gas, coke and producer gas.
- (f) Pyrometry: thermoelectric, resistance, radiation and optical.
- (g) Calorimetry, photometry, radiometry, and the testing of gas heating and lighting appliances.
- (h) Analysis of ores, slags, mattes, alloys, and other metallurgical products.
- (i) Microstructure, heat and mechanical treatment of steel and other industrial alloys.

Special courses for outside students in any of the above subjects may be provided by arrangement with the Professor, and every facility will be afforded to properly qualified persons who may wish to undertake research work in connection with industrial processes.



Students will also be encouraged to make themselves acquainted with the researches which are being carried out in the department, the results of which will, at convenient intervals, be explained.

Each student will be furnished with a separate working table, and will be required to provide himself with a regulation set of apparatus, and any expensive materials which he may need for research purposes. Special apparatus may be obtained on loan, subject to such conditions as may be prescribed by the Professor.

Students will be held liable for any damage arising from careless or unauthorised use of departmental equipment.

#### **Evening Laboratory Work**

The laboratory will also be open on Wednesdays from 6 to 9 p.m. during the second term, and instruction will be given in pyrometry, calorimetry, photometry, gas analysis, general gas works testing, and metallography, to a limited number of students who satisfy the Head of the department of their fitness to enter upon the course.

Fee, 10s. 6d.

#### **GAS RESEARCH FELLOWSHIP**

The Fellowship, established by the Institution of Gas Engineers, of the value of £200 per annum, will be awarded by the Senate, on the recommendation of the Board of Science and Technology, to a duly qualified candidate for the prosecution of post-graduate research in gas chemistry. Preference will be given to candidates who have signified their intention of entering the coal gas industry, or in default of any such candidate, to a person qualifying for some other branch of fuel industry.

The award of the Fellowship will be made annually during the month of June, after due advertisement of it in the technical press and other appropriate journals. Applications for the Fellowship must be made to the Clerk to the Senate on or before May 1st of each year.

It will always be within the power of the Senate, on the recommendation of the Board of Science and Technology, to renew the Fellowship to the holder of the same for a further period of a year, instead of proceeding to a fresh election.

The holder of the Fellowship will undertake research work in the University under the direction of the Professor of Fuel and Metallurgy on some subject connected with the chemistry of gases and combustion. The selection of the subject, and the method of carrying on the work, will be left to the judgment of the Professor responsible for its direction.

The University will provide, free of charge, all reasonable accommodation and facilities required for the prosecution of the research undertaken by the holder of the Fellowship, including working space and the use of the instruments and appliances installed as part of the equipment of the Fuel and Metallurgical Department. Any *special* expenses, not exceeding £25, incurred during the prosecution of the research will be defrayed by the Institution of Gas Engineers.

A report of the research work carried out by the holder of the Fellowship will be submitted to the Council of the Institution of Gas Engineers, as well as to the Senate of the University, on or before May 1st of each year, together with copies of any papers published in connection with the research.

#### **CORBET WOODALL SCHOLARSHIP IN GAS ENGINEERING**

This scholarship was endowed in 1915 by Sir Corbet Woodall, through the Institution of Gas Engineers, and is to be held at the University of Leeds. The annual value of the scholarship is £60 and it is tenable for three years, with power of extension for a fourth year on the recommendation of the Senate to the Corbet Woodall Scholarship Committee. The continuation of the scholarship each year after the first will depend on the work done by the scholar in the previous year being reported to the Committee as satisfactory.

The scholarship is intended to enable a student to take a course of study in Gas Engineering at the University, in preparation for a responsible position as a gas engineer. Candidates for election to the scholarship are required (i) to produce evidence of having reached a standard of scientific or technological education sufficient to enable them to take advantage of the B.Sc. degree, or Diploma

course in Gas Engineering, and (ii) to give an undertaking of their intention to follow the profession of gas engineer. On each vacancy the award of the scholarship will ordinarily be made during the month of June, after due advertisement in the technical press. The scholarship will be awarded by the Senate after consultation with the Corbet Woodall Scholarship Committee.

Each candidate is required to submit (i) a statement of his previous education and of his scientific or technological qualifications, (ii) testimonials (a) from the head of the institute in which he received his previous education, (b) if he has been already engaged in a gas engineering works, from the engineer of the works. The Senate, in conjunction with the Corbet Woodall Scholarship Committee, will determine what examination, if any, is necessary in order to guide them in the award of the scholarship.

The first award of the scholarship was made in 1916.

#### **WILLIAM WALKER EXHIBITIONS**

These Exhibitions are intended to enable students to obtain at Leeds University scientific instruction of an advanced character in the Technology of Coal and its By-products and in the Technology of Leather. Each Exhibition is of the annual value of from £70 to £90 and (subject to the condition named below) is tenable for three years, with power of extension by the trustees for a fourth year in the case of an Exhibitioner who has shown exceptional promise during his course of training at the University. The continuation of the Exhibition each year after the first will depend on the work done by the Exhibitioner in the previous year being reported to the Trustees as satisfactory. The Trustees may, if they think proper, divide the income of each Exhibition between two candidates, or only award part of it in certain cases, as determined by circumstances.

Candidates for election to the Exhibitions must be natives of, or living in the Poor Law Unions of Whitehaven and Bootle, except the Urban District of Millom, and between the ages of 16 and 22.

Applications for leave to enter for the examination and any inquiries for further information should be addressed to the Secretary, Mr. A. C. Clifford, Secondary School, Whitehaven.

## TEXTILE INDUSTRIES

Endowed by the Clothworkers' Company of the  
City of London

The Department comprises the following sections :

- (a) Woollen Yarn Spinning.
- (b) Worsted Yarn Spinning (English and Continental systems).
- (c) Designing, Weaving, and Textile Manufacturing.
- (d) Finishing of Textile Fabrics.
- (e) Textile Testing and Research.

Each section possesses a complete large scale plant of machinery designed and constructed for demonstrating the technicalities of the various processes of manufacture.

In addition to their use for teaching purposes, these sectional plants are employed in connection with the investigations and researches which are undertaken by the staff and advanced students.

The courses of instruction are designed to meet the requirements of

- (a) Controllers of industry
- (b) Merchants
- (c) Inside Managers (Combing, Spinning, Weaving and Finishing)
- (d) Research Workers ; and
- (e) Designers.

### Courses of Study

Although students are admitted for shorter periods, the normal courses of study extend over three years, and in some cases, over four years. Wherever possible students are recommended to take one of the degree courses of study followed by one session's intensive work on Textile problems.

The following are the principal courses of study :

- (A) University Degree of B.Sc. in Textiles.
- (B) University Degree of B.Com., with Textiles as a principal subject.
- (C) Diploma, awarded after one year's post-graduate work following the course for B.Sc. in Textiles, or B.Com. with Textiles as a principal subject.



- (D) Diploma in Textile Industries, awarded principally for technological work.

**A.—Ordinary Degree of B.Sc. in Textiles**

<i>First Year</i>	<i>Second Year</i>
Mathematics for Applied Science	Mathematics F <sub>3</sub> and F <sub>4</sub>
Physics (Introductory)	Physics F <sub>1</sub>
Chemistry (Introductory)	Chemistry F <sub>3</sub>
General Engineering I	Theory of Yarn Structure
Textiles (Introductory)	
<i>Third Year</i>	
Physics F <sub>2</sub>	
Chemical Technology of the Textile Fibres	
Experimental Dyeing (Lecture and Laboratory work)	
Physics and Chemistry of Textile Processes	
Theory of Cloth Structure	
General Engineering IIA	

**B.—Ordinary Degree of B.Com. with Textiles as a Principal Subject**

<i>First Year</i>	<i>Second Year</i>
Mathematics for Applied Science	Economics
Students	Commercial Law
Physics (Introductory)	Statistics
Economics	Theory of Yarn Structure
Commercial Law	Cloth Analysis I
Textiles (Introductory)	Woollen or Worsted Yarn Spinning I
<i>Third Year</i>	
Economics	
Accountancy	
Theory of Cloth Structure	
Cloth Analysis II	
Textile Testing	

**C.—Diploma, following the course B.Sc. in Textiles or B.Com. with Textiles as a principal subject**

<i>Fourth Year</i>
T <sub>5</sub> . Cloth Structure III
T <sub>6</sub> . Loom Study II
T <sub>10</sub> . Cloth Analysis II
T <sub>8</sub> . Colour Study II
T <sub>9</sub> . Cloth Finishing
T <sub>12</sub> . Mill Management
T <sub>11</sub> . Textile Testing and Research

During the fourth year, candidates for the Diploma must present a Thesis dealing with some approved Textile research. Such research must have a Mathematical, Physical, Chemical, or Mechanical basis.



Students taking the degree of B.Sc. or B.Com., or the Diploma, may submit translations and accurate reading of technical French and German as examination subjects.

Graduates of the University and of other approved Universities, who have not taken the courses and passed the examinations above prescribed for the Ordinary Degree of B.Sc. in Textiles or of B.Com. with Textiles as a Principal subject, may be awarded the Diploma, provided that that they have pursued the courses of study and passed the examinations (a) in the technological subjects prescribed for the Ordinary Degree of B.Sc. in Textiles and (b) in the subjects (including the thesis) above prescribed for the Diploma.

N.B.—These requirements will normally involve not less than two years' study.

#### D.—Diploma in Textile Industries

Students who combine with a three years' technological course in the Textile Industries department :—

- (a) The introductory courses of study in Mathematics, Physics and Chemistry ;
- or (b) Introductory courses of study in Economics, Statistics ; Commercial Law and Accountancy ;
- or (c) Courses of study in two approved foreign languages ;
- or (d) Courses of study in Historic Design in the Principles of Ornament and Colour ;

and pass the prescribed examinations in such course, receive the Diploma in Textile Industries.

NOTE.—Courses of training taken in other approved institutions will be accepted as part of the qualifications for this Diploma, provided that the courses taken in the University are the equivalent of not less than two complete sessions' courses of study.

### Lecture Courses, Experimental and Research Work

#### Tr. The Textile Industries (Introductory)

FIRST YEAR : Lectures and practice on Tuesdays from 2 p.m. to 5 p.m.

SUBJECTS.—The various Textile Fibres, their distribution and growth ; the basic principles of Manipulation.

**T1a. Materials Study**

SECOND YEAR: Lectures and Practice on Tuesdays, from 3 to 5 p.m.

SUBJECTS.—Wool, Cotton, Silk, Flax, &c., qualities, properties and uses; samples illustrating the various Manufacturing Processes; Compilation of Materials Book.

TEXT BOOK

*Textiles* (Constable & Co.)

**T2. The Theory of Yarn Structure**

SECOND YEAR: Lectures on Thursdays, from 9 to 10 a.m.

SUBJECTS.—Physical bases of yarn structures; twist; strains; the trigonometry involved; problems involving the differential and integral calculus; mechanical principles involved.

TEXT BOOK

*Woollen and Worsted Spinning* (Cassell & Co.).

**T3. Woollen Yarn Spinning I**

FIRST YEAR: Lectures and Practice on Thursdays, from 2 to 5 p.m.

SUBJECTS.—Characteristic features of a typical woollen thread, variation due to the use of materials varied in quality and lengths, features due to special methods of treatment in manufacture; Processes up to drying; Machinery; Calculations.

Students attending this course should also attend T1 The Textile Industries (Introductory).

**T3a. Woollen Yarn Spinning II**

SECOND YEAR: Lectures and Practice on Tuesdays, from 2 to 5 p.m.

SUBJECTS.—Processes including carding and spinning; Machinery; Calculations.

Students attending this course are also required to attend T2, The Theory of Yarn Structure.

**T4. Worsted Yarn Spinning I**

(English and Continental Systems.)

**FIRST YEAR:** Lectures and Practice on Mondays, from 2 to 5 p.m.

**SUBJECTS.**—Characteristic features of a typical worsted thread, variations due to the use of materials varied in quality and length, features due to special methods of treatment in manufacture; Processes including preparing, carding, combing and finishing; Machinery; Calculations.

Students taking this course should also attend the T1 The Textile Industries (Introductory).

**T4a. Worsted Yarn Spinning II**

**SECOND YEAR:** Lectures and Practice on Fridays, from 2 to 5 p.m.

**SUBJECTS.**—Materials; Processes including drawing, spinning, twisting and finishing; Machinery; Calculations.

Students attending this course should also attend T2 The Theory of Yarn Structure.

**TEXT BOOKS**

*Wool Carding and Combing* (Cassell & Co., Ltd.)

*Woollen and Worsted Spinning* (Cassell & Co., Ltd.)

**REFERENCE BOOKS FOR WOOLLEN AND WORSTED SPINNING.**

*Textiles* (Constable & Co.)

*Woollen and Worsted* (G. Bell & Sons).

**Experimental Work**

*Woollen Section.*—Experiments in scouring, blending, carding, spinning and twisting.

*Worsted.*—Experiments in carding, gilling, combing, drawing, spinning and doubling.

The building, setting, construction, and manipulation of the different machines.

Senior students will also have practical demonstrations on the output and adaptability of the machines for the production of different types of yarn.

**T5. Cloth Structure I**

FIRST YEAR: Lectures on Tuesdays, from 10.30 to 11.30 a.m.

SUBJECTS.—*Structures*: Plain, twill, sateen, &c. types; drafted styles; loom mountings, tappet and dobby effects.

**T5a. Cloth Structure II**

SECOND YEAR: Lectures on Thursdays, from 10.30 to 11.30 a.m.

SUBJECTS.—*Structures*: Backed cloths, double cloths and cut double cloths; reversible double cloths; treble cloths; matelasses; drafting and complex loom mounting.

**T5b. Complex Textiles III**

THIRD YEAR: A course of study on Mondays, from 10.30 to 11.30 a.m.

SUBJECTS.—Cloth Structures including tapestry, gauze and plush styles.

**T5c. The Theory of Cloth Structure**

THIRD YEAR: Lectures on Wednesdays, 10 to 12 a.m.

SUBJECTS.—Properties of yarns; theories of interlacing; the trigonometry involved; weights of cloths; graphs; problems involving the differential and integral calculus.

**TEXT BOOKS**

*Textile Design* (Methuen & Co.)

*Textiles* (Constable & Co.)

**Experimental Work**

The experimental hand and power loom weaving is organized to enable the student to grasp more perfectly the fundamental principles dealt with in the lecture room.

During the third and fourth years students have the opportunity of selecting the raw material, spinning it into yarn, weaving it into cloth, and finally finishing the cloth. By this means a sound, all-round practical knowledge of wool manufacturing is attained.

## T6. Loom Study I

FIRST YEAR: Lectures on Tuesdays, from 2 to 3 p.m.

SUBJECTS.—The primary motions in weaving; the treadle and dobby hand looms; the principles of shedding, picking, beating up, letting-off, taking-up and boxing.

The power loom: the various types of tappet looms; the simple dobby loom; taking-up mechanisms; picking mechanisms.

## T6a. Loom Study II

SECOND YEAR: Lectures on Wednesdays, from 4 to 5 p.m.

SUBJECTS.—The various types of dobby looms; shedding mechanisms; boxing mechanisms; special constructions and mountings.

The various types of jacquards—single and double lift—centre and open shedding; harness calculations; harness and shaft mountings; split harness and pressure harness mountings.

Shed designs and organisation.

## TEXT BOOK

*The Mechanism of Weaving* (Longmans & Co.)

## REFERENCE BOOK

*Jute and Linen Weaving* (Macmillan & Co.)

## T7. Textile Calculations I

FIRST YEAR: Lectures on Tuesdays, from 9.30 to 10.30 a.m.

SUBJECTS.—Wool yields; conditioning and re-gains; material calculations from carded or prepared sliver to finished yarn; yarn counting and calculations; yarn diameters; twist calculations; the set systems and set calculations; warp and weft calculations; cloth calculations; the metric system of calculations for yarns and cloth; complex yarn and cloth calculations; the weights of cloths.

## TEXT BOOKS

*Textile Design* (Methuen & Co.)

*Analysis of Woven Fabrics* (Scott, Greenwood & Son)



**T8. Colour Study I**

**FIRST YEAR:** Lectures on Tuesdays, from 11.30 a.m. to 12.30 a.m.

**SUBJECTS.**—Colour theories and the attributes of colours ; contrast and analogy ; colour blending ; application of colour to woven design ; special colour and weave effects ; synthesis and analysis of colour and weave effects.

**T8a. Colour Study II**

**SECOND YEAR:** Lectures on Thursdays, from 11.30 a.m. to 12.30 p.m.

**SUBJECTS.**—The economical introduction of colour into woven fabrics ; the colour limitations of woven design ; the introduction of colour into stripes, checks and figured fabrics the colouring of special woven styles ; the colouring of double cloths, gauzes and plushes.

**REFERENCE BOOK**

*Colour in Woven Designs* (Whittaker & Co.)

**T9. Cloth Finishing**

Lectures on Fridays, from 9.30 to 10.30 a.m.

**SUBJECTS.**—The objects of finishing : Scouring, crabbing, milling, drying, and tentering, raising, brushing, and steaming, cutting, and pressing.

Changes in fabrics from the loom to the finished state ; shrinking ; particular finishes ; finishing costs.

**TEXT BOOKS**

*Finishing of Woven Fabrics* (Scott, Greenwood & Son).

*Analysis of Woven Fabrics* (Scott, Greenwood & Son).

**T10. Cloth Analysis I**

**FIRST YEAR:** Lectures and Demonstrations on Thursdays, from 10.30 to 11.30 a.m., with class work on Thursdays, 9.50 to 10.30 a.m., and 11.30 a.m. to 12.30 p.m.

**SUBJECTS** —The analysis of simple weaves, twills, sateens, and corkscrews ; the analysis of simple textural stripes and checks ; the analysis of colour effects and colour and weave relationships ; weights of materials ; finished weights per yard.

**T10a. Cloth Analysis II**

SECOND YEAR: Lectures and Demonstrations on Fridays, from 10.30 to 11.30 a.m., with class work on Wednesdays, from 2 to 3 p.m., and Fridays, from 11.30 a.m. to 12.30 p.m.

SUBJECTS.—The analysis of the more complex single structures; the analysis of warp and weft backed cloths and imitation backed cloths; the analysis of double and triple cloths, fancy fabrics, &c.; calculations on production; departmental costings.

NOTE.—Additional Cloth Analysis may be taken by special arrangement.

**TEXT BOOK**

*The Analysis of Woven Fabrics* (Scott, Greenwood & Son).

**T11. \*Textile Testing**

Lectures or demonstrations on Mondays, from 11.30 a.m. to 12.30 p.m.

Microscopic examination, fibres, yarns and fabrics; fibre, yarn and cloth testing for strength, elongation and elasticity; quality tests of yarns and fabrics; physical qualitative tests; the study and use of special testing apparatus.

**T12. Mill Design and Management**

Lectures and practice on Wednesdays, from 10 a.m. to 12 noon.

SUBJECTS.—Site selection; buildings; drainage; lighting; power; equipment; estimates of cost for typical plants; production of machines and sectional plants; book-keeping; costings.

**T13. The Chemical Technology of Textile Fibres,  
Water and Mordants**

Lectures on Mondays and Wednesdays, at 12 noon during the first term. (Colour, Chemistry and Dyeing Department).

**T14. Experimental Dyeing**

Lectures and laboratory work on Friday afternoons during the first and second terms.

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\* NOTE.—Students take the Chemical Technology of the Textile fibres in the Dyeing Department. Large scale experiments, however, may be arranged for in the Textile Industries Department.

**T15. The Elements of Physical and Colloid Chemistry,  
with special reference to the requirements of Textile  
Technology**

Lectures and laboratory work for six hours per week during the first term.

**T16. The Special Physics and Physical Chemistry of  
Textile Materials and Processes**

Lectures and laboratory work for six hours during the second and third terms.

**Research Work**

The equipment in the various sections of the department affords special facilities for original research in the processes of yarn spinning, fabric structure and designing and finishing. Special arrangements are also made for those students specialising in Textile Engineering to conduct special researches in the Textile Industries Department.

**Art Applied to Textile Design**

Mr. FARLEY

The courses of study relate to the analysis, composition and colour qualities of decorative design applicable to the various styles of woven fabrics, and comprise first, second, and third year classes in both lectures and practice.

Textile students for the Diploma in Textile Industries in combination with Design and also students in the Designing of carpets, tapestries, mantle cloths and other figured fabrics are required to take the courses in Applied Art.

Students from the Leeds School of Art are also admitted to these courses at the discretion of the Professor.

**T17. First Year Course**

Lectures on Wednesdays, from 10-30 to 11-30 a.m.

Practical Work in the Art Studio by special arrangements to fit in with the student's time table.

*Text Book for First and Second Year Courses  
Ornamental Design for Woven Fabrics (Methuen & Co.)*

**T17a. Second Year Course**

Lectures on Thursdays, from 11-30 a.m. to 12-30 p.m.

Practical work in the Art Studio on Thursdays, from 9-30 to 11-30 a.m., and from 2 to 4 p.m.

**T17b. Third Year Course**

Wednesdays or Thursdays, from 9-30 a.m. to 12-30 p.m. and from 2 to 4 p.m.

*Arrangements may be made by which students who wish to devote themselves more closely to the artistic side of Textile Design may attend the Department for two or more days per week.*

**T18. Economics, Statistics, Commercial Law and Accountancy**

For these subjects students are referred to the prospectus of the Department of Economics.

**T19. Technical French, German, Spanish and Russian**

Students are advised to take the special classes usually arranged in the several Language Departments of the University for technological students.

**T20. Textile Course for Students of the Colour Chemistry and Dyeing Department**

A course of about twenty lectures and demonstrations on textile manufacturing (raw materials, spinning, weaving, and cloth finishing) during the first and second terms.

1. The first of these is the fact that the system is not a simple one, but a complex one, involving many different factors, and the results of which are not always the same.
2. The second is the fact that the system is not a simple one, but a complex one, involving many different factors, and the results of which are not always the same.
3. The third is the fact that the system is not a simple one, but a complex one, involving many different factors, and the results of which are not always the same.
4. The fourth is the fact that the system is not a simple one, but a complex one, involving many different factors, and the results of which are not always the same.
5. The fifth is the fact that the system is not a simple one, but a complex one, involving many different factors, and the results of which are not always the same.
6. The sixth is the fact that the system is not a simple one, but a complex one, involving many different factors, and the results of which are not always the same.
7. The seventh is the fact that the system is not a simple one, but a complex one, involving many different factors, and the results of which are not always the same.
8. The eighth is the fact that the system is not a simple one, but a complex one, involving many different factors, and the results of which are not always the same.
9. The ninth is the fact that the system is not a simple one, but a complex one, involving many different factors, and the results of which are not always the same.
10. The tenth is the fact that the system is not a simple one, but a complex one, involving many different factors, and the results of which are not always the same.



## DEPARTMENT OF COLOUR CHEMISTRY AND DYEING

The instruction given in this Department is primarily directed towards the provision of a sound and broad education in preparation for a career in any of the branches of industry in which the chemistry of the colouring-matters and of textile fibres and processes plays an important part. The courses of study arranged qualify students for taking positions as dyers' chemists, masters of dyeworks, practical dyers, printworks chemists, bleacher's chemists, experts in dyestuff analysis, travelling chemists to dye manufacturers, chemists in colour works, lake-pigment manufacturers, chemists in textile works, chemists in artificial silk works, &c. Advanced chemical students can also make arrangements to carry out special work in the department in any of the collateral branches of chemical industry based upon applied organic chemistry, such as tar and petroleum distillation and products, synthetic drugs, synthetic perfumes, cellulose products, ink manufacture, &c.

The particulars which follow give the courses of study prescribed for students who have not already passed through a chemical training. Students holding a science degree of any University (English or foreign), the Associateship or Fellowship of the Institute of Chemistry, or otherwise bringing forward evidence of sufficient previous education in pure chemistry and general science will be admitted to the later stages of any of the courses and will be permitted to undertake at once more specialised work in the department.

The lectures upon "Colouring Matters" are open to senior chemical students without entrance upon any special course or other work in the department.

Attention is drawn to the provisions of the Ordinances of the University by which periods of study and examinations passed at other Universities may be accepted by the Senate as exempting undergraduates from a certain amount of attendance and from certain examinations in this University.

Graduates or persons who have passed the Final examinations for degrees of other approved Universities may, under certain conditions, enter the University and after not less than two years of attendance on advanced study or research, become candidates for the degree of Ph.D. or M.Sc. without taking the B.Sc. degree.

## SYLLABUS OF COURSES

### I. Four Years' Course qualifying for the Honours B.Sc. Degree in Colour Chemistry

Suitable for those desiring to become chemists in colour works, dyers' chemists, print works chemists, travelling chemists for dye manufacturers, experts in analysis of dyewares, &c.

If taken after Matriculation this course qualifies for an Ordinary or Honours B.Sc. degree. Unmatriculated students are eligible for the Diploma in Colour Chemistry under the conditions mentioned in Section II below.

#### First Year

	<i>Per week</i>
Lectures on Chemistry (Introductory Course) ...	4 hrs.
Chemical Laboratory ... ..	21 „
Lectures on Physics (Introductory Course) ...	3 „
Physical Laboratory ... ..	3 „
Mathematics (Introductory Course) ...	3 „
German ... ..	...

The work in the chemical laboratory will consist of inorganic preparations and qualitative analysis.

#### Second Year

	<i>Per week.</i>
Lectures on Inorganic and Organic Chemistry (F <sub>1</sub> and F <sub>3</sub> ) ... ..	6 hrs.
Chemical Laboratory... ..	18 „
Experimental Dyehouse ... ..	8 „
German ... ..	2 „

The work in the chemical laboratory will consist of quantitative analysis, organic analysis, and organic preparations.

Third Year				Per week.
Experimental Dyehouse, Calico Printing, and				} 24 hrs.
Practical Dyehouse ... ..				
Colour Chemistry Laboratory ... ..				} 3 "
Lectures on Chemistry (F <sub>2</sub> ) ... ..				
Lectures on Chemical Technology of Textile				} 3 "
Fibres (1st Term) ... ..				
Lectures on the Chemistry and Technology of				} 3 "
Dyeing (2nd Term) ... ..				
Lectures on General Engineering (I) ... ..				3 "
German ... ..				
Practical Cloth Finishing (3rd Term) ... ..				3 "
Lectures on the Chemistry of Intermediates and				
Dyes (Introductory Course) ... ..				1 "

Fourth Year				Per week.
Colour Chemistry Laboratory ... ..				26 hrs.
Lectures on Artificial Colouring Matters (1st and				} 4 "
2nd Terms) Parts 1 and 2 ... ..				
Lectures on Natural Colouring Matters (1st and 2nd				
Terms) ... ..				1 "

It is desirable that all students in their fourth years should take the Lectures on Organic Chemistry (H.I.) during the 1st and 2nd terms.

Research work may be undertaken by the more advanced students.

## II. Four Years' Course for Colour Chemists qualifying for the Diploma in Colour Chemistry

This course is identical with that qualifying for an Honours B.Sc. degree, and has been arranged to meet the requirements of unmatriculated students.

## III. Three Years' Course qualifying for the Ordinary Degree of B.Sc. in Dyeing

First Year				Per Week.
Lectures on Chemistry (Introductory Course) ...				3 hrs.
Chemical Laboratory ... ..				15 "
Lectures on Physics (Introductory Course) ...				3 "
Physics Laboratory ... ..				3 "
Mathematics (Introductory Course) ... ..				3 "

## Second Year

			<i>Per Week.</i>
Lectures on Chemistry (F1 and F3)	...	...	6 hrs.
Chemical Laboratory	...	...	18 "
Experimental Dyehouse	...	...	8 "

## Third Year

			<i>Per Week.</i>
Experimental Dyehouse, Calico	...	...	} 22 hrs.
Printing and Practical Dyehouse	..	...	
Colour Chemistry Laboratory	...	...	
Lectures on Chemistry (F2)	...	...	3 "
Lectures on Chemical Technology of Textile Fibres (1st Term)	...	...	} 3 hrs.
Lectures on the Chemistry and Technology of Dyeing (2nd Term)	...	...	
Lectures on General Engineering (I)	...	...	3 "
Practical Cloth Finishing	...	...	3 "
Lectures on the Chemistry of Intermediates and Dyes (Introductory Course)	...	...	1 "

#### IV. Three Years' Course qualifying for the Diploma in Dyeing

This Course is very similar to that for the Ordinary B.Sc. Degree and has been arranged to meet the requirements of unmatriculated students.

## First Year

			<i>Per week.</i>
Lectures on Chemistry (Introductory Course)	...	...	4 hrs.
Chemical Laboratory	...	...	21 "
Lectures on Physics (Introductory Course)	...	...	3 "
German	...	...	...

The work in the chemical laboratory will consist of inorganic preparations and qualitative analysis.

## Second Year

			<i>Per week.</i>
Lectures on Inorganic Chemistry (F1)	...	...	3 hrs.
Lectures on Organic Chemistry (F3)	...	...	3 "
Chemical Laboratory	...	...	14 "
Experimental Dyehouse	...	...	16 "
German	...	...	...

Third Year				Per week.
Experimental Dyehouse	}	...	...	27 hrs.
Practical Dyehouse				
Calico Printing				
Lectures on Chemical Technology of Textile	}	...	...	3 "
Fibres (1st Term)				
Lectures on Dyeing (2nd Term)...				
Lectures on General Engineering (I)				
Practical Cloth Finishing (3rd Term)		...	...	3 "

## V. Part-time Dyers' Apprenticeship Course

This course is designed for those who wish to make arrangements to be simultaneously apprenticed in a Dye-Works. The course will cover five years but work at the University will only extend over two terms in each year, viz: from the beginning of October to the end of March, the remainder of the year being spent in the works.

An alternative arrangement (especially recommended if the student is under 16) is for the first year to be spent entirely in the Dye-Works, the second, third and fourth years half-time at the University as above, and the fifth year entirely at the University.

The articles of apprenticeship must contain a provision that the apprentice is entitled to spend the whole of his time at the University during the periods specified.

The full course qualifies for the Diploma in Dyeing.

First Year				Per week.
Chemistry Lectures (Int. Course)	...	...	...	4 hours
Chemical Laboratory	...	...	...	23 "
Physics Lectures	...	...	...	3 "
Physical Laboratory	...	...	...	3 "

Fee for the Half-year (including Library and Union Fees),  
£28.

Second Year				
Inorganic Chemistry Lectures (F 1)	...	...	...	3 hours
Chemical Laboratory	...	...	...	27 "
Experimental Dye-house	...	...	...	3 "

Fee for the Half-year (including Library and Union Fees),  
£28.



**Third Year**

Organic Chemistry Lectures (F 3)	...	...	3	hours
Chemical Laboratory	...	...	12	"
Engineering (I)	...	...	3	"
Experimental Dye-house and Dyeing Laboratory	...	...	12	"

Fee for the Half-year (including Library and Union Fees),  
£31.

**Fourth Year**

Organic Chemistry Lectures	...	...	3	hours
Lectures on Chemical Technology of Textile	}			
Fibres (1st term)				
Lectures on Dyeing (2nd term)				
Experimental Dye-house and Dyeing Laboratory	...	...	24	"

Fee for the Half-year (including Library and Union Fees),  
£31.

**Fifth Year**

Lectures on Artificial Dyestuffs	...	...	3	hours
Experimental Dyehouse	...	...	}	30 "
Dyeing Laboratory	...	...		
Practical Dye-house	...	...		
Calico Printing	...	...		
Textile Manufacture	...	...		

Fee for the Half-year (including Library and Union Fees)  
£31.

Diploma students are required at some time during their course to attend such classes in German as will qualify them to pass the reading test in this language.

### **Regulations for Diplomas in Dyeing and Colour Chemistry**

Candidates for either of these Diplomas are required :—

#### **I. During the Course—**

- (a) To give satisfactory attendance upon the subjects which form any part of the course of study.

- (b) To present themselves for any Departmental examinations that may be held in the subjects forming part of their course of study. The record of students at their Departmental examinations will be taken into account in deciding the results of the Diploma examination.
- (c) To make formal entry, on the prescribed form, not later than March 1st of the last session of the course, and to pay at the same time the prescribed examination fee.

II. *At the end of the Course—*

- (a) To reach a satisfactory standard in any Final examination which may be set.
- (b) To translate into English a passage of French or German technical literature. A foreign student who can show that he has received a good general education will be exempted from this language test.

III. A Diploma may be granted upon a degree course provided that the subjects studied for the degree include those prescribed for the Diploma, and that the other conditions are complied with.

A student producing evidence of adequate previous scientific or practical training, may, upon application to the Senate, be exempted from a portion of the normal course and may qualify for the Diploma upon a shortened period of study.

## SYLLABUS OF LECTURES

### I. The Chemical Technology of Textile Fibres, General Course. Water and Mordants

Mondays and Wednesdays at 11-30 a.m. during the first term.

The lectures will deal with the following subjects:—

Isolation, purification, and bleaching, of the various vegetable and animal fibres: cotton, linen, ramie, jute, hemp, wool, mohair, silk, etc. Chemical and physical

properties of the textile fibres and differences in behaviour with reagents. Chemical constitution and identification. Conditioning of fibres. Manufacture and properties of various forms of artificial silk. Other cellulose products: paper, gun cotton, xylonite, viscoide, acetylcellulose. Mercerisation of cotton. Carbonisation and chlorination of wool. Wool recovery; identification of shoddy fibre in wool. Methods of increasing and diminishing the dyeing affinity of wool and cotton. Methods of weighting silk and of estimating the degree of weighting. Water-proofing of woollen materials. Fire-proofing of cotton materials. Faults in fabrics and their investigation. Stripping and stripping-agents. Water-softening and water-analysis. Treatment of factory effluents. Recovery of wool grease from wool-washing liquors. Mordants, their use and manufacture.

*Books recommended*

Georgievics, *Chemical Technology of Textile Fibres*.

Matthews, *Textile Fibres*.

Dannerth, *Methods of Textile Chemistry*.

## II. The Chemistry and Technology of Dyeing, General Course

Mondays and Wednesdays, at 11-30 a.m. during the second term.

This course forms a continuation of I, and covers the following subjects:—

Theory of dyeing. Relationships between chemical constitution of dyestuffs and fibres. Classification of dyestuffs. Methods of application in dyeing and textile printing of the various classes of dyestuffs: basic, acid, mordant, salt, insoluble, developed, sulphide, vat. Chemical constitution of the various dyestuff types. Analysis of dyestuffs on the fibre. Testing colours for fastness. Dyeing machinery. Choice of dyestuffs for specific purposes. Dyeing of union materials and of mixed materials of wool, silk, cotton, artificial silk, &c. Machinery and processes of calico-printing.

*Books recommended*

Knecht, Rawson, & Loewenthal, *Manual of Dyeing* (2 vols.)

Hübner, *Bleaching and Dyeing of Fibrous Materials*.

Matthews, *Application of Dyestuffs*.

Whittaker, *Dyeing with Coal Tar Dyestuffs*.

### III. Supplementary Course

Fridays at 11-30 a.m. during the first and second terms.

These lectures form a continuation of the general course, and will deal more fully with the following subjects in the light of works practice :—

Water for textile purposes, its purification and analysis. The manufacture and properties of artificial silk and of mercerised cotton. Preparation of mordants and chemistry of their application to the various fibres. Dyeing properties of the acid, basic and salt dyestuffs. Analysis of dyestuffs on the fibre. Choice of colouring matters for specific purposes. The dyeing of artificial silk, and of unions, satins, gloria, etc. Arrangement of the dyehouse, and general resumé of the more important machinery requisite for dyeing and textile printing.

### IV. Special Course for Textile Students

This Course will consist of 10 lectures (at times to be arranged). The Experimental Dyehouse will also be open to suit the times of the students.

The work undertaken will be similar to that under Paragraph A (Experimental Dyeing Laboratory). See later page.

### V. The Chemistry of Intermediates and Dyes (Introductory Course)

Thursdays, 4 p.m., 1st and 2nd terms.

Raw materials used in the dyestuff industry. Processes of sulphonation, alkali fusion, nitration, reduction, and alkylation. Classification of dyestuffs according to their chemical structure: chromophores, chromogens, auxochromes, leucocompounds, quinoid theory, nitro, nitroso, azo, stilbene, diphenylmethane, triphenylmethane, xanthene, acridine, anthracene, indamine, thiazine, oxazine, azine, indigoid, thiazol, and sulphur dyes.

*Books recommended,*

A. Wahl, *Organic Dyestuffs* (translated by F. W. Atack).

### VI. Chemistry of the Artificial Colouring Matters (Part I)

Mondays and Wednesdays at 4 p.m., during the first and second terms.



The lectures will comprise the following subjects :

Origin and historical development of the coal-tar industry. Distillation of coal-tar and separation of benzene, toluene, xylene, naphthalene, anthracene, phenol, cresol, pyridine, &c. Constitution of benzene. Isomerism and orientation in the benzene series. Laws of substitution in the benzene, and naphthalene series. Valuation of commercial products. Preparation of intermediate products: nitro compounds, sulphonic acids, amines and their derivatives, diamines, phenols, amidophenols, halogen compounds, aldehydes, ketones, quinones, diazo compounds, &c. Relation between chemical constitution and colour; quinonoid theory of dyestuffs. Quinonoid addition as the mechanism of dyestuff formation. Classification of dyestuffs according to their chemical structure: nitroso, nitro, azo, triphenylmethane, xanthene, acridine, anthracene, indamine, azine, oxazine, thiazine, thiazol, quinoline, and indigoid groups. The manufacture, properties and constitution of important typical examples of these groups. General methods and plant employed. Recent progress.

#### VII. Chemistry of Artificial Colouring Matters (Part II)

Tuesdays and Thursdays at 11-30 a.m. during the first and second terms.

This course is intended more especially for those students who desire to enter a Colour factory, and will present a detailed account of the derivatives of naphthalene, diazo compounds, and the azo, pyrazolone, and anthraquinone vat colouring matters. Special attention will be devoted to the more important types of factory plant, the materials involved in their construction, and to works practice in general.

##### *Books recommended*

- Cain & Thorp, *The Synthetic Dyestuffs*.  
 Bucherer, *Lehrbuch der Farben-Chemie*.  
 Möhlau & Bucherer, *Farbenchemisches Praktikum*.  
 Mason, *A Text Book of Dye Chemistry*.  
 Rowe, *Colour Index*.  
 Thorp & Ingold, *Synthetic Colouring Matters, Vat Colours*.  
 Hewitt, *Synthetic Colouring Matters, Dyestuffs derived from Pyridine, Quinoline, Acridine, and Xanthene*.



### VIII. Chemistry of Natural Colouring Matters

Fridays at 4 p.m. during the first and second terms.

The lectures will deal with the origin, chemistry and technology of the principal natural dyestuffs: Madder, logwood, brazilwood, cochineal, barwood, safflower, cudbear, orchil, weld, turmeric, quercitron bark, Persian berries, fustic, catechu, indigo.

#### *Books recommended*

*Chemie der Naturlichen Farbstoffe*, by H. Rupe.

*Thorpe's Dictionary of Applied Chemistry*.

*The Natural Organic Colouring Matters*, by Perkin & Everest.

### LABORATORY WORK

#### A. Experimental Dyeing Laboratory

Open for work every weekday during the session from 9 a.m. to 5 p.m., Saturdays 9 a.m. to 1 p.m. The laboratory is fitted up with modern dyebaths suitable for comparative dyeing trials, drying stoves, and other appliances.

The work undertaken will include the following subjects:— Systematic dyeing trials with the different groups of dyestuffs upon cotton, wool, and silk. Application of various mordants and assistants. Methods of dyeing union materials. Also the dyeing of artificial silk, linen, ramie, &c. Principles of colour mixing and matching. Scouring and bleaching of cotton and wool. Quantitative dyeing of colouring matters for strength and shade. Identification and analysis of colouring matters on the fibre. Testing colouring matters for fastness. Preparation and analysis of mordants. Analysis of water and removal of impurities. Technical analysis and valuation of dyewares, soap, oils, etc. Detection of different fibres and estimation in mixtures. Examination of newly introduced colouring matters, and determination of their value as dyestuffs. Investigations upon dyeing processes. The use of the colorimeter, tintometer, and spectroscope. Identification of impurities in grey and dyed cloths. Examination of "finishes." Identification of stains and faults in dyed materials, and their removal.

A special exposure chamber in an elevated position provides facilities for making tests of the fastness of colours to light.

### **B. Practical Dyehouse**

The Practical dyehouse is equipped with machines for dyeing both wool and cotton in their various stages of manufacture. The machines are all of modern type and include Callebaut & D'Blicquy top and loose wool, Simplex, Hussong, Winch machines, and Jigger.

In this dyehouse all students of dyeing receive training in the treatment of various classes of textile materials.

Arrangements have also been made with the Technical College, Bradford, by which Senior Students of the Leeds University can, if they desire, spend a short period in the Practical Dyehouse of the Bradford College.

### **C. Calico Printing**

A practical course in calico printing is held during the third term, the work comprising experiments in the different styles, discharges, resists, printing with diazo compounds, aniline black, indigo, &c.

### **D. Colour Chemistry Laboratories**

The laboratories are spacious buildings provided with every facility for the conduct of chemical work upon colouring matters. The work carried out comprises the following subjects:

#### **Third Year Laboratory**

Quantitative analyses of raw products and intermediates. Technical methods of analysis. Preparation of intermediates and dyes by technical methods, etc.

#### **Fourth Year Laboratory**

Identification of dyestuffs. Critical study of intermediates, their isolation and properties. Analyses of dyestuffs and their intermediate products. Ultimate analyses of organic compounds. Researches upon artificial and natural colouring matters. Solution of technical problems, etc.

### **Practical Cloth Finishing**

A short series of lectures is given in the Textile Department to students on the treatment of wool from the raw state to the finished cloth, and of the properties of the material in the various stages of its manufacture.

### **E. Clothworkers' Research Laboratory**

#### **RESEARCH WORK**

Special facilities are provided for the conduct of original research in the chemistry of artificial and natural colouring-matters, and upon dyeing processes. The laboratory is a spacious one and well equipped for carrying out scientific and technical investigations in these subjects. Post graduate and other advanced students are admitted to research work under the direction of the Professor, and will find an extra year thus spent greatly to their future advantage. Graduates of other Universities (British or foreign), and other qualified chemists, may also obtain admission as research workers for any period desired.

#### **Special Fees for Apparatus, Chemicals and Dyeing Materials**

To cover cost of materials and loan of special or large apparatus, fourth year degree students are required to pay £3 3s., third year degree students £2 2s., second year degree students 10s. 6d., third year diploma students £1 11s. 6d., and second year diploma students £1 1s. per session. Part time students from 10s. 6d. to £1 11s. 6d. per session, according to time worked. All ordinary apparatus, however, must be provided by the student.

Students can only start work after production of receipts for these amounts respectively.

#### **RESEARCH SCHOLARSHIPS AND FELLOWSHIPS**

A research scholarship of the value of £60, tenable in this laboratory, is awarded annually upon the results of the Final examination for the B.Sc. degree, preference

being given to candidates who graduate with honours in colour chemistry and dyeing. The scholar will be required to devote his whole time to carrying out some special branch of research in colour chemistry.

A Research Fellowship of the value of £100 per annum will be awarded from time to time by the Senate upon the recommendation of the Board of Science and Technology, for the prosecution of scientific investigations in Textile and Colour Chemistry, under the direction of the Professor or other member of the teaching staff. Preference will be given to candidates who have graduated in the University of Leeds with Honours in Colour Chemistry.

The Fellow will be required to devote the whole of his time to the pursuit of the research in question, and (unless the results are published in the form of a communication to a scientific or technical journal) to present a report of the work to the Senate.

It will be in the power of the Senate on the recommendation of the Board of Science and Technology, to renew the Fellowship to the holder of the same for a second year, instead of proceeding to a fresh election.

#### **Museum**

The museum of natural and artificial dyestuffs and textile fibres is open to students daily.

#### **Work during Vacation**

The laboratories of the department will be open to qualified students for research and private study during a part of the long vacation, but students are strongly recommended to employ the time in gaining practical experience in works wherever such a course is possible. The Professor will be glad to give advice before the end of the term as to suitable courses of vacation study, and to consider applications from students desiring the use of the laboratory.

#### **Positions on Leaving**

Students who have taken the full courses as recommended above, and have done satisfactory work during the period may rely upon receiving all possible assistance in obtaining



suitable positions when their term of study is completed. The Professor takes a personal interest in placing students, and keeps a record of firms having vacancies.

#### **Examinations of the City and Guilds of London Technical Institute**

The above courses prepare for the technological examinations of the City and Guilds of London Institute in Dyeing and also in Coal Tar Products and colouring matters. Students of the Department are recommended to present themselves for these examinations in the last year of their University course.

In connection with these examinations, certificates, money prizes, and silver and bronze medals are awarded to the successful candidates. The examinations are held annually at the University in April, May, or June. Entries for the next examination will be received by the Local Secretary, The University, Leeds, not later than March 1st, of each year.

#### **Institute of Chemistry**

Students who have graduated in Colour Chemistry with First or Second Class Honours, and who have attained the age of 21 years are eligible to apply for admission to the Associateship of the Institute of Chemistry without further examination.

Forms of Application and Forms of Regulations for the admission of Students, Associates, and Fellows may be obtained from the Registrar, Institute of Chemistry, 30, Russell Square, London, W.C.1.

#### **EVENING CLASSES**

The evening classes are conducted in co-ordination with the schemes of Technical Education instituted by the Education Committees of the Leeds City Council and of the West Riding of Yorkshire. All candidates for admission to these classes are required to furnish evidence of adequate preparation for the course of study which they propose to take.

For further particulars see Evening Class Prospectus.



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THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

## DEPARTMENT OF LEATHER INDUSTRIES

### COURSES OF INSTRUCTION

The course of study aims in the first instance at familiarising students, both by information in lectures and by practical handling of the material, with the principles and details of the tanning process, and the reasons why particular modes of treatment produce particular effects. This knowledge once gained, the student is in a position to judge of the causes of defects, and the changes which it is necessary to make to prevent or remedy them or to modify the leathers produced in such a way as may meet the requirements of the trade. Methods of chemical and microscopical analysis are taught and practised for determining the purity and value of the various materials employed, and for controlling the different stages of the tanning process. In the latter part of the course, students are allowed to attempt the practical production of leathers in which they are interested, and to study the smaller details of the processes. Particular attention is paid to leather dyeing and the manufacture of coloured leathers, and small quantities of almost all kinds of leather are produced of commercially saleable quality.

The Laboratories are open during the session from 9 a.m. to 1 p.m., and from 2 to 5 p.m. except on Wednesday and Saturday afternoons. No student is admitted to work until he has satisfied the Professor by examination or otherwise that he has a sufficient knowledge of general chemistry to enable him to profit by special work.

Experiments in actual leather manufacture on a small scale are also carried on in such a way as to illustrate as far as possible the subject matter of the lectures, and to show the effect of variations in the processes. These are, when possible, supplemented by visits to works where the manufacture is carried on.

All the more important kinds of leather are made and finished in the experimental tannery and workshops

from the raw materials, with the assistance of the students; and opportunities are given to those who are sufficiently advanced to work upon branches of manufacture in which they are specially interested, or to undertake scientific research in connexion with the trade.

There is also an Honours and M.Sc. course for graduates and advanced students, consisting principally of research work under the direction of the Professor and his assistants, with a special course of lectures on the Physics and Chemistry of the subject; and advanced students and others are admitted for independent research at reduced fees.

Most of the ordinary chemicals and small quantities of skin and leather for experimental purposes will be furnished by the Department, but larger quantities required for special experiment or research may be charged to, or provided by, students at the discretion of the Professor. A certain amount of laboratory apparatus must be purchased by the student, who will also be held accountable for breakage of apparatus belonging to the University.

## LECTURE COURSES

### I. Physics and Chemistry of Leather Manufacture

*(Honours and M.Sc. course)*

Lectures at times to be arranged throughout the session.

The gas laws and the laws of dilute solutions. Development of ionic theory and mass law, and applications of ionic equilibria to processes in leather manufacture. The properties of liquids, surface tension, internal pressure. The nature and properties of disperse systems, colloidal solutions, emulsions and jellies. Applications to leather manufacturing processes. The physical chemistry of chromium salts and basic chrome liquors.

Physical and general chemistry of proteins. Detailed description of the proteins of the hide, their properties and chemical behaviour.

Detailed description of the vegetable tannins, as to their chemistry, their reactions, and their physical properties.

Critical views on the existing theories of tanning.

**II. Materials used in Leather Manufacture**

Lectures on Tuesdays and Thursdays, at 11 a.m. throughout the session.

The skin, its structure, and its chemical constituents. Character and source of hides and of skins employed in tanning. The chemical and bacteriological properties of technical water. Lime, sulphides and other chemicals used as depilatory agents. Organic acids used for deliming. Enzymes and the nature of bating materials. The principal vegetable tanning materials, their chemical and physical properties (elementary). Synthetic tanning materials. Chemistry of mineral tanning materials (alumina, chromium, iron, etc., salts). Detailed description of the preparation of basic chrome liquors. The classification and description of oils and fats employed in leather manufacture. Materials used in finishing processes.

**III. Principles and Methods of Leather Manufacture**

Lectures on Mondays, Wednesdays and Fridays, at 11 a.m. throughout the session.

The preservation of raw hides and skins. Soaking, sweating, liming and other methods of depilation. Unhairing, fleshing and rounding. Deliming, bating, puering and drenching.

The grinding and leaching of tanning materials and the manufacture of extracts. The vegetable tanning process in general and the manufacture of sole, belting, harness and dressing leathers in particular. Currying. Manufacture of moroccos and other fancy leathers. General principles of mineral tannages. Chrome one-bath and two-bath process, and the manufacture of box calf, glove kid, chrome sheep, etc.

Chrome sole and chrome leathers for technical purposes.

Alum tannages and the manufacture of glove leather, nappa, mocha, and similar leathers.

Oil tannages. Chamois. Buff leather. Fat leathers. Crown and Helvetia leather.

Tannages by means of formaldehyde, quinone, and synthetic tannins.

Combination tannages and the manufacture of a great variety of commercial leathers made by such combination processes.

Leather dyeing and finishing.

Utilisation of bye-products.

#### IV. Analytical Chemistry of Leather Manufacture

Lectures on Mondays and Fridays, at 2 p.m. throughout the session, including the analytical investigation of the following: waters; liming and deliming materials; lime liquors; tanning materials; extracts; tanyard liquors; gelatine; glue; soaps, oils, fats and waxes; sulphonated oils; mineral and vegetable tanned leathers; tannery effluents.

These lectures will supplement the analytical textbooks in use in the Leather Industries Laboratories.

#### V. Technical Microscopy, Bacteriology and Mycology

Lectures and practical work at times to be arranged, during the third term.

The use of the microscope in the examination of skin and leather, and in the detection of adulterants, in connexion with work carried on in the laboratories. The bacteriology and mycology of leather manufacture, including some introduction to general technical bacteriology.

Students are encouraged to provide their own microscopes, but will be allowed to use those of the Department as far as they are available. For bacteriological work a  $1/12$ th inch oil immersion objective and substage condenser is required; but for the technical microscopy a simpler microscope will suffice.

#### VI. Leather Manufacture (Introductory Course)

Lectures and demonstrations on Mondays, Wednesdays and Fridays, at 10 a.m. throughout the session.

*Sole leather:* The liming and beam-house work of hides for sole leather; mixed tannage with the common materials and extracts, the finishing processes for bends and offal; chrome sole leather.

*Dressing leather:* The liming, bating, drenching and other beam-house work, and the chrome and vegetable tannage for belting and harness leathers, dressing hides for upper leathers, E.I. kips and calfskins.

*Light Leathers:* The liming, deliming, bating and other beam-house work, and the vegetable, mineral and combination tannages of calf, sheep and goat skins. Tannage of various leathers by means of artificial tannins.



### VII. Practical Leather Manufacture (for Advanced Students)

Demonstrations in workshops, Thursdays, 2—5 p.m. throughout the session.

In addition to work on the practical scale comprising all the principal kinds of commercial leather, the students themselves will conduct small individual experiments on special points of leather manufacture. A course in dyeing will be held, beginning with the dyeing of small samples and proceeding to the colouring and finishing of whole skins.

*Text Books* (which must be purchased by the student).

PROCTER'S *Leather Industries Laboratory Book* (E. & F. N. Spon Ltd.)

PROCTER'S *Principles of Leather Manufacture* (E. & F. N. Spon Ltd.)

PROCTER, STIASNY and BRUMWELL'S *Leather Chemist's Pocket Book*  
(E. & F. N. Spon Ltd.)

BENNETT'S *Manufacture of Leather* (A. Constable & Co. Ltd.)

PROCTER'S *The Making of Leather* (Cambridge University Press)

### SCHEMES OF STUDY

The following schemes are arranged so as to give students the fullest advantage of the instruction provided by the University, and must generally be adhered to. Time is allowed, however, for taking up additional subjects, and special courses may be arranged for students who can satisfy the Vice-Chancellor and the Professor that they already have adequate knowledge of some of the subjects included. Some preliminary acquaintance with actual leather manufacture is very desirable before taking the University courses, and in no case is University training an adequate substitute for practical experience in actual manufacture, though it usefully supplements it, and greatly lessens the time which is necessary to its acquirement.

Students are not admitted to advanced courses unless they have sufficient elementary knowledge to follow them with advantage.

Degrees in Science of which particulars are given below are conferred in connexion with Leather Manufacture. Before beginning courses for Degrees, students must have passed the Matriculation examination of the Joint Board of the Northern Universities, or obtained exemption therefrom. A Diploma in Leather Manufacture, for which matriculation is not required, is also given by the University.

A one-year course for Honours or M.Sc. can be arranged for students who have already graduated.

### **Scheme I. Three Years' Course for Ordinary B.Sc.**

#### **First Year**

Introductory courses in Physics, Chemistry and Leather Manufacture, together with laboratory work in Physics and Chemistry.

An additional introductory subject, selected in consultation with the Professor, must also be studied during the first year of the course.

#### **Second and Third Years**

Preparation for Final examination in Chemistry, and Chemistry of Leather Manufacture.

<b>First Year</b>				Per week.
General Course of Chemistry (Chem. Intro.)	...	...	...	3 hrs.
Chemical Laboratory	...	...	...	12 "
Physics (Introductory course)	...	...	...	3 "
Physics Laboratory	...	...	...	3 "
Leather Manufacture (Introductory course) L. VI	...	...	...	3 "
Additional subject ...	...	...	...	3 "

<b>Second Year</b>				Per week.
Chemistry F <sub>2</sub> (Inorganic) ..	...	...	...	3 hrs.
Chemistry F <sub>3</sub> (Organic) ...	...	...	...	3 "
Chemical Laboratory (Inorganic and Organic) ...	...	...	...	9 "
Materials used in Leather Manufacture (L. II) ...	...	...	...	2 "
Analytical Chemistry of Leather Manufacture (L. IV)	...	...	...	2 "
Leather Laboratory	...	...	...	12 "
Bacteriology V	...	...	...	3 "

<b>Third Year</b>				Per week.
Chemistry F <sub>1</sub> (Inorganic)	...	...	...	3 hrs.
Principles and Methods of Leather Manufacture (L. III)	...	...	...	3 "
Microscopy and Bacteriology of Leather Manufacture (L. V) ...	...	...	...	27 "
Practical Leather Manufacture (L. VII)	...	...	...	
Leather Laboratory	...	...	...	

## **Scheme II. Four Years' Course for B.Sc. with Honours**

### **First Year**

The First Year course for the Ordinary degree.

### **Second Year**

The second year course for the Ordinary degree.

### **Third Year**

The third year course for the Ordinary degree, except that three hours per week less of laboratory work is required.

### **Fourth Year**

Leather I and Research in the Chemistry of Leather Manufacture. 24 hours per week laboratory work is required.

For the Special Honours Degree, students will ordinarily be required during the 3rd and 4th years of the course to attend classes in Subsidiary Physics, Physical Chemistry (H3) and Chemical Physiology (V) without examination in these subjects for degree purposes.

## **Scheme III. Course for Diploma in Leather Manufacture**

This course, extending over three years, is suitable for those who intend to become technical managers in leather works, and is recommended to sons of tanners and others who require a practical knowledge of the science and technology of the industry, but are unable to take a degree course. Though not actually prescribed in the course, the study of a modern language, especially of German, is extremely important, and time is allowed for taking it as an extra subject.

A candidate for the Diploma is required to fulfil all the conditions laid down in the Calendar.

A student producing evidence of adequate previous scientific or practical training, may, upon application to the Senate, be exempted from a portion of the normal course and may qualify for the Diploma upon a shortened period of study.

First Year				Per week.
Introductory Course of Chemistry	..	...	...	3 hrs.
Chemical Laboratory	..	...	...	18 "
General Engineering (I)	..	..	..	5 "
Leather Manufacture, Introductory Course (L. VI)				3 "

Second Year				Per week.
Chemistry F3 (Organic)	...	...	...	3 hrs.
Materials used in Leather Manufacture (L. II)	...			2 "
Analytical Chemistry of Leather Manufacture (L. IV)				2 "
Chemical Laboratory (Organic)	...	...	...	6 "
Leather Industries Laboratories and Workshops				18 "

Third Year				Per week.
Principles and Methods of Leather Manufacture (L. III)	...	...	...	3 hrs.
Technical Microscopy and Bacteriology (L. V)	...			
Leather Industries Laboratories and Workshops (including Leather VII)	...	...	...	20 "

### SHORTER COURSES

Shorter courses of study may be arranged for students possessing considerable knowledge of chemistry who cannot afford the necessary time for a degree or diploma course.

### Degrees of Master of Science (M.Sc.), Doctor of Philosophy (Ph.D.) and Doctor of Science (D.Sc.)

These will be awarded to students who, having obtained the B.Sc. degree in Leather Manufacture, satisfy the conditions stated in the Calendar in respect of these higher degrees.

### Private Research

Persons prosecuting private industrial investigations under the supervision of the head of the department can be admitted as research students at the rate of £6 per month.

### SCHOLARSHIPS TENABLE IN THE LEATHER INDUSTRIES DEPARTMENT

For Scholarships tenable in the Leather Industries Department, see the Scholarships Prospectus.

## AGRICULTURE

The Winter Course in the Department of Agriculture will begin on Monday, October 6, 1924, when the Vice-Chancellor will admit students from 9.30 a.m. to 12.30 p.m., and also from 2 to 4 p.m. All students are expected to register their names on this day.

Lectures will begin on Tuesday, October 7.

The Winter Course extends over two terms: the first term begins October 6, and ends December 13, 1924; the second term begins January 12, 1925, and ends March 21, 1925.

The Summer Course extends over the third term, which commences April 22, and ends July 4, 1925. Lectures will begin on April 22 at 9 a.m.

The fees are for the Winter Course £20, for the Summer Course £10.

The University reserves the right to revise at any time the fees payable either by new students or by those who have already begun their courses.

Students taking Courses for the degrees of B.Sc. are required to enrol on October 1 when the session opens for all students for degrees in Arts and Science. The Terms are:—*First*, October 1 to December 20, 1924; *Second*, January 13 to March 25, 1925; *Third*, April 23 to July 4, 1925.

*All Fees are payable to the Accountant. Cheques should be made payable to "The University of Leeds," and crossed "& Co."*

## ADMISSION OF STUDENTS

The classes and laboratories are open to men and women on the same terms. Special arrangements are made for the convenience of women students.

Except in cases approved by the Vice-Chancellor, students must have reached the age of 17 before coming to the University.



It is recommended that all applicants for admission should have spent at least one year, of twelve consecutive months, on an approved farm before entering the Department of Agriculture.

The Professor of Agriculture will be glad to discuss with prospective students and their parents the proposed course of training; but for this purpose it will be necessary to make an appointment.

Candidates for admission to the University who are under nineteen years of age, and who have been at a school or other educational institution within one year of their application for admission, are required to produce a certificate of good conduct from the head of such institution.

Applications for admission to the University from persons residing out of the United Kingdom must in all cases be accompanied by certificates of good conduct duly authenticated. Indian students are required to produce in addition certificates of identity: such certificates should also be furnished, as a rule, by students from foreign countries.

All students are required, prior to admission, to sign a declaration that they will observe the statutes, ordinances, and regulations of the University for the time being in force.

## COURSES OF STUDY

The following Courses have been arranged to meet the requirements of young men who intend to become farmers, land agents, valuers, or teachers of agricultural science, *viz.*,

1. For the ordinary degree of Bachelor of Science.
2. For the degree of Bachelor of Science with Honours.
3. For the National Diploma in Agriculture.
4. Winter Course of twenty weeks designed without reference to the requirements of any examining body.

## I. Course for Ordinary Degree of B.Sc.

Students who intend to present themselves for the B.Sc. degree will not enter the Agricultural Department until their second year of study. Before beginning the Course students are required to consult the Professor of Agriculture with regard to their subjects, and also to discuss with him their previous experience of farm work. The fees for the Course are the same as for other degree courses in Science, viz. :

First Year	..	£41
Second Year	..	£45
Third Year	..	£45

Candidates for the Ordinary degree of B.Sc. in Agriculture must, after Matriculation,\* attend the following courses and pass the appropriate examinations :—

### *First Year.*

Introductory Physics.  
 „ Botany.  
 „ Chemistry.

Economics,  
 and *either*

Mathematics, for Applied Science students (to be taken by all candidates taking Engineering in the third year);  
*or*

Introductory Geology.

Candidates will be required to obtain a knowledge of Book-keeping during this year.

### *Second Year.*

Agriculture F1 and F2.  
 Agriculture F3.  
 Agriculture F4.  
 Agricultural Chemistry, F2.  
 Agricultural Botany and Bacteriology F3.  
 Introductory Zoology.

### *Third Year.*

Engineering (except for candidates taking Geology in first year).  
 Agriculture F5.  
 Agricultural Chemistry, F3.  
 Agricultural Zoology, F2.  
 Agricultural Economics, F1.  
 Veterinary Hygiene, F1.

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\* Full particulars of this Examination may be obtained from the Secretary, Joint Matriculation Board, 315, Oxford Road, Manchester.

Candidates may also be required to attend additional farm and field classes.

Candidates for the Ordinary degree of B.Sc. in Agriculture will be required to spend at least one complete year on an approved farm before entering upon the course of study. Exemption will only be granted in exceptional cases.

## **II. Courses for the Degree of B.Sc. with Honours**

The degree of B.Sc. with Honours may be taken in the Department of Agriculture in (a) Agriculture, (b) Agricultural Chemistry, (c) Agricultural Botany and Bacteriology, (d) Agricultural Zoology, (e) Agricultural Economics.

Candidates may be required to devote time during University Vacations to their Honours work.

### **(a) Agriculture**

Candidates for the degree of B.Sc. with Honours in Agriculture must attend, except where exemption is granted, the Courses for the Ordinary degree in Agriculture, and pass the appropriate examinations at the end of their third, fourth or fifth year; and they may also be required to attend a Special Course in Agriculture. Candidates must, in addition, submit a thesis embodying the results of original research in some approved subject, which thesis must not be presented before the end of the fourth year of their University Course.

Candidates for the degree of B.Sc. with Honours in Agriculture will be required to spend at least one complete year on an approved farm before entering upon the course of study. Exemption will only be granted in exceptional cases.

### **(b) Agricultural Chemistry**

Candidates for the degree of B.Sc. with Honours in Agricultural Chemistry must attend the following Courses and pass the appropriate examinations:—

*First Year.*

- Introductory Physics.
- " Botany.
- " Chemistry.
- Mathematics for Applied Science students.

*Second Year.*

- Agriculture F1 and F2.
- Agricultural Zoology F1.
- Agricultural Chemistry, F2.
- Agricultural Botany and Bacteriology F3.
- Chemistry F1, F2 and F3 (to be completed in the third year).

*Third Year.*

- Agriculture F5.
- Agricultural Chemistry, F3.
- Veterinary Hygiene, F1.
- Chemistry (see Second Year).

*Fourth Year.*

- Agricultural Chemistry H1.
- Statistics, S. and M.L.
- German.

(c) **Agricultural Botany and Bacteriology**

Candidates for the degree of B.Sc. with Honours in Agricultural Botany must attend the following Courses and pass the appropriate examinations:—

*First Year.*

- Introductory Physics.
- " Botany.
- " Chemistry.
- German.

*Second Year.*

- Agriculture F1 and F2.
- Agricultural Zoology F1.
- Agricultural Chemistry, F1.
- Agricultural Botany and Bacteriology H1 and H2.
- Botany Fa or Fb.

*Third Year.*

- Agriculture F5.
- Veterinary Hygiene, F1.
- Agricultural Botany, and Bacteriology H.3.
- Botany Fb or Fa.

*Fourth Year.*

- Agricultural Zoology, F2.

Candidates will also be required to carry out research work on some approved subject, and to present a thesis embodying the results of such work at the end of their fourth year.

**(d) Agricultural Zoology**

Candidates for the degree of B.Sc. with Honours in Agricultural Zoology must attend the following Courses and pass the appropriate examinations :—

*First Year.*

Introductory Physics.  
 „ Chemistry.  
 „ Botany.  
 „ Zoology.

*Second Year.*

Agriculture F1 and F2.  
 Agricultural Zoology, F2.  
 Agricultural Botany and Bacteriology F2.  
 Zoology, Fa or Fb.

*Third Year.*

Agriculture F5.  
 Veterinary Hygiene, F1.  
 Agricultural Zoology H1.  
 Agricultural Botany and Bacteriology H3.  
 Zoology Fb or Fa.

*Fourth Year.*

Agricultural Zoology H1.  
 French or German.  
 Physiology.

Candidates will also be required to carry out research work on some approved subject and to present a thesis embodying the results of such work at the end of their fourth year.

**(e) Agricultural Economics***First Year.*

Economics.  
 Commercial Law.  
 Mathematics for Applied Science students.  
 Agricultural Botany and Bacteriology F1.  
 Agricultural Zoology F1.  
 Introductory Chemistry.  
 Geography F1 or Introductory.

*Second Year.*

Economics (F1 adapted + F5 + F6 (S8) ).  
 Commercial Law.  
 Agriculture F1 and F2.  
 Agricultural Economics H1.  
 F1 (modified)  
 Agricultural Chemistry.  
 Agricultural Botany, and Bacteriology F2.  
 Agricultural Zoology F2.  
 Veterinary Hygiene F1.



*Third Year.*

Economics (F2 and F4).  
 Accountancy.  
 Agricultural Economics, H2 and H3.  
 Agriculture, F2, first and second terms only.  
 Statistics, S. and M.L.  
 French or German.

*Fourth Year.*

In this year candidates will be required to make a special study of one or more branches of Agricultural Economics and to submit a thesis thereon.

### 3. Course for the National Diploma in Agriculture

#### Fees

First Year Course (Two Winter Terms)	.. £20
" " " (Third Term—Summer Course)	£10
Second Year Course (Two Winter Terms)	.. £20
Third Year Course (Two Winter Terms)	.. £20

This Course (extending over about three years) prepares students for the Examination\* for the National Diploma in Agriculture, awarded jointly by the Royal Agricultural Society of England and the Highland and Agricultural Society of Scotland. Attendance during the Summer (Third) Term is required only in the first year of study, and farmers' sons are thus able to obtain a full course of instruction between harvest and seed time, and, except in the first year, to devote the spring, summer and harvest time to practical work at home.

The Department of Agriculture of the University is one of the places of professional education accepted by the Surveyors' Institution. The effect of this recognition is that students who have taken the course in Agriculture are admitted to the examinations of the Institution in Sub-division 1, "Chiefly Land Agency," without the usual period of pupilage in a Land Agent's or Surveyor's office. Students preparing for the examination of the Surveyors' Institution are advised to attend the course for the National Diploma in Agriculture.

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\* The Regulations and Syllabus for this Examination may be obtained from the Secretary, N.D.A. Examination Board, 16, Bedford Square, London, W.C.

#### **4. Twenty Weeks' Winter Course**

Fee     ...     £20

Students who cannot afford the time for a longer course may attend a Winter Course of Twenty Weeks, during which instruction is given in the subjects of Agriculture, Agricultural Chemistry, Agricultural Botany, Agricultural Zoology, Veterinary Hygiene, Farm Book-keeping and Farm Economics.

#### **Demonstration Classes at the Manor Farm, Garforth, and Excursions**

All students taking a full course will be required to follow closely the work at the University Farm at Garforth, including field operations, methods of feeding stock, and progress of experiments; and for this purpose students are required to attend regular classes at the Farm, where class-rooms and laboratories are provided in which classes will be conducted when necessary. Excursions to other farms or places of interest are occasionally arranged.

Students are required to pay their railway fares to and from Garforth and to and from any other places to which excursions may be arranged.

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#### **Research and Laboratory Work**

The laboratories of the Department (Chemical, Botanical and Zoological) are open to those students prosecuting Research, or who require special practical training. The fees are as stated in the University Calendar.

#### **Time Tables**

Time tables will be posted on the Departmental Notice Boards. Students are expected to acquaint themselves with these and any alterations in them which may be posted up from time to time.

## SYLLABUSES

## Agriculture

## First and Second Year Diploma Course

First and Second Terms—3 Lectures a week.

Agriculture and its relation to the sciences.

*Soils*.—Their nature, functions, origin and wasting. Texture and general characteristics. Soil temperature. Soil water and its conservation. Relations between the soil and the plant. Chemical composition of soils ; potential and available plant food.

Characteristics, classification and distribution of soils. Chief types of Yorkshire soils.

Tillage operations. Ploughing ; specific results of ploughing ; times and methods of ploughing. Autumn and Spring cultivation. Surface tillage. Preparation of seed-bed for different crops on various classes of soil.

Steam cultivation. Use of Tractors.

Farm drainage. Irrigation. Sewage farms. Warping, claying, marling, chalking, liming, paring and burning, clay-burning.

*Manures*.—Characteristics of the various nitrogenous, phosphatic, and potassic manures in common use. Conditions affecting their successful application. Their specific effects on the various farm crops. Farm-yard manure ; its production, variation, preservation and application. Liquid manure. Composts. Green manuring.

*Rotations*.—The rotation of crops. Arrangements of cropping according to the system of farming adopted.

*Seeds, Grasses and Pastures*.—Common grasses and clovers, their suitability for different soils and local conditions. Laying down land to permanent pasture. Grass seed mixtures. Treatment of new grass land. Management of old-established grass. Deterioration of grass land ; its causes and remedies. Hay-making. Silage and the system of ensilage.

## F5 and Third Year Diploma Course

First and Second Terms—5 Lectures a week.

*Crops and Cropping.*—Characteristics, habits, cultural requirements and management of the various arable land crops. Variation in yield, composition and quality according to local conditions and treatment. Factors to be considered in the selection of varieties. Agricultural statistics.

*Farm Management.*—Management of farm labour. The different systems of farming and farm management.

*Taking and Stocking a Farm.*—Considerations involved in the valuation and taking of farms. Times of entry. Yearly and other tenancies. Leases and agreements. Acts of Parliament affecting landlord and tenant. The tenant's capital and its distribution. Live and dead stock required. Valuation of tenant right and of live and dead stock.

*Foods and Feeding Stuffs.*—Composition and general character. Process of digestion. Function of products of digestion. Comparative value of foods. Selection, preparation and use of foods for different kinds of live stock. Feeding standards. Food rations.

*Live Stock.*—Origin, history and description of the different breeds of horses, cattle, sheep, and pigs in the British Isles. Relation between districts and breeds. Comparative powers of adaptation. Essential points in size, conformation and character. Standards of perfection. Principles involved in improvement and early maturity. Fixation and preservation of desirable qualities. Advantages and danger of pedigree breeding. Cross breeding. Live Stock Improvement Scheme.

Accommodation for farm stock.

*Horses.*—Working horses. Breeding mares. Gestation, foaling, weaning and rearing. Breaking and preparation for sale. Cost of rearing work horses.

*Cattle.*—Management of cows. Calving. Rearing of calves and young cattle. Treatment of fattening cattle. Cost of producing winter and summer beef and milk.

*Sheep*.—Special features of sheep farming. Systems of flock management. Permanent and temporary flocks. The year's work on a sheep farm; lambing, weaning, rearing, fattening. Desirable qualities of wool. Costs of producing fat lamb and mutton.

*Pigs*.—Selection of breeds. Out-door and in-door management. Breeding sows. Farrowing, weaning; rearing, fattening. Costs of pork and bacon production.

Buying and selling of stock.

### Twenty Weeks' Winter Course

First and Second Terms—4 Lectures a week.

#### (a) SOILS, CROPS, ETC.

*The Soil*.—The soil and subsoil; heavy, medium and light soils; types of Yorkshire soils; climate and soil in relation to farming practice.

*Soil Improvement*.—Fertility and sterility of soils and their causes. Reclamation. Drainage. Application of lime and chalk.

*Cultivation of Soils*.—Importance of good soil texture. Tillage operations. The uses of the different implements in cultivation. Steam cultivation and the use of tractors. Autumn and Spring cultivation. Deep cultivation. Sub-soiling. Fallowing.

*Crops (Arable Land)*.—Crops and their cultivation in the North of England. Preparation of the land—cultivation, manuring, choice of varieties, methods of sowing, harvesting. Rotations and their economic value. Rotations suitable to different soils and climates and systems of farming.

*Crops (Grassland)*.—The formation, management and improvement of grassland. Manuring of pastures and meadows.

#### (b) LIVE STOCK AND FEEDING STUFFS

*Feeding Stuffs*.—Composition—its relation to feeding value and keeping qualities. The digestion of food.



Comparative powers of digestion of different food by horses, cattle, sheep and pigs. Common foods—home-grown and purchased. Their suitability for different kinds of stock. The compiling of rations. The preparation of foods. Systems of feeding.

*Live Stock.*—Principles of breeding. Cross breeding. Live Stock Improvement Schemes.

*Horses.*—Breeds. Points of a draught horse. The management of work horses at work and in the stable. The care of breeding mares. Foaling, rearing and training for work or for sale.

*Cattle.*—Local breeds. Beef, dual purpose and dairy cattle. Calving and rearing. The management of cows. The production and disposal of milk. Store cattle. The management of fattening cattle at grass and indoors. The buying and selling of stores and fat cattle.

*Sheep.*—Local breeds and common crosses. Systems of sheep farming. The management of permanent and flying flocks. Lambing, weaning, rearing and fattening.

*Pigs.*—Common breeds. Their suitability for different purposes. The care of breeding sows. Farrowing, weaning, rearing and fattening.

The housing of farm stock will be dealt with under each of the above headings.

#### F2 and First Year Diploma Courses

Third Term (Summer Course) only.—3 Lectures a week.

*Dairy Cattle.*—Points of a good dairy cow. Dual purpose cattle. Suitability of the different breeds. Selection, Breeding, Crossing.

*General Management.*—Housing. Care of Breeding stock. Feeding in winter and summer. Use and value of milk records.

*Bacteriology.*—Bacteriology in relation to dairying. Useful and harmful bacteria.

*Milk.*—Production of milk. Factors influencing yield and quality. Treatment of milk. Production of clean milk. Cooling. Pasteurization. Distribution of milk. Faults in milk and their prevention.

*Cream.*—Different methods of separation. Manufacture of Devonshire Cream.

*Butter.*—Ripening of cream for buttermaking. Starter. The modern method of buttermaking. Faults in butter and their prevention.

*Cheese.*—The process of cheese-making. Use of colouring matter. Starter. Rennet. Tests for acidity. Ripening. Marketing. Faults in cheese and their prevention.

*By-Products.*—Utilisation of separated and skim milk. Buttermilk and whey.

*Systems of Dairying.*—Milk selling. Butter-making. Cheese-making. Comparative returns.

*General.*—Legislation affecting dairying. Factory system. Stocking of dairy farms.

## Agriculture

### F3 and Second Year Diploma Course

First Term.—1 Lecture and one afternoon at Garforth a week.

Second Term.—2 Lectures a week.

*Implements.*—Implements for the preparation of the soil—for planting and harvesting crops—for the preparation of food—for the dairy; general principles underlying their construction and mode of action—prices.

*Buildings.*—Homesteads for different classes of farms. Circumstances to be taken into consideration in deciding

upon the size of the various buildings. Their arrangement with a view to economy of construction and of farm labour. Dimensions and other details of buildings for the accommodation of live-stock, crops and implements, with approximate estimates of their cost. Water supply and drainage.

## **Agriculture**

### **F4 and First Year Diploma Course**

Third Term (Summer Course) 2 Lectures and 3 afternoons a week.

Chain surveys. Principles involved. Chains. Arrangement of lines and method of proving the work. Sources of error and precautions to be adopted. Chaining past obstacles. The field book. Scales. Plotting the survey. Calculating areas from the field notes by give-and-take lines ; by the computing scale ; and by the planimeter. Surveys in which the relative position of the lines is fixed by angles. Instruments required, the Theodolite, Box Sextant, Prismatic Compass, Graduated Cross Staff. The Vernier, its construction and use. Proving the accuracy of the angles taken.

The maps of the Ordnance Survey, their value to the land agent and farmer.

Levelling. The Level and Staff. Bench marks. Booking the readings and working out the reduced levels. Checking the level book. Proving the field work. Sections, their use for road making and similar purposes. Cross sections. Contours. Curvature and refraction.

During this course a survey, involving the use of all the instruments mentioned above, is made of buildings, and levels are also taken ; the plan and sections are plotted in the drawing office as the work in the field proceeds.

## **Demonstration Classes at the Farm and Excursions**

### **F1, F2 and Second Year Diploma Course**

First and Second Terms.—1 afternoon a week at Garforth, or at other places to be arranged.

Stock, stock feeding. Estimation of weights of crops and animals. Pastures and pasture plants. Practical examination of seeds, manures and feeding stuffs.

Seasonable operations will be closely followed; different systems will, so far as practicable, be illustrated, and the reasons for the variations explained. Students will be required to follow closely the stock feeding and other experiments.

Third Term (Summer Course). Occasional classes at Garforth or at other places.

A study of the practical operations and experiments.

### **F5 and Third Year Diploma Course**

First and Second Terms.—1 afternoon a week at Garforth or at other places to be arranged.

The classes at the Farm will be on the same lines as in the previous session, with the addition of practical demonstrations by Col. Bowes on conformation, handling, etc., and generally the application of Veterinary Hygiene to farm animals.

### **Twenty Weeks' Course**

Classes on 2 afternoons a week at Garforth or at other places to be arranged. The classes at the Farm will be on similar lines to those for the Second Year Diploma Students.

## **Chemistry**

### **First Year Diploma Course**

First and Second Terms.—3 Lectures and 3 hours laboratory work a week.

Third Term.—2 Lectures and 4 hours laboratory work a week.

The atomic and molecular theory of matter. Chemical formulae and equations, and their practical use. State of matter. Acids, bases and salts. Solutions.

### **Second Year Diploma Course**

First and Second Terms.—3 Lectures and 3 hours laboratory work a week.

An elementary course in inorganic and organic chemistry.

### **Agricultural Chemistry**

#### **H1 Course**

First and Second Terms.—Lectures and laboratory work dealing with some recent developments in methods of research in Agricultural Chemistry.

#### **F2 Course**

First and Second Terms.—2 Lectures and 6 hours laboratory work a week.

Third Term.—2 Lectures a week.

*The Plant.*—The ultimate and proximate constituents of plants. Photosynthesis. Translocation. Storage. Transpiration. Respiration.

*The Soil.*—Formation of soils. Subsoils. The structural basis of mineral soils. Organic matter of soils. Soil colloids. Soil water. Soil air. Soil temperature. The absorptive power of soils; the reaction and "sourness" of soils. Soil potassium. Soil phosphorus. The mineral elements of the soil. Availability of mineral plant food. Soil nitrogen. Biochemistry of soils. Interpretation of soil analyses. Classification of soils. Soil surveys. Soil chemistry and crop production.



*Manures*.—Farmyard manure. Production, composition, commercial value, characteristic and secondary effects of fertilizers. Various by-products and waste materials. The Fertilizers and Feeding Stuffs Act. Lime, etc. The planning of manurial trials and the interpretation of their results.

*Crops*.—Composition of farm crops. Crop residues. The manuring of crops. Rotation of crops.

### F3 Course

First and Second Terms.—2 Lectures and 6 hours laboratory work a week.

Third Term.—2 Lectures a week.

*The Animal*.—Composition of the animal body. Digestion. Circulation. Respiration. Excretion.

*The Nutrition of Animals*.—Digestibility experiments. Metabolism. Comparative slaughter tests. Calorimetry. Gross metabolizable and net energy. Carbon, nitrogen and energy balances. Critical temperature. Specific dynamic action.

*Rations*.—Maintenance and production requirements. Net energy values and starch equivalents. Feeding standards. Calculations of rations.

*Foodstuffs*.—Classification, manufacture and composition of foods; monetary value of foods. Manurial values. Fertilizers and Feeding Stuffs Act.

*Sheep Dips, etc.*

*Dairy Products*.—Yield, composition, preservation and adulteration of milk. Colostrum. Cream. Chemistry of cheese-making. Whey. Theory of butter manufacture. Composition and adulteration of butter. Butter milk.

### F1 and Third Year Diploma Course

First and Second Terms.—4 Lectures and 6 hours laboratory work a week\*.

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\* Students taking Honours in Agricultural Economics will not take the laboratory work.

*The Soil.*—Sampling and analysis of soils. Composition of soils. Classification of soils. The chemical and physical properties of soils. Soil water and drainage. The soil atmosphere. Biological changes in the soil. The soil in relation to plant growth. Fertility. Causes of infertility. Improvement of soils.

*Manures.*—Theories of manuring. Classification of manures. Origin, nature and characteristics of manures. Manufacture of manures. Composition. Analysis, adulteration and valuation of manures. Farmyard manure and other natural manures. Green manuring. Liming. Fertilizers and Feeding Stuffs Act. Sampling of manures.

*Plants and Crops.*—Constituents of plants. Composition and manurial requirements of farm crops. Food products derived from crops. Manuring experiments.

*Feeding Stuffs and Animal Nutrition.*—Constituents of foods. Origin, nature and composition of the chief feeding stuffs. Sampling, analysis and adulteration of foods. Composition of the animal body. Chemistry of digestion, assimilation. Metabolism, respiration and excretion. Nutritive value and digestibility of food. Functions of the chief food constituents. Energy values. Relation of foods to the production of work, meat, milk and manure. Manurial residue of foods.

*Milk and Milk Products.*—The composition of milk, cream, butter and cheese. Conditions which influence their composition. Action of enzymes and bacteria. Milk testing. Adulteration of dairy products.

#### Twenty Weeks' Course

First and Second Terms.—3 Lectures and 2 hours laboratory work a week.

(a) SOILS AND MANURES:—How soils are formed. Differences between soils and subsoils. The structure of a soil. The water in soils. How soils supply plant foods.

*Improvement of Soils.*

1. Draining :—Effects of good and bad drainage.
2. Liming :—Materials used for liming. Soils and crops in need of lime. The application of lime.
3. Manuring :—(a) Organic manures, including farmyard manure, liquid manure, green manuring.  
(b) Artificial nitrogenous manures—nitrates, ammonium salts, etc.  
(c) Mineral manures—phosphates, potash manures, salt, etc.

Analyses of soils and manures.

Types of soil, with special reference to Yorkshire.

*(b) CROPS AND FEEDING STUFFS.*

*The necessary constituents of foods.*

*Home-grown Foods.*—Grass for grazing and mowing, hay.

*Arable Crops.*—Corn crops—grain and straw.

Leguminous crops—clover, vetches, peas, beans, etc., ensilage.

Root crops—turnips, mangels, potatoes, etc.

*Imported Feeding-stuffs.*—Oil cakes, imported grains and meals.

*Analysis of Foods.*

*Feeding Values and Money Values of Foods.*

*Requirements of different classes of Stock.*—Rations.

*(c) MILK.*

Chemistry of milk, butter and cheese.

Analysis of milk.

### Chemical Laboratory

*Apparatus is provided for the use of students, but a deposit of 10/- must be paid to cover the cost of breakages. Any balance remaining at the end of the session will be refunded.*

## Agricultural Botany and Bacteriology

### HONOURS COURSES

Courses H1, H2, and H3 are taken in alternate years.

#### H1 Course

3 hours a week.

*Morphology*.—This course is similar to the F3 course excepting that Plant Diseases and Bacteriology are omitted and the remaining sections are taken in fuller detail.

#### H2 Course

3 hours a week.

*Mycology*.—A detailed study of the life history and physiological characteristics of fungoid pests attacking Agricultural and Horticultural crops. Methods for the prevention and eradication of fungoid pests. Phytopathological service. The incidence and spread of parasitic fungi. Epidemic diseases. The relation of temperature, rainfall and soil conditions to plant-diseases. Degrees of Parasitism. Modes of parasitism. Enzymes, Immunity and Resistance to disease. Cultural methods. Single spore cultures. Experimental methods of dealing with plant disease problems.

#### H3 Course

First and Second Terms.—6 hours a week.

*Soil and Dairy Bacteriology*.—The elements of Bacteriological technique including the preparation of media, staining and counterstaining and isolation of pure cultures. Methods of identification. Acid-fast organisms, Gram staining, Gelatine liquefiers, motile and non-motile organisms, Sporing and non-sporing organisms, Aerobic and Anaerobic bacteria. Measurement of bacteria. The activities of micro-organisms. Auto-intoxication. Antisepsis. Asepsis.

*Soil Bacteriology*.—Estimation of number of Bacteria in the soil.

Variable soil counts.

Physiological groups and the isolation of one or more types from each of the following :—Putrefactive, Urea-splitting, Nitrifying, De-nitrifying, Nitrogen-fixers, Cellulose-destroying, Iron and Sulphur Bacteria. The Nitrogen cycle. The cycle of Carbon, Hydrogen and Oxygen.

Soil reaction in relation to its flora.

Manure organisms. Partial sterilisation.

*Dairy Bacteriology.*—The Bacterial content of milk. Sources of contamination. Milk counts. The activities of bacteria in milk. How to produce "clean" milk. Keeping qualities of milk. Pasteurization. Milk faults. Biological milk tests. Butter organisms and their effect on quality and flavour. Rancidity. Use of starters. The germ content of Cheese. Origin of cheese organisms and their action on ripening. Normal and abnormal ripening. Effect of temperature.

In connection with this course visits will be made to one or more farms where Certified or Grade A milks are being produced.

Laboratory work, supplementary to that included in the H<sub>1</sub>, H<sub>2</sub>, and H<sub>3</sub> courses should be carried out by students and may be arranged for.

#### FI and First Year Diploma Course

First Term.—6 hours a week. Second Term 2 hours a week. Third Term 7 hours a week.

*First Term.*—The functions of plants in relation to their structure. Germination, growth, assimilation and elaboration of food materials, respiration, transpiration, storage of food, fertilisation and reproduction. The structure of stems, roots, flowers and seeds. Forms and modifications of various parts of the plant and the adaptation of plants to their surroundings.

*Second Term.*—A study of the life cycle of one or more species of the following groups of flowerless plants will be made :—Algae, Liverworts, Mosses, Ferns and Gymnosperms.



*Third Term.*—

*Section 1.*—The principles of classification and systematic Botany.

*Section 2.*—The structure of a grass. The recognition of grasses by their vegetative, floral and seed characters.

(These two sections are closely correlated with the field excursions; see below).

*Section 3.*—A study of the life cycle and habit of growth of the following types of Fungi:—Pythium, Mucor, Erysiphe, Sphaerotheca, Eurotium, Penicillium, Yeast, Agaricus, Parasites and Saprophytes.

The types mentioned form the basis for the study of plant diseases in the F2 course.

*Excursions.*—Botanical excursions are made on one afternoon each alternate week during the Summer term.

**F2 Course**

First and Second Terms.—4 hours a week.

The morphological and physiological characters of flowering plants with special reference to plants of agricultural importance. The constitution of the flora of meadows and pastures. "Seeds" mixtures for temporary leys and permanent grass land. The recognition of impurities in seed samples. Weeds in farm crops and methods for their eradication.

The more important Fungoid diseases of agricultural importance, preventive and remedial measures. The elements of plant breeding. The outlines of Soil and Dairy Bacteriology.

**F3 Course**

3 hours a week.

The detailed structure of a Wheat plant as a type of the Gramineae. Differences in structure between Wheat, Barley, Oats and Rye. Varieties of cereals and their outstanding characteristics.

The structure of a grass and the recognition of grasses by their vegetative and floral characters. The constitution of the flora of grassland and the changes produced in the same by manurial treatment. The Botanical characters of the various Farm crops. Varieties of Potatoes, Turnips, Mangels, &c., Clovers and "Seeds" mixtures. Weeds of arable and grassland and their eradication. The recognition of impurities in seed samples. Plant breeding.

A study of the more important Fungoid diseases of agricultural importance. The outlines of Soil and Dairy Bacteriology.

#### **Twenty Weeks' Course**

First and Second Terms.—4 hours a week.

How plants live, grow and reproduce their species. The botanical features of farm crops. Weeds and how to exterminate them. The recognition of grasses and clovers, and their relative importance in meadows and pastures. "Seeds" mixtures and their common impurities. How to estimate the value of any sample of seeds. How to recognise the more important diseases occurring on farm crops, and the means to employ for their prevention or cure. What are Bacteria? The part played by these organisms in the fertility of the soil. Bacteria in milk.

### **Agricultural Zoology**

#### **HI Course**

Third Year, Third Term ; Fourth Year, Second and Third Terms.—An extended course in Entomology and Helminthology ; protozoa of the soil ; pathogenic protozoa.

#### **FI and First Year Diploma Course**

Second Term only :—4 hours a week.

Elementary facts of the structure of the higher animals. The use and mechanism of special organs. Drawing. The use of the microscope.

**F2 and Second Year Diploma Course**

First and Second Terms :—4 hours a week.

Structure and life-history of insects. Spiders, mites and ticks. Centipedes and millipedes. Worms. Slugs and snails. Remedial and preventive measures. Sprays and spraying machines. Natural checks to the increase of insects (birds, small mammals, etc.).

**Twenty Weeks' Course**

First and Second Terms.—2 hours a week.

(a) The skeleton, digestive organs, heart and lungs of quadrupeds.

(b) The structure and life-history of insects and their importance to the farmer.

**Veterinary Hygiene****F1 and Third Year Diploma Course**

First and Second Terms.—4 Lectures a week.

Anatomy and physiology of farm animals. Recognition of diseases affecting farm animals. Means of preventing disease, including ventilation, drainage, judicious feeding, grooming. Nature of heredity. Contagion and infection.

**Twenty Weeks' Course**

First and second Terms.—2 Lectures a week.

Situation and functions of the chief organs of the body. Brief description of the commoner diseases affecting them, their cause, prevention and first-aid treatment. The pulse, temperature, respiration, etc., as aids to diagnosis of disease. Wounds, fractures, sprains, lameness, first-aid treatment. Structure of the foot, principles of shoeing, etc. Soundness and unsoundness. Dentition of farm animals. Parasitic diseases of farm animals. Contagious and infectious diseases. Notification of scheduled diseases. Care of farm animals in health and disease. Housing, ventilation and general sanitation.

## **Agricultural Economics**

### **F1 Course**

### **H1 Course**

### **H2 and H3 Course**

### **Second Year Diploma Course**

First and Second Terms.—2 Lectures a week.

Accounts, day book, cash book, ledger, balance sheet, profit and loss account, etc.

Cost of labour in connection with stock, cultivation, cropping, harvesting, etc.

### **Twenty Weeks' Course**

First and Second Terms.—2 Lectures a week.

(a) *Book-keeping*.—Farm valuations. Use of detailed cash book. Balancing the books. Submitting a claim for rebate on Income Tax.

(b) *Farm Economics*.—Entry on the farm. Labour on the Farm. Farm capital. Costs of production of farm crops and farm products. Farm profits and farm losses.

## **Physics and Mechanics**

### **First Year Diploma Course**

First and Second Terms.—2 Lectures and 3 hours laboratory work a week.

Physics and Mechanics so far as is sufficient to enable students to appreciate some of the applications of these sciences to general practice.

## **Agricultural Geology**

### **First Year Diploma Course**

First and Second Terms.—2 Lectures and 3 hours laboratory work a week.

Scope of the science. The composition and physical characters of the common rock-forming minerals. Classification of rocks according to (a) their mode of origin, and (b) chemical composition. Climate, Rain-fall. Temperature. Winds. Construction and interpretation of weather charts. Examination of meteorological instruments in use at the Cecil Duncombe Observatory.

Denudation, transport and accumulation. Forms of stratification. The subdivision of stratified rocks. Economic products of the chief formations. The nature and origin of the drift deposits. Their importance in relation to the soils of the North of England. The soils of the Warp lands and the Yorkshire Wolds.

The disintegration of rocks and the formation of soils. Geological maps, their interpretation and use. British rainfall, its measurement and variation. Storage of subterranean waters. Water supply from springs and deep and shallow wells. Application of geological knowledge to the selection of sites for roads, bridges, etc.

## **Tutorial Classes**

### **First Year Diploma Course**

First and Second Terms.—2 classes a week.

Correspondence, calculations, elementary mathematics preparatory to book-keeping, surveying and engineering.

### **Twenty Weeks' Course**

First and Second Terms.—2 classes a week.

Correspondence, farm calculations, elementary mathematics preparatory to Farm Accounts and Farm Costs.



## Surveying

### Second Year Diploma Course

First and Second Terms.—2 lectures a week.

These lectures are intended for students who have attended the course of Surveying in the Summer term, a syllabus of which is given on a previous page. A general revision will be made of the work already done, illustrated by further examples of surveying and levelling, together with a more detailed study of the adjustments of the instruments, the ordnance maps, and other matters, which are only dealt with briefly in the summer course.

## Agricultural Engineering

### Second Year Diploma Course

First Term.—1 Lecture a week. Second Term.—2 Lectures a week.

*Power Transmission.*—Pulleys and belting. Toothed gearing. Shafting and bearings. Lubrication. Chains. Lifting appliances.

*Boilers.*—Cornish, Lancashire, Vertical and Tubular. Principles, construction and management. Fittings.

*Steam, Gas, Oil, and Petrol Engines.*—Principles and construction. Testing. Consumption of fuel and water. Concrete foundations.

*Hydraulics.*—Flow of water through pipes and channels. Water wheels, turbines, pressure motors. Pumps.

*Windmills.*—Construction and power.

*Costs and Working Expenses*

## Poultry Keeping

### First Year Diploma Course

Third Term (Summer Course).—2 Lectures a week.

Origin and antiquity of fowls. Breeds and their characteristics. The anatomy of the fowl. Accommodation and sanitation of the house. Embryology

of the chicken. Natural incubation. Rearing chickens. Use of incubators and of brooders for artificial rearing. Foods—the principles and methods of feeding. Fattening—the different methods adopted. Breeds of ducks, geese and turkeys. Marketing poultry produce—preserving eggs. Diseases of poultry. General management.

## Horticulture

### First Year Diploma Course

Third Term (Summer Course).—1 Lecture a week.

*The Soil of the Garden.*—Classification of soils. Winter and Summer cultivation. Trenching and Bastard Trenching.

*Manures and Lime.*—"Natural" and concentrated manures, their uses and application. Lime, and how to apply it.

*Vegetable Crops.*—Cropping plants. How to lay out the vegetable garden. Outlines of the cultivation of potatoes, "greens," "roots," and pod-bearing vegetables.

*Fruit Culture.*—Selection of the most useful hardy fruits. Planting, manuring, pruning. Selection of varieties. Some of the most troublesome insects and fungoid pests.

## DAIRYING AND POULTRY-KEEPING INSTRUCTION AT THE UNIVERSITY FARM AT GARFORTH.

The Dairy School at Garforth is open from about the end of April to October, when usually three courses each of six weeks' duration, are given in Butter and Cheese Making. Poultry Courses, of 10 weeks' duration, may also be arranged. Women students are able to reside in a hostel in the village of Garforth under the supervision of the Dairy Instructress. Men students are required to obtain lodgings in the village. Fees:—Dairying Course, £5, Poultry Course, £8. Board and

lodging in the hostel, £7 for period of Dairying and £12 for period of Poultry Course.

Students are received for varying periods for practical Dairying instruction only in the intervals between the courses. Fees on application.

Students are also received for practical training in Poultry-keeping for varying periods throughout the year. Fees on application.

## SCHOLARSHIPS

County Major and Senior Scholarships and Technological Scholarships up to the value of £100 per annum each are offered by the County Councils of the East, North and West Ridings of Yorkshire, and are available for the course for the degree of Bachelor of Science. The Technological Scholarships are not usually intended for the profession of technical teaching. These Scholarships are awarded only on the result of competitive examinations, full particulars of which are published separately and are obtainable on application at the respective County Offices. Some of the County Boroughs also offer Technological and other Scholarships which may be used for a Course in Agriculture.

The Ministry of Agriculture and Fisheries offer Scholarships and Maintenance Grants "for the sons and daughters of agricultural workmen and others" in three classes (I, II and III), and all these Scholarships are tenable at the University of Leeds. Full particulars of the Scholarships may be had on application to the Ministry of Agriculture and Fisheries, 10, Whitehall Place, S.W.1.

Scholarships tenable in the Agricultural Department are offered by the County Councils of Lindsey and Kesteven (Lincolnshire) and Nottingham.

The County Councils of the three Ridings offer special Exhibitions to enable farmers' sons to attend the Three Years' Course for the National Diploma in Agriculture,

and the Winter Course of Twenty Weeks. These Exhibitions provide free education at the University, and in addition a contribution towards the maintenance of the student. Applicants are required to pass a qualifying test of their capacity to take full advantage of the instruction, and also to have spent at least one year of twelve consecutive months on an approved farm before entering the University.

The three County Councils offer Exhibitions to enable sons and daughters of farmers to attend the Six Weeks' Course in Dairying and the Ten Weeks' Course in Poultry-keeping at the University Farm at Garforth.

A limited number of Exhibitions tenable at the Midland Agricultural and Dairy College are also available for those students who have passed through one of the Garforth Courses and who desire a more extended course varying in duration from three to nine months. During that time a thorough course of instruction may be taken in the principles and practice of Dairying, including a complete training in the making of various kinds of British and foreign cheese.

Forms of application for these Exhibitions may be obtained by candidates from the East Riding, from the Clerk of the Council, County Hall, Beverley, by candidates from the North Riding from the Secretary, Education Offices, County Hall, Northallerton; and by candidates from the West Riding from the Education Department, Technical Branch, County Hall, Wakefield.

### **SCHOLARSHIPS IN FORESTRY.**

Agricultural Scholarships offered by the County Councils may be made tenable in suitable cases in the Forestry Department at the Armstrong College, Newcastle-upon-Tyne. Any applicants for Scholarships who desire to take special Courses in Forestry, should communicate with the Clerk to the County Council of the area in which he resides.

## EXTENSION WORK IN THE COUNTY.

A Joint Committee known as the Yorkshire Council for Agricultural Education, appointed mainly by the County Councils of the three Ridings, but with added members, nominated by the Ministry of Agriculture and Fisheries, and by the University, is recognised by the University as its Advisory Agricultural Committee responsible for Agricultural Education and Research, both in the University and in the County.

The following is a brief summary of the work carried out, in addition to the Courses of Instruction in the University, and at the Farm at Garforth :—

Extended Courses of Instruction in Agriculture and allied subjects, at approved centres, in the County and at a limited number of Technical (Evening) Schools.

Technical advice to farmers, horticulturists, poultry-keepers, etc., and the investigation of local problems.

Advice on Farm Accounts and determination of Farm Costs.

Demonstration work in all branches of Agriculture conducted at the Farm at Garforth and in conjunction with lecture courses at certain approved centres in the County.

An investigation into the suitability of the Soiling System for the production of milk on a Small-Holding at Rawcliffe, near Goole.

A large scale experiment, to compare two systems of farming both of which are concerned in the production of milk, at Wrea Head, Scalby, nr. Scarborough.

The testing of new milk for the determination of fat and other solids. Advice to farmers who wish to register for the sale of Grade A, etc., milk.

Winter Courses of five or ten lectures in Agriculture, Horticulture and kindred subjects.



Single lectures or courses of five lectures on the following subjects :—

The results of Garforth and County experiments ;  
Veterinary Hygiene ; Farm Economics, Farm  
Accounts and the Determination of Farm Costs ;  
Poultry-keeping ; Bee-keeping.

Outdoor lectures in the Summer on Horticulture and  
Bee-keeping.

Supervision of Evening School, Day School and  
Specimen Allotment Gardens, and advisory visits to  
gardeners and allotment-holders.

The promotion of fruit growing by means of the  
Demonstrational Fruit Centre at Osgodby.

Single demonstrations on Butter-making to be given  
during the Winter, and peripatetic Ten Days' Classes  
of Instruction in Butter and Cheese-making in the  
Summer.

Special organised Courses in Poultry-keeping.

Instruction in Farriery.

Advice on Bee-keeping.

Full particulars regarding the above heads are  
published in the "Proposals" of the Yorkshire Council  
for Agricultural Education, which may be had on appli-  
cation to the respective County Council Offices, or to  
the Professor of Agriculture, The University, Leeds.

## Degrees in Medicine and Surgery

### \*ORDINANCES

The degrees in Medicine and Surgery shall be :

- Bachelor of Medicine and Bachelor of Surgery  
(M.B. and Ch.B.)
- Doctor of Medicine (M.D.)
- Master of Surgery (Ch.M.).
- Doctor of Philosophy (Ph.D.)

1. Candidates for the degrees of Bachelor of Medicine and of Surgery are required to present certificates showing that they will have attained the age of twenty-one years on the day of graduation, and that they have attended courses of instruction approved by the University extending over not less than five years, two of such years at least having been passed in the University, at least one year being subsequent to the date of passing the First examination.

2. Candidates for the degrees of Bachelor of Medicine and of Surgery are required to satisfy the Examiners in the several subjects of the following examinations, entitled respectively :

The Matriculation examination, or such other examination as may have been recognised by the Joint Matriculation Board of the Universities of Manchester, Liverpool, Leeds, Sheffield, and Birmingham in its stead.

The First examination.

The Second examination.

The Final examination.

#### First Examination

3. The First examination shall consist of two parts

PART I. Physics.

Chemistry.

PART II. Zoology.

Botany.

4. Candidates, before presenting themselves for the First examination, are required to furnish certificates of having attended courses of instruction in accordance with the Regulations of the University and to have passed the Matriculation examination.

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\* Necessary modifications are under consideration to meet the recommendations of the G.M.C.

5. Students who have passed the Higher School Certificate examination of an approved examining body in one or more of the following subjects : Chemistry, Physics, Zoology, Botany, will be exempted at the First M.B. examination in such subject or subjects, provided that an approved alternative course of study has been taken in their first year at the University and provided that, as a result of terminal examinations or otherwise, they obtain and submit satisfactory reports of their work from the Heads of the Departments concerned at the end of such courses.

6. Candidates who have passed the Intermediate examination for the degree of Bachelor of Science in Chemistry, Physics, Zoology, and Botany, will, on payment of the required additional fee, be regarded as having passed the First examination for the degrees of Bachelor of Medicine and Bachelor of Surgery.

7. The names of candidates who have satisfied the Examiners in either part of the First examination shall be published in alphabetical order.

#### **Second Examination**

8. The Second examination shall consist of two parts :

PART I. Anatomy  
Physiology.

PART II. Pharmacy.

9. Candidates, before presenting themselves for the Second examination, are required to furnish certificates of having attended courses of instruction in accordance with the Regulations of the University and to have passed the First examination.

10. The names of candidates who have satisfied the Examiners in either part of the Second examination shall be published in alphabetical order.

#### **Final Examination**

11. The Final examination shall consist of three parts :

PART I. Pathology and Bacteriology.

This may be taken at the end of the 10th Term.

PART II. Forensic Medicine  
Public Health.

PART III. Medicine

Surgery

Obstetrics and Gynæcology

Pharmacology and Therapeutics.

Parts II and III may be taken at the end of the 15th Term either separately or together.

12. Candidates, before presenting themselves for any part of the Final examination, are required to have passed the Second examination, and to furnish certificates of having attended courses of instruction, in accordance with the Regulations of the University.

13. The names of candidates who have satisfied the Examiners in the first part of the Final examination shall be published in alphabetical order.

14. The names of candidates who have satisfied the Examiners in all the subjects of the Final examination, and are recommended for degrees, shall be published as follows :

1. Those awarded First Class Honours
2. Those awarded Second Class Honours
3. Those who have satisfied the Examiners.

The names shall be in alphabetical order in each case

**Degree of Doctor of Medicine**

1. No candidate shall be admitted to the degree of Doctor of Medicine unless he has previously received the degrees of Bachelor of Medicine and Bachelor of Surgery, and at least one year has elapsed since he passed the examination for those degrees.

2. Candidates for the degree of Doctor of Medicine are required to present a dissertation. The dissertation, of which the subject must previously have received the approval of the Board of the Faculty of Medicine, and which must embody the results of personal observations or original research, either in some department of medicine or of some science directly related to medicine, provided always that original work, published in scientific journals, or in the Proceedings of learned societies, or separately, shall be admissible in lieu of or in addition to a dissertation specially written for the degree. Candidates may be required to write a short extempore essay

on some topic connected with medicine. They may also be examined orally on the dissertation or other work submitted. No candidate will be admitted to the degree unless his application, after report from the Board of the Faculty of Medicine, shall have been accepted by the Senate.

3. The names of candidates who have been approved for the degree of Doctor of Medicine shall be published in alphabetical order, and distinction may be awarded at the discretion of the Examiners.

### **Degree of Master of Surgery**

1. No candidate shall be admitted to the degree of Master of Surgery unless he has previously received the degrees of Bachelor of Medicine and Bachelor of Surgery, and at least one year has elapsed since he passed the examination for those degrees.

2. Every candidate, before presenting himself for the examination for the degree of Master of Surgery, is required to have graduated as Bachelor of Medicine and Bachelor of Surgery, and to furnish certificates of attendance in accordance with the Regulations of the University.

3. The subjects of examination are as follows :

Surgical Anatomy

Surgery

Operative Surgery

Clinical Surgery

Ophthalmology

Pathology and Bacteriology.

4. The names of candidates who have satisfied the Examiners shall be published in alphabetical order, and distinction may be awarded at the discretion of the Examiners.

### **Degree of Doctor of Philosophy (Ph.D)**

1. The Degree of Doctor of Philosophy (Ph.D). is conferred, on payment of the proper fee, on persons who are registered graduates of the University of Leeds, or who have obtained at an approved University a degree awarded upon an approved course of study extending over not less than three years, or have passed the Final examination for such a degree at an approved University, provided that in all cases the conditions laid down in the following paragraphs have been satisfied.



2. All Candidates for the degree of Doctor of Philosophy are required to pursue in the University for at least two academic years an approved full-time course of advanced study and research, under the direction of the Head of the Department concerned or of a member of the University staff appointed by the Senate on his recommendation ;

provided that, after completion of the first year of the course, candidates may be permitted to devote such periods as may be deemed advisable by the Senate to full-time study and research in other approved Universities or institutions, while remaining under the direction of the University or of persons nominated by the University.

3. Before entering on the course of advanced study and research, candidates are required

- (a) To have attained the age of 21 years ;
- (b) To submit to the Senate for its approval the course of advanced study and research proposed by them and to present evidence satisfactory to the Senate that they are qualified to undertake the proposed course.
- (c) To register as students of the University and to pay the prescribed fees for tuition.

4. On completing the course of advanced study and research, candidates are required

- (a) To present a thesis on the subject of their advanced study and research, and to satisfy the examiners that it contains original work worthy of publication, and that it is of a sufficient standard of merit to qualify for the degree of Doctor of Philosophy.
- (b) To submit themselves for an oral examination on matters relevant to their thesis and, if required, for a written examination and to satisfy the examiners in the examination as well as in the thesis presented.

## REGULATIONS

### General Attendance

During the first four years, a year of medical study must include attendance upon at least *two* of the prescribed courses of lectures or laboratory work, or one such course

and hospital practice, in each term, if that year is to count as part of the degree course. In the fifth year clinical work will suffice. The attendance must be given at the University or at a College, Medical School, or Hospital recognised by the University.

### **Examinations**

Except as provided below, candidates must present themselves and pass in all the subjects of any part of an examination at the same examination. But candidates who have failed (*a*) in Chemistry or Physics at the First examination for the degrees of M.B. and Ch.B., or (*b*) in Anatomy or Physiology at the Second examination for the degrees of M.B. and Ch.B., or (*c*) in any subject of Parts II and III of the Final examination for the degrees of M.B. and Ch.B. may be exempted from re-examination in such part of the examination as the combined Examination Committee may determine. Provided that this exemption shall not be allowed except at the examination next following that at which such candidates have failed when presenting all the subjects.

### **First Examination**

Candidates for the First examination are required to furnish certificates of having attended approved courses of instruction at the University or at an institution recognised for this purpose by the University; or of having attended, at some other institution, courses of instruction which shall be accepted by the University as equivalent.

The courses of instruction shall be as follows:

1. Chemistry, Inorganic and Organic: lectures and laboratory work: at least one year.
2. Physics: lectures and laboratory work: at least one year.
3. Zoology: lectures and laboratory work: at least one year.
4. Botany: lectures and laboratory work: at least two terms.

The examination will include laboratory work in the four subjects. Candidates may pass in each part separately.

Students who have passed the Higher School Certificate examination in Chemistry must include more advanced Chemistry in their alternative course of study, but alternatives to Physics may be chosen from any department of study approved by the Deans of the Faculties of Science and Medicine. Students who have passed the Higher School Certificate examination in Physics or Chemistry and also in Zoology or Botany or both these latter subjects will only be granted exemption from the subjects of Zoology and Botany in the First M.B. examination provided (1) that the plan of study followed at school in preparation for the Higher School Certificate examination in these subjects is considered by the Senate to correspond sufficiently to the courses required at the University and (2) that an approved alternative course in special Zoology be taken at the University.

N.B.—This examination is held twice each year.

### Second Examination

Candidates for the Second examination are required to have passed the First examination, and to have attended complete courses of instruction, approved by the University, in Anatomy and in Physiology during four terms; in *Materia Medica* and in Pharmacy for one term. The certificates must show (1) that dissection has been practised during †five terms at least; (2) that laboratory instruction, approved by the University, has been received in Physiology; (3) that practical instruction, approved by the University, has been received in *Materia Medica* and Pharmacy.

### *Subjects of examination*

#### PART I.

Anatomy. Candidates may, at the discretion of the Examiners, be required to perform actual dissection.

Physiology includes laboratory work in Physiological Chemistry, Histology, and Experimental work.

#### PART II.

Practical Pharmacy. Candidates will be required to recognise drugs, and to compound medicines.

Candidates may pass in each Part separately.

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† Work in the vacations is counted as one term, if sufficient.

Candidates who fail to satisfy the Examiners in Part I. or Part II. must before being readmitted to examination produce evidence of having pursued such further study as may have been required by the Examiners.

N.B.—This examination is held twice each session.

### Final Examination

Candidates, before presenting themselves for any part of the Final examination, are required to have passed the Second examination and to have completed the tenth term of medical study. Candidates before presenting themselves for the second or third part of the Final examination are required to have passed the first part of the Final examination and to have completed the fifth year of medical study. Candidates must furnish certificates of having attended courses of instruction approved by the University, in the University, or in a Medical School recognised for this purpose by the University, in the subjects in which they offer themselves for examination.

Candidates are required to furnish certificates as follows:

A. Of having attended courses of instruction, approved by the University, in the University or in a Medical School or Hospital recognised for this purpose by the University, in the following subjects:

1. Pharmacology and Therapeutics, one term.

2. Pathology and Bacteriology, three terms.

The certificate in Pathology and Bacteriology must in all cases testify that the candidate has attended a course of laboratory instruction in these subjects, approved by the University.

3. Forensic Medicine, one term.

4. Public Health, one term.

5. Obstetrics and Gynæcology, two terms.

The certificate in Obstetrics and Gynæcology must in all cases testify that the candidate has attended courses of practical instruction approved by the University, in the use of obstetrical and gynæcological instruments.

6. Surgery, three terms; Practical Surgery, two terms; Ophthalmology, one term.

## 7. Medicine, four terms.

The certificate in Medicine must in all cases testify that the candidate has attended, during one term in each case, courses of instruction approved by the University in (a) Mental Diseases ; (b) Infectious Diseases.

*B.* In respect of Hospital work.

1. In Medicine and Surgery, of having attended the medical and surgical practice of a hospital or hospitals, approved by the University, during at least two and a half years, of which years two at least must be subsequent to the date of passing the Second examination, except when exemption has been granted by the Senate, after report from the Board of the Faculty of Medicine. Clinical Medicine, two years of clinical lectures. Clinical Surgery, two years of clinical lectures.

2. In Pathology and Morbid Anatomy, of having attended during at least twelve months demonstrations in the post-mortem room of a hospital, including practical instruction.

3. In Obstetrics, (a) of having attended during not less than one month the indoor practice of a lying-in hospital or the lying-in wards of a general hospital approved by the University, and (b) of having personally conducted not less than twenty cases of labour, subsequently to having acted as surgical dresser and clinical clerk.

The certificate must in all cases (a) testify that such attendance has been given under the direct supervision of a medical officer of the hospital, and (b) regarding the personal conduct of cases of labour, be signed by a member of the staff of a hospital or a maternity charity.

4. In Gynæcology, of having, during at least three months, received in either a general or a special hospital, approved by the University, such clinical instruction in the diseases peculiar to women as shall be approved by the University.

5. Of having received clinical instruction in diseases of the eye, ear, throat, and skin.



6. Of having received instruction in the administration of anaesthetics.
7. Of having acquired proficiency in vaccination.
8. Of having acted as a surgical dresser for six months, as a clinical clerk for six months, and as a clerk for three months in the post-mortem room of a hospital recognised by the University.

N.B.—This examination is held twice each session.

### *Subjects of examination*

#### PHARMACOLOGY AND THERAPEUTICS.

#### PATHOLOGY AND BACTERIOLOGY.

Candidates will be examined practically on Bacteriology, Pathological Anatomy, Histology, and Chemistry.

#### FORENSIC MEDICINE AND TOXICOLOGY AND PUBLIC HEALTH.

Candidates may be required to determine the character of stains and stained fabrics, microscopically and chemically, and to recognise poisonous articles of the *materia medica*.

#### OBSTETRICS AND GYNÆCOLOGY: Systematic, Clinical, and Practical.

Candidates will be required to shew their practical acquaintance with obstetrical and gynæcological manipulations and instruments by the use of the phantom or otherwise, and will also be examined on museum preparations.

Candidates, in order to pass, must satisfy the examiners in the clinical part of the examination.

#### SURGERY: SYSTEMATIC, CLINICAL, AND PRACTICAL.

Candidates will be examined on the use of surgical instruments and apparatus, and on museum preparations; they may also be required to perform operations on the dead body.

Candidates, in order to pass, must satisfy the Examiners in the clinical part of the examination.

#### MEDICINE: SYSTEMATIC AND CLINICAL, INCLUDING MENTAL DISEASES AND DISEASES OF CHILDREN.

Candidates, in order to pass, must satisfy the Examiners in the clinical part of the examination.

In determining the award of Honours account will be taken of the results of the Second examination.

Candidates who fail to satisfy the Examiners in any subject of the examination must, before being re-admitted to examination, produce evidence of having pursued such further study as may have been required by the examiners.

### **Degree of Doctor of Medicine**

Candidates for the degree of Doctor of Medicine are required to furnish three copies (printed or type-written) of the dissertation or published work which they desire to submit, together with any drawings or specimens which may be necessary for their illustration. These copies shall be sent to the Clerk to the Senate at least six weeks before dates fixed for Final M.B. Examinations. They will be retained by the University.

### **Degree of Master of Surgery**

Candidates, before admission to the examination for the degree of Master of Surgery, are required to furnish certificates which shall be deemed satisfactory by the University that they, since taking the degree of Bachelor of Medicine and of Surgery, have held, for not less than six months, a Surgical appointment in a public hospital, or other public institution affording full opportunity for the study of Practical Surgery.

Candidates proposing to present themselves for this examination are required to give notice, in writing, to the Clerk to the Senate and pay the fee on or before June 1st.

Candidates for the degree of Master of Surgery are also required to furnish certificates :

1. Of having attended a special course of instruction on Operative Surgery, approved by the University, and of having personally practised the principal surgical operations on the dead body.
2. Of having attended a systematic course of instruction, including practical work, approved by the University, on Bacteriology.

3. Of having attended a course on Ophthalmology, and of having received instruction in Ophthalmic Surgery approved by the University.

## DIPLOMA IN PUBLIC HEALTH

### Regulations

1. The curriculum shall extend over a period of not less than twelve calendar months subsequent to the attainment of a registrable qualification.

2. The examination shall be held twice in each year, in June and December.

The examination shall be in two parts.

### PART I.

3. The examination shall be practical, written and oral, and shall include the following subjects :—

- (a) Bacteriology and Parasitology (including Medical Entomology).
- (b) Chemistry and Physics, and Meteorology and Climatology in relation to Public Health.

Candidates must pass in (a) and (b) at one time and must do so before being admitted to Part II.

### PART II.

4. The examination shall include the following :—

- (c) Hygiene and Sanitation (including Sanitary Construction).
- (d) Epidemiology and Infectious Diseases.
- (e) Sanitary Law and Vital Statistics.
- (f) Public Health Administration.

It shall be written and oral, and shall include practical examinations in Infectious Diseases, Food Inspection, Inspection of Premises : dwellings, factories, workshops, schools, etc.

Candidates shall not be admitted to Part II. until after the lapse of two years from the date of obtaining a registrable qualification in Medicine,

Surgery and Midwifery, which qualification must be registered ; and they must pass at one time all the subjects (c) (d), (e) and f ).

5. Before admission to Part I. candidates must produce evidence of having attended during a period of not less than six months practical instruction in :—

- (i) Bacteriology and Parasitology (including Medical Entomology), especially in their relation to diseases of man, and to those diseases of the lower animals which are transmissible to man.

This course must have occupied at least 180 hours of which at least 150 must have been spent in practical laboratory work.

- (ii) Chemistry and Physics in relation to Public Health.

At least 90 hours must have been devoted to this course of which at least 70 hours must have been spent in practical laboratory work.

- (iii) Meteorology and Climatology in relation to Public Health.

At least 10 hours must have been devoted to this course.

6. Before admission to Part II. candidates must produce evidence of having held a registrable qualification for at least two years and :—

- I. Of having attended a course of instruction of not less than 80 hours in :—

- (a) The principles of Public Health and Sanitation (30).

- (b) Epidemiology and Vital Statistics (20).

- (c) Sanitary Law and Administration (including Public Medical Services (20).

- (d) Sanitary construction and Planning (10).

- II. Of having attended for three months on the clinical practice of a recognised hospital for Infectious Diseases and of having received therein instruction in the methods of administration. Sixty hours attendance in all is required and

candidates must attend for 2 hours on at least 30 days. One or more such attendances must be given in each week of the three months.

- III. Of having, during a period of not less than six months, been engaged in acquiring a practical knowledge of the duties, routine and special of Public Health Administration under the supervision of a Medical Officer of Health, who shall certify that candidates have received, from himself or other competent Medical Officer, during not less than three hours on each of sixty working days, practical instruction in these duties and also those relating to :—

- (a) Maternity and Child Welfare Service.
- (b) Health Service for Children of School Age.
- (c) Venereal Diseases Service.
- (d) Tuberculosis Services.
- (e) Industrial Hygiene.
- (f) Inspection and Control of Food, including meat and milk.

Certificates under III. must be given by a Medical Officer of Health who devotes his whole time to the work, or by the Medical Officer of Health of a Sanitary Area having a population of not less than 50,000 or in Ireland the Medical Superintendent Officer of Health of a county or county borough having a population of not less than 50,000.

7. The courses for Public Health must have been attended in the University or in a College, Medical School, or other institution whose courses of instruction shall have been accepted by the University as equivalent, but all candidates must spend at least three months on courses in the University.

8. Every candidate who has passed both parts of the examination shall receive a Diploma in Public Health.

#### **COURSES OF INSTRUCTION FOR CANDIDATES PREPARING FOR DIPLOMA IN PUBLIC HEALTH**

Details of these Courses are given in subsequent pages.



## DIPLOMA IN PSYCHOLOGICAL MEDICINE

### Regulations

1. The examination is in two parts, and is written, oral and practical.

2. Candidates, before entering for the first part of the examination must produce evidence,

- (A) 1. Of being graduates in Medicine of at least one year's standing.
2. Of having attended approved courses of instruction on the subjects of examination during six months at least after graduation.
3. Of having acted as Clinical Clerk or Assistant Medical Officer in an Asylum, recognised for this purpose, for a period of at least six months.
4. Of having attended a course of systematic instruction on the normal and morbid anatomy of the brain for a period of six months in the recognised laboratories of the University.

(2, 3 and 4 may be taken concurrently, and as evidence of (4) must be produced a laboratory note book record of practical work which has been regularly inspected and signed by a recognised teacher.)

or (B) 1. Of having acted as Assistant Medical Officer in an Asylum of not less than 500 beds for a period of at least two years.

2. Of having attended a course of systematic instruction on the normal and morbid anatomy and histology of the brain for a period of six months in the recognised laboratories of the University.

(as evidence of this must be produced a laboratory note book record of practical work which has been regularly inspected and signed by a recognised teacher.)

3. In addition to the laboratory work under (2), or in lieu of three months thereof, candidates may submit a dissertation which must embody the

results of personal observations or original research in relation to psychological medicine, provided always that original work, published in scientific journals, or in the Proceedings of learned societies, or separately, shall be admissible in lieu of or in addition to a dissertation specially written for the diploma.

### **Subjects of Examination**

#### **PART I.**

- (i.) The Development, Anatomy, Histology and Physiology of the Brain (Human and Comparative).
- (ii.) The Morbid Anatomy and Morbid Histology of the Brain from both theoretical and practical aspects.

#### **PART II.**

- (iii.) Psychology, with especial reference to the symptomatology of Mental Disease.
- (iv.) Clinical Psychiatry, Asylum Administration, and the Medico-Legal aspects of Insanity.

Candidates, in order to pass, must satisfy the examiners in the clinical part of the examination.

Candidates may present themselves for Parts I. and II. separately or at the same time, provided that no candidate be allowed to pass in Part II. unless he has already passed in Part I. No candidate's name will be published until he has satisfied the Examiners in both parts of the examination.

The fee for examination is £6 6s., and must be paid at least fourteen days before the commencement of the examination. For any subsequent examination the fee in each part will be £3 3s. od.

Every candidate who has passed both parts of the examination and is legally qualified and registered, will receive a diploma in Psychological Medicine.

**DIPLOMA IN NURSING****Regulations**

1. Each candidate who satisfies the examiners shall receive a Diploma, and shall be styled a Diplomate in Nursing, University of Leeds.

2. Before presenting themselves for examination for the Diploma, candidates must have completed four years' training in a General Hospital recognised by the University for the purpose, and shall have received a certificate to this effect.

3. Candidates shall furnish evidence of having attained an adequate standard in general education satisfactory to the University.

4. The four years' hospital training shall include—

(a) Practical instruction and tuition in the following:—

- i. Ward nursing, medical, surgical and special.
- ii. The Principles of Surgical Technique and operation service.
- iii. Bandaging and the preparation and use of splints and other appliances.
- iv. Invalid cookery.
- v. The feeding and management of infants.
- vi. The Principles of Ward administration.
- vii. Elementary urine testing.
- viii. Preparation for autopsies.

(b) Attendance on the following courses of Lectures and Lecture Demonstrations:—

- i. The Principles and Practice of Nursing 20 lectures.
- ii. Elementary Anatomy and Physiology 20     ,,
- iii. Elementary Medicine     ..     .. 12     ,,
- iv. Elementary Surgery     ..     .. 12     ,,
- v. Elementary Obstetrics & Gynæcology 8     ,,

- vi. The management of infancy and childhood .. .. 6 lectures
- vii. Elementary Hygiene .. .. 8 ..

Candidates shall furnish certificates of such attendance and of having passed satisfactorily a class examination in each subject.

At least three months must be spent in attendance on courses in the University of Leeds (for this purpose lectures delivered in the Leeds General Infirmary shall be deemed to have been delivered in the University of Leeds). The number and the character of the courses shall be determined in each case by the University.

5. Candidates must also attend a Course of Lectures in the University of Leeds on Social Economics or some other approved subject.

6. A nurse may be registered as a candidate for the examination *at any time* after she has been accepted for full Hospital Training, upon

- (a) Payment of a registration fee of five guineas.
- (b) Producing the necessary evidence of general education.

7. The examination may be taken at any time after lodging the certificate of completion of training (as defined in paragraph 2), upon

- (a) Payment of a further fee of five guineas.
- (b) The production of the certificates of attendance upon the prescribed courses of lectures (paragraphs 4 and 5).

8. The examination shall be held twice annually, and shall be

- (a) By written papers.
- (b) In practical work.
- (c) *Viva Voce*.

There shall be a written paper in each of the following subjects :—

- (a) The Principles and Practice of Nursing.
- (b) Elementary Medicine and Surgery.
- (c) Elementary Anatomy and Physiology.
- (d) Elementary Obstetrics and Gynæcology, the care of Infancy and Childhood, and Elementary Hygiene.

Enquiries as to fees, courses, &c., should be directed to the Dean of the Faculty of Medicine, or to the Matron of the Leeds General Infirmary.

### DATES OF EXAMINATIONS

- 1. The Matriculation examination is held twice in each calendar year, in July and in September.
- 2. The First examination in June and September.
- 3. The Second examination in December and June.
- 4. The Final examination in December and June.

The examinations for the Diplomas of Public Health, Psychological Medicine, and Nursing, as in (3) and (4).

As at present arranged the examinations will commence

December, 1924      ...      on December 1st

June,      1925      ...      on June 22nd

but these dates are subject to alteration.



## SCHOOL OF MEDICINE

The School of Medicine is separated from the Infirmary by the width of a street only, a proximity which facilitates attendance at both institutions. The wealth of clinical material in the Infirmary and other Medical Institutions in Leeds and the West Riding, together with the Laboratories, &c., in this School, offers to students opportunities of great value.

Students are educated for the degrees of Leeds and other Universities, and for the diplomas of all Medical Licensing Bodies in the United Kingdom. Women are admitted on the same terms as men.

The present buildings were opened in 1894. They contain one of the finest Dissecting Rooms in the kingdom; laboratories for Physiology, Pathology, and Bacteriology, with the most recent improvements in fittings and apparatus; three Lecture Theatres and several smaller Class Rooms; a Library and Reading Room; a Pathological Museum, and a separate Museum for Anatomy.

The convenience and comfort of students are also provided for by commodious Common Rooms, separate lockers for coats, &c., and a Refectory. There is also a Fives Court in the quadrangle. A separate Common Room is provided for women students.

### Prescribed Course of Studies for Medical Students

The Student of Medicine who entered before January, 1923, is required by the regulations of the General Medical Council to spend five years in a prescribed course of studies. Changes are, however, under consideration for those who joined subsequently.

He must have passed an examination in general knowledge, which for the Student preparing for the degrees of the University of Leeds is the Matriculation examination, or an equivalent as stated in the regulations.

Having thus embarked on his career, the years of study which follow may be divided into three periods:

1. The science year, when the subjects of physics, chemistry, zoology, and botany are taken. At the

- end of this year there is a long vacation term, extending over July and September, occupied by instruction in pharmacy and elementary anatomy.
2. The intermediate period, when he studies anatomy, physiology, and pharmacy.
  3. The final period, during which the study of the more professional subjects and hospital practice are pursued.

The regulations of the School of Medicine of the University of Leeds require that the professional examinations be passed at the prescribed periods. Students must pass the examinations of one period before they are permitted to commence the studies of that which follows. Students will not, as a rule, be allowed to enter the School of Medicine until they have passed the examination in Chemistry and Physics.

The curriculum is arranged for the purpose of giving a thorough and complete medical education and to this end regular and punctual attendance at lectures and classes is absolutely necessary. For the same reason it is very desirable that all lectures and classes (as well as the clinical appointments) should be taken in the order indicated in the "Normal Course," and none of them is to be looked upon merely as a formality necessary for "signing up."

Students should not attend subjects like vaccination and infectious diseases until they have attended some lectures on medicine and pathology, and they should avoid taking in-patient dressing appointments while they have many afternoon lectures.

The following is the arranged distribution of hours between the School and the Infirmary: School, 9—10, 12—2, 4—5; Infirmary, 10—12, and 2—4. Students are expected to leave their work at one institution so as to be punctual at the other if they have lectures or classes (or clinical appointments, as the case may be) to attend.

When the final examinations have been passed, the student registers with the General Medical Council and is then legally entitled to practice his profession. The necessary form can be obtained at the Dean's office.

Having thus become qualified, the graduate will find it advantageous, in order to widen his experience, to spend at least the first year as a House Physician or a House Surgeon in a hospital, or as an assistant to a practitioner.

Should one of the public services be the ultimate aim care should be taken to make full acquaintance with the regulations in force for the time being.

### GENERAL REGULATIONS FOR STUDENTS

1. All students are required to enrol their names at the Dean's office at the beginning of the first term. Students who from any unavoidable cause are prevented from personally attending at that time must communicate with the Academic Sub-Dean by letter.

2. Should a student change his residence during the Session, he must inform the Academic Sub-Dean of the change of his address without delay.

3. Regular, punctual, and orderly attendance at Lectures, Demonstrations, and Class-examinations is required of every student, in order to obtain certificates of attendance. In the case of persistent neglect of work, repeated failure at professional examinations, or unreasonable delay in presenting himself for such examinations, a student may be required to withdraw from the University.

4. In cases of illness or other unavoidable cause of non-attendance at any Lecture, Demonstration, or Class examination, a written explanation, accompanied, when necessary, by a medical certificate, must be sent to the Academic Sub-Dean, with as little delay as possible; otherwise excuses for absence cannot be accepted. Hospital work is not counted as an excuse for non-attendance upon lectures excepting in the case of the week's Casualty Dressership and for attendance upon actual cases of Midwifery, all of which must be duly certified. Consequently students must not take any resident hospital appointments which involve absence from lectures or classes in the School, unless they have previously informed and obtained the permission of the Academic Sub-Dean.

5. Smoking is allowed only in the Students' Common Room, the Refectory after 1 p.m., and under certain restrictions in the Dissecting Room.

6. Students will be required to make good, to the satisfaction of the Council, any loss, wilful damage or injury they may occasion to the property of the University.

7. Students in the School of Medicine are amenable to the discipline and general regulations of the University, as well as to the rules made by the Board of the Faculty of Medicine. Violation of these regulations and rules renders a student liable to immediate dismissal and to the forfeiture of all fees, certificates and privileges as a student of the University.

8. Prior to entering the School every student is required to sign the following declaration :

*If admitted a Student in the Faculty of Medicine of the University of Leeds, I undertake to comply with all rules and regulations of the University, and to conduct myself on all occasions in an orderly manner. I fully understand that no allowance whatever will be made, and that I have no claim upon the Council of the University in respect of any fees paid by or due from me, in case such fees are forfeited by any irregularity or misconduct on my part.*

### The Library

Contains a valuable collection of books, composed of the united libraries of the School of Medicine and of the Leeds and West Riding Medico-Chirurgical Society. The Library of the Old Infirmary, rich in Medical Classics, became the property of the Medical School in 1865.

The Collection includes most of the modern works of importance, and the chief English and foreign periodicals are taken.

Recommendations for the purchase of new works should be entered in a book provided for the purpose, or be addressed to the Hon. Librarian.

### Library Rules

1. The Library is open to students daily, between the hours of 9 a.m. and 5 p.m., except on Saturdays, when it is closed at 1 p.m. During these hours, books can be obtained for use in the Library.



2. Students wishing to borrow books for home use are allowed to do so under the following regulations :—

(a) Every student wishing to take books away from the Library shall deposit half-a-guinea as caution money; this sum, or the balance of it remaining shall be refunded to the depositor on the return of his library card.

(b) The student will, on payment of the deposit, receive a library card with his name upon it.

(c) Books borrowed for home use must be returned to the Library within two weeks from the date of issue, unless they are in urgent demand when they may be recalled earlier. One volume only can be borrowed at a time. A fine of 2d. a day is incurred for every day that it has been detained beyond the time allowed.

(d) No periodical for the current year may be removed from the Library.

(e) In case of loss of or damage to any book, the loss or damage must be made good by the borrower.

(f) Every book must be returned to the Library at the end of the Summer term.

### Museums

THE MUSEUM OF PATHOLOGY contains, in addition to preparations illustrating the ordinary pathological processes, many rare specimens, some of historical interest. It draws largely for its supply from the abundant material of the General Infirmary, as well as from other institutions in the City. A collection of Microscope sections from specimens in the Museum is available for the use of students on application.

A complete type collection of MATERIA MEDICA specimens is also placed here for the convenience of students.

THE MUSEUM OF ANATOMY AND BONE ROOM adjoins the Dissecting Room, and has been fitted up under the direction of the Professor of Anatomy with a valuable collection of specimens specially arranged for study, which are also used in illustration of the Lectures on Anatomy. Amongst them are a complete set of bones marked with the muscular attachments, and mounted in revolving cases; and an extensive series of wax models, illustrating the development of the foetus.

### Lockers

These are provided for the safe keeping of coats, books, &c. The rent is 5s. per annum, commencing at the 1st term, with a deposit of 5s., which will be returned when the key is given up, if the locker is undamaged.



### Refectory

A well-appointed Refectory, which is open daily, excepting Saturday, has been provided in the building. It is under the combined management of the Board of the Faculty and of the Students' Representative Council. Luncheon is served from 12 to 2 p.m. Tea, coffee, and light refreshments may be obtained until 5 p.m.

### The Leeds University Union

Includes membership of debating societies, admission to athletics and gymnasium, and use of Common Rooms. At the gymnasium a permanent instructor is engaged.

A subscription of £2 per annum is charged, by direction of the Council of the University, to all students, and is to be paid like other University fees to the Accountant.

### Students' Representative Council

This Council is elected annually by the students of the School of Medicine from amongst their own number.

It concerns itself with the affairs of the Medical students, and appoints representatives to serve on the Committee of the Students' Union, a proportion of whose funds it has at its disposal.

The Secretary of the Council is *ex-officio* the Medical Secretary of the Union Committee.

The Council further appoints Dinner, Entertainments and Sports sub-committees, and three of its number serve upon the Refectory Committee.

The office holders for 1924-25 are—*President*, P. V. Hardwick, and *Secretary*, L. V. Broadhead.

### The Medical Society

is managed by a committee elected by the Students. Meetings are held on alternate Tuesdays during the winter session, when papers, dealing with subjects of medical interest are read by members of the Society and by eminent members of the medical profession. The session usually commences with an address by one of the members of the staff.

The office holders for 1924-25 are—

*Presidents*:—Not elected until October.

*Secretaries*:—W. O. S. Hornby.  
S. K. Sledge.

*Treasurer*:—Esther Killick.

*Editor of Transactions*: A. H. Morley.

### **Royal Army Medical Corps Territorial Army 49th (West Riding) Division**

Medical Students are invited to join this Corps. Training is carried on throughout the year, the more active part of the drill season being from the beginning of May to the end of July.

The Annual Camp (lasting 14 days) is usually held at the end of July and the beginning of August.

Instruction is given in First Aid, nursing duties, cooking for the personnel and sick, hygiene and sanitation.

The following Units are stationed in Leeds :—

The West Riding Field Ambulance.

2nd Northern Casualty Clearing Station.

49th Divisional Sanitary Section.

R.A.M.C. School of Instruction for the 49th West  
Riding Division.

For further information apply to the Adjutant, Royal Army Medical Corps, Harewood Barracks, Leeds.

### **Officers' Training Corps**

This organisation was inaugurated in October, 1909. For information see the University Calendar. The object is to train students for commissions in the Special Reserve and the Territorial Force. Students should give their support to this national object.

### **ENTRANCE AND SENIOR SCHOLARSHIPS**

The AKROYD and BROWN SCHOLARSHIPS are tenable by Students who propose to enter the School of Medicine, provided they are reading for the B.Sc. degree of the University.

The MEDICAL SCHOLARSHIP (founded 1888), consists of free admission to the lectures and practical instruction given in the University for the M.B. course. It does not include Infirmary and Fever Hospital practice, and instruction in Vaccination and Intern Maternity, which are given outside the University buildings, or the fee for membership of the Students' Union.

Candidates for the Medical Scholarship must have declared their intention, if elected, of entering the University of Leeds as Students in the Faculty of Medicine.

The successful candidate will be required to enter at the University of Leeds as a student in the Faculty of Medicine, in the October immediately following the examination, to pursue, at the University of Leeds and at the

General Infirmary at Leeds, the curriculum for a medical degree in the University of Leeds; and to proceed to such degree. But should the successful candidate desire to take a degree in Science or a fuller course of scientific work, before entering upon his professional studies, he shall give immediate notice of his wish to the Senate, which may, if it so determine, allow the Scholar, after passing the First examination, to postpone his attendance in the School of Medicine for one year only, during which time he shall pursue such course of study at the University as the Senate may authorise.

These Scholarships are awarded on papers set in the Higher Certificate Examination of the Joint Matriculation Board. Candidates are required to take the papers in three "Full" subjects from Group III and in one subsidiary subject, in accordance with the regulations of the Higher School Certificate Examination.

Enquiries regarding these Scholarships should be addressed to the Clerk to the Senate.

### THE INFIRMARY SCHOLARSHIP

This scholarship is of the value of £68, and consists of a free ticket to the Clinical teaching in the Leeds General Infirmary. The holder is required to enter as a student for the whole medical curriculum at the University in the session following the date of examination.

The scholarship is awarded, after a report from the Examiners, on the results of the First M.B. Examination of the University of Leeds held in June of each year.

#### Present Scholarship Holders

##### MEDICAL SCHOLARSHIP.

1917	G. E. A. Lewis
1918	G. R. Sunley
1919	F. R. Curtis
1920	M. Masser
1922	A. M. Korn
1923	L. Rosenhead

##### LEEDS INFIRMARY SCHOLARSHIP.

1919	G. Rosenberg
1920	M. Rabinovich
1921	D. R. Allison
1922	W. Hyman
1923	G. A. Dibb
1924	T. L. Owen

For full particulars of all University Scholarships and for the general regulations under which Scholarships are held, see the Scholarship Prospectus. For particulars of Scholarships awarded by the Leeds City Council, apply to the Director of Education, Higher Education Department, Leeds.

## PRIZES\*

**The Scattergood Prize**

This prize, instituted in memory of the first Dean of the Medical Department, Yorkshire College, is awarded annually on a competition in Obstetrics and Gynæcology held in May. The value of the prize, which consists of books or instruments, is five pounds. For particulars apply to the Dean.

## AWARD

1924 ... H. Edelstein

**The Thorp Scholarship in Forensic Medicine and Hygiene**

The Thorp prizes, instituted by the late Dr. Disney L. Thorp, one of the founders of the School, are now awarded as one annual Scholarship of about £25 to a student or graduate of the University prepared to carry out some research work in some subject bearing upon Forensic Medicine or Public Health. For particulars apply to the Dean.

**The Hardwick Prize in Clinical Medicine**

The Hardwick Prize in Clinical Medicine, of the value of ten pounds, is given annually on a competition which is held in May. Candidates must have been students in the School of Medicine of the University for not less than eight terms; they must be attending the medical practice of the Leeds General Infirmary; and they must have held or be then holding the office of clinical clerk in that Institution.

## AWARD

1924 ... H. Edelstein

**The McGill Prize in Clinical Surgery**

The McGill Prize in Clinical Surgery, value £10, is given annually on a competition which takes place in May. The prize is given for proficiency in the study and practice of Clinical Surgery as determined by

1. Case-taking.
2. A written examination.
3. A *vivâ voce* examination.

It may be competed for by students in the School of Medicine of the University of Leeds, who have not at the

\*A class prize in Clinical Surgery is awarded annually by Professor Sir Berkeley Moynihan, value £5.

time of the examination entered on their sixth year, and who have held the following clinical appointments at the Infirmary:—

1. In-patient dresser.
2. In-patient medical clerk.
3. Post-mortem clerk.
4. Ophthalmic dresser.
5. Gynæcological dresser.

For further particulars apply to the Clinical Sub-Dean.

#### AWARD

1924      ...      ...      Nil

### Edward Ward Memorial Prize in Surgical Anatomy

The Edward Ward Memorial Prize in Surgical Anatomy of the value of £5 is awarded annually on a competition held under the following conditions:—

The Examiners for this Prize will be the Heads of the Departments of Anatomy and Surgery, and one of the Clinical Lecturers in Surgery to be appointed by the Board of the Faculty.

The examinations will be held in the month of June in the week preceding the Final examination, and will consist of (a) a written paper, (b) *viva voce* examination on the living subject and (c) dissections.

Students are eligible irrespective of the qualifications for which they are working, and must be in their Final year (normally fifth year) but due allowance will be made for those whose course has been extended by extra courses for the B.Sc., Primary Fellowship, or other reason satisfactory to the Board.

#### AWARD

1924      ...      Marjorie E. Knowles

### William Hey Medal

The sum of £200 has been invested with a view of providing a gold medal for the most distinguished graduate in the M.B., Ch.B. list of the year (Calendar), provided first class Honours have been attained.

The award will be made by the Examination Committee in December on:—

- (a) The results of the Final M.B. (Part III) examinations held in June and December of the same year. Previous examinations, Second M.B. and Final M.B. (Parts I and II), will also be taken into consideration.
- (b) A consideration of the student's general standing, record and character. The successful student must have displayed qualities of such an order as to entitle to special distinction.



In cases when there was no award in any year, and provided the income admits, and more than one student in any one year shows special distinction, two medals may be awarded.

#### AWARDS

1920	...	H. H. Gleave, M.B., Ch.B., <i>Leeds</i>
1921	...	G. Armitage, M.B., Ch.B., <i>Leeds</i> , M.R.C.S., L.R.C.P. D. Chamberlain, M.B., Ch.B., <i>Leeds</i> .
1922	...	No Award
1923	...	G. F. Walker

#### West Riding Panel Practitioner's Prize

The prize is awarded annually on the result (in Medicine only), of the Final M.B., Ch.B. examinations in June and December of the same year, provided that students who are working for other qualifications and are otherwise eligible be allowed to compete, and provided that the candidate obtaining the highest number of marks is deemed by the examiners to have attained a standard worthy of the award. Candidates must have received their clinical training wholly in the Leeds General Infirmary and will not be eligible to compete after three years from the date of passing the second M.B. or equivalent examination, excluding time occupied in working for a Final B.Sc. or Primary F.R.C.S. examination.

#### AWARD

1923	...	M. Cohen
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### APPOINTMENTS FOR SENIOR STUDENTS IN THE SCHOOL OF MEDICINE

#### Prosectors

Three Prosectors are selected annually from the senior students, to prepare Museum Specimens, Diagrams, and dissections for Demonstration purposes, under the direction of the Professor of Anatomy.

#### Student Assistants in the Physiology Laboratory

One or more senior students are selected from time to time to assist in the Physiology Laboratory.

**Student Assistants in the Pathology and Bacteriology  
Laboratories**

One or more senior students are selected from time to time to assist in the Pathology Laboratories, and in preparing specimens for the Museum.

**APPOINTMENTS AT INSTITUTIONS  
CONNECTED WITH THE SCHOOL**

**At the General Infirmary at Leeds**

(For particulars, see the Infirmary Section of the Medical Prospectus).

**At the Leeds Public Dispensary**

Four Resident Medical Officers are elected from time to time, as vacancies arise.

Clinical Assistants in the Out-patient Department are appointed by the Board on the recommendation of the Medical Faculty.

**At the Leeds Maternity Hospital**

A resident clinical assistant is appointed every six months, open to qualified medical women of the Leeds University. Salary at the rate of £250 per annum, with board, apartments and washing. Applications to the Medical Superintendent.

**At the Hospital for Women and Children at Leeds**

House Surgeons, Anæsthetists, and Clinical Assistants (see under "Hospital Practice" in subsequent pages).

**At the West Riding Mental Hospital**

Resident Clinical Assistants may be appointed for periods of not less than one month during the fourth or fifth term of their Medical curriculum, and receive board and lodging in return for their services. The duties mainly consist in visiting the wards, recording cases and assisting at autopsies, under the direction of the permanent Medical Staff. Every opportunity is afforded in the Laboratories for the prosecution of Pathological work. Applications to Professor J. Shaw Bolton, Medical Director at the Hospital.

Temporary or permanent members of the Medical Staff of the Institution receive the systematic training required for the Diploma in Psychological Medicine.

## **HOSPITAL PRACTICE**

### **Leeds General Infirmary**

The medical and surgical practice required by medical students is taken at this Institution, which offers abundant opportunities for clinical study. Situated in the centre of a densely populated manufacturing and mining district, and drawing patients also from a wide surrounding area, its wards present an ample field for the study of diseases and injuries. The concentration of medical, surgical, gynæcological, ophthalmic, aural, children's and venereal and skin diseases in one hospital leads to much economy in time and labour to the student.

The nature of the work done in the Leeds Infirmary makes the clerkships and dresserships of great value, and the resident appointments involve so much practical work and personal responsibility as to give the holders a very varied and valuable experience. A full account of the arrangements for clinical teaching, and of the appointments<sup>1</sup> offered to students, will be found in the Infirmary Section of the Medical Prospectus.

### **The Leeds Public Dispensary**

About 21,000 Medical and Surgical cases are treated annually, partly as out-patients, and partly at their own homes. There are one Senior and three Junior Resident Medical Officers.

There are 2 wards containing 20 beds for post operative cases.

The practice of the Dispensary is open to any student on application to one of the honorary staff.

### **Leeds City Fever and Small Pox Hospitals**

Students are admitted at the Leeds City Hospitals (Medical Superintendent, Mr. A. E. Pearson) on having obtained sanction from the Dean of the Faculty of Medicine of the University of Leeds, subject to such regulations as may be made from time to time by the Leeds City Council.

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<sup>1</sup>Enquiries relating to attendance at the Infirmary should be made (through the Dean's Office) to the Clinical Sub-Dean (Dr. Vining), 31, Park Square

Students must abide by the rules laid down as to disinfection and other matters, and must satisfy the Corporation authorities that they are sufficiently protected against small pox by vaccination.<sup>2</sup>

Courses lasting two months are held in each term on two afternoons in each week.

At the Small Pox Hospital a minimum period of one week's residence may be required with payment in advance of 12s. a week for board and lodging.

The hospitals are not open to students during April, August or September. Clinical lectures and demonstrations on infectious diseases will be given by the Medical Superintendent of the hospitals, and the attendance of students at these lectures and on the practice *must be completed during the term for which they enter.*

Special courses are held for post graduate students taking D.P.H. courses.

Those desirous of attending the practice outside the ordinary classes or clinical instruction, and not requiring a certificate of attendance, must apply for permission to the Medical Officer of Health of the City of Leeds, at his office, 12, Market Buildings, Vicar Lane, between the hours of 10 and 11 a.m.

### Hospital for Women and Children at Leeds

The wards contain 50 beds for the treatment of gynaecological and obstetric diseases. Students are eligible to attend the practice of the hospital in accordance with the University regulations. Two resident House Surgeons, who must be legally qualified, are appointed for periods of six months, with a salary at the rate of £50 per annum with board. Two Anæsthetists, who must be legally qualified, are appointed annually. Each receives an honorarium of £20 per annum. Honorary Clinical Assistants are also appointed by the Honorary Staff. These appointments are specially valuable to those wishing to do postgraduate work in gynaecology.

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<sup>2</sup>Students when attending at the Fever Hospital are not allowed to hold any Surgical in-patient appointment or to act as Maternity clerks.

### **Leeds Maternity Hospital**

The Maternity Hospital is attached to the University of Leeds for the purposes of clinical training in Obstetrics. There are 70 beds for cases of labour, and others for the treatment of morbid pregnancy. There is also an out-patient department and large extern districts.

During last year over 1,900 in-patients were treated and a similar number attended in the districts.

Every student is required to take an Obstetric clerkship for one month in the intern department, and for the following month in the extern districts of the Hospital. During the second month personal conduct of not less than twenty cases of labour is required.

Students when attending the Fever Hospital are not allowed to act as maternity clerk.

Students work under the immediate supervision of the Resident Medical Officer and University Tutor in Obstetrics, subject to the control of the Honorary Medical Staff.

### **West Riding Mental Hospital, Wakefield**

This Institution, which accommodates 2,250 patients, offers unusual advantages to those who desire to make themselves conversant with the treatment and management of the insane. A separate building, containing 330 beds, has been provided for the treatment of acute insanity; and 70 imbecile and idiot children are accommodated in a separate home in which they obtain special training and suitable education. Clinical lectures and demonstrations are given at the hospital by Professor J. Shaw Bolton, Medical Director, in connection with the systematic lectures on insanity, delivered at the School of Medicine. Clinical clerkships in the wards and laboratories may be obtained for limited periods by qualified medical men and women or by senior students on application to the Medical Director. Such clinical clerks are provided with free board and lodging, and, in return for their services, receive special instruction in psychiatry and in the morbid anatomy of mental disease. Temporary or permanent members of the Medical Staff of the Institution receive the systematic training required for the Diploma in Psychological Medicine.



## LECTURES AND CLASSES

HELD IN THE COLLEGE ROAD BUILDINGS OF  
THE UNIVERSITY

### Physics

#### Introductory Course

Two Introductory courses will be given, known as Int. *b* and Int. *c*.

Medical students are recommended to attend Int. *c* if possible.

It is very desirable that students taking these courses should have an elementary knowledge of Algebra, Trigonometry and Mechanics.

The following subjects will be treated in an elementary manner, illustrated by experiments: Electricity, Magnetism, Sound, Light, Heat, and Properties of Matter.

Suitable text books will be recommended by the lecturer.

The Physical Laboratory is open daily. Students' times of attendance are arranged at the beginning of the session, and must not be altered subsequently without permission.

### Chemistry

#### I. First M.B.

This course will consist of lectures on Monday, Thursday and Friday, at 2 p.m.

#### II. Practical Chemistry

During the session, on Monday, 12 to 1 and 3 to 5; and Thursday, 3 to 5; Friday, 3 to 5.

#### III. Organic Chemistry

During the session, at 12 noon on Tuesday and Thursday, and 11.30 on Saturday.

#### IV. Practical Organic Chemistry

During the Third Term, 4 hours per week.

(Classes III. and IV. are suitable for the examination in Organic Chemistry for the London M.B.)

#### V. Sanitary Chemistry (D.P.H.)

This will be held in the Chemical Laboratory, University Road, on two days per week (Tuesday and Thursday) during the second and part of the third term from 2 to 5 p.m. It will include practical instruction or demonstrations in the examination of water, air, and foods; in the properties of gases, and the laws of heat.

##### SYLLABUS

*Water.*—Qualitative examination, quantitative examination, estimation of free and albuminoid ammonia, oxygen consumption, chlorides, nitrates and nitrites, total solids, temporary and permanent hardness, metallic impurities.

*Air.*—Qualitative examination of foreign gases, quantitative determination of carbon dioxide.

*Food.*—Qualitative or quantitative examination of milk, butter, tea, coffee, sugar, alcoholic beverages.

*The Properties of Gases.*—Expansion, weight, pressure, diffusion. Ventilation.

*The Laws of Heat.*—Expansion of liquids and solids, temperature, latent and specific heat, liquefaction, evaporation and ebullition, radiant heat.

#### Zoology

#### Botany

Medical Students preparing for the First Examination of the University of Leeds or other Licensing Body take the full courses specified in the Calendar.

Lectures on Zoology during the session on Monday and Friday at 11 a.m. Practical work in the Zoological Laboratory throughout the session on Tuesday and Thursday mornings (11 to 1). Lectures and practical work on Botany during the second and third terms only on Tuesday at 2 to 5 p.m., and on Wednesday at 10 a.m. to 12 noon.

Each student will be required to provide himse with a microscope suitable also for his subsequent studies, a dissecting case, a biological drawing book, and some simple instruments for microscopic work.

Microscopes may be had on loan from the University at the rate of 15s. each per session for elementary work, and 21s. each per session for advanced work.

First M.B. students can obtain the loan of microscopes for their courses in both Zoology and Botany at the rate of 15s. each per session.

These fees must be paid in advance to the Accountant immediately after the student has arranged with the Laboratory Steward for the loan of a microscope.

A short course in Parasitology and Medical Entomology for D.P.H. students is held in the first term. For details see under department of Pathology and Bacteriology.

### **Meteorology and Climatology (D.P.H.)**

First term, Fridays 3—5 p.m.

The course will consist of lectures and practical work.

The composition of the Atmosphere.

General circulation of the Atmosphere.—Causes and Effects.—Isobars.

The moisture of the Atmosphere.—Humidity.—Cloudiness and Precipitation.

Temperature.—Influence of Land and Water upon the Distribution of Temperature.—Isotherms.

Factors controlling the weather conditions over the British Isles.

Instruments.—Barometers, Thermometers, Hygrometers, Anemometers, Rain Gauges, Sunshine Recorders.

The making and interpretation of Weather Charts.

During the course visits will be made to the University Observatory for the purpose of giving instruction in the actual use of meteorological instruments.

### Course in Sanitary Engineering, Building Construction, &c. (D.P.H.)

Second term, Saturdays 9-30 to 11 a.m.

Classification of Domestic and Other Buildings according to their uses, construction, and general considerations as to the arrangement of Houses in Groups. Effect of Surroundings of the House, Open Spaces and Recreation Grounds, with examples from Town Planning Schemes.

Construction of buildings in detail, foundations, walls, roofs, floors, and ceilings, with the various methods of construction and materials used from the sanitary point of view. Drainage, Ventilation, and Heating of Buildings, including the Sanitary Fittings within the House.

General Principles of Water Supply to Districts, Towns and Houses. Quantities required. Sources of water supply from streams, rivers, wells and bore holes. Methods of estimating the yield, collection, storage, distribution, purification and sterilisation. House fittings and arrangements for hot and cold water.

Drainage of districts and towns. Consideration of the general scheme of the works from the house to the final effluent from the sewage works. Design and construction of drainage and sewerage works from the sanitary point of view. Methods of sewage disposal by irrigation, precipitation, filtration on bacteria beds, and the methods involving the use of activated sludge and bio-aeration of sewage.

House refuse and Street Refuse, its disposal by means of refuse destructors. Construction of roads and footpaths from the sanitary point of view.

To facilitate the study of the subject, models will be used where possible, with lantern slides and diagrams and visits to typical works will be arranged when time permits.

#### TEXT BOOK

*Practical Sanitation*, George Reid, M.D., 8s. 6d. (as an introduction to the subject).

HELD IN THE BUILDINGS OF THE SCHOOL OF  
MEDICINE OF THE UNIVERSITY IN  
THORESBY PLACE

**Anatomy**

**Systematic and Descriptive Anatomy**

Mondays, Wednesdays and Fridays at 9.30 a.m. during the Session. (Tuesdays, Thursdays, Saturdays, in 4th term.)

The general course of lectures begins in the Long Vacation term and extends over this term (July), the first, second and third terms of the second year and the first term of the third year. For students who cannot begin their anatomical studies till the winter special arrangements are made to enable them to follow the lectures with profit.

Systematic tutorial classes are held in connection with the above courses, and attendance on these is obligatory.

**Practical Anatomy**

The Dissecting-room is open during the session from 9.30 a.m. till 5 p.m. (Saturday until 12.30 p.m.), the work of the students being constantly supervised by the Demonstrators, who attend daily. Tutorial classes and examinations are held daily on recent dissections and on preparations from the anatomical museum; and special instruction is given to all students who are about to present themselves for examination, particularly to those preparing for the higher examinations, such as the University degrees and the primary F.R.C.S. Eng.

Only those students are admitted into the Dissecting-room who have entered for the Anatomy course, or who have paid the fee for the use of the room.

**Applied Anatomy**

The class meets on Monday and Thursday at noon, in the Anatomy Theatre during the First and Third Terms. It is intended for senior students and for qualified practitioners. It deals with the application of anatomical facts to medicine and surgery, and is fully illustrated by dissections, diagrams, and the living model.



## Physiology

The following courses are held :—

### I. Course of General Physiology for Medical Students

- A. Lectures.—Thrice weekly—first term on Tuesdays, Thursdays and Saturdays; second and third terms on Tuesdays, Fridays and Saturdays; fourth term on Mondays, Wednesdays and Fridays. The time is 9.30 to 10.30 a.m.
- B. Practical.—Twice weekly in the first three terms, thrice weekly in the fourth term.
- 1st term—Introductory: Histology and Chemical Physiology.
- 2nd term—Mainly Histology and Chemical Physiology.
- 3rd term—Mainly Histology.
- 4th term—Experimental and Chemical Physiology.

Throughout the course particular attention is directed to the correlation of systematic and practical work. In consequence the practical course in any given term may be of a varied description. Demonstrations are given at intervals and attendance thereat is required.

Students are required to provide themselves with

- (a) A good microscope, with  $\frac{2}{3}$ " and  $\frac{1}{8}$ " objectives.

The Professor will be glad to assist students in the choice of an instrument. Students will not be allowed to attend the class unless provided with a suitable instrument.

- (b) Accessories: scissors, forceps, needles in handles, slides and coverglasses, &c.

### II. Elementary Course of General Physiology

Lectures thrice weekly throughout the session. To be taken by Dental students.

### III. Elementary Course of Practical Physiology

To be taken by Dental students. Details may be obtained on application at the Department.

**IV. Senior Lectures for Science Students**

- A. General.
- B. Special.

**V. Senior Practical Course for Science Students**

- A. For ordinary Degree.
- B. For General Honours Degree.
- C. For Special Honours School in Physiology, comprising Chemical and Experimental Physiology and Histology.

NOTE.—The practical course for the general honours degree is suitable for candidates preparing for the primary fellowship examination of the Royal College of Surgeons.

**VI. Physiological Chemistry**

When necessary a special course will be arranged for students taking this as an elective subject for the degree of B.Sc. with honours in chemistry.

**VII. Recapitulatory Course**

For students referred for a further term of study.

**VIII. Research**

The laboratories are open throughout the session and facilities for the prosecution of research will be granted to approved workers.

**Pathology and Bacteriology**

The following courses are given :—

**I. General Course in Pathology and Bacteriology  
for Medical Students**

First and second terms : Tuesday, Wednesday and Friday, from 12 noon to 1.30 p.m.

Third term : Tuesday, Wednesday and Friday, from 12 noon to 1 p.m., and Thursday from 2 to 5 p.m.

The course begins in the second term of the session and consists of lectures, with correlated practical work. General Pathology is taken during the second term, when the subjects dealt with are the vascular disturbances, the degenerations, inflammation and repair, atrophy, hypertrophy, new growth, etc. The third term is devoted to general and special bacteriology and the pathology of bacterial diseases, and the first term to systemic pathology.

*Each student must be provided with a good microscope, having an oil immersion lens and a condenser, and with the usual accessories, or he will not be permitted to attend the class.*

## II. Tutorial Classes in Medical, Surgical and General Pathology

will be held by Dr. Veale, Mr. Coupland, and Demonstrators as may be arranged from time to time.

## III. Pathology and Bacteriology for Dental Students

This course, comprising both lectures and practical work, is held on Mondays and Thursdays during the first term, from 2 to 3-30 p.m. Two thirds of the course is devoted to general pathology and bacteriology, one third to special dental pathology and bacteriology.

*Each student must be provided with a good microscope, having an oil immersion lens and condenser.*

## IV. Bacteriology and Parasitology for the Diploma in Public Health

This course is drawn up in accordance with the regulations of the University for the Diploma in Public Health. In the first term instruction in medical entomology and parasitology is given from 2 to 5 p.m. on Mondays, in the Department of Zoology at University Road. The remainder of the course is held in the Medical School in the second and third terms from 2 to 5 p.m. on Mondays, Wednesdays and Fridays.

### SYLLABUS.

#### A Course in Department of Zoology. (First term)

##### 1 Helminthology.

General morphology and bionomics of trematodes, cestodes and nematodes. Distribution and control.

Diagnosis, prophylaxis and treatment of helminthic infections:—the schistosomiasis, filarial infections, ankylostomiasis etc., Minor helminthic infections.

##### 2 Medical Entomology.

(a) General morphology, bionomics and classification of insects injurious to man.

Blood-sucking and non-blood-sucking flies, bugs, fleas and lice.

The distribution, control and extermination of insect pests, in particular the transmitters of malaria, yellow fever, filariasis, relapsing fever, the trypanosomiasis, plague, typhus, etc.

(b) Morphology and bionomics of mites and ticks, their distribution and relation to transmission of disease.

**B Course in Department of Pathology and Bacteriology.**

**(1) Second term.**

- (a) Bacterial Morphology. The use of the microscope.
- (b) Theoretical and practical aspects of the cultivation of bacteria.
- (c) Bacterial Metabolism.
- (d) Bacteria of soil, water and air.
- (e) Bacterial decomposition of food stuffs.
- (f) Phenomena of immunity and methods of observation of disease in experimental animals.

**(2) Third term.**

Systematic study of all the more important pathogenic bacteria and protozoa and their connection with disease.

Each student must be provided with a microscope approved by the Professor. The microscope must have an oil immersion lens and substage condenser.

**V. Neuropathology for the Diploma in Psychological Medicine**

A short course of Neuropathology for post-graduate students preparing for the Diploma in Psychological Medicine is given during the first term at hours to be arranged. The course comprises both lectures and practical work.

**SYLLABUS**

General pathology of the nerve cell and fibre, and of the glia cell.

The cerebrospinal fluid in relation to disease processes.

Pathological aspects of the more important diseases of the nervous system.

**VI. Bacteriology for Science Students**

**A. Elementary course.**

This course is held during the second term on Mondays, Wednesdays and Fridays, from 2 to 5 p.m. Each meeting includes a lecture and practical work.

**SYLLABUS**

The first half of the course is combined with that for the D.P.H., items *a*, *b*, *c*, *d*.

The second half includes an elementary discussion of the phenomena of immunity and a systematic study of bacteria based on their metabolic and morphological characteristics.

**B. Honours course.**

This course will extend through the three terms at hours to be arranged.

The subjects treated will be :—

- I. Bacteriological technique.
- II. Bacterial metabolism.
- III. Immunity and experimental bacteriology.

**VII. The Laboratories of Pathology and Bacteriology**

The laboratory facilities of the Department of Pathology and Bacteriology are available for research work by arrangement with the Professor concerned. The fees are on the same scale as in other laboratories of the University.

In this Department the pathological and bacteriological work required by the City of Leeds, the General Infirmary at Leeds, and other bodies, is carried out.

**Principles and Practice of Medicine**

Students attend as follows :

1st course—by students in their first year after passing Part I, second M.B.

These lectures which are of an introductory and general nature are given by Professor Griffith during the second and third terms at 9—10 a.m.

2nd course—by students who attended the 1st course in the preceding year.

These lectures which deal with Diseases of the Skin and of Children, are given by Dr. Veale and Dr. Vining during the 3rd term at 9—10 a.m.

Tutorial classes are held by the Demonstrators at hours which are arranged.

**Pharmacology and Therapeutics**

Monday, Wednesday and Friday at 4 p.m. during the Second Term.

The course will include consideration of (a) the general principles of the treatment of disease ; (b) the physiological and therapeutical action of drugs and the mode of their administration ; (c) the use of remedial measures other than



drugs, including heat, cold, massage, electricity, climatic and dietetic treatment, and will be illustrated by practical demonstrations.

### Pharmacy

In July at hours to be arranged, also five meetings preceding the December examination.

*Materia Medica.*—Sources, preparation, physical characters, pharmacœpial combinations, tests, doses and general uses of the principal official drugs.

*Practical Pharmacy.*—General pharmaceutical processes; prescriptions; weights and measures; the compounding of a large series of typical prescriptions, including mixtures, pills, powders, cachets, emulsions, lotions, plasters, ointments, &c. The best methods of dispensing the principal drugs. Incompatibility. Tests for detection of impurities in pharmacœpial preparations and chemicals.

The first hour is given to demonstration and tutorial teaching in materia medica, the remaining time being devoted to practical pharmacy.

### Surgery and Clinical and Practical Surgery

The demonstrations in surgical subjects will be given by the Assistant Surgeons of the Infirmary on Tuesday and Saturday at 9 to 10 a.m. during the second and third terms.

These lectures are supplemented by:

(a) Preliminary instructions and recapitulatory classes by the clinical assistants.

(b) Practical demonstrations by the Assistant Surgeons in conjunction with the Medical Staff of the Infirmary and the Radiographer.

(c) Instruction by the Staff Surgeons in—

(1) Ward teaching.

(2) Clinical lectures (singly or in series).

(3) Lecture Demonstrations.

(d) Demonstrations of operations upon the cadaver.

These demonstrations are carried out in conjunction with the Departments of Anatomy, Physiology and Pathology.

(e) Lectures in Orthopaedics.

## Operative Surgery

Classes will be formed for the performance of operations on the dead body, under the superintendence of the lecturer at times to be arranged. As all the important operations will be done by the students, every opportunity will be given for gaining practical experience in this branch of surgery. Fee—£18 18s. divided in equal shares among a class of not more than four students.

## Obstetrics

Monday, Wednesday, and Friday during the Second Term at 9 a.m.

Outline of the history of obstetrics.

The female pelvis and organs of reproduction. Menstruation, Ovulation, Fertilization, Implantation.

Pregnancy—normal and abnormal. Diseases of pregnancy. Abortion.

The foetus membranes and placenta. Diseases of the same.

Prae-maternity work.

Labour—normal and abnormal. Mechanism and management.

Pelvic deformity.

Obstetric instruments and obstetric operations.

The puerperal state and its pathology.

The new-born child and its management.

Relation of child-bearing to diseases of the body generally.

The lectures will be illustrated by diagrams, models, lantern slides and pathological specimens.

The various presentations will be demonstrated on the Phantom, and practical instruction given in the use of obstetrical instruments.

Tutorial classes are also held from time to time for students preparing for their final examinations.

The necessary facilities for clinical instruction in obstetrics are given by the Leeds Maternity Hospital.

### **Gynæcology**

Tuesday, Friday and Saturday at 9 a.m. in the Third Term.

The course comprises :—

The structure and functions of the female reproductive organs in relation to pathology and treatment.

A general account of the causation and prevention of gynæcological disease.

The methods and appliances employed in diagnosis.

The relation of gynæcological disease to the neuroses and other general diseases.

A systematic account of the various diseases peculiar to women ; their pathology, diagnosis, and treatment.

### **Public Health**

Wednesday and Saturday, at 9 a.m. during the First Term.

Water and water supplies.

Sewage disposal and removal of refuse.

Drainage, house construction, and housing.

Air, ventilation, heating, lighting.

Food (sound and unsound), milk supply, feeding of children.

Infectious diseases, including Tuberculosis and Venereal Disease.

Disinfection.

Infant Mortality.

Vital statistics.

Arrangements are made during the Summer term for visits to places of public health interest. These are open to all students, and a programme is published at the beginning of the term.

N.B.—For candidates for the Diploma in Public Health, additional lectures are necessary, dealing more fully with the above subjects. When there are such students, the time of the ordinary lecture will be extended to 10.30 a.m.

## **Forensic Medicine**

Monday, Tuesday, Thursday and Friday, at 9 a.m. during the First Term.

The qualifications, duties, and responsibilities of medical witnesses.

Questions concerning age, sex, identity, insanity and life insurance.

Death:—Real and apparent death; date of death; causes of sudden and violent death; post-mortem examinations.

Death by wounds; by lightning, burns, cold and starvation; by drowning, hanging, strangling and suffocation.

Rape; pregnancy; delivery; the legitimacy of children; abortion; infanticide.

Toxicology:—General considerations respecting poisoning; toxicological processes and the evidence of poisoning; symptoms of special poisons and treatment.

## **Ophthalmology**

Monday, Thursday and Friday at 9 a.m. during half of the first term.

Method of examination of the eye. Surgical anatomy and diseases of the conjunctiva, of the eyelids, of the lacrymal apparatus, of the sclerotic, of the cornea, of the iris and ciliary body and of the lens. Glaucoma. Theory of the ophthalmoscope. Diseases of the vitreous, of the choroid, of the retina and of the optic nerve. Diseases of the orbit. Retinoscopy. Errors of refraction and of accommodation. Affections of the ocular muscles.

## **Otology**

Monday, Thursday and Friday at 9 a.m. during half of the first term.

The course will consist of lectures on the more important diseases of the ear, nose and throat.

Illustrative cases will be shown and practical demonstrations given on their examination.

## **Mental Diseases**

Systematic Lectures are given at the School of Medicine on Thursday and Friday at 4 p.m., and clinical lectures and demonstrations at the West Riding Mental Hospital on Tuesday at 3 p.m. during the third term.

The systematic lectures include :—

The mode of development, histological structure, and functions of the cerebral cortex.

The elements of psychology.

The pathology, symptoms, medico-legal relations, and treatment of mental disease.

The clinical course will embrace :—

Illustrations of the various forms of mental disease ;

Instruction in the method of examining insane persons ;

Practical demonstrations on the moral and therapeutic treatment of the Insane ; compulsory feeding, &c.

Filling up certificates of Insanity.

Class examinations.

The pathological aspects of Insanity will be freely illustrated by lantern slides, morbid specimens and microscopic preparations from the asylum museum.

Special courses are given for the Diploma in Psychological Medicine at times to be arranged.

## **Radiology and Electro-therapeutics**

A course of 12 lectures is given during the Winter and Summer terms.

## **COURSES HELD UNDER ARRANGEMENT WITH THE CITY OF LEEDS HEALTH AND OTHER AUTHORITIES**

### **Vaccination**

This instruction is given under the control of the Local Government Board at the General Infirmary at Leeds by Dr. F. W. M. Greaves, Instructor in Vaccination. Classes commence in October, February, and May, each consisting of seven meetings, six of which must be attended, and four of them consecutively, Thursdays at 3 p.m. Application to be made to the Dean. Not more than ten students can be admitted to any one class.



**Infectious Diseases**

(Particulars are given under "Hospital Practice" in previous pages).

**Attendance at a Hospital for  
Infectious Diseases (for D.P.H.)**

A special course is given in the Leeds City Hospitals in accordance with the requirements of the General Medical Council for the D.P.H.; this includes instruction in administration. Times of attendance to be determined by arrangement.

**Instruction in Epidemiology, Vital Statistics  
and Sanitary Law and Administration,  
and Sanitary Work (for D.P.H.)**

Special lectures on Epidemiology, Vital Statistics and Sanitary Law and Administration will be given in the office of the Medical Officer of Health, 12, Market Buildings, on the evenings of Monday and Thursday, from 5.30 to 7.30 p.m. during the first term. With the sanction of the Public Health Committee of the Leeds City Council, the Medical Officer of Health will arrange courses of instruction of six months duration in out-door and office sanitary work, as required by the General Medical Council, at convenient times. These courses will include

	Attendances
(a) Maternity and Child Welfare Service ...	6
(b) Health Service for Children of School Age	6
(c) Venereal Diseases Service ... ..	6
(d) Tuberculosis Services ... ..	6
(e) Industrial Hygiene... ..	—
(f) Inspection and Control of Foods, including meat and milk ... ..	—

GENERAL TIME TABLE

First Term

	M.	T.	W.	Th.	F.	S.	
Anatomy { Jrs. ....	9 30	...	9 30	...	9 30	...	...
Srs. ....	...	9 30	...	9 30	...	9 30	...
Applied Anatomy..	12 0	...	...	12 0	...	...	...
Physiology { Jrs. ....	...	9 30	...	9 30	...	9 30	*Microscopical demonstration at 11 a.m.
Srs. ....	9 30	...	9 30	...	9 30	...	
Physiology, Tutorial .....	...	...	...	...	...	...	{ 2 hours per week. Time to be arranged.
Practical Physiology.....	...	...	...	...	...	...	See Lectures and Classes.
Pathology { .....	12 0 to 1 30	12 0 to 1 30	...	12 0 to 1 30	...	...	...
Do. Tutorial	...	...	...	...	...	...	...
Public Health .....	...	...	9 0	...	...	9 0	One hour a week.
Forensic Medicine	9 0	9 0	...	9 0	9 0	...	...
Ophthalmology and Otology.....	9 0	...	...	9 0	9 0	...	...

## GENERAL TIME TABLE

## Second Term

	M.	T.	W.	Th.	F.	S.	
Anatomy {Lecture or Tutorial Class}	9 30	...	9 30	...	9 30	...	...
Physiology .....	...	9 30	...	...	9 30	9 30 *	{ *Microscopical Demonstrations at 11 a.m.
Practical Physi- ology .....	...	...	...	...	...	...	
							See Lectures and Classes.
Pathology .....	...	12 0	12 0	...	12 0	...	...
Medicine .....	9-10	...	9-10	9-10	...	...	Friday, Tutorial
Surgery .....	...	9-10	...	...	...	9-10	...
Obstetrics .....	9 0	...	9 0	...	9 0	...	...
Therapeutics .....	4 0	...	4 0	...	4 0	...	...

## GENERAL TIME TABLE

## Third Term

	M.	T.	W.	Th.	F.	S.			
Anatomy .....	9 30	...	9 30	...	9 30	...	...	...	...
Applied Anatomy..	12 0	...	...	12 0	...	...	...	...	...
Physiology.....	...	9 30	...	...	9 30	9 30	...	...	...
Do. Tutorial...	...	...	...	...	...	...	{ Two hours per week, as may be arranged.		
Practical Physiology ..	...	...	...	...	...	...			
Practical Pharmacy and Materia Medica.....	...	...	...	...	...	...	See Lectures and Classes.		
Pathology .....	...	12 0	12 0	2 0	12 0	...	...	...	...
Do. Tutorial.....	...	...	...	...	...	...	...	...	...
Medicine .....	9-10	...	9-10	9-10	...	...	...	...	...
Surgery .....	...	9-10	...	...	...	9-10	...	...	...
Gynæcology .....	...	9 0	...	...	9 0	9 0	...	...	...
Mental Diseases....	...	3† 0	...	4 0	4 0	...	{ †At Wakefield Mental Hospital.		

## Course for the First Examination in Medicine

Time Table

	9-10	10-11	11-12	12-1	2-3	3-4	4-5
MON.		Phys. Int. c	Zoology Int. a	Chemistry Lab.	Chemistry Int. a	Chemistry	Lab.
TUE.			Practical (11-1)	Zoology (11-1)	Botan 2nd	Int. a (2 & 3rd terms).	5 in
WED.		Bot. Int. a 2nd & 3rd Phys. Int. c	(10-12) in terms.				
THU.			Practical (11-1)	Zoology (11-1)	Chemistry Int. a	Chemistry	Lab.
FRI.		Phys. Int. c	Zoology Int. a		Chemistry Int. a	Chemistry	Lab.
SAT.							

This course will meet the requirements of students preparing for the First examination in Medicine (M.B., Ch.B.), for Parts I and II of the First examination in Dental Surgery (B.Ch.D.) of the University of Leeds or for the Conjoint Board Examinations (L.R.C.P. and M.R.C.S.). It includes lectures in Chemistry, Physics, Zoology and Botany, with the requisite attendance in the Chemical, Physical, and Biological laboratories.

Composition fee for the course (including Library and Union fees) £41. Registration Fee (payable on admission) £2.



**TIME TABLES OF THE CLASSES IN THE FINAL YEARS OF STUDY**

As the hours for set work in the School of Medicine and the General Infirmary at Leeds are so arranged as to accord with each other, the student can take any of the following Lectures or Practical Classes concurrently with Infirmary work.

**First Term**

	MON.	TUES.	WED.	THURS.	FRI.	SAT.
9	*Forensic Medicine. *Ophthalmology.	*Clinical Surgery. *Forensic Medicine.	*Public Health. *Clinical Medicine.	*Forensic Medicine. *Ophthalmology.	*Forensic Medicine. *Ophthalmology.	Public Health.
10—12 Work at the Infirmary.						
12		Pathology.	Pathology.		Pathology.	
2—4 Work at the Infirmary.						
3—5						

**Second Term**

	MON.	TUES.	WED.	THURS.	FRI.	SAT.
9	Medicine. Obstetrics.	Surgery.	Medicine. Obstetrics.	Medicine.	Obstetrics.	Surgery.
10—12 Work at the Infirmary.						
12		Pathology.	Pathology.		Pathology.	
2—4 Work at the Infirmary.						
4	Pharmacology.		Pharmacology.		Pharmacology.	

\* To be taken in different years.

## Third Term

	MON.	TUES.	WED.	THURS.	FRI.	SAT.
9	Medicine.	*Surgery. *Gynæcology.	Medicine.	Medicine.	Gynæcology.	*Surgery *Gynæcology.
10—12 Work at the Infirmary.						
12		Pathology.	Pathology.		Pathology.	
2—4 Work at the Infirmary.						
4 (Tuesday 3. 0)		Mental Diseases.		Mental Diseases. Bacteriology	Mental Diseases.	

\* To be taken in different years.

It should be noted that final classes are most numerous in the penultimate year of the curriculum, and that the last year is devoted almost entirely to Clinical work. Instruction in Infectious Diseases and in Vaccination should be taken at such a time as not to interrupt Clinical work at the General Infirmary.

## FEES

Except where otherwise stated, cheques are to be made payable to the University of Leeds.

The University reserves the right to revise the fees specified below at any time, whether in the case of new students or those who have already begun their courses.

All students are required to pay a Registration Fee of £2 when their application for admission to the University is accepted.

The Registration Fee for students for the Diploma in Nursing is £5 5s.

## FEES FOR COURSES OF INSTRUCTION

Fees for classes and the Practice of the Infirmary are payable in advance, and, except for Post graduate and Miscellaneous Courses, may be paid either in the form of a composition fee or separately for each course of lectures, &c.

## I. Composition Fees

	£	s.	d.
A. Complete course as in Section 1 <i>below</i> , for First Examination (or preliminary scientific (M.B.) of University of London), inclusive of Library and Union fees .. .. .	41	0	0
B. After completing A. One complete course as in Sections 2 and 3 and the practice of the Infirmary			
If paid in one sum on entrance .. .. .	174	0	0
If paid in instalments—			
On entrance .. .. .	60	0	0
One year after entrance .. .. .	60	0	0
Two years after entrance .. .. .	45	0	0
Three years after entrance .. .. .	25	0	0
C. After passing Second Examination. One complete course as in Section 3 and the practice of the Infirmary			
If paid in one sum on entrance .. .. .	138	0	0
If paid in instalments—			
On entrance .. .. .	62	0	0
One year after entrance .. .. .	62	0	0
Two years after entrance .. .. .	24	0	0

The privileges under B and C extend to eight and six years respectively.

If additional courses are rendered necessary through failure in examination or unsatisfactory attendance a fee of £3 per term will be charged for each subject.

## II. Separate Fees (M.B., Ch.B., etc.)

Section 1. (1st Exam.)—	£	s.	d.
Physics, Lectures .. .. .	8	0	0
Physics, Laboratory .. .. .	6	0	0
Chemistry, General Course of Lectures .. .. .	10	0	0
Chemistry, Laboratory .. .. .	14	0	0
Zoology .. .. .	14	0	0
Botany .. .. .	7	10	0
Section 2. (2nd Exam.)—			
Descriptive Anatomy			
General Course .. .. .	12	0	0
Use of Dissecting Room, with tutorial instruction, during attendance on the Anatomical Course, covering five terms .. .. .	15	0	0

	£	s.	d.
Physiology			
General Course .. .. .	13	0	0
Practical, Part B .. .. .	9	0	0
C and D .. .. .	6	0	0
Materia Medica and Practical Pharmacy ..	5	0	0
Section 3. (Final Exam.)—			
Pharmacology and Therapeutics .. .. .	5	0	0
Pathology and Bacteriology (Lectures and Practical) .. .. .	14	0	0
Medicine (including a second course and Clinical Medicine) .. .. .	9	0	0
Surgery (including Clinical and Practical Surgery) ..	15	0	0
Obstetrics .. £7 0 0 } If paid at one time	9	0	0
Gynæcology .. £4 0 0 }			
Forensic Medicine .. .. .	8	0	0
Ophthalmology and Otology .. .. .	5	0	0
Mental Diseases .. .. .	5	0	0
Public Health .. .. .	5	0	0
Infectious Diseases .. .. .	3	10	0
Vaccination .. .. .	2	10	0
Intern Matern. .. .. .	3	10	0
Radiology and Electro Therapeutics .. .. .	3	0	0
Recapitulatory Courses—			
All subjects, except Vaccination and Dissection, for three months .. .. .	3	0	0
Dissecting Room or Physiological Laboratory—			
Use of, with tutorial instruction, for every three months, or portion of three months during the two years subsequent to the General Course .. .. .	4	0	0
In other circumstances—			
For three months .. .. .	5	0	0
For six months .. .. .	9	0	0
The separate fees for the practice of the Infirmary are shown in the Infirmary Section of the Medical Prospectus.			

### III. Post Graduate and Miscellaneous Courses

	£	s.	d.
Clinical Pathology .. .. .	4	4	0
Medical Pathology .. .. .	3	3	0
Surgical Pathology .. .. .	3	3	0
Neuropathology (of Dipl. Pyc. Med.) .. .. .	2	2	0
Operative Surgery .. .. .	4	14	6
Tropical Medicine .. .. .	5	0	0

	£	s.	d.
For D.P. Health—			
†Chemistry .. .. .	8	8	0
Practical Bacteriology (including Entomology),	14	14	0
Lectures in Public Health .. .. .	5	5	0
Meteorology and Climatology .. .. .	1	1	0
Sanitary Construction and Planning .. .. .	2	2	0
Special Course at Infectious Diseases Hospital	7	7	0
Special Course in Sanitation, &c. (M.O.H., Leeds)	22	1	0
Agricultural and Technical Bacteriology (per term)	7	0	0

† A deposit fee of £2 2s. 6d. in addition to cover breakages.

#### IV. Fees for Examinations

Fees in connection with Matriculation are payable to the Secretary, Joint Matriculation Board, 315, Oxford Road, Manchester.

The Fees are:—

	For first examination.			For subsequent examination.		
	£	s.	d.	£	s.	d.
Matriculation .. .. .	2	0	0	1	10	0*
Registration of an External Matriculation Certificate .. .. .	6	0	0	—		
First M.B. .. .. .	6	0	0	3	0	0
Second M.B. .. .. .	6	0	0	3	0	0
Final M.B. .. .. .	6	0	0	3	0	0
Degree of Ch.M. .. .. .	7	0	0	3	0	0
„ on conferment .. .. .	7	0	0	—		
Degree of M.D.—						
On application .. .. .	6	0	0	—		
On conferment .. .. .	6	0	0	—		
Diploma in Public Health—						
Part I. .. .. .	6	6	0	4	4	0
Part II. .. .. .	6	6	0	4	4	0
Diploma in Psychological Medicine	6	6	0	3	3	0
				for each part.		
Diploma in Nursing .. .. .				5	5	0

\* A student who has failed in the July examination in any year will be admitted to the September examination of the same year only on the payment of this fee.

The latest dates for payment of examination fees are:—

First M.B.

In June, on March 1st.

In September, on August 1st.

Second and Final M.B., Diplomas in Public Health, Psychological Medicine and Nursing.

In June, on May 16th, 1925.

In December, on November 8th, 1924.



### V. Cost of Medical Education, showing incidence of charges.

Expenses of Medical Education, showing approximately how the various charges fall due if the fees are paid by instalments and examinations taken at the earliest possible date. It is assumed that the student desires to enter on the course in October.

The fees stated are those applicable to students who are studying for the University M.B. Degree, but most of them are approximately correct for those taking other examinations.

May.	Before Entry.	£	s.	d.	£	s.	d.
	Matriculation Examination .. ..	2	0	0			
	July (about) on admission. Registra-						
	tration Fee .. ..	2	0	0			
		<hr/>			4	0	0
October.	First Year.						
	Composition Fee (Science) .. ..	41	0	0			
	Microscope and Books, say .. ..	30	0	0			
February.							
	First Examination .. ..	6	0	0			
July.							
	Composition Fee (Medical) First						
	Instalment* .. ..	60	0	0			
	Anatomy charges (commencing) .. ..	3	0	0			
	Books, etc., say .. ..	7	0	0			
		<hr/>			147	0	0
November.	Second Year.						
	Second Examination .. ..	6	0	0			
July.							
	Composition Fee, Second Instalment*	60	0	0			
		<hr/>			66	0	0
October.	Third Year.						
	Books, etc., say .. ..	7	0	0			
July.							
	Composition Fee, Third Instalment*	45	0	0			
		<hr/>			52	0	0
	Fourth Year.						
November.							
	Final Examination .. ..	6	0	0			
July.							
	Composition Fee, Fourth Instalment*	25	0	0			
		<hr/>			31	0	0
	Approximate total cost .. ..	<hr/>			£300	0	0

\* The total cost will be reduced by £16 if the fees marked \* are paid in one sum instead of by instalments.

## COURSE OF STUDIES

pursued by the Student of Dentistry

The Student of Dentistry can take either the Degree or Diploma in Dental Surgery. He is advised to take the former, although requiring one year more study. If he cannot afford the time he is strongly recommended to obtain a medical qualification as well, as certain London Hospital appointments require a Medical as well as a Dental qualification.

Before the commencement of his professional education the student must have passed a preliminary examination which, in the case of the student preparing for a degree in the University of Leeds is the Matriculation or its equivalent. For the Diploma he must have passed the Matriculation examination or an equivalent examination in general education which is recognised by the General Medical Council for registration as a dental student.

After passing the Preliminary examination the student should commence attendance on the Science Classes at the University if not previously taken at some other recognised institution, and should enter as a pupil of the Dental School (see prospectus of Dental Hospital). *Within fifteen days of entering as a student of the School of Dentistry he should register at the Office of the General Medical Council as a Dental and Medical Student.* Forms for this purpose can be obtained from the Clerk to the Senate of the University, or from the Warden, Dental Department. The medical and surgical practice required by the regulations can be obtained at the General Infirmary. Dental students can profit by following more particularly the practice of the special departments of the hospital, viz.: Throat, Ear and Eye.

## DEGREES, COURSES OF STUDY, AND EXAMINATIONS IN DENTAL SURGERY

### ORDINANCES

1. The Degrees in Dental Surgery shall be :  
Bachelor of Dental Surgery (B.Ch.D.)  
Master of Dental Surgery (M.Ch.D.)

### Degree of Bachelor of Dental Surgery

2. All candidates for the degree of Bachelor of Dental Surgery shall be required to have passed the Matriculation examination, to have pursued thereafter approved courses of study for not less than five academic years, two of such years at least having been passed in the University subsequently to the date of passing Parts I and II of the First examination, and to have completed such period of pupilage or hospital attendance, or both, as may be prescribed by the Regulations of the University. No candidate shall be admitted to the degree who has not attained the age of twenty-one years on the day of graduation.

3. All candidates shall be required to have passed the following examinations : The First examination, the Second examination, the Final examination.

4. Each examination shall include practical work in the subjects offered.

5. All candidates shall be required, before presenting themselves for examination, to furnish certificates testifying that they have attended the prescribed courses of instruction in accordance with the Regulations of the University in each of the subjects which they offer, and that they have fulfilled the other requirements of the Ordinance and Regulations in respect of such examination.

### First Examination

6. The First examination shall consist of three parts :  
PART I. Physics  
Chemistry.

PART II. Zoology

Botany.

PART III. Dental Mechanics

Dental Metallurgy.

7. Candidates shall be allowed to pass in each part separately.

8. Candidates who have passed the Intermediate examination for the degree of Bachelor of Science, and have in that examination satisfied the Examiners in Chemistry, in Physics, or in Biology, shall, on payment of the difference between the fees required for the two examinations, be regarded as having satisfied the requirements of Parts I and II of the First examination for the degree of Bachelor of Dental Surgery, in those subjects in which they have passed.

9. Candidates shall be required, before presenting themselves for Parts I and II of this examination, to have passed the Matriculation examination, and to have attended courses of instruction in accordance with the Regulations of the University.

10. Candidates shall be required, before presenting themselves for Part III of this examination, to have completed two years from Matriculation, and to have attended courses of instruction in accordance with the Regulations of the University.

**Second Examination**

11. The subjects of the Second examination shall be :

Anatomy

Physiology

Dental Anatomy and Physiology

Dental Materia Medica

12. Candidates shall be required, before presenting themselves for the Second examination, to have passed the First examination not less than one year previously, and to have attended courses of instruction in accordance with the Regulations of the University.

**Final Examination**

13. The subjects of the Final examination shall be ;

Dental Surgery  
Dental Pathology and Bacteriology  
Operative Dental Surgery  
Medicine and Surgery

14. Candidates shall be required, before presenting themselves for the Final examination, to have passed the First examination not less than two years previously, to have passed the Second examination not less than six months previously, and to have attended courses of instruction in accordance with the Regulations of the University.

15. The names of candidates who have satisfied the Examiners in all the subjects of the Final examination, and are recommended for degrees, shall be published as follows :

1. Those awarded First Class Honours.
2. Those awarded Second Class Honours.
3. Those who have satisfied the Examiners.

The names shall be in alphabetical order in each case.

**Degree of Master of Dental Surgery**

1. No candidate shall be admitted to the degree of Master of Dental Surgery unless he has received the degree of Bachelor of Dental Surgery at least one year previously, and has also obtained a registrable qualification in Medicine and Surgery.

2. The subjects of examination are

- (1) Surgery of the head and neck in relation to dental diseases and abnormalities.
- (2) Dental bacteriology and pathology, including theories of immunity and vaccine-therapy.
- (3) Diseases of the alimentary canal.
- (4) Dental surgery, including orthodontics.
- (5) Dental radiology.

The examination shall be by written papers and practical and *viva voce* examination.



3. Before presenting himself for examination every candidate must furnish certificates of attendance for six months on the clinical practice of a recognised general hospital in which opportunities for study of Subjects 1 and 3 have been given, of attendance on a course of bacteriology, qualifying for the Diploma in Public Health and of six months' attendance on the practice of a recognised dental hospital or of having held an office of demonstrator or house surgeon in such a hospital.

### **REGULATIONS**

#### **The Matriculation Examination**

The conditions of the Matriculation examination and of exemption therefrom are set forth in the Matriculation Syllabus which is issued free, and is obtainable from the Secretary, Joint Matriculation Board, 315, Oxford Road, Manchester.

#### **First Examination**

Candidates for the First Examination are required to furnish certificates of having attended approved courses of instruction at the University or at an institution recognised for this purpose by the University; or of having attended, at some other institution, courses of instruction which shall be accepted by the University as equivalent.

The courses of instruction shall be as follows :—

1. Chemistry, Inorganic, and Organic: lectures and laboratory work: at least one year.
2. Physics: lectures and laboratory work: at least one year.
3. Zoology: lectures and laboratory work: at least one year.
4. Botany: lectures and laboratory work: at least two terms.

The examination will include laboratory work in the four subjects. Candidates may pass in each Part separately.

Every candidate for Part III. of the First examination shall be required to have spent two years in the Prosthetic Department of a recognised Dental or General Hospital, or in pupilage to a qualified and registered dental surgeon, and

to have attended, during at least one year, courses of lectures and practical instruction approved by the University, in the subjects of the examination, namely: Dental Mechanics (including electrical appliances used in Dentistry): lectures and laboratory work. Dental Metallurgy: lectures and laboratory work.

The First examination shall be held twice in each calendar year.

#### **Second Examination**

Candidates for the Second examination shall be required to have attended courses of instruction approved by the University, as follows: Anatomy lectures, two terms; Practical Anatomy and demonstrations, including the dissection of the head and neck, three terms; Dental Anatomy and Physiology, one term; Dental Microscopy, one term; Physiology lectures, two terms; Physiological Laboratory, one term; Practical Histology, one term; Dental Materia Medica, one term.

The Second examination shall be held twice in each calendar year.

#### **Final Examination**

Candidates for the Final examination shall be required to have attended courses of study, approved by the University, as follows: Surgery lectures, two terms; Special Surgery of the Mouth, six lectures; Medicine lectures, two terms; Dental Surgery and Pathology lectures, two terms; Operative Dental Surgery lectures, one term; Demonstrations on Anæsthetics, two terms; Dental Bacteriology, lectures and practical work, one term; Dental Clinical Lectures, two terms.

Candidates shall be required to present certificates of two years Medical, Surgical and Dental practice at hospitals recognised by the University. These certificates must show that practical instruction has been received in Medicine, Surgery, and the administration of Anæsthetics. Every candidate shall be required to have acted as clerk and as dresser for three months in each case, in a hospital recognised by the University.

The Final Examination shall be held twice in each calendar year.

## DIPLOMA IN DENTAL SURGERY (L.D.S.) REGULATIONS

Candidates for the diploma in Dental Surgery (L.D.S.) are required to present certificates showing that they have attained the age of twenty-one years, and that they have attended courses of instruction, approved by the University, extending over not less than four years, two of which must have been spent in the University after passing the preliminary examination in Science.

Candidates are required to satisfy the Examiners in the several subjects of the following examinations :

1. A Preliminary examination in Arts.
2. First examination
3. Second examination.
4. Final examination.

### Preliminary Examination in Arts

The requirements of the Preliminary examination in Arts shall be fulfilled by passing an examination recognised for this purpose by the General Medical Council.<sup>1</sup>

### First Examination

The First examination shall consist of three parts :

PART I.—Physics.  
Chemistry.

PART II.—Zoology.  
Botany.

PART III.—Dental Mechanics.  
Dental Metallurgy.

Candidates may pass in each Part separately.

*Candidates for Part I* are required to have attended courses of instruction at the University as follows : Chemistry lectures and laboratory, three terms ; Physics, lectures and laboratory, three terms ; *or* to present evidence of having given adequate attendance, at some other institution, upon courses of instruction which shall be accepted by the University as equivalent to the above courses.

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(1) Full particulars can be obtained from THE REGISTRAR, GENERAL MEDICAL COUNCIL, 44, HALLAM STREET, PORTLAND PLACE, LONDON, W.

*Candidates for Part II* are required to have attended courses of instruction at the University as follows: Botany, lectures and laboratory, two terms; Zoology, lectures and laboratory, three terms; *or* to present evidence of having given adequate attendance, at some other institution, upon courses of instruction which shall be accepted by the University as equivalent to the above courses.

*Candidates for Part III* are required to have passed in Part I of the First examination not less than six months previously, and to have attended courses of instruction, recognised by the University, in the subjects of the examination, according to the syllabus of the Royal College of Surgeons. They are also required to produce evidence of having been engaged for two years in pupilage.

#### Second Examination

The Second examination shall consist of:

Anatomy

Physiology

Dental Anatomy and Physiology.

Candidates, before presenting themselves for the Second examination, are required to have passed the First examination not less than one year previously, and to have attended courses of instruction recognised by the University, as follows: Anatomy lectures, two terms; Practical Anatomy, three terms; Physiology lectures, two terms; Practical Physiology, one term; Dental Anatomy and Physiology lectures, two terms; Practical Dental Histology, one term.

#### Final Examination

The Final examination shall consist of:

Surgery

Dental Surgery, Pathology and Bacteriology

Operative Dental Surgery (Practical)

Dental Materia Medica and Therapeutics.

Candidates must pass the Second examination before being examined in the Final examination. The Final examination shall be held immediately after the Second examination, so that the two may be passed, if desired, in immediate succession.

Candidates, before presenting themselves for the Final examination must have passed the Second, and must produce evidence of having (1) completed four years from the beginning of their pupilage; (2) completed two years' Medical and Surgical practice at hospitals recognised by the University; (3) completed two years' Dental Hospital practice; (4) attended courses of instruction recognised by the University, as follows: Medicine, one term; Dental Surgery, Therapeutics and Pathology lectures, two terms; Dental Bacteriology lectures, one term; Dental Materia Medica, one term; Operative Dental Surgery lectures, one term; Six Special Anæsthetic demonstrations; Special Surgery of the mouth, six lectures; Surgery lectures, two terms; Dental Clinical Lectures, two terms. The certificates of Medical and Surgical practice must show that practical instruction has been received in Medicine and Surgery, and in the administration of Anæsthetics.

### **DATES OF EXAMINATION**

The First examination (Parts I and II) is held in June and September; the other examinations in June and December.

Entry for the examinations in Physics, Chemistry, Botany and Zoology, must be made on or before March 2nd. The latest date for entering for all subsequent examinations is May 16th, 1925, for the June examination, and November 8th, 1924, for the December examination.

### **SCHOOL OF MEDICINE**

Dental students attend at the School of Medicine for instruction in the subjects of the Second and Final examinations and they are required to conform to the regulations of the School.

The School of Medicine is separated from the Infirmary by the width of a street only, a proximity which facilitates attendance at both institutions. The wealth of clinical material in the Infirmary and other Medical Institutions in Leeds and the West Riding, together with the Laboratories, &c., in this School, offers to students opportunities of great value.



Students are educated for the degrees of Leeds and other Universities, and for the diplomas of all Medical Licensing Bodies in the United Kingdom. Women are admitted on the same terms as men.

The present buildings were opened in 1894. They contain one of the finest Dissecting Rooms in the kingdom; laboratories for Physiology, Pathology, and Bacteriology, with the most recent improvements in fittings and apparatus; three Lecture Theatres and several smaller Class Rooms; a Library and Reading Room; a Pathological Museum, and a separate Museum for Anatomy.

The convenience and comfort of students are also provided for by commodious Common Rooms, separate lockers for coats, &c., and a Refectory. There is also a Fives Court in the quadrangle. A separate Common Room is provided for women students.

### **The Library**

Contains a valuable collection of books, composed of the united libraries of the School of Medicine and of the Leeds and West Riding Medico-Chirurgical Society. The Library of the Old Infirmary, rich in Medical Classics, became the property of the Medical School in 1865.

The collection includes most of the modern works of importance, and the chief English and foreign periodicals are taken.

Recommendations for the purchase of new works should be entered in a book provided for the purpose, or be addressed to the Hon. Librarian.

#### **Library Rules**

1. The Library is open to Students daily, between the hours of 9 a.m. and 5 p.m., except on Saturdays, when it is closed at 1 p.m. During these hours, books can be obtained for use in the Library.

2. Students wishing to borrow books for home use are allowed to do so under the following regulations :—

(a) Every student wishing to take books away from the Library shall deposit half-a-guinea as caution money; this sum, or the balance of it remaining shall be refunded to the depositor on the return of his library card.

(b) The student will, on payment of the deposit, receive a Library card with his name upon it. This card must always be presented whenever the student desires to borrow a book.

(c) Books borrowed for home use must be returned to the Library within two weeks from the date of issue, or earlier if in urgent demand. One volume only can be borrowed at a time. A fine of 2d. a day is incurred for every day that it has been detained beyond the time allowed.

(d) No periodical for the current year may be removed from the library.

(e) In case of loss of or damage to any book, the loss or damage must be made good by the borrower.

(f) Every book must be returned to the Library at the end of the Summer Term.

## Museums

THE MUSEUM OF PATHOLOGY contains, in addition to preparations illustrating the ordinary pathological processes, many rare specimens, some of historical interest. It draws largely for its supply from the abundant material of the General Infirmary, as well as from other institutions in the City. A collection of Microscope sections from specimens in the Museum is available for the use of students on application.

A complete type collection of MATERIA MEDICA specimens is also placed here for the convenience of students.

THE MUSEUM OF ANATOMY AND BONE ROOM adjoins the Dissecting Room, and has been fitted up under the direction of the Professor of Anatomy with a valuable collection of specimens specially arranged for study, which are also used in illustration of the Lectures on Anatomy. Amongst them are a complete set of bones marked with the muscular attachments, and mounted in revolving cases; and an extensive series of wax models, illustrating the development of the foetus.

## Lockers

These are provided for the safe keeping of coats, books, &c. The rent is 5s. per annum, commencing at the 1st or 3rd terms, with a deposit of 5s., which will be returned when the key is given up, if the locker is undamaged.

### Refectory

A well-appointed Refectory, which is open daily, excepting Saturdays, has been provided in the building. It is under the combined management of the Board of the Faculty and of the Students' Representative Council. Luncheon is served from 12 to 2 p.m. Tea, coffee, and light refreshments may be obtained until 5 p.m.

### The University of Leeds Students' Union

Includes membership of debating societies, admission to athletics and gymnasium, and use of Common Rooms. At the gymnasium a permanent instructor is engaged.

A subscription of £2 per annum is charged, by direction of the Council of the University, to all students, and is to be paid like other University fees to the Accountant.

### Students' Representative Council

This Council is elected annually by the students of the School of Medicine from amongst their own number.

It concerns itself with the affairs of the Medical Students, and appoints representatives to serve on the Committee of the Students' Union, a proportion of whose funds it has at its disposal.

The Secretary of the Council is *ex-officio* the Medical Secretary of the Union Committee.

The Council further appoints the following : Dinner, Entertainments and Sports sub-committees, and three of its number serve upon the Refectory Committee.

### Officers' Training Corps

This organisation was inaugurated in July, 1909.

The object is to train students for Commissions in the Special Reserve and the Territorial Force. Students should give their support to this national object.

### REGULATIONS FOR STUDENTS IN THE SCHOOL OF MEDICINE

1. All students are required to enrol their names at the Dean's office at the beginning of the first term. Students who from any unavoidable cause are prevented from personally attending at that time must communicate with the Academic Sub-Dean by letter.

2. Should a student change his residence during the Session, he must inform the Academic Sub-Dean of the change of his address without delay.

3. Regular, punctual, and orderly attendance at Lectures, Demonstrations, and Class-examinations is required of every student, in order to obtain certificates of attendance. In the case of persistent neglect of work, repeated failure at professional Examinations, or unreasonable delay in presenting himself for such Examinations, a student may be required to withdraw from the University.

4. In case of illness or other unavoidable cause of non-attendance at any Lecture, Demonstration, or Class Examination, a written explanation, accompanied, when necessary, by a medical certificate, must be sent to the Lecturer, with as little delay as possible, otherwise excuses for absence cannot be accepted. Hospital work is not counted as an excuse for non-attendance upon lectures.

5. Prizes will be granted only when the work and conduct of the student are satisfactory, and certificates or prizes may be refused on the ground of unsatisfactory conduct.

6. Smoking is allowed only in the Students' Common Room, the Refectory after 1 p.m., and under certain restrictions in the Dissecting Room.

7. Students will be required to make good, to the satisfaction of the Council, any loss, wilful damage or injury they may occasion to the property of the University.

8. Students in the School of Medicine are amenable to the discipline and general regulations of the University, as well as to the rules made by the Board of the Faculty of Medicine. Violation of these regulations and rules renders a student liable to immediate dismissal and to the forfeiture of all fees, certificates and privileges as a student of the University.

9. Prior to entering the School every student is required to sign the following declaration :

*If admitted a Student in the Faculty of Medicine of the University of Leeds, I hereby undertake to comply with all rules and regulations of the University, and to conduct myself on all occasions in an orderly manner. I fully understand that no allowance whatever will be made, and that I have no claim upon the Council of the University in respect of any fees paid by or due from me, in case such fees are forfeited by any irregularity or misconduct on my part.*



## LECTURES AND CLASSES

HELD IN THE UNIVERSITY ROAD  
BUILDINGS OF THE UNIVERSITY

### Physics

#### Introductory Course

Two courses will be given, known as Int. *b* and Int. *c*.

Dental students are recommended to attend Int. *c* if possible.

It is very desirable that students taking these courses should have an elementary knowledge of Algebra, Trigonometry and Mechanics.

The following subjects will be treated in an elementary manner, illustrated by experiments: Electricity, Magnetism, Sound, Light, Heat, and Properties of Matter.

Suitable text books will be recommended by the lecturer.

The Physical Laboratory is open daily. Students' times of attendance are arranged at the beginning of the session and must not be altered subsequently without permission.

### Chemistry

#### I. Special Dental Course

This course will consist of Lectures on Monday, Thursday and Friday, at 2 p.m.

#### II. Practical Chemistry

During the session, on Monday, 12 to 1 and 3 to 5 p.m.; Friday, 3 to 5 p.m.; and Thursday, 3 to 5 p.m.

*N.B.—For students who wish to take additional practical work of whatever kind, the Chemical Laboratory is open daily from October to June inclusive.*

### Zoology

### Botany

Dental students take the full courses specified in the Calendar for First M.B. candidates.



Lectures on Zoology during the session on Monday and Friday at 11 a.m. Practical work in the Zoological laboratory throughout the session on Tuesday and Thursday mornings, 11 to 1. Lectures and practical work on Botany during the second and third terms only on Tuesday at 2 to 5 p.m. and on Wednesday at 10 a.m. to 1 p.m.

Each student will be required to provide himself with a microscope (suitable also for his subsequent studies), a dissecting case, a biological drawing book, and some simple instruments for microscopic work.

Microscopes may be had on loan from the University at the rate of 15s. each per session for Elementary work and 21s. each per session for advanced work.

Dental students can obtain the loan of microscopes for their courses in both Zoology and Botany at the rate of 15s. each per session. These fees must be paid in advance to the Accountant immediately after the student has arranged with the laboratory steward for the loan of a microscope.

### **Dental Metallurgy**

Monday, Wednesday and Friday at 12 noon, during the first half of the third term.

Thursday at 2 p.m. during the first term.

Physical and Chemical Properties of the metals: gold, platinum, palladium, silver, tin, antimony, mercury, lead, bismuth, zinc, cadmium, copper, aluminium, iron, nickel.

Alloys: Preparation, composition and properties.

Amalgams: Preparation and properties.

Solders: Composition and uses.

Description of blowpipes, furnaces, muffles, and their uses.

Fluxes: Purification of scrap and sweep.

Methods of testing metals and alloys. Assay of gold and silver.

Dental Cements and their preparation.

N.B. The lectures will be supplemented by practical work in the laboratory.

**HELD IN THE BUILDINGS OF THE SCHOOL  
OF MEDICINE OF THE UNIVERSITY IN  
THORESBY PLACE**

**Anatomy**

**Systematic and Descriptive Anatomy**

**I. For Degree Students**

Mondays, Wednesdays and Fridays at 9.30 a.m. throughout the session.

**II. For Diploma Students**

Tuesdays and Fridays at 2 p.m. in the first and second terms.

Systematic tutorial classes are held in each of the three terms and a series of demonstrations specially adapted to the requirements of Dental students is held.

**Practical Anatomy**

Students of Dentistry dissect during three terms.

The dissecting room is open during the session from 9.30 a.m. till 5 p.m. (Saturday until 12 noon), the work of the students being constantly supervised by the Demonstrators, who attend daily. Tutorial classes and examinations are held daily on recent dissections and on preparations from the anatomical museum; and special instruction is given to all students who are about to present themselves for examination, particularly to those preparing for the higher examinations, such as the University degrees.

Dental students attend as follows :—

Monday, 10.30 a.m. to 5 p.m.

Tuesday, 3 to 5 p.m.

Wednesday, 10.30 a.m. to 5 p.m.

Thursday, 2 to 4 p.m.

Friday, 10.30 a.m. to 12.30 p.m. ; 3 to 5 p.m.

**Physiology**

The following courses are given :—

**I. Elementary Course of Physiology**

Thrice weekly throughout the session.

## **II. Elementary Course of Practical Physiology**

Details to be obtained from the Department.

Students are required to provide themselves with the following:

(a) A microscope of good construction, with  $\frac{2}{3}$ " and  $\frac{1}{6}$ " objectives.

The Professor will be glad to assist Students in the choice of an instrument. Students will not be allowed to attend the class unless provided with a suitable instrument.

(b) Accessories: scissors, forceps, needles in handles, slides and cover glasses, etc.

## **Pathology and Bacteriology**

This course, combining both lectures and practical work, is held on Mondays and Thursdays during the first term, from 2 to 3.30 p.m. Two thirds of the course is devoted to general pathology and bacteriology, one third to special dental pathology and bacteriology.

Each student must be provided with a good microscope, having an oil immersion lens and a condenser.

## **Principles and Practice of Medicine**

Monday, Wednesday, and Thursday, at 9-10 a.m. during the second and third terms.

## **Systematic Surgery**

Tuesday and Saturday at 9-10 a.m. during second and third terms.

The course includes six lectures on the surgery of the mouth.

## **Dental Surgery and Therapeutics**

Thursday at 12 during the first and second terms.

Condition of the jaws and teeth at birth.

Relation of the teeth to the bone and adjacent structures.

Temporary dentition: infantile disorders dependent thereon.

Permanent dentition.

Malocclusion : diagnosis and treatment.

Orthodontia : classification of irregularities, treatment.

Abnormal teeth : syphilitic, hypoplastic, supernumerary geminated, dilacerated, deflected.

Dental Caries : etiology, prophylactic and remedial treatment.

Erosion : etiology and treatment. Attrition.

Pathological conditions of the tooth pulp : acute and chronic inflammation, ulceration, gangrene, polypus, intrinsic calcification, degeneration.

Injuries to the teeth : fracture, dislocation, treatment by replantation and implantation, transplantation.

Periodontitis, acute and chronic. Exostosis, pyorrhœa alveolaris.

Alveolar abscess : etiology, pathology, and treatment.

Salivary calculus.

Neuralgia and odontalgia.

Lesions due to dental causes : nervous, muscular, trophic.

Injuries and diseases of the maxillæ : fractures, necrosis, pathology and treatment.

Diseases of temporo-maxillary articulation : operative and mechanical treatment.

Diseases of the antrum : cysts and empyema, mechanical appliances for drainage.

Cleft palate and oral deformities : treatment by obturators, and vela.

Diseases of the gums : acute and chronic inflammation, hypertrophy, polypus, papilloma, stomatitis.

Morbid growths : Innocent. Cystic. Malignant. Odontomes.

### **Operative Dental Surgery**

Wednesday, at 2 p.m., during the third term.

The surgery : its fittings and hygiene.

Instruments and surgical cleanliness.

Treatment of patients : time and pain-saving methods.

Uses of electric current in dental therapeutics including Ionic Medication.

Case recording.

Scaling and oral hygiene.

Prophylaxis and treatment of dental caries.

- Rubber dam and other means of controlling saliva.
- Separating and separators.
- Principles of cavity preparation.
- Filling materials : characteristics and manipulation.
- Special preparation of cavities for and filling with : gold and tin, cements, gutta percha, amalgam, and porcelain inlays, and the treatment of fillings with respect to contour.
- Treatment of the dental pulp : its conservation, devitalization, and immediate removal.
- Root fillings.
- Treatment of septic roots and alveolar abscesses.
- Extractions and the casualties liable to occur.
- Fractures of the jaws and their treatment.
- Crown and bridge work : surgical preparation of the mouth and teeth ; principles of construction from the surgical standpoint, methods of fixing.
- Repair of crowns : various methods.
- Anaesthesia : local and general, methods of production.
- Cleft palate : treatment by means of obturators, vela, etc.
- The regulation of children's teeth (Orthodontia), general principles.

### **Dental Anatomy and Physiology**

Thursday at 4 p.m. during the first and second terms.

#### **Human Anatomy**

- Morphology of the teeth.
- The teeth as dermal appendages.
- The dental tissues : Enamel, dentine, secondary dentine, cementum, tooth pulp, alveolo-dental membrane, gum.
- Nasmyth's membrane.
- Development of the teeth.
- Calcification of the dental tissues.
- Development and growth of the maxillae and mandible.
- Eruption : attachment and absorption.

#### **Comparative Anatomy**

- The homologies of the teeth.
- The attachment of the teeth.
- Plici-dentine, vaso-dentine, osteo-dentine.
- The evolution and characteristics of the mammalian dentition.
- Notation of the teeth, or dental formulæ.



The development and characteristics (*in outline only*) of the teeth of vertebrata.

Pisces, Amphibia, Reptilia, Aves (Extinct).

Mammalia, Prototheria and Monotremata.

Metatheria and Marsupialia, Eutheria, Edentata, Sirenia, Cetacea, Ungulata, Rodentia, Carnivora, Insectivora, Chiroptera, Primates.

### **Dental Mechanics**

Tuesday at 3 p.m. during the third and first terms.

Making impression trays.

Obtaining impressions of the mouth in plaster of Paris, composition, gutta-percha, bees' wax.

Making and preparation of models for vulcanite and plate work.

Methods of obtaining the correct bite.

Use of articulators.

Mounting porcelain teeth.

Making bands and clasps.

Making wire for bands and springs.

Use of the various flasks for vulcanizing.

Casting metal dies and counter dies.

Swaging of gold and other metal plates.

Soldering; solders, their composition and qualities.

Making crowns: all gold, gold and porcelain, all porcelain, etc.

Bridge work, removeable and fixed.

Gum section work.

Continuous gum work.

Inlay work, gold and porcelain.

Making of regulating appliances.

The mechanical treatment of cleft palate.

The mechanical treatment of fractured jaws.

The use of the various work-room materials.

### **Materia Medica**

In July at hours to be arranged.

The course includes the sources, preparation, physical characters, pharmacopœial combinations, tests, doses and general uses of the principal official drugs.

After each lecture a tutorial class is held in which the students are exercised in the actual recognition of the most important drugs.



						£	s.	d.
Physiology	..	..	..	..	..	13	0	0
Practical Physiology, Part i	..	..	..	..	..	9	0	0
" " Part ii	..	..	..	..	..	6	0	0
Medicine	..	..	..	..	..	9	0	0
Surgery	..	..	..	..	..	9	0	0
Dental Surgery	..	..	..	..	..	9	0	0
Operative Dental Surgery	..	..	..	..	..	6	0	0
Dental Anatomy and Physiology	..	..	..	..	..	9	0	0
" Mechanics	..	..	..	..	..	5	0	0
" " Practical	..	..	..	..	..	5	0	0
" Metallurgy Lectures	..	..	..	..	..	5	0	0
" " Practical	..	..	..	..	..	5	0	0
" Microscopy	..	..	..	..	..	5	0	0
" Bacteriology	..	..	..	..	..	3	10	0
" Materia Medica	..	..	..	..	..	3	10	0

### III. Pupilage Fees

If paid at commencement	..	..	..	..	90	0	0
If paid in two instalments	{ 1st year		..	..	47	0	0
	{ 2nd year		..	..	47	0	0
For one year only at the Dental Dept.	..	..	..	..	60	0	0
For six months additional practice in mechanical dentistry	..	..	..	..	26	0	0

### IV. Dental Practice Fees

(a) For the B.Ch.D.	..	..	..	..	37	0	0
(b) For the L.D.S.	..	..	..	..	26	0	0
(c) For three months additional	..	..	..	..	5	0	0

### V. Infirmary Practice Fees

General Hospital Practice	..	..	..	..	15	0	0
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### VI. Examination Fees, etc.

				For first examination.			For subsequent examination.		
				£	s.	d.	£	s.	d.
Matriculation	..	..	..	2	0	0	..	*1	10 0
Registration of an External Matriculation Certificate	..	..	..	2	0	0	..	—	—
B.Ch.D. { First Examination	..	..	..	6	0	0	..	3	0 0
and { Second	..	..	..	5	0	0	..	3	0 0
L.D.S. { Final	..	..	..	5	0	0	..	3	0 0
Conferment of Degree or Diploma	..	..	..	6	0	0	..	—	—

\* A student who has failed in the July examination in any year will be admitted to the September examination of the same year only on the payment of this fee.

The latest dates for the payment of examination fees are :—

First Exam. B.Ch.D. and L.D.S.

In June, on March 1st.

In September, on August 1st.

Second and Final B.Ch.D. and L.D.S.

In December, on November 17th, 1923.

In June, on May 17th, 1924.

## VII. Cost of Dental Education, shewing incidence of charges.

Expenses of Dental Education shewing approximately how the various charges fall due if the fees are paid by instalments and examinations taken at the earliest possible date

(It is assumed that the student desires to enter on the course in October).

### (a) Degree in Dentistry

May (before entry).	£	s.	d.	£	s.	d.
Matriculation Examination .. ..	2	0	0			
About July (on admission)						
Registration Fee .. ..	2	0	0			

4 0 0

#### *First Year.*

October.

Composition Fee for Lectures, etc.

First Instalment .. .. \*60 0 0

Union Membership Fee (annual) .. .. 2 0 0

Microscope and Books, say .. .. 30 0 0

February.

First Examination .. .. 6 0 0

July.

Pupilage—First Instalment .. .. 47 0 0

Workroom Tools .. .. 6 10 0

151 10 0

#### *Second Year.*

October.

Composition Fee—Second Instalment \*45 0 0

Union .. .. 2 0 0

Books, say .. .. 5 0 0

Anatomy charges (commencing) .. .. 2 0 0

July.

Pupilage—Second Instalment .. .. 47 0 0

101 0 0

Carried forward .. .. £256 10 0

\* The total cost will be reduced by £9 if those fees marked \* are paid in one sum instead of by instalments.

*School of Dentistry*

		£	s.	d.
	Brought forward .. ..	256	10	0
<i>Third Year.</i>				
October.		£	s.	d.
	Infirmery Practice .. ..	15	0	0
	Union .. ..	2	0	0
	Instruments .. ..	40	0	0
May.				
	Second Examination .. ..	5	0	0
July.				
	Dental Hospital Practice .. ..	37	0	0
		<hr/>		
			99	0 0
<i>Fourth Year.</i>				
October.				
	Union .. ..		2	0 0
<i>Fifth Year.</i>				
October.				
	Union .. ..	2	0	0
May.				
	Final Examination .. ..	5	0	0
June.				
	Graduation .. ..	6	0	0
		<hr/>		
			13	0 0
	Approximate Total Cost ..	<hr/>		
		£370	10	0

*(b) Diploma in Dentistry*

Before Entry on the Course.				£	s.	d.	£	s.	d.	
Matriculation or some other recognised										
Preliminary Examination, say					2	0	0			
Registration Fee (on admission) ..				..	2	0	0			
					<hr/>			4	0	0
<i>First Year.</i>										
October.										
Pupilage—First Instalment ..				..	†47	0	0			
Composition Fee for Lectures, etc.										
First Instalment ..				..	†50	0	0			
Union Membership Fee (annual) ..				..	2	0	0			
Microscope and Books, say ..				..	30	0	0			
Workroom Tools ..				..	6	10	0			
February.										
First Examination ..				..	6	0	0			
					<hr/>			141	10	0
Carried forward ..				..	..	..	£145	10	0	

† The total cost will be reduced by £9 if the fees marked † are paid in one sum instead of by instalments.



			£	s.	d.
	Brought forward .. ..		145	10	0
<i>Second Year.</i>					
October.					
	Pupilage—Second Instalment ..	†47	0	0	
	Composition Fee do. ..	†50	0	0	
	Union .. ..	2	0	0	
	Books, say .. ..	5	0	0	
	Anatomy Charges (commencing) ..	2	0	0	
			106	0	0
<i>Third Year.</i>					
October.			£	s.	d.
	Dental Hospital Practice .. ..	26	0	0	
	Infirmiry Practice .. ..	15	0	0	
	Union .. ..	2	0	0	
	Instruments .. ..	40	0	0	
	Books .. ..	5	0	0	
May.					
	Second Examination .. ..	5	0	0	
			93	0	0
<i>Fourth Year.</i>					
October.					
	Union .. ..	2	0	0	
May.					
	Final Examination .. ..	5	0	0	
June.					
	Conferment of Diploma .. ..	6	0	0	
			13	0	0
	Approximate Total Cost ..		£357	10	0

## HOSPITAL PRACTICE

**Leeds General Infirmary.**—The medical and surgical practice required by dental students is taken at this Institution, which offers abundant opportunities for clinical study. A full account of the arrangements for clinical teaching, and of the appointments offered to students, will be found in the Medical Prospectus. The fee for dental students is £15. They will be required to act as dressers and clerks in the Medical, Surgical, and Aural out-patient departments. Enquiries relating to attendance at the Infirmary, should be addressed to the Clinical Sub-Dean, Dr. VINING, 31, Park Square, through the Dean's Office.

## TIME TABLE OF DENTAL SUBJECTS.

## First and Second Terms.

	M.	T.	W.	Th.	F.	S.	
Anatomy, Lecture or Tutorial.....	...	...	...	...	...	...	} See under Medical Courses
Diploma Course....	...	...	...	...	...	...	
Physiology .....	...	...	...	...	...	...	
Physiology, Practical, Part II ...	...	...	...	...	...	...	
Dental Pathology and Bacteriology	...	...	...	...	...	...	
Medicine .....	9-10	...	9-10	9-10	...	...	2nd term
Surgery .....	...	9-10	...	...	...	9-10	2nd term
Dental Surgery ...	...	...	...	12 0	...	...	...
Dental Mechanics..	...	3 0	...	...	...	...	1st term
Dental Metallurgy.	...	...	...	2-5	...	...	1st term
Dental Anatomy and Physiology...	...	...	...	4 0	...	...	...

## Third Term.

Dental Mechanics..	...	3	...	...	...	...	} During 1st half of term
Do. Metallurgy. 1030	...	...	...	...	1030	...	
Dissections .....	...	...	...	...	...	...	...
Histology, A .....	...	...	...	...	...	...	} See under Medical Courses
Dental Pathology and Bacteriology	...	...	...	...	...	...	
Medicine .....	9-10	...	9-10	9-10	...	...	...
Surgery .....	...	9-10	...	...	...	9-10	...
Practical Dental Microscopy .....	...	...	...	...	...	...	...
Dental Materia Medica .....	...	...	In July	...	...	...	...
Operative Dental Surgery.....	...	...	2 0	...	...	...	...

## SCHOLARSHIPS & FELLOWSHIPS

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### GENERAL REGULATIONS

1. No election to a Scholarship will take place unless the candidate has attained a sufficient standard of merit. A candidate who has attained such standard may, if the Senate think fit, be elected to a Fellowship or Scholarship without emolument.

2. All Scholarships are held subject to the good behaviour of the Scholar. The University reserves the power to determine the tenure of a Scholarship for the Scholar's irregularity in attendance at lectures, or for any other sufficient cause. A Scholar who fails in any University examination for which he prepares in the University, or who is reported unsatisfactory in the aggregate of his terminal examinations during the session, will forfeit his Scholarship, unless his retention of it be specially allowed.

3. Scholars are required to devote the whole of their time to their studies, except so far as stated below. The undertaking by a Scholar of outside work, such as teaching, or the acceptance of any post of profit outside the University will involve surrender of the Scholarship, unless such work be undertaken with the sanction of the Vice-Chancellor. The Clothworkers' Scholars and others preparing for any profession or trade, the principles of which are taught in the University, will be granted special exemption from this rule if the Senate is satisfied that an adequate cause has been shown for such exemption, and approves the arrangement proposed in each particular case.

4. The Senate reserves power to declare any Scholarship or Exhibition vacant or to reduce its value on the ground that the Scholar has previously or subsequent to his election

acquired another Scholarship. In cases where a student holds more than one Scholarship the aggregate amount will not normally be allowed to exceed £75, though consideration may be given to special cases.

5. Scholars who are preparing for University degrees are required to present themselves for the degree examinations of the University of Leeds, and are not allowed (except by the special permission of the Senate) to present themselves for the examinations of any other University.

*Applicable to Entrance Scholarships*

6. Candidates for an Entrance Scholarship may be required to undergo a *viva voce* examination, in addition to the examination by written papers.

*Applicable to Scholarships awarded on the results of examinations held by the Joint Matriculation Board.*

7. Candidates for these Scholarships must satisfy one of the following conditions:—

(1) Candidates who have passed the Matriculation Examination of the Joint Matriculation Board in a previous year, or before entering for the Scholarships have obtained from the Joint Matriculation Board a certificate of exemption from the Matriculation Examination, are required to take only the papers of the Higher Certificate Examination in the subjects prescribed by the regulations of the respective scholarships for which they are competing.

(2) Candidates who, previous to entering for the Scholarships, have neither passed the Matriculation Examination nor obtained from the Joint Matriculation Board a certificate of exemption from the Matriculation Examination, must

(a) Take the papers of the Higher Certificate examination in the subjects prescribed by the regulations of the respective scholarships for which they are competing and

(b) Obtain a certificate of matriculation by passing at the same time in the other subjects required by the regulations of the Matriculation Examination.

In no case will Scholarships be awarded to candidates who have not passed or obtained exemption from the Matriculation examination.

8. The University does not charge any fee to candidates who present themselves at the Matriculation examination as *Scholarship candidates only* and who do not require any certificate of having passed the examination for Matriculation purposes.

9. Those who are candidates for Matriculation as well as for Scholarships must conform to the Regulations of the Joint Matriculation Board as to filling up the prescribed entrance form and paying the Matriculation fee of £2.

10. In certain cases (see Regulations for the separate Scholarships), successful candidates are required to pursue degree courses in the University as a condition of the tenure of their Scholarships. Should such candidates not have paid the Matriculation fee of £2 prior to the examination, they will be required to pay it before entrance at the University. On payment of it they will be entitled to Matriculation certificates.



## ENTRANCE SCHOLARSHIPS

*The latest date of Entry for Entrance Scholarships is April 25th, after which no application will be received.*

## AWARDED BY THE UNIVERSITY

In the Faculties of Arts, Science or Technology

## EMSLEY

This Scholarship was endowed in 1886 by the late Thomas Emsley, Esq., of Burley-in-Wharfedale, who bequeathed £1,000 for the purpose of founding one or more Scholarships in the Yorkshire College.

There will, as a rule, be offered one Scholarship annually, of the value of £20 a year, tenable for two years.

The Scholar will be required to pursue a course of study prescribed for a degree in Arts, Science or Law of the University, or an alternative course in the Faculties of Arts, Science, or Technology, expressly approved by the Senate.

The Scholarship is not tenable in the Department of Textile Industries.

This Scholarship is awarded on papers set in the Higher School Certificate examination of the Joint Matriculation Board. *Candidates are required to take the papers at this examination in three "full" subjects from the same Group and in one subsidiary subject in accordance with the regulations of the Higher School Certificate Examination.* Applications from candidates for this Scholarship on the prescribed forms which are obtainable from the Office of the University must be sent to the Clerk to the Senate not later than April 25th, after which date no application will be received.

## EDWARD BAINES

The Edward Baines Scholarships, founded in 1885, are established by the University in consideration of the sum of

£3,000 which was raised to commemorate the public services of the late Sir Edward Baines. One-half of the sum annually devoted to this purpose is awarded by the University in the form of a Scholarship tenable by candidates who have attended a Public Elementary School within the City of Leeds; the other half is awarded in the form of a Scholarship by the Yorkshire Union of Institutes. For full particulars of the latter Scholarship see subsequent pages.

Candidates for the Edward Baines Scholarship must be not less than 17 years of age at the date of the award; they must have attended a Public Elementary School in the City of Leeds, and must state the name of such School on the prescribed form of application.

There will, as a rule, be offered in each year one Scholarship, of the value of £20 a year, tenable for two years.

The Scholars will be required to pursue a course of study prescribed for a degree in Arts, Science or Law of the University, or an alternative course in the Faculties of Arts, Science, or Technology, expressly approved by the Senate.

The Scholarship is not tenable in the Department of Textile Industries.

This Scholarship is awarded on papers set in the Higher School Certificate examination of the Joint Matriculation Board. *Candidates are required to take the papers at this examination in three "full" subjects and in one subsidiary subject in accordance with the regulations of the Higher School Certificate Examination.* Applications from candidates for this Scholarship on the prescribed forms which are obtainable from the Office of the University must be sent to the Clerk to the Senate not later than April 25th, after which date no application will be received.

#### In the Faculty of Arts

CHARLES WHEATLEY

This Scholarship was established by the University in 1903, in consideration of the sum of £1,500 given by the

Misses Robinson of Mirfield and Mrs. Steele of Kettering, in memory of the late Charles Wheatley, Esq., of Mirfield. In case of equality of candidates, a preference is to be given to residents in Mirfield.

The Scholarship is of the annual value of £25, tenable for three years, and will be awarded as often as the funds at the disposal of the Trust admit.

The Scholar elected will be required to pursue a course of study at the University preparatory for the B.A. or I.L.B. degree of the University.

This Scholarship is awarded on papers set in the Higher School Certificate examination of the Joint Matriculation Board. *Candidates are required to take the papers in three "full" subjects, in either Group I or Group IIa and in one subsidiary subject in accordance with the regulations of the Higher School Certificate Examination.* Applications from candidates for these Scholarships on the prescribed forms which are obtainable from the Office of the University must be sent to the Clerk to the Senate not later than April 25th, after which date no application will be received.

#### WILLIAM SUMMERS

This Scholarship was founded by Mr. and Mrs. Buckley, of Ryecroft Hall, Audenshaw, near Manchester, in memory of William Summers, Esq., late M.P. for Huddersfield, and for many years a member of the Court of the Victoria University.

Candidates for this Scholarship must have been resident in the Parliamentary Borough of Huddersfield during one full year previous to the 1st of June of the year in which they compete, or must have attended a public school in the said Borough for the same period.

The Scholarship is of the annual value of £35, and is tenable for three years. Any accumulations of the Scholarship Fund will be expended by the Council as it may from time

to time determine in prizes or exhibitions for candidates who shall have acquitted themselves sufficiently well in the examination without having obtained the Scholarship.

The successful candidate will be required to pursue in the University of Leeds a regular course of study in one of the following Honours Schools: (1) Classics; (2) English Language and Literature; (3) Modern Languages and Literatures; (4) History; (5) Philosophy; or any other Honours School in the Faculty of Arts approved by the Senate. Such course must be commenced in the October next after election to the Scholarship.

The Scholarship is awarded on papers set in the Higher School Certificate examination of the Joint Matriculation Board. *Candidates are required to take the papers in three "full" subjects in either Group I or Group IIa and in one subsidiary subject in accordance with the regulations of the Higher School Certificate Examination.* Applications from candidates for these Scholarships on the prescribed forms which are obtainable from the Office of the University must be sent to the Clerk to the Senate not later than April 25th, after which date no application will be received.

#### In the Faculties of Science and Technology

##### BROWN

These Scholarships were endowed in 1877 by the late Henry Brown, Esq., of Bradford and Rawdon, who bequeathed £5,000 to the Yorkshire College for the purpose of founding five or more Scholarships to be called the Brown Scholarships, for students attending the said College and receiving instruction in the various branches of those Sciences which are applicable to the Industrial Arts.

In general there will be offered in each year one or two Scholarships of £40 a year, each tenable for two years, with power of extension. *Applications for extension must be sent to the Clerk to the Senate before the end of the second term.*

A preference will be given, *cæteris paribus*, to candidates who have declared their intention of entering some industry, instruction in the principles of which is given in the

University, or of engaging in the teaching of Science. In the case of equality of candidates, a preference will be given to residents in Bradford or natives of Bradford.

The selected Scholars will be required to pursue a course of scientific or technical study which will qualify for a degree in Science, or for a diploma of the University, or otherwise to devote themselves, in a manner approved by the Senate, to the study of one or more branches of pure or applied science taught in the University.

Brown Scholarships are not tenable by students who propose to enter, or who have already entered, on courses of study in the Faculty of Medicine, unless they are reading for the B.Sc. degree of the University of Leeds. They are now awarded on papers set in the Higher School Certificate examination of the Joint Matriculation Board. *Candidates are required to take the papers in three "full" subjects from Group III and in one subsidiary subject in accordance with the regulations of the Higher School Certificate Examination.* Applications from candidates for these Scholarships on the prescribed forms which are obtainable from the Office of the University must be sent to the Clerk to the Senate not later than April 25th, after which date no application will be received.

#### AKROYD

These Scholarships are maintained by funds accruing from the Akroyd Trust, and are intended for the encouragement of the study of Natural Science.

In general there will be offered in each year one or two Scholarships of £60 a year, each tenable for two years, with power of extension. *Applications for extension must be sent to the Clerk to the Senate before the end of the second term.*

Women are not eligible for the Akroyd Scholarship.

Akroyd Scholars will be required to pursue such a course of study in the Faculties of Science and Technology, as shall, in the opinion of the Senate, constitute an effective preparation for a degree in Science or for a scientific calling.



Akroyd Scholarships are not tenable by students who propose to enter, or who have already entered, on a course of study in the Faculty of Medicine, unless they are reading for the B.Sc. degree of the University of Leeds.

These Scholarships are awarded on papers set in the Higher School Certificate examination of the Joint Matriculation Board. *Candidates are required to take the Papers in three "full" subjects from Group III and in one subsidiary subject in accordance with the regulations of the Higher School Certificate Examination.* Applications from candidates for these Scholarships on the prescribed forms which are obtainable from the Office of the University must be sent to the Clerk to the Senate not later than April 25th, after which date no application will be received.

#### In the Faculty of Technology

##### CRAVEN

This Scholarship was established in the year 1887, by a number of the Engineers of Leeds, in recognition of the services rendered by the late Joseph Craven, Esq., to the Mechanical Engineering trades of the district.

The Scholarship will be awarded triennially to the Engineering student who, having passed the Matriculation examination of the Joint Matriculation Board, has done best in the ordinary papers in Mathematics and Mechanics. It is of the annual value of £25 and is tenable for three years, subject to the conditions as to conduct and attendance laid down in the General Regulations applicable to all Scholarships. Not less than four-fifths of the value of the Scholarship is to be spent in fees. The balance will be paid to the scholar in cash.

Candidates must have been, previous to the day of examination, resident in the City of Leeds for a period or periods amounting together in the aggregate to at least five years, and be so resident at the time they present themselves for examination. Applications from candidates for these Scholarships on the prescribed forms, which are obtainable from the Office of the University, must be sent to the

Clerk to the Senate not later than April 25th, after which date no application will be received.

CORBET WOODALL SCHOLARSHIP IN GAS  
ENGINEERING

This Scholarship was endowed in 1915 by Sir Corbet Woodall, through the Institution of Gas Engineers, and is to be held at the University of Leeds. The annual value of the Scholarship is £60, and is tenable for three years, with power of extension for a fourth year on the recommendation of the Senate to the Corbet Woodall Scholarship Committee. The continuation of the Scholarship each year after the first will depend on the work done by the scholar in the previous year being reported to the Committee as satisfactory.

The Scholarship is intended to enable a student to take a course of study in Gas Engineering at the University, in preparation for a responsible position as a gas engineer. Candidates for election to the scholarship are required (i) to produce evidence of having reached a standard of scientific or technological education sufficient to enable them to take advantage of the B.Sc. degree, or Diploma course in Gas Engineering, and (ii) to give an undertaking of their intention to follow the profession of gas engineer. On each vacancy the award of the scholarship will ordinarily be made during the month of June, after due advertisement in the technical press. The Scholarship will be awarded by the Senate after consultation with the Corbet Woodall Scholarship Committee.

Each candidate is required to submit (i) a statement of his previous education and of his scientific or technological qualifications, (ii) testimonials (*a*) from the head of the Institute in which he received his previous education, (*b*) if he has been already engaged in a gas engineering works, from the engineer of the works. The Senate, in conjunction with the Corbet Woodall Scholarship Committee, will determine what examination, if any, is necessary in order to guide them in the award of the scholarship.

## WILLIAM COOKE &amp; COMPANY

This Scholarship was instituted in 1906 by Messrs. William Cooke & Co., of Sheffield.

It is of the annual value of £21, and is tenable for three years. It is awarded triennially.

Candidates must be either (a) mining students articulated to mining engineers, colliery managers, or colliery proprietors ; or (b) persons who are actually employed underground at a colliery, or who have been employed underground for a period exceeding three years.

The Scholar will be required to pursue the course of study prescribed for the diploma in Coal Mining, and to present himself, as soon as he is properly qualified, as a candidate for that diploma, and also for the Colliery Manager's First Class Certificate of competency to manage a Mine. He must attend this course regularly, and must take his examinations in the proper order and at the time laid down by the regulations of the University.

The Scholarship will be awarded on the result of an examination in (1) English Composition ; and (2) Mathematics (Arithmetic ; Algebra, including quadratic equations ; the Elementary Geometry of triangles, parallelograms, and circles, and of similar rectilinear figures), which two subjects are compulsory on all candidates ; and also in one or more of (3) Mechanics ; (4) Physics ; and (5) Chemistry.

The examination will ordinarily be held about the middle of June. Applications from candidates for this Scholarship must be sent to the Clerk to the Senate not later than May 1st, after which date no application will be received.

## CLOTHWORKERS' FREE STUDENTSHIPS (EVENING)

The Worshipful Company of Clothworkers of the City of London offer twelve Free Studentships, each of the value of £2 10s., to selected students from certain Technical Schools in the West Riding who may desire to attend the advanced Evening Classes in the Department of Textile Industries in the University of Leeds. Each Free Studentship is tenable for one year.

## In the Faculty of Medicine

## MEDICAL

This Scholarship was instituted by the Leeds School of Medicine in 1888. It consists of free admission to the lectures and practical instruction given in the University for the M.B. course. It does not include Infirmary and Fever Hospital practice and instruction in Vaccination and Intern Maternity which are given outside the University buildings, or the fee for membership of the University Union. The Scholarship is awarded on papers set in the Higher School Certificate examination of the Joint Matriculation Board. *Candidates are required to take the papers in three "Full" subjects from Group III and in one subsidiary subject in accordance with the regulations of the Higher School Certificate Examination.*

Candidates must have declared their intention, if elected, of entering the University of Leeds as students in the Faculty of Medicine.

The successful candidate will be required to enter at the University of Leeds as a student in the Faculty of Medicine, in the October immediately following the examination, to pursue, at the University of Leeds and at the General Infirmary at Leeds, the curriculum for a medical degree in the University of Leeds; and to proceed to such degree. But should the successful candidate desire to take a degree in Science or a fuller course of scientific work, before entering upon his professional studies, he shall give immediate notice of his wish to the Senate, which may, if it so determine, allow the Scholar, after passing the First M.B. examination, to postpone his attendance in the School of Medicine for one year only, during which time he shall pursue such course of study at the University as the Senate may authorise.

Applications from candidates for these Scholarships on the prescribed forms which are obtainable from the Office of the University must be sent to the Clerk to the Senate not later than April 25th, after which date no application will be received.

## AWARDED BY PUBLIC BODIES OR TRUSTEES

### CITY AND COUNTY COUNCIL SCHOLARSHIPS

Scholarships tenable at the University of Leeds in scientific and technical subjects (including Agriculture), as well as in Arts subjects, are offered by the Leeds City Council and the County Councils of the North, East, and West Ridings of Yorkshire. In the West Riding, Exhibitions are also offered in Coal Mining, and Free Studentships tenable at the University.

In certain cases assistance is offered to students in Evening Classes.

For further information application should be made as follows :—

For Leeds City Council Scholarships : To the Director of Education (Higher Section), Education Department, Leeds.

For West Riding Scholarships and Free Studentships : To the Education Department, County Hall, Wakefield. Applicants should ask for Section X of Part II of the Handbook of the Education Committee.

For North Riding Scholarships : To the Secretary, County Education Offices, County Hall, Northallerton.

For East Riding Scholarships : To the Clerk, East Riding County Council, Beverley.

*In all cases where there is a possibility of Scholarships being renewed, application for renewal should be made to the Clerk to the Senate not later than the end of the second term.*

### BOARD OF EDUCATION ASSISTED STUDENTSHIPS

The Board of Education pay three-fourths of the fees in the following Day classes, and one-half of those in the Evening classes, for a limited number of teachers engaged in science teaching.

Applications for this privilege must be made to the Secretary, Board of Education, Whitehall, S.W.1, not later than the beginning of September in each year.



## DAY CLASSES

*Physics* : Any of the lecture courses, not exceeding two in number ; laboratory instruction for not less than half a day per week.

*Chemistry* : Lectures and laboratory as above.

*Geology* : Lectures and laboratory as above.

*Civil and Mechanical Engineering* : Lectures and laboratory as above.

*Electrical Engineering* : Lectures and laboratory as above.

*Zoology* : The lecture courses, Intermediate, Final and Honours ; laboratory instruction as above ; Nature Knowledge (lectures and practical work).

*Botany* : The lecture courses, Intermediate and Final ; laboratory as above ; Nature Knowledge (lectures and practical work).

*Mathematics* : Any of the lecture courses, not exceeding two in number.

*Agriculture* : Any of the lecture courses, not exceeding two in number.

*Agricultural Chemistry* : Any of the lecture courses, not exceeding two in number. Laboratory instruction for not less than half a day per week.

## EVENING CLASSES

*Electrical Engineering* : Any of the lectures and the practical classes.

*Civil and Mechanical Engineering* : Any of the lecture classes, laboratory or drawing instruction.

## WILLIAM WALKER EXHIBITIONS

These Exhibitions are intended to enable students to obtain at Leeds University scientific instruction of an advanced character in the Technology of Coal and its Bye-products and in the Technology of Leather. Each Exhibition is of the annual value of from £70 to £90 and (subject to the condition named below) is tenable for three years, with power of extension by the trustees for a fourth year in the case of an Exhibitioner who has shown exceptional promise during his course of training at the University. The continuation of the Exhibition each year after the first will depend on the work done by the Exhibitioner in the previous year being reported to the Trustees as satisfactory. The Trustees may, if they think proper, divide the income of each Exhibition between two candidates, or only award part of it in certain cases, as determined by circumstances.

Candidates for election to the Exhibitions must be natives of, or living in the Poor Law Unions of Whitehaven and Bootle, except the Urban District of Millom, and between the ages of 16 and 22.

Applications for leave to enter for the examination and any inquiries for further information should be addressed to the Secretary, Mr. J. M. Nelson, The Tannery, Whitehaven.

#### YORKSHIRE UNION OF INSTITUTES

(EDWARD RAINES)

This Scholarship is intended for students of either sex who have done satisfactory work at Evening Technical Schools, or Classes; a suitable amount of workshop or mill experience will also ordinarily be required. Candidates must have been members of, or students at, an Educational Institute in affiliation with the Yorkshire Union of Institutes for at least twelve months prior to the date of application, and must have had two years' practical experience, which, in the opinion of the Council of the Union, is of a character allied to the trade or profession in preparation for which the Scholarship would be utilised. Applicants must not be under 18, or over 30 years of age.

The Scholarship will be of the value of £40 per year. This amount will cover the tuition fees, and leave a margin available for books, travelling expenses, &c. The Scholarship will be awarded in the first instance for one year, renewable for a second and a third year in the event of satisfactory progress.

If the holder of a Scholarship ceases to follow the approved Course of Instruction at the University during the currency of any educational year, the payments made on his or her behalf for such year, or such part of them as the Council of the Union may determine, must be refunded by the holder (or by the parent or guardian) unless the leaving be due to illness or some other cause which may be considered sufficient by the Council of the Union. Each holder (or his or her parent or guardian) must enter into an agreement to carry out this condition.

Applications must be made on Forms which may be obtained from the Secretary, The Yorkshire Union of Institutes, Victoria Chambers, Leeds. These Forms must

be filled up in every particular and despatched so as to reach the Office of the Union on, or before, June 30th, in the year when the Scholarship is offered.

Applicants for Scholarships should give full particulars of the whole of their previous work in fundamental or allied subjects, and preference will be given to any one who may have followed a Group Course of Instruction on recognised lines. Applicants will be required to give evidence of having studied for at least two winters in a Technical School, and to produce a nomination or recommendation from the Managers of the School, endorsed by their employers.

The selection will be based mainly upon the results obtained by the Candidates at the Examinations of the Board of Education, and the City and Guilds of London Institute, respectively; the Council of the Union reserve the right to hold any further examination, or impose any further requirement, in order to assist them in their selection of candidates.

## SENIOR SCHOLARSHIPS

In Arts, Science or Technology

UNIVERSITY

A limited number of University Scholarships may be offered annually, and will ordinarily be awarded to students who have shown special merit in the Final examinations of the Honours Schools of the University. In the election to Scholarships, preference will ordinarily be given to students who are prepared to undertake advanced study or research. When such advanced study or research is undertaken in the University, or in some other University or learned institution, or under suitable guidance in a manner approved by the Senate, an additional maintenance grant not exceeding £100 may be made; in other cases the Scholarship will be of the value of £25.

Scholars who receive a grant additional to the £25 will be required to furnish a report of the work done by them during the tenure of the Scholarship, such report to be sent in to the Clerk to the Senate before June 1st of the year following the award of the Scholarship, in order that it may be laid before the Senate. Scholarships may be renewed for a second year when the scholar is undertaking advanced study or research.

*Applications for renewal must be sent to the Clerk to the Senate before the end of the second term.*

## LEIGHTON

These Exhibitions were instituted in 1894 by the Trustees of the late Mrs. Isabel Leighton of Leeds.

Candidates must be registered students of the University of not less than two terms standing. They must have attended a Public Elementary school or schools in the City of Leeds for not less than three years.

Three Exhibitions are ordinarily offered each year, each of the annual value of £10, and are tenable for two years, and renewable for two years subject to the reports on the student's work during the first year of tenure being satisfactory.

The Exhibitions will not be awarded on any special examination, but *those students who are desirous of becoming candidates are required to send in their names to the Clerk to the Senate not later than May 1st in each year.*

In recommending candidates for appointment, the Senate will be guided by the position held by the candidates in their terminal examinations, and also by their general work and conduct. The need of the applicants for pecuniary assistance will also be taken into consideration.

The Exhibitions are tenable by day students pursuing any course of study in the Faculties of Arts, Science and Technology, and may, with the consent of the Trustees, be held in conjunction with any other Scholarship.

The election will be made in the third term of the session, provided that there be suitable applicants.

#### LEEDS CITY COUNCIL

This Scholarship was founded by the Council of the University, in 1892, out of the sum voted by the Leeds City Council, and up to 1912 was awarded as an Entrance Scholarship. In 1912 the Council, on the recommendation of the Senate and with the approval of the City Education Committee, decided to utilise the money in extending the courses of deserving and necessitous Leeds students in attendance at the University.

In recommending candidates for appointment, the Senate will be guided by the position held by the candidates in their terminal examinations, and also by their general work and conduct. The need of the applicants for pecuniary assistance will also be taken into consideration.

*Applications must be sent in to the Clerk to the Senate not later than May 1st in each year.*

#### In the Faculty of Arts

##### SALT

This Scholarship was founded by the late Sir Titus Salt, Bart., in 1875

Candidates must be scholars or registered students of the University in at least their sixth term.



The value of the Scholarship is £20 a year, and it is tenable for two years.

The Scholarship is awarded at the discretion of the Senate, with or without examination.

The Scholar elected will be required to pursue a course of study at the University preparatory for a degree in Arts of the University of Leeds. In the event of graduation at the end of the first year of tenure, the Scholar will be required to pursue a course of postgraduate study satisfactory to the Senate.

Applications from candidates for these Scholarships must be sent to the Clerk to the Senate of the University *not later than May 1st* in each year.

#### JOHN RUTSON

This Scholarship was founded by Mr. Henry Rutson of Northallerton, in memory of his brother Mr. John Rutson. It has been assigned to the Faculty of Arts for the encouragement of research, and the Scholar will be chosen from amongst those who have shown promise of ability to conduct such research.

The Scholarship is of the annual value of about £70 and is tenable for one year, but may be renewed for one year more.

The successful candidate shall be required to undertake advanced study or research in the University, or in some other University or learned institution, or under suitable guidance in a manner approved by the Senate.

The Scholar shall also be required to furnish a report of the work done by him or her during the term of the Scholarship, such report to be sent in to the Clerk to the Senate before June 1st of the year following the award of the Scholarship, in order that it may be laid before the Senate.

*Applications for renewal must be sent in to the Clerk to the Senate before the end of the second term.*

#### GILCHRIST STUDENTSHIP IN MODERN LANGUAGES

This Studentship was instituted in 1905 by the Gilchrist Educational Trust (founded by Dr. Gilchrist, who died in 1841) for "the benefit, advancement and propagation of

education and learning in every part of the world, as far as circumstances permit." It is of the value of £80, is tenable for one year, and is open to graduates of either sex who have taken Honours in Modern Languages in the Final degree examination of the University, and who are proposing to enter the profession of teaching in secondary schools. The purpose of the Studentship is to enable the holder to pursue a special course of study abroad with a view to qualifying himself (or herself) for teaching modern languages in a secondary school.

The regulations are as follows :

1. The Studentship is awarded annually by the Gilchrist Trustees.

2. Candidates must have obtained Honours in Modern Languages in the Final examination for a degree, and be recommended by the University after consultation with the Professors concerned, and after special inquiry into the suitability of the candidates for the profession of teacher in a secondary school. If possible, two names shall be submitted each year to the Trustees for their consideration. Save in exceptional circumstances, of which the Trustees shall be the sole judges, the examination must be that immediately preceding the date of application.

3. The holder of the Studentship will be required to follow a course of preparation for the profession of Modern Language teacher, and must submit his (or her) proposed course of work for the approval of the Trustees, who will take steps to satisfy themselves that the course of preparation proposed to be undertaken is suitable for the purpose in view.

4. The tenure of the Studentship is for one year beginning on the date of election, and the emoluments will be paid half yearly by the University on production of evidence that the proposed course of preparation is being satisfactorily carried out.

5. The Student will be required, at the expiration of the tenure of the Studentship, to send in to the Clerk to the Senate a report to the University, setting out the course of work and preparation which has been pursued, and this report together with a covering communication from the University shall be forwarded to the Trustees.

## BODINGTON MEMORIAL FUND

The Bodington Memorial Fund commemorates the work of the late Sir Nathan Bodington as Principal of the Yorkshire College and first Vice-Chancellor of the University of Leeds. It is devoted to the encouragement of advanced study in Greek and Latin (including language, literature, history, philosophy, and archæology) among graduates of the University.

The scheme for the administration of the Fund includes the following provisions:—

An award or awards will be made annually by the University whenever there are competent applicants.

The income will be allowed to accumulate when no awards are made, the accumulations to be treated as current year's income.

The award or awards will take the form of a Fellowship Scholarship, Prize, or Grant, or any combination of these, as may seem from time to time practicable and desirable.

The income annually awarded is approximately £45.

Since the foundation of the Fund, grants have been made for the purchase of books and for visits to libraries or other centres of research. Awards of money may, however, be made for any other objects cognate to the Trust. It is hoped that when the accumulated funds allow, a Fellowship or Scholarship tenable for one year may be awarded to a graduate who has published or prepared for publication a work of distinction in the field of classical learning.

Applications should be sent in to the Clerk to the Senate *not later than June 1st* in each year.

## LADY ELIZABETH HASTINGS SENIOR SCHOLARSHIP.

The authorities of Queen's College, Oxford, have instituted a Lady Elizabeth Hastings Senior Scholarship, tenable at that College, by graduates from the Leeds and Sheffield Universities, under the following conditions:—

1. This Scholarship shall be called the Lady Elizabeth Hastings Senior Scholarship, to be awarded with a view to a course of higher Humanistic study at the Queen's College

in the University of Oxford, and shall be of the annual value of £125.

2. The Scholar shall be elected by the College, after or without examination, as they shall determine.

3. The Scholarship shall be confined to British-born students, being sons of British-born parents, of the University of Leeds or of Sheffield, who have passed with Honours all the examinations requisite for the degree of Bachelor of Arts in the University to which they belong and also have completed the third and not exceeded the fifth year from their admission to the University.

4. The Scholar shall be elected in the month of July and begin residence in the Michaelmas Term next succeeding, and the scholarship shall be tenable during residence for one year. At the end of which period the College may re-elect him for a further period of one year, provided that they are satisfied with his industry and progress, and at the end of this second period the Scholarship shall determine.

5. The Vice-Chancellor of Leeds or the Vice-Chancellor of Sheffield in his turn may, upon the occasion of a vacancy, recommend in writing to the Provost one or more candidates for election.

6. The College will proceed to the election of a scholar, provided that, in their opinion, a suitably qualified candidate presents himself.

7. The Scholar shall reside within the University during the three academic terms of each year, and within the College for at least his first year.

8. The Scholar must be unmarried and will *ipso facto* vacate the scholarship on marriage, or upon his being elected to a Fellowship or other office of emolument, or if he ceases to be a member of the College.

#### In the Faculties of Science or Technology

##### 1851 EXHIBITION INDUSTRIAL BURSARY

The Commissioners for the Exhibition of 1851 have established a scheme of Industrial Bursaries for young men who, after a course of training in a University or approved

Technical College, desire to take up Engineering, Chemical or other industrial work. The Bursaries are intended, not to facilitate the continuance of collegiate studies by means of post graduate work, but to enable suitable applicants to tide over the period between their leaving College and obtaining remunerative employment in industry. The value of the Bursary will depend on the circumstances of the candidate, but will as a rule not exceed £150 a year.

A Bursar will be elected in the first instance for one year, but the tenure of his Bursary will ordinarily be prolonged for a second year provided that the Commissioners are satisfied with the work done by the Bursar during his first year. In special circumstances a Bursary may be renewed for a third year. The appointments to the Bursaries will be made by the Commissioners from among candidates recommended by the Authorities of certain selected Universities and Technical Schools.

N.B.—In the consideration of these recommendations great weight will be given to evidence that a candidate has the practical ability likely to lead to his advancement in industrial work; academic success alone is not a sufficient recommendation.

The candidate must be a British subject, under the age of 25, and must have been a *bona fide* student of Science for a term of three years. He must further satisfy the Commissioners:—

- (a) That he has obtained, or can, within one month of election, obtain an industrial post to be approved by them.
- (b) That he is in need of pecuniary assistance to enable him to accept such a post.

A Bursar may, if the Commissioners approve, spend part of the tenure of his Bursary in studying a special industrial process or processes in works either at home or abroad. No Bursar shall enter a firm as a premium pupil without the special consent of the Commissioners. A Bursar must submit to the Commissioners, on the expiration of each year of his Bursary, a satisfactory report of his work from his employers.



Applications will be received by the Clerk to the Senate *not later than June 1st* in each year.

**In the Faculty of Technology**

**CLOTHWORKERS' RESEARCH SCHOLARSHIP IN COLOUR  
CHEMISTRY AND DYEING**

This Scholarship, of the value of £60 a year, tenable in the Department of Colour Chemistry and Dyeing, will be awarded annually upon the results of the Final examination for the B.Sc. degree, preference being given to candidates who graduate with Honours in Applied Chemistry (Colour Chemistry and Dyeing).

The Scholarship will be awarded for one year, but may, at the discretion of the Examiners, be extended to a second year.

The Scholar will be required to devote his whole time to carrying out some special branch of research in Colour Chemistry or Dyeing.

**CLOTHWORKERS'**

These Scholarships were founded in 1875 by the Worshipful Company of Clothworkers of the City of London, who offer three Scholarships, each of the value of £20, to students in the Department of Textile Industries. Two of these Scholarships are awarded to students of the first year on the result of the second term examinations, and one to a student of the second year on the result of the second term examinations.

Each Scholarship is tenable for one year. Students holding these Scholarships will be required to attend for not less than three full days in each week an Advanced Course in Textile Industries, and the Senior Class in Applied Art. These Scholarships are only tenable by students not more than twenty-four and not less than sixteen years of age on the 1st of October following the date of examination.

Students holding Scholarships are expected to present themselves for examination (in the University) by the City and Guilds of London Technical Institute, in one of the following subjects, viz. : Textile Fabrics—Spinning and Weaving of (a) Wool and Worsted, (b) Cotton, (c) Linen, (d) Silk.

The Scholarships will be awarded on the result of the second term examinations, which in the case of the first year students will be in

- (a) Designing and Weaving,
- (b) Textile Colouring,
- (c) Applied Art ;

and in the case of second year students in

- (a) Designing and Weaving,
- (b) Textile Colouring,
- (c) Cloth Finishing,
- (d) Applied Art.

Regard also will be had to the general progress candidates have made in their theoretical and experimental studies.

Applications from candidates for these Scholarships must be sent to the Clerk to the Senate *not later than January 31st* in each year.

### In the Faculty of Medicine

#### INFIRMARY SCHOLARSHIP

This Scholarship was founded in 1888 by the Faculty of the Leeds General Infirmary. It is of the value of £68 and consists of a free ticket to the clinical teaching of the Leeds Infirmary. The holder is required to enter as a student for the whole medical curriculum at the University in the session following the date of examination.

This Scholarship is now awarded, after a report from the examiners, on the results of the First M.B. examination of the University of Leeds.

Candidates who claim exemption from any subject or subjects of the First M.B. examination on the ground that they have gained a Higher Certificate which includes such subject or subjects will be examined in the subject-matter of the alternative courses approved for them, *provided that such courses fall within the departments of Physics, Chemistry, Zoology or Botany.*

THORP SCHOLARSHIP IN FORENSIC MEDICINE AND  
HYGIENE

The Thorp prizes, instituted by the late Dr. Disney L. Thorp, one of the original founders of the Leeds School of Medicine, are now awarded as one annual Scholarship of about £25 to a student or graduate of the University prepared to carry out some research work in some subjects bearing upon Forensic Medicine or Public Health. For particulars, application should be made to the Dean of the Faculty of Medicine.

## FELLOWSHIPS

## UNIVERSITY

University Fellowships may be awarded to graduates of the University within three years from the date of graduation. Such Fellowships will be of the value of £150 tenable for one year. The object of the Fellowships is the encouragement of research, and the Fellow will be required to devote the whole of the time during which he continues to hold the Fellowship to the pursuit of such research under conditions approved by the Senate. In special cases an additional grant not exceeding £20 may be made to the Fellow by a special vote of the Senate and Council to assist him in carrying out his researches. No Fellow shall be permitted to hold any paid appointment, or to undertake remunerative work without previous permission from the Senate, which shall have power in such cases to reduce the value of the Fellowship.

Fellowships will not be awarded except to candidates who have given evidence of qualifications for undertaking original work. Fellows are required to send in to the Clerk to the Senate a report of the work done by them during the tenure of the Fellowship before June 1st of the year following the award of the Fellowship, in order that it may be laid before the Senate. The Fellowships may, in exceptional instances, and with the consent of the Senate and Council, be renewed for a second year.

*Applications for renewal must be sent in to the Clerk to the Senate before the end of the second term.*

## GAS RESEARCH

The Fellowship, of the value of £200 per annum, will be awarded by the Senate, on the recommendation of the Board of Science and Technology, to a duly qualified candidate for the prosecution of post-graduate research in gas chemistry. Preference will be given to candidates who have signified their intention of entering the coal gas industry, or in default of any such candidate, to a person qualifying for some other branch of fuel industry.

The award of the Fellowship will be made annually during the month of June, after due advertisement of it in

the technical press and other appropriate journals. *Applications for the Fellowship must be made to the Clerk to the Senate of the University on or before May 1st of each year.*

It will always be within the power of the Senate, on the recommendation of the Board of Science and Technology, to renew the Fellowship to the holder of the same for a further period of a year, instead of proceeding to a fresh election.

The holder of the Fellowship shall undertake research work in the University under the direction of the Professor of Fuel and Metallurgy on some subject connected with the chemistry of gases and combustion. The selection of the subject, and the method of carrying on the work, will be left to the judgment of the Professor responsible for its direction.

The University will provide, free of charge, all reasonable accommodation and facilities required for the prosecution of the research undertaken by the holder of the Fellowship, including working space and the use of such instruments and appliances installed as part of the equipment of the Fuel and Metallurgical Department. Any *special* expenses, not exceeding £25, incurred during the prosecution of the research will be defrayed by the Institution of Gas Engineers.

A report of the research work carried out by the holder of the Fellowship shall be submitted to the Council of the Institute of Gas Engineers, as well as to the Senate of the University, on or before May 1st of each year, together with copies of any papers published in connection with the research.

#### RESEARCH FELLOWSHIP IN COLOUR AND TEXTILE CHEMISTRY

A Research Fellowship of the value of £100 per annum, instituted by the Council on the recommendation of the Textile Industries and Dyeing Committee, will be offered from time to time by the Senate upon the recommendation of the Board of Science and Technology, for the prosecution of scientific investigations in Textile and Colour Chemistry, under the direction of the Professor of Colour Chemistry.



Preference will be given to candidates who have graduated in the University of Leeds with Honours in Colour Chemistry.

The Fellow will be required to devote the whole of his time to the pursuit of the research in question, and (unless the results are published in the form of a communication to a scientific or technical journal) to present a report of the work to the Senate, such report to be sent in to the Clerk to the Senate before June 1st of the year following the award of the Fellowship. It will be within the power of the Senate, on the recommendation of the Board of Science and Technology, to renew the Fellowship to the holder of the same for a second year, instead of proceeding to a fresh election.

#### THE "JAMES EDMONDSON ACKROYD" FELLOWSHIP

By a Deed executed in 1918, in memory of the late J. E. Ackroyd, Esq., the relatives of Mr. Ackroyd placed in the hands of the University a sum of £4,000 to be held in trust for the maintenance of a Scholarship, or Fellowship, for the promotion of research work for the furtherance of the Textile Industry of the West Riding of Yorkshire.

In accordance with the provisions of the Trust Deed, a Fellowship entitled the "James Edmondson Ackroyd Fellowship" of the value of not less than £150 per annum will be awarded by the Senate on the recommendation of the Board of the Faculties of Science and Technology.

The Fellowship shall ordinarily be awarded for a period of three years, which may be extended by a special resolution of the Senate for a further period not exceeding three years.

The Fellow shall be required to devote his whole time to the prosecution of research on some subject or subjects, approved by the Board of Science and Technology, bearing upon the production of wool, silk or other textile materials, or the manufacture of textile fabrics.

A Committee shall be appointed by the Board of Science and Technology to exercise a general supervision over the conduct of the research.

In the award of the Fellowship preference will be given to graduates in Science or Technology, but the essential qualification shall be capacity to pursue the research proposed, and it shall be in the power of the Senate to award the Fellowship to a suitable candidate although he is not a member of the University. Preference will be given (*ceteris paribus*) to candidates born in the City of Bradford or resident there for a period of not less than five years immediately before the date of the appointment.

The award of the Fellowship will be made ordinarily in the month of June. *Applications for the Fellowship should be made to the Clerk to the Senate of the University on or before the 1st of May preceeding the date of the award.*

Grants out of the surplus moneys of the Fund may be made by the Senate on the recommendation of the Board of the Faculty of Science and Technology to increase the value of the Fellowship in any year, or to provide additional facilities for the prosecution of the research by the Fellow.

Provisional reports of the research work conducted by the Fellow shall be laid by the Supervising Committee before the Senate on or before the completion of each year of tenure of the Fellowship. At the expiration of the full period of tenure a final report shall be submitted to the Senate, together with copies of any papers published in connexion with the research.

#### "SIR SWIRE SMITH" FELLOWSHIP

This Fellowship commemorates the services rendered to national education by the late Sir Swire Smith, Hon. LL.D., Member of the Court of the University of Leeds, M.P. for Keighley, and a member of the Royal Commission on Educational Instruction, 1881-4.

For its endowment, a sum of about £3,000, collected by public subscription, chiefly through the efforts of Sir John Clough and Mr. Augustus Spencer, was placed in the hands of the University in May, 1920, to be held in trust for the maintenance of a Fellowship.

The Fellowship is awarded to a graduate of any Faculty of the University who has given evidence of qualifications for undertaking advanced work.

The award, as a rule, is biennial. The Fellowship is tenable for two years and the holder is required to undertake and pursue a course of advanced study and research approved by the Senate.

The annual value of the Fellowship is not less than £150.

The award of the Fellowship is made ordinarily in the month of June. Applications must reach the Clerk to the Senate of the University on or before the 1st of May preceding the date of the award. Each applicant must state the course of study which he proposes to follow and the University or other Institution for research to which he proposes to attach himself during the tenure of the Fellowship.

The Fellow is required to devote the whole of his time to the pursuit of the research in question, and to present a report of the work done to the Senate, such report to be sent in to the Clerk to the Senate before June 1st of the year following the award of the Fellowship. At the expiration of the full period of tenure a final report shall be submitted to the Senate.

#### THE "CHARLES EDWYN VAUGHAN" FELLOWSHIP

The late Emeritus Professor Charles Edwyn Vaughan bequeathed to the University a sum of £3,500 for investment for the purpose of founding a post-graduate Research Fellowship.

The annual value of the Fellowship will be not less than £150. The Fellowship is awarded to such graduate in the Department of English, or History, or Economics, as shall be judged the most fit and proper to receive it, and to be capable of undertaking special research work in English, or History, or Economics.

The award as a rule is made every two years. The Fellowship is tenable for two years and the holder is required to undertake and pursue a course of research approved by the Senate.

The award of the Fellowship is made ordinarily in the month of June. Applications should reach the Clerk to the Senate of the University on or before the 1st of May preceding the date of the award. Each applicant must state the course of study which he proposes to follow and the University or other Institution for research to which he proposes to attach himself during the tenure of the Fellowship.

The Fellow is required to devote the whole of his time to the pursuit of the research in question, and to present a report of the work done to the Senate, such report to be sent in to the Clerk to the Senate before June 1st of the year following the award of the Fellowship. At the expiration of the full period of tenure a final report shall be submitted by the candidate to the Senate.

In the event of no candidate of sufficient merit and distinction presenting himself in any year, the interest available for that year will be expended in the purchase of books for the Libraries in the Departments of English and History and Economics.

## PRIZES

### Gladstone Memorial Prize

The Trustees of the Gladstone Liberal Memorial Fund have established Gladstone Memorial Prizes to be given in books at the Universities and University Colleges in England, Scotland, and Wales for special proficiency in History, Political Science, and Economics. An annual prize of the value of £5 has been offered to and accepted by the Council of the University, and will be awarded under the following conditions :

1. The prize will be awarded in June of each year for an Essay on some subject connected with History or Political Science or Economics, and the subjects of the Essays will be announced in the preceding June.
2. It will be open to competition among all students of Day Classes of the University who are in attendance upon University lectures for not less than four hours per week. Dissertations sent in for the degree of B.A. with Honours upon subjects connected with History, or Political Science or Economics will be regarded as competing for the Essay.
3. No student who has once obtained the prize may compete a second time.
4. No Essay in consideration of which either wholly or in part, a University Fellowship or Scholarship shall have been awarded, shall be admissible for other than honorary recognition.
5. The Essay must be sent in to the Clerk to the Senate *not later than May 1st* in each year.

### The Ripon English Literature Prize

The Committee formed to obtain for the University, by subscriptions, a portrait of the late Chancellor, the Marquis of Ripon, K.G., presented to the University the surplus funds, amounting to £180, for investment, with a view to providing an Annual Prize in the subject of English Literature to be called "The Ripon English Literature Prize."



A Prize to the value of £6 will accordingly be awarded annually, under the following conditions.

1. The prize will be awarded in June of each year for an Essay on some subject connected with English Literature, and the subjects of the Essays will be announced in the preceding June.
2. It will be open to competition among all students of Day Classes of the University who are in attendance upon University lectures for not less than four hours per week. Dissertations sent in for the degree of B.A. with Honours upon subjects connected with English Literature will be regarded as competing for the Essay.
3. No student who has once obtained the prize may compete a second time.
4. No Essay, in consideration of which, either wholly or in part, a University Fellowship or Scholarship shall have been awarded, shall be admissible for other than honorary recognition.
5. The Essay must be sent in to the Clerk to the Senate *not later than May 1st* in each year.

#### The Lucy Whitmell Prize

The late Mr. Charles T. Whitmell presented to the University the sum of £100 for investment, with a view to establishing a prize in Italian Language and Literature in memory of his late wife. A prize of the value of £5 will accordingly be awarded annually, under the following conditions :

1. The prize will be awarded in June of each year for an Essay on some subject in Italian connected with the life, works, and times of Dante, choice of a subject being left to the individual candidate.
2. It will be open to competition among all students of the University, including students in attendance on extramural courses under the supervision of the University.

3. No student who has once obtained the prize may compete a second time.
4. No Essay, in consideration of which, either wholly or in part, a University Fellowship or Scholarship shall have been awarded, shall be admissible for other than honorary recognition.
5. The Essay must be sent in to the Clerk to the Senate *not later than May 1st* in each year.

#### David Forsyth Prize

The sum of £238 was subscribed by past scholars of Dr. David Forsyth, for many years Head Master of the Leeds Central High School, for the endowment of a Forsyth Prize at the University. A prize of the value of £10 will accordingly be awarded annually under the following conditions:—

1. All students (men and women) who have completed an Honours course in Arts and Science, with the intention of becoming teachers in High or Secondary Schools are eligible.
2. Preference will be given to those candidates who have taken their preliminary education in Leeds High or Secondary Schools.
3. The prize will be awarded by the Senate in June of each year on the results of the examination for the Diploma in Education.

#### John Goodman Testimonial Fund

The income from the invested capital contributed by old students and friends will be expended in making grants of Drawing Instruments or Text Books on Engineering. The value of each grant will be approximately £5.

No student is eligible to receive a grant unless he has, prior to entering the University, worked for at least 12 months in an Engineering workshop (not an office) carried on purely for industrial purposes.

The grants will be made to students requiring financial assistance and who are pursuing a three years' course of instruction in Civil, Electrical or Mechanical Engineering. Applications for grants must be made in writing to the

Professor of Engineering during June of the student's first year. Successful candidates will receive their instruments or text books at the beginning of their first long vacation.

The Professor of Engineering will select the candidates and will recommend the Senate to make the awards accordingly. The names of the students receiving grants will not be made public, and no mark shall be put on the Instruments or Books which will allow of them being identified as coming from the Fund.

#### **Leblanc Medal**

The Leblanc Memorial Committee presented the Victoria University with a portion of the surplus from the fund raised in France for the erection of a statue of the distinguished chemist, Nicholas Leblanc, the amount to be devoted to the encouragement of the study of Chemistry. On the foundation of a separate University in Leeds a share of the fund was vested in the University of Leeds.

Leblanc Medals may be awarded at the Final Examination for the Degree of B.Sc. in the Honours Schools of Colour Chemistry, Leather, and Fuel and Metallurgy to such students as are reported by the Examiners to have shown special distinction, and who are recommended jointly by the Internal Examiners in these subjects.

#### **Hardwick Prize in Clinical Medicine**

This prize, of the value of ten pounds, is given annually on a competition which is held early in June. Candidates must have been students in the School of Medicine of the University of Leeds for not less than eight terms; they must be attending the medical practice of the Leeds Infirmary; and they must have held or be then holding the office of Clinical Clerk in that Institution.

#### **McGill Prize in Clinical Surgery**

This prize, of the value of ten pounds, is given annually on a competition which takes place in the month of May. Candidates must be students in the School of Medicine of the University of Leeds who have not at the time of the examination entered on their sixth year, and who have held at the Leeds Infirmary the following appointments:—

In-patient dresser, ophthalmic dresser, in-patient medical clerk, post-mortem clerk, and gynaecological dresser.

#### **Scattergood Prize in Obstetrics and Gynaecology**

This prize, instituted in memory of the first Dean of the Medical Department, Yorkshire College, is awarded annually on a competition in Obstetrics and Gynaecology held in the third term.

The value of the prize, which consists of books or instruments, is five pounds.

#### **Edward Ward Memorial Prize in Surgical Anatomy**

The Edward Ward Memorial Prize in Surgical Anatomy of the value of £5 is awarded annually on a competition held under the following conditions:—

The Examiners for this Prize will be the Heads of the Departments of Anatomy and Surgery, and one of the Clinical Lecturers in Surgery to be appointed by the Board of the Faculty.

The examinations will be held in the month of June in the week preceding the Final examination, and will consist of: (*a*) a written paper, (*b*) *viva voce* examination on the living subject and (*c*) dissections.

Students are eligible irrespective of the qualifications for which they are working, and must be in their final year (normally fifth year) but due allowance will be made for those whose course has been extended by extra courses for the B.Sc., for the Primary Fellowship, or for some other reason satisfactory to the Board.

#### **Gold Medal**

A Gold Medal of the value of ten pounds is awarded on the collated results of the prize examinations in the following subjects:—(1) Surgery; (2) Medicine; (3) Pathology; (4) Obstetrics; (5) Forensic Medicine; (6) Clinical Medicine (Hardwick Prize); (7) Clinical Surgery (McGill Prize); (8) Gynaecology, Clinical Obstetrics and Gynaecology (Scattergood Prize); (9) Public Health; (10) Pharmacology

and Therapeutics; (11) Practical Surgery; (12) Ophthalmology; (13) Mental Diseases. To qualify for the Gold Medal the candidate must have attended all his final classes, *i.e.*, must have completed and not have exceeded his fifth year of study, and must present four prizes or their equivalent. Of these prizes one must be either the Surgery or the McGill Prize, and another either the Medicine or the Hardwick Prize. Should a student desire to spend an additional year antecedent to the study of the subjects in Part III in preparing for a Science degree, Honours, or the Primary Fellowship of the Royal College of Surgeons of England, such time need not be counted as one of the five years.

#### William Hey Medal

Sir Berkeley Moynihan has presented to the University the sum of £200 for investment, with a view of providing a gold medal for the most distinguished graduate with first-class Honours in the M.B., Ch.B. list of the Calendar year.

The award will be made by the Examination Committee in December on —

- (a) The results of the Final M.B. (Part III) examinations held in June and December of the same year. Previous examinations (Second M.B. and Final M.B., Parts I and II) will also be taken into consideration.
- (b) A consideration of the student's general standing, record and character. The successful student must have displayed qualities of such an order as to entitle to special distinction.

If two candidates show special merit and the funds of the trust allow, the examiners may recommend a double award.

#### Silver Medal

The Junior Medal (Silver) is awarded upon the results of the prize examinations in the following subjects:—(1) Junior Anatomy; (2) Senior Anatomy; (3) Physiology; (4) Practical Physiology (including the experimental portion of part ii); (5) Materia Medica; that is to say, upon the subjects of the second year and the first and second terms of the third year in the "Normal Course for the M.B.Ch.B. of the University of Leeds." To qualify, the candidate must obtain two prizes or their equivalent.



## GRADUATES OF THE UNIVERSITY OF LEEDS

(The names of deceased graduates are printed in italics)

## Honorary Graduates

*Doctor of Laws*

- |      |  |      |   |
|------|--|------|---|
| 1904 | <i>Lady Frederick Cavendish</i><br><i>Archbishop Maclagan</i><br><i>The Duke of Devonshire</i><br><i>The Earl of Harewood</i><br><i>Viscount Cross</i><br><i>Lord Herries</i><br><i>Lord Allerton</i><br><i>Rt. Hon. Arthur Herbert</i><br><i>Dyke Acland</i><br><i>Sir Francis Sharp Powell,</i><br><i>Bart., M.P.</i><br><i>Sir John Barran, Bart.,</i><br><i>M.P.</i><br><i>Sir Charles Hubert</i><br><i>Hastings Parry, Bart.</i><br><i>Sir Alexander Campbell</i><br><i>Mackenzie</i><br><i>Sir Charles Villiers</i><br><i>Stanford</i><br><i>Sir Edward Elgar</i><br><i>Sir William Bousfield</i><br><i>Henry Walford Davies</i><br><i>Rt. Hon. Charles George</i><br><i>Milnes Gaskell</i><br><i>Charles Wood</i><br><i>Lord Wenlock</i><br><i>Sir Owen Roberts</i> | 1910 | <i>Sir Alfred Hopkinson</i><br><i>Arthur Greenhow Lupton</i><br><i>Arthur Cooper</i>  |
|      |  | 1912 | <i>Anna Paulina Eddison</i><br><i>Sir William Edward</i><br><i>Garforth, LL.D.</i><br><i>The Rev. William Hullon</i><br><i>Keeling, M.A.</i><br><i>Sir Swire Smith</i>  |
|      |  | 1915 | <i>David Forsyth</i>  |
|      |  | 1919 | <i>Field-Marshal Viscount</i><br><i>Plumer</i><br><i>John Rawlinson Ford</i><br><i>Charles Lupton</i><br><i>John Mews</i>   |
|      |  | 1920 | <i>Field-Marshal Earl Haig</i><br><i>The Rev. Canon John</i><br><i>Neale Dalton</i><br><i>Peter Macintyre Evans</i><br><i>John Bickersteth</i><br><i>William Henry Barber</i>   |
|      |  | 1922 | <i>Arthur Copson Peake</i><br><i>Henry Illingworth</i><br><i>Bowring</i><br><i>Benjamin Broadbent</i><br><i>Henry McLaren</i><br><i>Charles Francis Tetley</i><br><i>Admiral of the Fleet,</i><br><i>Earl Beatty</i><br><i>Rt. Hon. David Lloyd</i><br><i>George, M.P.</i>                              |
| 1906 |  | 1923 | <i>Rt. Hon. Edward</i><br><i>Frederick Lindley</i><br><i>Wood, M.P.</i><br><i>Sir Charles Henry Wilson,</i><br><i>M.P.</i><br><i>Sir Edward Allen</i><br><i>Brotherton, Bart</i><br><i>John William Dent</i><br><i>Sir William Worsley, Bart.</i><br><i>Edwin Talbot</i><br><i>James Edward Willans</i> |
| 1909 | <i>Cosmo Gordon Lang, the</i><br><i>Archbishop of York</i><br><i>Thomas Walter Harding</i>   |      |   |
| 1910 | <i>The Duke of Devonshire</i><br><i>Rt. Hon. Herbert Henry</i><br><i>Asquith, M.P.</i><br><i>The Earl of Crewe, K.G.</i><br><i>The Marquis of Lans-</i><br><i>downe, K.G.</i><br><i>Rt. Hon. James William</i><br><i>Lowther, M.P.</i><br><i>Sir Hugh Bell, Bart.</i><br><i>Field Marshal the Rt.</i><br><i>Hon. Lord Nicholson,</i><br><i>G.C.B.</i>  |      |   |

*Doctor of Letters*

- |      |                                |      |                                  |
|------|--------------------------------|------|----------------------------------|
| 1904 | <i>Sir Albert Kaye Rollit</i>  | 1914 | <i>Charles Edwyn Vaughan</i>     |
|      | <i>Alfred Austin</i>           |      | <i>Emile Verhaeren</i>           |
|      | <i>Andrew Martin Fairbairn</i> | 1915 | <i>The Rev. Charles Hargrove</i> |
|      | <i>Joseph Wright</i>           |      | <i>The Rev. Philip Henry</i>     |
| 1906 | <i>Bishop Boyd Carpenter</i>   |      | <i>Wicksteed</i>                 |
|      | <i>(formerly Bishop of</i>     | 1919 | <i>Charles John Holmes</i>       |
|      | <i>Ripon)</i>                  | 1922 | <i>Dr. Thomas Banks</i>          |
|      | <i>Sir Charles Holroyd</i>     |      | <i>Strong, Bishop of Ripon</i>   |
| 1907 | <i>The Rev. Robert Collyer</i> |      | <i>Bruce Richmond</i>            |
| 1910 | <i>Francis John Haverfield</i> | 1923 | <i>Rt. Hon. the Earl of</i>      |
|      | <i>Arthur Sidgwick</i>         |      | <i>Ronaldshay</i>                |

*Doctor of Science*

- |      |                                 |      |                                 |
|------|---------------------------------|------|---------------------------------|
| 1904 | <i>The Earl of Rosse</i>        | 1909 | <i>Sir Ronald Ross, K.C.B.</i>  |
|      | <i>Lord Kelvin</i>              | 1910 | <i>Lord Rayleigh</i>            |
|      | <i>Lord Airedale</i>            |      | <i>Sir Clements Richard</i>     |
|      | <i>Sir Isaac Lowthian Bell,</i> |      | <i>Markham, K.C.B.</i>          |
|      | <i>Bart.</i>                    |      | <i>Sir William Osler, Bart.</i> |
| 1904 | <i>Sir William Henry</i>        | 1912 | <i>Charles Carpenter</i>        |
|      | <i>Broadbent, Bart.</i>         |      | <i>Adolph Greiner</i>           |
|      | <i>Sir Arthur William</i>       |      | <i>Sir Robert A. Hadfield,</i>  |
|      | <i>Rucker</i>                   |      | <i>Bart.</i>                    |
|      | <i>Tempest Anderson</i>         |      | <i>Thomas Newbigging</i>        |
| 1904 | <i>Sir Jonathan Hutchinson</i>  |      | <i>Friedrich Springorum</i>     |
|      | <i>John Hughlings Jackson</i>   |      | <i>John Edward Stead</i>        |
|      | <i>Louis Compton Miall</i>      |      | <i>Sir Corbet Woodall</i>       |
|      | <i>Arthur William Mayo-</i>     | 1914 | <i>Henry Richardson</i>         |
|      | <i>Robson, C.B.</i>             |      | <i>Procter</i>                  |
|      | <i>Thomas Pridgin Teale</i>     | 1915 | <i>Harold Wager</i>             |
|      | <i>Sir Thomas Edward</i>        | 1919 | <i>Sir Henry Bradwardine</i>    |
|      | <i>Thorpe</i>                   |      | <i>Jackson</i>                  |
|      | <i>Claudius Galen Wheel-</i>    |      | <i>Sir Alfred Keogh</i>         |
|      | <i>house</i>                    |      | <i>Sir Almroth Wright</i>       |
| 1906 | <i>Sir William Henry Perkin</i> |      | <i>Sir William Henry Bragg</i>  |
|      | <i>Sir Thomas Clifford</i>      |      | <i>John Gilbert Baker</i>       |
|      | <i>Allbutt</i>                  | 1922 | <i>Sir Harold Stiles</i>        |
|      | <i>Heinrich Caro</i>            |      | <i>Sir Charles Scott</i>        |
|      | <i>Alfred Grandidier</i>        |      | <i>Sherrington</i>              |
|      | <i>Albin Haller</i>             |      | <i>le Duc de Broglie</i>        |
|      | <i>Sir Edwin Ray Lankester</i>  |      | <i>Carl Georg Johannes</i>      |
|      | <i>Carl Theodor Liebermann</i>  |      | <i>Petersen</i>                 |
|      | <i>Carl Alexander von</i>       |      | <i>Pierre Weiss</i>             |
|      | <i>Martius</i>                  |      | <i>Sir Dugald Clerk</i>         |
|      | <i>Paul Pelseuer</i>            |      | <i>Sir Frank Watson Dyson</i>   |
|      | <i>Heinrich Rubens</i>          |      | <i>Sir Richard Arman</i>        |
|      | <i>Herbert Hall Turner</i>      |      | <i>Gregory</i>                  |
| 1909 | <i>Sir James Crichton-</i>      | 1923 | <i>Arthur Smithells</i>         |
|      | <i>Browne</i>                   |      | <i>William James Mayo</i>       |

*Master of Science*

1914	Thomas Scales Carter	1915	John Grimshaw Wilkinson
1915	Thomas Hudson Nelson		Thomas William Woodhead
	William Denison Roebuck	1922	Richard William Haydon
	Thomas Sheppard		
	John William Taylor		

*Master of Arts*

1906	Thomas Percy Sykes	1922	Edith Bessie Cook
1917	Herbert Austin Fricker		Bernard Horner
1919	Francis Vaughan Hall	1923	Frank Kidson
1922*	Archibald Edward Wheeler		Frederick Peaker

**Graduates**

*\* Indicates membership of Convocation.*

**Faculty of Arts (including Commerce and Law)**

*Doctor of Letters*

1915	*Peel, Albert	1923	Chapman, Harry Garfield
1919	Butterworth, George	1923	*Gill, William Conrad
	William	1924	Jordan, George Jefferis
1921	Heaton, Herbert		

*Doctor of Philosophy*

1922	Heron, William	1923	Moussa, Farag Mikhail
1923	*Barker, Doris Wright		

*Master of Arts*

1919	Arnold, Jane	1919	*Butcher, Charles Sydney
1908	*Ashburner, Frederick	1915	Byrne, Richard Hugh
			Desmond Garritt
1923	Barrett, Ernest	1911	*Caldwell, Sarah Jane
1912	Bartle, Arthur	1923	Cardwell, Albert
1924	*Bate, Ethel	1918	Cawthraw, George
1922	*Beeforth, Laura		Edward
1924	Bellerby, John Rotherford	1915	Chadwick, Florence Maud
1920	*Bentley, Owen	1914	Charlton, Henry Buckley
1907	*Bibby, Edward Ernest	1924	*Cockerlyne, Elsie
1922	Birch, Thomas Albany	1909	Cohen, Alexander
1911	*Birtles, Arthur	1921	*Cohen, Ben Zion
1908	*Blackburn, Elizabeth	1923	Connett, Winifred
	Maria	1907	*Conyers, Hilda
1916	Blakeley, Emily Sylvia	1921	*Cook, Alexander Walter
1912	Boden, Cecil Arthur	1923	Cooper, William Ralph
1915	Breckin, Ivy	1914	*Cowling, George Herbert
1922	Briggs, Elsie Powell	1911	Cox, Herbert
1905	*Briggs, Maude (Mrs. Chapman)	1921	Cox, William
1917	Broadley, Mary Anne	1922	Craven, Percy Charles
1912	Brown, Ralph Noel	1922	Crowther, David

- 1912 \*Cridland, Dorothy Walker  
 1921 \*Cross, Ernest  
 1906 \*Davis, William Hathaway  
 1908 Daykin, John Bertram  
 1913 Dean, Arthur Ernest  
 1915 Dickinson, Frederick  
     Walter  
 1924 Dimond, Sydney George  
 1919 \*Dobson, Alan  
 1921 \*Dowson, Evelyn Rhoda  
 1912 Dransfield, Henry Ewart  
     Stanley  
 1916 Dykes, Janet  
 1922 Edelstein, Charles  
     Solomon  
 1909 Edwards, Maud Mary  
 1913 \*Ellis, Henry Carl Noel  
 1922 Ellis, Mabel Doreen  
 1918 \*Evans, Alice Mabel  
 1910 \*Fairley, Barker  
 1922 Farrand, Phoebe Augusta  
 1920 \*Fawcett, Ernest  
 1912 Fawcitt, Edwin Henry  
 1908 Findlay, George Hindson  
 1908 \*Findlay, Sarah Kennedy  
 1915 Findlay, William  
     Gillanders  
 1913 \*Firth, John Rupert  
 1923 Firth, Nellie Marguerite  
 1913 \*Fisher, Frederick  
     Broughton  
 1914 Fox, Arthur  
 1907 \*Frank, Sarah (Mrs.  
     Bonsall)  
 1919 \*Garton, Ida Mary  
 1911 \*Gendall, Philip Parsons  
     Watkins  
 1913 Gibson, George William  
 1919 Gillman, Marguerite  
 1911 Gittleson, John  
 1923 Gormley, Mary Elizabeth  
 1915 \*Green, David  
 1913 Greenwood, Emily Maud  
     (Mrs. F. Dowler)  
 1920 \*Greenwood, Harold  
 1910 \*Gunnell, Doris  
 1913 \*Halliday, Wilfrid Joseph  
 1907 Hand, William Thomas  
 1924 Hardacre, William  
 1918 Harrison, Amy Geraldine  
 1907 \*Hastings, Margaret  
 1915 Head, Jane  
 1924 Healey, Ernest  
 1924 \*Hewson, Thomas Harold  
 1922 Hill, Harold Harrison  
 1917 \*Hinckley, Philip  
 1922 \*Hirst, Alice Elizabeth  
 1909 \*Hirst, John Crosland  
 1909 Hobson, Elsie Irene  
 1912 Hobson, Julia  
 1909 Hodges, Raymond John  
 1905 \*Hodgson, Charles Edward  
 1909 \*Hogan, Kathleen  
 1915 Hole, Ellen Mary  
 1907 Holmes, Carrie  
 1923 \*Hopper, Sydney Herbert  
 1911 \*Howarth, Fred  
 1913 *Huffington, Thomas*  
 1916 Hurworth, Arthur  
 1917 Hutton, Charles William  
 1914 \*Hyde, Francis Austin  
 1923 Illingworth, William  
     Norman  
 1907 *Illingworth, Maria Emma*  
     (Mrs. Schofield)  
 1920 \*Ingle, James William  
 1920 \*Ives, Frank  
 1914 Jameson, Margaret Ethel  
     (Mrs. Clarke)  
 1920 Jennings, Elsie Emmie  
 1922 \*Jessop, Tom Edmund  
 1910 \*Johnson, Florence Annie  
 1924 Jones, Clifford Ernest  
 1907 \*Jowett, Jessie  
 1923 Kaye, Ruth Armitage  
 1912 \*Kirk, Kathleen Hylda  
 1907 \*Kitchener, Ernest Edward  
 1918 Kitson, Ethel  
 1922 Ladell, Arthur Randolph  
 1912 \*Laird, Marjorie Jean  
     (Mrs. Exley)  
 1919 Lambert, Nellie  
 1907 Landman, Samuel  
 1917 \*Lawson, Leah Gardner  
 1912 Lee, Harry  
 1922 Lonsdale, Hettie



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|------|-------------------------------------|------|---|
| 1920 | Lumb, Sybil Victoria                | 1914 | Rennard, Thomas Ambler                            |
| 1921 | Lumby, Mary                         | 1913 | Rhodes, Arthur Wellesley                          |
| 1906 | *McKeand, Maggie Wood-<br>row       | 1905 | <i>Robinson, Ethel Margaret</i>                   |
| 1912 | Maddock, William                    | 1924 | Robinson, Louis                                   |
| 1909 | Mallinson, Dorothy                  | 1905 | * <i>Savage, Hilda</i>                            |
| 1911 | *Martin, Alice Walford              | 1921 | *Sawkins, Violet Vera                             |
| 1915 | Masterman, Dorothy                  | 1908 | Scholes, Katherine Louise<br>(Mrs. A. J. Monahan) |
| 1921 | *Mathers, John Stanley              | 1905 | *Scholes, Thomas Wilfrid                          |
| 1908 | *Matthews, Felix Hackett            | 1913 | *Scott, Julia Penketh                             |
| 1910 | *Maud, Ida Marian                   | 1921 | Sewell, Josephine Mary                            |
| 1918 | Mawson, Constance                   | 1922 | *Simper, Emily                                    |
| 1906 | *Melville, Ellen Louisa             | 1909 | <i>Simpkiss, Nellie</i>                           |
| 1916 | Mitchell, Edith Alice Ann           | 1922 | Simpson, Israel                                   |
| 1907 | *Molland, Theodora Mary             | 1921 | Slater, Doris May                                 |
| 1909 | Monahan, Alexander<br>James         | 1916 | *Smith, Annie                                     |
| 1920 | *Moore, Charles Herbert             | 1907 | Smith, Egerton                                    |
| 1924 | Moss, Frederick William             | 1919 | *Spencer, Frances Mary<br>Elvira                  |
| 1908 | Moulden, John William               | 1923 | Spink, Gerald William                             |
| 1923 | Mukharji, Bhabanath                 | 1906 | *Stables, William Herbert                         |
| 1910 | Murphy, Bertha Mary<br>(Mrs. Maine) | 1916 | Standing, Christine                               |
| 1920 | *Naylor, Charley                    | 1915 | Stapleton, Arthur<br>Leonard                      |
| 1907 | *Naylor, Nellie Noble               | 1914 | Stead, Lilian Mary                                |
| 1907 | *Neville, Ethel May                 | 1910 | Strange, Edward Howard                            |
| 1924 | Norman, Leonora<br>Marguerite       | 1910 | Strong, Robert                                    |
| 1907 | *North, Fanny Caroline              | 1914 | *Strothard, Hubert Turner                         |
| 1921 | *Nutter, Hannah Jane                | 1924 | Swales, Hilda Mary                                |
| 1923 | O'Neill, Wilfrid Stephen            | 1920 | Sykes, Helen                                      |
| 1924 | Padgett, Wilfred Wood               | 1921 | *Sykes, Norman                                    |
| 1913 | Papworth, Harold Charles            | 1921 | Taylor, Emily Augusta                             |
| 1912 | Parker, Frank                       | 1908 | <i>Ten Bruggenkate, George<br/>Herbert</i>        |
| 1914 | *Parkinson, Harold Shaw             | 1924 | Thomas, Frederick<br>George                       |
| 1913 | *Parnaby, Harry                     | 1915 | Thomas, William Calvert                           |
| 1919 | *Partridge, William                 | 1921 | Thackray, Edith                                   |
| 1917 | Pay, Thomas Wilfrid                 | 1912 | * <i>Thornton, William George<br/>Squire</i>      |
| 1913 | Peacey, Basil William               | 1910 | *Thorp, Hilda                                     |
| 1913 | Perfect, Douglas                    | 1922 | *Todd, Helena                                     |
| 1923 | Perks, Martin Thomas                | 1913 | Tomlinson, John<br>Lansdowne                      |
| 1917 | *Perry, Francis Charles             | 1912 | Walker, Algernon Stanley                          |
| 1912 | *Phillips, Samuel                   | 1908 | Walker, Jessie<br>(Mrs. Daykin)                   |
| 1923 | Pickles, Gladys                     | 1908 | Wallace, Harry Bruce                              |
| 1923 | Pickles, William Bradley            | 1912 | Warren, Albert Edmund                             |
| 1911 | Pobjoy, Harold Norman               |      |   |
| 1924 | Priestley, Harold Edford            |      |   |
| 1913 | Ramsden, Arthur                     |      |   |



1912	*Waterhouse, Osborn	1908	Wilson, Florence Grey
1919	Whitaker, George Robert	1905	Wilson, George William
1906	*White, Ethel	1924	Wormald, Stanley
1907	Whitehead, Mary	1914	Wortz, Frederick Robert
1921	*Whiteley, Joseph Travis	1913	Wright, Beatrice Hilda
1922	*Whyte, William Hamilton	1916	Wright, Claude Ernest
1906	*Wilson, Florence	1915	Wright, Gladys

*Master of Education*

1924	Apparsundaram, Thirupananzadu Virabhadra	1921	Luery, Alfred Edward
		1922	*Muhiyuddin, Mohamed Sultan
1923	Bose, Sujata	1922	*Sen, Jitendra Mohan
1924	Brier, Albert	1924	*Shaw, Harry Balmforth
1924	*Greenwood, Norris	1923	Tomlinson, Thomas Percival
1923	Heron, William		
1922	Hughes, Arthur George	1923	*Vakil, Krishnalal Surajram
1923	Hurworth, Arthur		
1924	Hutton, Charles William	1923	Wilson, John Harry

*Bachelor of Arts*

1908	Abrahams, Solomon	1917	*Bainbridge, Dorothy Mary (Mrs. A. E. Wood- head)
1914	*Abrams, Sam Philip		
1922	Allcock, Evelyn	1920	*Baines, Hampson
1909	Allott, Effie Gwen	1918	Bairstow, Dorothy
1914	Allott, Wilfrid	1918	Baker, Ruth Eveline
1916	Alton, Beatrice Mabel	1923	Bailey, Hilda Muriel
1924	*Amies, Francis Alan	1923	Bailey, Mary
1906	*Anderson, John	1917	*Banks, Evelyn
1918	Anderson, Lucy Margaret	1912	Banks, John Cook
1912	Anderson, Mabel Maud	1922	Barker, Hilda
1909	Anderton, Louisa	1920	*Barker, Ida
1912	Anson, Jane Ridsdale	1922	Barker, Stanley
1913	Armitage, Catharine	1919	Barnes, Walter Egbert
1905	*Armitage, John Henry	1919	Barran, Emma Bottomley
1906	*Armstrong, Liliast Eveline	1905	*Barras, Elsie Clara (Mrs. J. G. Hammond)
1922	Armstrong, Norman		
1911	Arnold, Edith	1906	Bartle, Ida
1913	Aston, Marian Gladys Stewart	1920	Barton, Mary Dorothea
1922	Atkinson, George Stanley	1924	Basleigh, Dorothy
1905	*Atkinson, Janet	1909	Batchelor, Edith
1922	Attenborough, Herbert Knight	1921	*Batchelor, Mabel Shaw
		1920	*Bate, Herbert Roland
1922	Austin, Emily	1919	Bates, Nellie
1922	Ayers, Gladys	1922	Bateson, Clara Florence Elizabeth
1923	Ayton, Margaret		

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|-------|--|------|---|
| 1917  | Bayliffe, Jennie                               | 1923 | *Broughton, Horace James                              |
| 1920  | Bazley, Mabel Margaret                         | 1907 | Brown, Constance Mabel<br>(Mrs. H. Paterson)          |
| 1921  | Beal, Hilda Jane                               | 1913 | Brown, Cyril Graham                                   |
| 1911  | Bean, William Harold                           | 1914 | *Brown, Ethel   |
| 1924  | Beaumont, Frederick<br>Albert                  | 1912 | Brown, George Frederick                               |
| 1921  | Beckett, Kathleen<br>Marjorie                  | 1915 | *Brown, Harold Havelock                               |
| 1911  | Beevers, Sydney                                | 1916 | *Brown, Nellie  |
| 1924  | *Bell, George Wilfrid                          | 1920 | *Brown, Winifred                                      |
| 1916  | Bellerby, Margaret Hope                        | 1919 | Broxup, Dorothy                                       |
| 1918  | Benn, Laura Harriet                            | 1917 | Broxup, Eva Annie                                     |
| 1923  | Benn, Thomas Vincent                           | 1924 | Buck, Bessie  |
| 1924  | Bentley, Dorothy                               | 1910 | Bucknall, Charles John                                |
| 1908  | Bentley, Hannah<br>Grimshaw                    | 1920 | Buckley, Edith May                                    |
| 1918, | *Berry, Arthur                                 | 1913 | Bucknall, Paul Damien                                 |
| 1912  | *Bevan, Albert Edward                          | 1905 | *Burgess, Lillie (Mrs.<br>Harvey)                     |
| 1922  | *Bickerdike, Eleanor Bland                     | 1924 | Burgess, Reginald                                     |
| 1910  | Billam, Bertram                                | 1905 | <i>Burley, Leo Le Gay</i>                             |
| 1918  | *Billam, Lois Ethel                            | 1923 | Burnell, Noel Henry                                   |
| 1923  | Binias, Alice May                              | 1923 | Burnett, Kathleen Annie<br>Primrose                   |
| 1916  | Birch, Doris                                   | 1917 | Burrow, Hannah Louise                                 |
| 1916  | Birch, Dorothy Ellen<br>(Mrs. C. H. Lambert)   | 1922 | Burton, George  |
| 1923  | Birch, Frances Beatrice                        | 1921 | Butcher, Doris Maude                                  |
| 1905  | *Bishop, Sarah Ellen                           | 1920 | *Butcher, William Arthur                              |
| 1922  | Blakeston, Ida Evelyn                          | 1910 | Butler, Gloxinia<br>(Mrs. A. M. Godfrey)              |
| 1916  | <i>Blease, Richard Morris<br/>Stanley</i>      | 1917 | Butterfield, Hilda                                    |
| 1924  | Blond, Annie Winifred                          | 1918 | Butterfield, Janet                                    |
| 1906  | Boardman, Ernest<br>Edmund                     | 1918 | Caiger, Hugh  |
| 1913  | Boden, Reginald Stanley                        | 1914 | *Caldwell, Mary Constance                             |
| 1923  | Boldon, Mary                                   | 1917 | Campion, Winifred                                     |
| 1923  | *Booth, Hilda                                  | 1917 | Carr, Catherine                                       |
| 1922  | Boudry, Hilda                                  | 1917 | Carr, Cecily Alice May                                |
| 1920  | Bowker, Benjamin                               | 1916 | <i>Carré, Edward Mervyn</i>                           |
| 1923  | Bradbury, Edith Agnes                          | 1924 | Carter, Dorothy Ruth                                  |
| 1906  | *Bradley, Florence Mar-<br>garet (Mrs. Rydall) | 1915 | Carter, Jessie May                                    |
| 1905  | *Braithwaite, William<br>Dalston               | 1911 | <i>Carter, John Wilfrid</i>                           |
| 1922  | Brearley, Hilda                                | 1923 | Carter, Winifred Mary                                 |
| 1915  | Bridson, Edmund                                | 1922 | Caruth, Eleanor Margaret<br>Annie (Mrs. G. M. Miller) |
| 1916  | Briggs, Maud                                   | 1924 | Castle, Alice Ann                                     |
| 1905  | Brigham, Fanny Muriel                          | 1915 | *Catterall, Albert                                    |
| 1917  | Broadbent, Edith                               | 1912 | Caukill, Francis                                      |
| 1915  | Broadbent, Minnie Ann                          | 1909 | Cawthron, Edwin                                       |
| 1913  | Brock, Stella Caborn                           | 1924 | Chadwick, William<br>Godfrey                          |
| 1924  | Brooke, Minnie Irene                           | 1921 | Chapman, William Dale                                 |
|       |  | 1905 | *Chard, Edith Annie                                   |

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|------|------------------------------------|------|---|
| 1908 | Charlesworth, Alice                | 1924 | Dawson, Mary Catherine                  |
| 1917 | Childe, Gertrude May               | 1911 | Dawson, Thomas Henry                    |
| 1910 | Claridge, Marjorie Muriel          | 1923 | Day, Dorothy Kathleen                   |
| 1922 | *Clark, Elsie                      | 1920 | *Dean, William Henry                    |
| 1922 | Clarke, Arthur Hermon              | 1917 | Deane, Doris                            |
| 1911 | Clarke, Charles Dougan             | 1912 | Dearden, Gladys May                     |
| 1924 | Clarkson, Sarah Eleanor            | 1909 | Dearnley, Charles                       |
| 1915 | Clayton-Booth, Ethel Jane          | 1905 | *Denby, Maurice                         |
| 1919 | Cocking, Ethel Annie               | 1918 | Denison, Ruby Gladys<br>Martha          |
| 1922 | Codrington, Florence<br>Blomfield  | 1922 | Denton, Edna                            |
| 1914 | Coggill, Wilfrid                   | 1922 | Dewhurst, Edith                         |
| 1914 | <i>Cohen, Adolph Broadfield</i>    | 1919 | Dickinson, Kate                         |
| 1922 | Cohen, Margaret Eva                | 1924 | Dickinson, Nellie                       |
| 1922 | Cohen, Nathan                      | 1910 | *Dixon, Annie                           |
| 1914 | Cohen, Sam                         | 1919 | *Dixon, Dorothy<br>Whitley              |
| 1915 | *Coley, Norman Clarence<br>Herbert | 1906 | Dixon, Elizabeth                        |
| 1920 | *Cook, Harold                      | 1917 | *Dixon, Ella                            |
| 1923 | Cooper, Kathleen Louise            | 1924 | *Dixon, James Metcalfe                  |
| 1915 | Cooper, Maud Louise                | 1923 | Dixon, Mary Hilda                       |
| 1922 | Cooper, Norman                     | 1905 | *Dobson, Constance<br>(Mrs. Wheatley)   |
| 1910 | Coppock, Laura                     | 1907 | Donaldson, Lawrence<br>Richard Leverton |
| 1919 | Cordingley, Christine              | 1910 | Doody, Ellie                            |
| 1913 | Corson, Olive                      | 1922 | Downs, Annie                            |
| 1920 | *Cottam, Annie                     | 1915 | Driver, Constance Jennie                |
| 1924 | Coulson, Evelyn<br>Louise          | 1920 | *Dunwell, Thomas<br>Middleton           |
| 1923 | Coultas, George                    | 1923 | Dunwell, Wilfrid                        |
| 1908 | Cowling, Alice Beatrice            | 1922 | Dyson, Charles                          |
| 1918 | Crabtree, Margaret                 | 1913 | Dyson, Fred                             |
| 1923 | Craven, Hilda Mary                 | 1924 | Dyson, James Frederick                  |
| 1922 | Cray, Frank Maynard                | 1924 | Dyson, Marjorie                         |
| 1910 | Croft, Alice Mary                  | 1922 | Earnshaw, James William                 |
| 1911 | Crossland, Elsie                   | 1905 | *Easterfield, Thomas Hill               |
| 1922 | Crossland, Philip                  | 1913 | Edmond, William<br>Seaward              |
| 1914 | Crowther, Daisy Isabel             | 1920 | *Eeles, William George                  |
| 1914 | *Crowther, Florence                | 1913 | *Efron, George Henry                    |
| 1914 | *Crowther, Ivy Emma                | 1924 | Elam, John Frederick                    |
| 1914 | Cuckow, Philip Edwin               | 1921 | *Eley, Stanley Albert                   |
| 1915 | Cusworth, Eustace<br>Fretwell      | 1913 | Elliot, Gilbert Bernard                 |
| 1924 | Dalby, Edward Randolph             | 1924 | Elliot, Elizabeth                       |
| 1922 | Dalby, John                        | 1911 | Elliot, Ruth                            |
| 1921 | Dale, George Stanley<br>Richard    | 1905 | *Elliot, Spencer Hayward                |
| 1905 | *Dalton, John Edwin                | 1910 | Ellis, Arthur Harold<br>Carteret        |
| 1906 | Darycott, Ernest<br>Jenkinson      | 1924 | *Ellison, Maud                          |
| 1920 | Dawson, Daniel                     |      |   |

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|--------------------------------|-----------------------------------|
| 1912 Emsley, Edith             | 1921 *Geldard, Horace Marsden     |
| 1915 Emsley, Rosella           | 1920 *Gentles, James Ross         |
| 1921 Evans, John Charles       | 1919 Gibson, Christine            |
| 1919 *Exley, Cecil Frederick   | Madeleine                         |
| 1922 Fairbourn, Marjorie       | 1917 Gibson, Gladys Louise        |
| 1905 *Fairbrother, Jessie      | 1923 *Gitsham, Ernest             |
| 1911 Fairley, Duncan           | 1918 Gladstone, Muriel            |
| 1914 Farrer, Evelyn            | 1920 *Glass, Helen Medley         |
| 1923 Fawcett, Agnes Mary       | 1908 Golding, Mary Muriel         |
| 1921 *Fawcett, Bertha Rylands  | 1916 Gordon, Florence Winifred    |
| 1923 Fearnside, Francis        | 1921 *Grange, Mary Elizabeth      |
| Charles                        | 1919 Grant, Jessie                |
| 1921 *Fearnside, Winifred      | 1917 Grassham, Muriel             |
| Marion                         | 1905 *Gray, Arabella Hyde         |
| 1923 Fenn, Francis Cuthbert    | Janet, Ethel                      |
| 1914 Fenton, Kate              | 1905 *Gray, Catherine Isabella    |
| 1922 Ferguson, Arthur Ernest   | (Mrs. W. P. Welpton)              |
| 1923 Firth, Dorothy            | 1910 Gray, Isabel                 |
| 1921 Fish, Nellie              | 1921 Gray, Olive Rosina           |
| 1921 *Fitton, Lilian Edith     | 1913 <i>Green, Benjamin Cecil</i> |
| 1921 Fleming, James            | 1920 Green, Ida Walton            |
| 1916 *Fletcher, Bernard George | 1922 Green, Lilian Beatrice       |
| 1907 Flynn, Bridie             | 1922 Greenan, Angela Mary         |
| 1924 Fogden, Gladys May        | 1907 *Greening, Edward            |
| 1905 Foggitt, Emma (Mrs.       | Baptist                           |
| W. A. Cornaby)                 | 1914 Greenwood, Josémeé           |
| 1911 *Foggitt, Ida             | Marguerite                        |
| 1913 Foreman, Jeanie           | 1924 Greenwood, Norris            |
| Christine                      | 1916 Greenwood, Phyllis           |
| 1922 Forrest, Frank            | 1922 Grice, Rosalind Margaret     |
| 1905 *Fox, Arthur Cunliffe     | 1918 *Griffiths, Dorothy          |
| 1908 *Frank, Dorothea Ethel    | 1910 Groves, Winnifred            |
| 1922 Fritz, Gertrude           | Halliday                          |
| 1921 Fryer, Constance Louisa   | 1915 *Gurney, Denies St. John     |
|                                | Cecil                             |
| 1906 Gale, Florence            | 1923 Haigh, Hubert                |
| (Mrs. Reeves)                  | 1916 Haigh, Margery               |
| 1912 Galpine, Dorothy          | 1917 Hainsworth, Ivy              |
| 1917 Garforth, Christina       | 1910 Hale, Agnes                  |
| 1921 *Garside, Bernard         | 1923 Hall, Leslie George          |
| 1905 *Garside, Bertha          | Richard                           |
| 1920 Gartside, Ruth            | 1924 Halloran, John Herbert       |
| 1905 *Gascoigne, Evelyn May    | 1920 Hammond, Agnes               |
| (Mrs. Blackburn)               | 1924 Hammond, Marjorie            |
| 1924 Gascoigne, Mary Cecilia   | 1921 Hanby, Edna Mary             |
| 1924 Gaukroger, Charles        | 1909 Hand, Harry Aram             |
| Anthony                        | 1924 *Hanson, John Lloyd          |
| 1913 *Gawthorpe, Wilfrid       | 1924 Hardaker, Doris Mary         |
| 1924 Geary, Elizabeth Baker    | 1912 Harding, Reginald            |
| 1923 *Gee, Kenneth             | 1915 Hardwick, Arthur             |



- 1921 \*Hardy, Wilfred  
 1920 Harland, Lois Hope  
 1923 Harrison, Sarah Muriel  
 1924 Hartley, George William  
 1918 Hartley, Joan  
 1920 \*Haworth, Phyllis Broughton  
 1915 Hayes, Allan  
 1920 Haygarth, Dorothy  
 1918 Haythorne, Arnold  
 1922 Hazelip, John Cannell  
 1914 *Head, Edward Keith*  
 1922 Heath, Daphne Muriel  
 1917 Heath, Winifred May  
 1921 \*Heaton, Wallace James  
 1922 Hebb, Herbert Ernest  
 1923 Helliwell, Betty  
 1920 Hemsworth, Laura Alice  
 1923 \*Heptonstall, Margaret Edith  
 1905 \*Hepworth, Frank  
 1905 \*Hepworth, Minnie  
 1916 Herbert, Mabel  
 1924 Herd, Elsie May  
 1915 \*Hewson, Constance Freda  
 1912 Hewson, Frank Richard Hick  
 1905 \*Hield, Esther Margaret  
 1922 Higgins, Gertrude Mary  
 1921 \*Hill, Harold  
 1915 Hillas, Norman  
 1921 Hinchliffe, Gerald  
 1921 Hird, Joseph Henry  
 1913 Hirst, Beatrice May  
 1923 Hirst, Florence Vivien  
 1922 Hirst, Lucy Kathleen  
 1905 \*Hirst, Miriam  
 1905 Hitcham, Charlotte Elsie  
 1914 Hoar, Harold Stanley  
 1924 Hobson, Gladys  
 1916 Hobson, Mary Elizabeth  
 1919 \*Hogley, Marian  
 1923 \*Hogley, Mary Kathleen  
 1916 Holdsworth, Maude Marion Elizabeth (Mrs. Cuckow)  
 1905 \*Holgate, Jane  
 1915 \*Holliday, Marjorie Tate  
 1919 \*Hollings, Mary  
 1923 Holmes, Bessie Hepworth  
 1905 \*Holmes, Ethel (Mrs. Chapman)  
 1923 \*Holmes, Robert Sidney William  
 1919 Holroyde, Doris Helena  
 1923 Holyday, Vera Mary  
 1918 \*Hopkin, Jessie Melville  
 1910 *Hopkins, Eric Arthur*  
 1911 \*Horne, Mary Osyth  
 1919 Horne, Winifred Louise  
 1924 Hornsey, Margaret Alice  
 1920 Horrell, Ella  
 1908 Horsfall, Jessy Eveline  
 1915 Horsley, Ernest  
 1911 Hosking, John  
 1922 Hough, Mary  
 1922 Hough, William Ewart  
 1908 \*Howe, Grace Alice  
 1912 *Hoyle, Harold*  
 1917 Huddleston, Edith May  
 1915 Huddleston, Mabel  
 1910 Hudson, Harry  
 1913 \*Hudson, John  
 1905 \*Hudson, Margaret Ellen (Mrs. Parnaby)  
 1917 Huggins, Emma  
 1913 Huggins, John  
 1919 \*Hughes, William James  
 1920 \*Huke, Harry  
 1917 Hunter, Helen  
 1913 Hunter, Nelson Ackroyd  
 1922 Hurst, Dorothy Ayton  
 1905 \*Hurst, Thomas Ockerby  
 1914 Hutchinson, Albert  
 1917 Illingworth, Mabel Winifred  
 1921 \*Ing, William  
 1921 Irvine, Annie McLean  
 1919 \*Irvine, Jessie  
 1906 Jackman, Elizabeth  
 1923 \*Jackson, Ellen Gertrude  
 1924 Jackson, Lily  
 1906 Jackson, Mabel  
 1924 James, William John  
 1924 Jenkins, Dorothy  
 1912 \*Jenkins, Elsie Mary  
 1921 Jenkinson, Louie  
 1921 \*Jennings, Evelyn  
 1921 Jennings, Ivy Evelyn



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|------|--|------|---|
| 1911 | Johnson, Dorothy                             | 1913 | Levy, Sissie Emma                                       |
| 1914 | *Jole, Nora Bancroft                         | 1919 | Lewis, Amy Irene  |
| 1919 | Jones, Annie Frances<br>Saville              | 1912 | Libbish, Barnet   |
| 1914 | Jones, Arthur Owen                           | 1906 | Lidbetter, James Staples                                |
| 1918 | Jones, Eric George                           | 1923 | Liddle, Laura Lavinia                                   |
| 1924 | *Jones, Lewis                                | 1917 | Lightfoot, Edith Margaret                               |
| 1917 | Jones, Marjorie Elizabeth                    | 1921 | *Limbert, George William                                |
| 1914 | Jordan, George Douglas                       | 1924 | Lineham, Wilfrid  |
| 1921 | *Jubb, Dorothy                               | 1906 | *Linforth, Edith Mary<br>Elizabeth (Mrs. W. T.<br>Rowe) |
| 1923 | *Kay, Marjorie Davenport                     | 1915 | Lister, Dorothy Daisy                                   |
| 1924 | Kenna, Victor Ernest<br>Glencoe              | 1905 | *Lister, Martha   |
| 1916 | *Kerry, Herbert                              | 1908 | <i>Lock, John</i>                                       |
| 1914 | Kershaw, Maud Harriet                        | 1922 | Long, Rizpah  |
| 1921 | Kiernan, Reginald                            | 1909 | Longbottom, Nellie                                      |
| 1919 | Kidd, Pearl                                  | 1913 | Longstaff, Annie  |
| 1920 | King, Ivy Honor                              | 1911 | *Longstaffe, Stella<br>Marguerite                       |
| 1912 | *Kirk, Leonard Bertram                       | 1922 | Loseby, Henry Victor                                    |
| 1923 | Kirkby, Ethel                                | 1921 | Lowry, Louise Margaret<br>Matilda                       |
| 1911 | Kirtland, Dorothy Mary                       | 1916 | Loxley, Margaret Isabel                                 |
| 1915 | *Kirkwood, Winifred<br>(Mrs. W. J. Halliday) | 1924 | Lucas, Florence   |
| 1913 | Kitson, Fanny Edith                          | 1920 | Luccock, Florence                                       |
| 1912 | Kitson, Mary Ellen                           | 1922 | Luccock, Hilda  |
| 1920 | Knapp, Lilian Annie Mary                     | 1914 | Lund, Annie Eleanor                                     |
| 1920 | *Knight, Edward Percival                     | 1922 | Lupton, Joseph Harold                                   |
| 1919 | Kniveton, Marjorie Ann                       | 1913 | Lupton, Margaret Ella                                   |
| 1919 | Knowles, Doris Annie<br>Williamson           | 1921 | Luscott, Edgar  |
| 1922 | Knowles, Ernest                              | 1905 | Maccoby, Sarah Judith                                   |
| 1921 | Knowles, Roland Ernest                       | 1920 | *Mackrell, Florence May                                 |
| 1918 | Lamb, Phyllis Gertrude                       | 1924 | McCahearty, Reginald<br>George Henry                    |
| 1916 | Lambert, Charles Henry                       | 1923 | McCulloch, Frederick<br>James                           |
| 1919 | *Lang, Dorothy Margaret                      | 1912 | McKay, Annie Armstrong                                  |
| 1907 | Langstaff, Bilton, B.Sc.                     | 1919 | *McLeannan, Florence<br>Lilian                          |
| 1918 | Lawrence, Elsie Irene                        | 1911 | Major, Irene Carlotta                                   |
| 1922 | *Lawrence, Eva Alice                         | 1913 | Mallin, Hubert Patrick                                  |
| 1920 | *Lawson, Cecil Vaughan                       | 1916 | *Mann, Enid   |
| 1913 | Lawson, Tom                                  | 1913 | Marriott, Edward  |
| 1907 | Lea, George William                          | 1918 | Marsden, Doris  |
| 1921 | Leach, Nora                                  | 1922 | Marsden, Frances<br>Elizabeth                           |
| 1924 | *Leak, Dorothy Mary                          | 1917 | Marsden, Hilda  |
| 1922 | Leake, Dora Margaret                         | 1924 | Marsden, Isabel Florence                                |
| 1909 | *Lee, Catherine                              | 1913 | Marshall, Herbert                                       |
| 1920 | *Lee, Margaret Ann                           | 1923 | Martin, Herbert   |
| 1922 | Lee, Samuel Melville                         |      |   |
| 1914 | Leech, Dorothy Edith                         |      |   |
| 1916 | Legge, Marian                                |      |   |

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|------|---|------|---|
| 1911 | Martin, Ismae Knox  | 1914 | Myers, Amy                              |
| 1909 | Martin, Thomas Haigh  | 1924 | Myers, Charlie                          |
| 1922 | Mathers, Arthur Leslie                                      | 1924 | Myers, Gabriel                          |
| 1909 | Matthews, Basil Wilfred<br>Barrow                           | 1913 | *Myers, Marion                          |
| 1917 | Maud, Annie   | 1924 | Narey, Mary Ellen                       |
| 1915 | *Maude, Edgar Ringrose                                      | 1908 | Naylor, Alice Maude                     |
| 1911 | Mawson, Bertha  | 1913 | Neale, Charles Sidney                   |
| 1920 | Meadows, Gladys Muriel<br>Joan                              | 1915 | *Nesbit, John Christopher               |
| 1915 | Mee, Winifred Ellen   | 1923 | Newman, William Henry                   |
| 1923 | Megalli, Yusef  | 1917 | *Newstead, Fannie                       |
| 1919 | Mellis, Victoria Rudolph                                    | 1906 | Nicholson, Ethel                        |
| 1918 | Mellor, Doris   | 1913 | *Nixon, Dora                            |
| 1910 | Mellors, Clarissa Florence<br>Horsley<br>(Mrs. J. J. Ilett) | 1921 | Normanton, Emma                         |
| 1923 | Mercer, Kathleen  | 1915 | Normington, Nellie                      |
| 1920 | Middlebrook John Bailey                                     | 1923 | Northgrave, Mabel Anne                  |
| 1921 | *Midgley, Arnold Spencer                                    | 1921 | Nowell, Elma Virtue                     |
| 1921 | Midgley, Frederick<br>William                               | 1918 | *Noxon, Marion                          |
| 1922 | Mildren, Minnie   | 1914 | Nuttall, Marguerite Mary<br>Teresa      |
| 1911 | Miller, Florence Clark                                      | 1922 | *Oddy, Clarice May                      |
| 1922 | Miller, George Miller                                       | 1920 | *Oddy, Eleanor Denison                  |
| 1910 | Miller, Henry Claude  | 1916 | Ogden, Mary                             |
| 1911 | Miller, Solomon   | 1920 | Ogden, Winifred Mary                    |
| 1922 | Millward, Francis Eric<br>Eland                             | 1921 | Olsen, Ralph                            |
| 1924 | Mills, Stella Marie   | 1923 | Olshewska, Mary Cecilia                 |
| 1923 | *Milne, Dora Winifred                                       | 1922 | Opie, Eleanor Mary                      |
| 1923 | Milton, Harry   | 1920 | *Orton, Herbert Woodford                |
| 1917 | Mitchell, Florence Mary                                     | 1924 | Osborn, Doreen Mary                     |
| 1916 | *Mitchell, Gladys Mary                                      | 1910 | Ostrehan, Arthur<br>Clement Henry       |
| 1906 | *Mitchell, Margaret   | 1907 | *Outram, Edith May                      |
| 1905 | *Mitchell, Myra   | 1905 | *Owen, Florence                         |
| 1911 | Moody, Sydney   | 1915 | *Padman, May                            |
| 1918 | Moore, Ethel  | 1920 | *Parker, Gladys Murielle                |
| 1917 | Moore, Ruth   | 1916 | *Parker, Isabel Wilson                  |
| 1913 | Moorhouse, Herbert  | 1921 | Parkin, Ethel Mary                      |
| 1915 | <i>Morland, Leonard Mark</i>                                | 1923 | *Parkinson, Harold                      |
| 1909 | Morrell, Frank  | 1913 | Parry, Clarise Hilda                    |
| 1917 | *Moss, Helenor  | 1907 | Partridge, Doris Kathleen               |
| 1918 | Mothersdill, Doris May                                      | 1919 | Patterson, Marjorie<br>Wilson           |
| 1905 | Mountain, Eliza   | 1922 | Pauley, Cecilia Gwen-<br>doline Dorothy |
| 1923 | Mulholland, Marie   | 1908 | Pearson, Eunice                         |
| 1917 | *Munday, Madeleine<br>Constance                             | 1923 | Pearson, Henry James                    |
| 1909 | *Murphy, Grace Louisa                                       | 1923 | Pennymore, Lucy Mary                    |
| 1922 | Muschamp, Kate Sara<br>Evelyn                               | 1908 | Perkins, Sarah Elizabeth                |
|      |   | 1921 | Perry, Martha Alice                     |
|      |   | 1910 | Phillips, Dorothy                       |

1910	Pickering, Harry	1918	Rhodes, Evelyn Marion
1922	Pickering, Horace Sydney	1913	Richards, Charles Threlfall
1914	Pickering, Jessie	1920	Richardson, Elsie Mary
1911	Pickett, Bertram Arthur	1917	Richardson, Matthew
1919	*Pickford, Margaret	1913	Richardson, William Rowson
1922	Pickles, Catherine	1906	*Rider, Martha Hannah
1918	Pickles, Gladys	1905	*Ridge, William Sheldon
1918	Pidd, Jessie	1924	Roberts, Gertrude Mary Rayner
1910	Pilling, James Arthur	1917	Robertson, Margaret Janet
1911	Pollard, Mabel	1923	Robinson, Edith Alice
1924	Poole, Marjorie May	1922	Robinson, Ethel May
1917	Poole, Shirley	1922	Robinson, Harry Holdsworth
1920	*Popplestone, Walter Harold George	1905	Robinson, Lilian Dorothea
1905	*Porritt, Florence Mary (Mrs. Bennett)	1922	Robson, Lilian
1924	*Porter, Winifred Edith	1924	*Roebuck, Constance Mary
1922	Porteus, Charles Frederick	1905	Rogers, Hannah
1922	Potter, Emmie Rosamond	1905	Rogers, Violetta (Mrs. Grimshaw)
1911	Potter, Hilda	1918	*Ross, Frances Hilda
1911	<i>Pounder, Benjamin William</i>	1914	Rolleston, Lancelot Charles
1924	Powell, Mary Cutcliffe	1923	Roughton, Edith Vera
1907	Poynton, Lucy Ellen	1921	*Rouse, Redvers Percival Yates
1917	Pratt, Richard	1924	Rushforth, Winifred Dransfield
1905	*Precious, Julia Hopper	1920	Rushworth, Hilda
1919	*Preston, Edith May	1916	Russell, Ada Minnie
1922	Preston, John Currie	1920	*Russell, Ruth Mary
1919	Prince, Eleanor Edith	1924	Salmon, Dorothy Maude
1914	Pullan, Francis Norman	1912	Sampson, Catherine Ruby
1910	Quarterman, John Richard	1911	Sanderson, Tom
1911	Race, Ida Cunningham	1919	*Saville, Clara
1912	Radford, Conrad William Rich	1921	*Schofield, Beatrice Rachel
1912	Raisman, Abraham	1922	*Schofield, Dorothy Ruby
1920	*Raisman, John	1921	Schofield, Florence
1923	Rankin, Alan	1921	Schofield, Frank
1924	Rashidi, Zaki Rafia Girgis	1921	*Sclare, Mabel
1905	*Raven, Hilda Mary (Mrs. P. Davies)	1921	Scott, Ethel
1923	*Raw, Christine Emily	1920	*Scowcroft, Elsie
1915	*Rayner, Ellen	1905	*Scruton, Harriett Annie
1910	Reakes, Gilbert Spofforth	1906	*Scruton, Kate Ellen
1911	Redfern, Florence Mary	1922	Scupham, Marjorie
1910	Rennie, William Heron Maxwell		
1912	*Reynolds, Carrie		
1922	Rhodes, Eric William		

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|------|---------------------------------------|------|----------------------------------|
| 1916 | Seanor, Kathleen Mary                 | 1922 | Spalding, Albert                 |
| 1920 | *Sellick, Thomas Oliver<br>Albert     | 1919 | *Sparling, Herbert               |
| 1915 | Semper, Constance<br>Margaret Eleanor | 1919 | *Speed, Marie Elizabeth          |
| 1924 | Senior, Jessie                        | 1910 | Speight, Philip Henry            |
| 1917 | Senior, Lilian                        | 1912 | *Speight, Rose Emma              |
| 1924 | Sewell, William Arthur                | 1922 | Spencer, Bessie                  |
| 1912 | Shackleton, Arthur<br>Percival        | 1910 | Spruce, Gladys                   |
| 1917 | Sharp, Phyllis May                    | 1910 | Stainsby, George William         |
| 1920 | Sharpe, Alice                         | 1916 | Stell, Donald                    |
| 1914 | Shaw, George                          | 1921 | Stephenson, Doris May            |
| 1910 | Shaw, George Lawson                   | 1918 | *Stevenson, Hilda                |
| 1905 | Sheard, Dora                          | 1916 | *Stewart, John                   |
| 1914 | Sheard, Kathleen                      | 1923 | *Stobbart, John George           |
| 1905 | *Sheard, Mary Beatrice                | 1921 | Stokes, Victoria                 |
| 1921 | *Shearer, William Sinclair<br>Russell | 1907 | Storey-Bates, William<br>Edward  |
| 1911 | Sheldon, Clara                        | 1922 | Stott, Herbert                   |
| 1915 | Shepherd, Dorothy                     | 1910 | Stradling, Ethel Milnes          |
| 1911 | Shout, Leonard West                   | 1923 | Stuart, Doris Irene              |
| 1924 | Shufleder, Esther                     | 1915 | Stuart, Emily                    |
| 1924 | Shuttleworth, Clifford<br>Wall        | 1920 | Sugden, Edith Annie              |
| 1916 | Silverman, Herbert Albert             | 1921 | Sutcliffe, Annie Eliza           |
| 1916 | Simpson, Helen Mary                   | 1915 | Sutcliffe, Dora                  |
| 1923 | Simpson, Margaret Cicely              | 1916 | Sutcliffe, Dorothy               |
| 1922 | Simpson, Nora                         | 1917 | *Sutcliffe, Helen May            |
| 1924 | *Sinovitch, Esther                    | 1921 | *Sutcliffe, Walter Hill          |
| 1905 | *Skinner, Mabel                       | 1921 | Sykes, Gladys                    |
| 1922 | Skues, Eric                           | 1924 | *Sykes, John Rawnley             |
| 1919 | Smart, Dorothy                        | 1922 | Sykes, Joseph                    |
| 1924 | *Smart, Edward Rogers                 | 1924 | Syker, Lillian Dorothy           |
| 1924 | Smith, Albert Hugh                    | 1924 | Tarver, Emma                     |
| 1923 | *Smith, Cecil Knowles                 | 1912 | *Taylor, Bertha                  |
| 1923 | Smith, Dorothy Margaret               | 1918 | *Taylor, Dora                    |
| 1917 | Smith, Helen                          | 1922 | Taylor, Edward Goods-<br>ham     |
| 1920 | *Smith, Marie Kathleen                | 1910 | Taylor, William Alexander        |
| 1922 | *Smith, Marjorie May                  | 1916 | *Teale, Alice Dorothea           |
| 1923 | Smith, Kathleen Gertrude<br>Mary      | 1913 | Tempest, Mabel Dorothy           |
| 1924 | Smith, Nora Dickson                   | 1917 | Tesh, Elsie                      |
| 1923 | *Smithson, Mabel                      | 1921 | Thackray, George Cyril           |
| 1924 | *Smithurst, Julia May                 | 1920 | *Thackray, Henry                 |
| 1915 | *Snowden, Elizabeth                   | 1917 | Thompson, Elsie Elizabeth        |
| 1916 | Solloway, Mildred Nancy<br>Langdale   | 1923 | *Thompson, Marjorie<br>Elizabeth |
| 1907 | Southern, Alfred<br>Collingwood       | 1919 | *Thompson, Wilhelmina            |
| 1918 | Sowden, Marie                         | 1917 | *Thornton, Betsy<br>Marguerite   |
|      |                                       | 1924 | Thubron, Nellie                  |
|      |                                       | 1922 | Tibble, John William             |
|      |                                       | 1920 | *Toes, Ethel                     |



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| 1921 *Tolchard, William Charles              | 1923 *Webster, Wilfred                            |
| 1917 Topham, Ethel                           | 1914 Weeks, Norley Cecil                          |
| 1922 Townend, Wilfred                        | 1911 *West, Evangeline                            |
| 1906 Townsend, Florence Emma                 | 1920 West, Florrie                                |
| 1918 Townsend, Gladys Elizabeth Gwendolyn    | 1918 *West, Hilda                                 |
| 1922 Tuck, Gladys Helen Edwena               | 1923 West, John Herbert                           |
| 1924 Tudor, Olive                            | 1922 West, Lilian Mary                            |
| 1905 Turner, Harriet Marie                   | 1913 Wharton, James Henry Sheilds                 |
| 1912 Twitchin, Elizabeth Edwards             | 1913 Whincup, Harry Hynes                         |
| 1913 Varey, Mary                             | 1906 White, Arthur Ernest                         |
| 1911 Varley, Annie                           | 1916 White, Herbert Marmaduke                     |
| 1913 Varley, Bessie                          | 1919 *Whitehead, Dorothy                          |
| 1919 Venables, Ethel Mary                    | 1920 Whiting, Dorsey                              |
| 1922 Wadson, Grace Marjorie                  | 1912 Whitley, Arthur                              |
| 1921 *Wainwright, Amy                        | 1922 *Whiteley, Constance                         |
| 1918 Wake, Kathleen Harriet                  | 1921 Whiteley, Evelyn                             |
| 1924 Walbank, Sibyl                          | 1921 Whitworth, Marjorie                          |
| 1905 *Walker, Ada (Mrs. Bentley)             | 1914 *Whitworth, William Wilson                   |
| 1912 Walker, Emily Ethel                     | 1919 Wigham, Wilfred Southall                     |
| 1924 Walker, Florence                        | 1923 Wilby, Lucy Kathleen                         |
| 1923 *Walker, Frank                          | 1923 Wild, Thomas Brook                           |
| 1918 <i>Walker, Harry</i>                    | 1919 *Wilkins, Phyllis Florence                   |
| 1921 *Walker, Hilda Hallam                   | 1924 Wilkinson, Ethel                             |
| 1905 *Walker, Julia Beatrice (Mrs. Thompson) | 1923 Wilkinson, Stanley                           |
| 1917 Walker, Kathleen Susan                  | 1922 Wilkinson, Willy                             |
| 1921 Walker, Robert                          | 1921 Williams, Joseph Russell                     |
| 1911 Wallace, Dorothy Kate                   | 1919 *Williams, Margaret                          |
| 1921 *Warburton, Mary Lilian                 | 1915 *Williams, Thomas                            |
| 1909 *Ward, Alice Rose                       | 1914 <i>Willis, George Henry</i>                  |
| 1920 *Warhurst, Jennie Phedora               | 1924 Willoughby, Joyce                            |
| 1906 Warnes, Sarah Catherine                 | 1919 *Wilson, Elizabeth Jane                      |
| 1923 *Waterland, Roy                         | 1924 Wilson, Margaret Elizabeth                   |
| 1905 Watson, George Alstone                  | 1919 *Wilson, Muriel Ellen Elizabeth              |
| 1921 *Watson, Thomas                         | 1910 Wilson, Muriel Margaret (Mrs. G. H. Cowling) |
| 1923 Watson, Vera                            | 1905 *Wilson, Selina Ethel                        |
| 1907 Weatherell, Thomas Bertram              | 1924 *Wilson, William Bernard                     |
| 1923 *Weatherston, Jean Hastie               | 1921 *Wilson, William Wyatt                       |
| 1914 *Webster, Fred                          | 1921 *Wimsey, Ada                                 |
| 1912 Webster, Herbert                        | 1908 Winter, John Edgar                           |
| 1915 Webster, Michael Harold                 | 1924 Wisely, Catherine Mary                       |
|  | 1910 Witty, John Robert                           |
|  | 1905 *Wood, Jessie Graham (Mrs. A. C. Bruce)      |
|  | 1917 Wood, Mary Freda                             |



1915	Woodall, Ethel Margaret	1922	Wright, Ernest Hotchin
1916	Woodcock, Hester Elizabeth	1924	Wright, Ethel
1921	Woodhead, Edith	1922	*Wright, Fred
1924	Woodhouse, Maurice Tanton	1922	Wright, Rowland
1918	*Wormwell, Sarah Ethel	1905	*Wrigley, Isaac
1910	<i>Worsnop, Edgar</i>	1922	Wrigley, George Kendall
1921	Worth, Dorothy	1919	*Yarrow, John Noel
1911	Wright, Bertha Helen	1922	Yeomans, Kenneth Jobson

*Bachelor of Commerce*

1920	*Bellerby, John Rotherford	1920	Kholy, Mohammed Taher
1922	Boddington, William Henry	1924	*Laycock, Leslie Ernest
1923	*Burrows, Harry Raymond	1923	Lyles, Albert
1923	Caldwell, Leonard Arthur	1923	*Mitchell, Martin West
1923	*Dawe, Charles Vivian	1922	Murphy, Philip Patrick
1924	Denham, Norman Henry	1922	<i>Nixon, Leonard Ewart</i>
1924	*Hainsworth, Reuben Gaunt	1924	*Pickard, Henry Maurice Hattersley
1922	Harris, Elsie	1923	Rajaratnum, Karani Manicka
1923	*Harris, Herbert Fred Pattison	1923	Raphail, Anis Azir
1923	Harris, Lewis	1922	Richardson, Arthur Royal
1923	Hassan, Zaki	1922	Smith, Kathleen Senior
1923	Holdsworth, Frank Reginald	1922	Smith, William Herbert
1922	Hunter, Vivian	1924	*Stalker, Gilbert
		1924	*Unmanski, Jacob Rudolph
		1921	Witney, Denis

*Doctor of Laws.*

1914	*Robson, William Newby, M.A. ( <i>Cantab.</i> )
1924	Ineson, Donald Gordon

*Master of Laws*

1916	*Turnbull, Donald
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*Bachelor of Laws*

1922	*Archibald, Myles Falcon Downes	1922	Duckworth, George Reginald Joseph
1923	*Bailey, Charles Geoffrey	1923	*Fergusson, George Edward
1915	Bastide, Ernest Percival	1909	*Fisher, Arthur Samuel
1908	Beecroft, Philip Beilby	1915	Frankland, Cecil James
1907	*Brayshay, Stanley, B.A.	1922	Gittleston, David
1920	*Burrill, Harold Ruthven	1908	Gundill, Edward Norman
1909	*Croft, Thomas Lister	1910	Harrison, William
1909	<i>Daiches, Salom</i>	1922	Hellewell, Frank Wharton
1922	Dodds, John Matthewson		

1923	Heptonstall, Robert Allatt	1911	*Milner, James
1923	Hesketh, Frank	1913	*Morgan, Owen
1923	*Hirst, Arthur John Crosleghe	1910	*Morgan, Richard Felix
1923	*Hutchinson, George Edward	1923	*Nutt, Richard Evan
1924	Jones, Keith Miller	1922	Ould, Ernest
1920	Kay, William Arthur	1923	Raisman, John
1915	*Kaye, Sidney Herbert	1923	Reddihough, Cyril Spencer
1910	*Knowles, Geoffrey	1906	*Scott, Hubert Edward
1905	Lee, Edmund	1910	*Scriven, Charles
1915	Lieberman, Reuben	1922	Sutcliffe, Norman Roberts
1922	Liversedge, William Ewart	1905	Sykes, James
1906	*McConnell, John William	1924	Turner, Joseph
1908	Maude, Arthur Percy Lees	1906	*Wade, James Mervyn
		1922	Walsh, Joshua Samuel
		1920	*Webster, Fred
		1923	Wilman, John
		1913	Wurzal, Joseph

# Faculties of Science and Technology

## *Doctor of Science*

1910	*Briggs, Samuel Henry Clifford	1905	*Mann, Harold Hart
1915	*Calvert, Harry Thornton	1918	*Marshall, Joseph
1921	*Charlesworth, John Kaye	1920	Raistrick, Harold
1909	Dakin, Henry Drysdale	1910	*Raper, Henry Stanley, M.B., Ch.B.
1907	*Dawson, Harry Medforth	1922	*Rawling, Francis George
1907	*Denison, Robert Beckett	1921	Rowe, Frederick Maurice
1905	*Dwerryhouse, Arthur Richard	1920	*Ruston, Arthur Gough
1905	*Frankland, John Naylor	1913	*Shorter, Sydney Alfred
1918	Gilligan, Albert	1922	*Smithells, Colin James
1905	Ingle, Harry	1907	*Standing, Herbert Fox
1913	*Jowett, Albert	1917	Stoddard, Arthur Askwith
1918	*Leslie, May Sybil (Mrs. Burr)	1905	*Varley, William Mansergh
1920	Lloyd, Llewellyn	1921	Woodman, Herbert Ernest

## *Doctor of Philosophy*

1924	Carter, John Stanley	1923	*Pexton, Stuart
1924	Clutterbuck, Percival Walter	1922	Porter, Eric Craig
1922	Froelicher, Victor	1924	Rhodes, Edgar
1924	*Hare, Arthur	1922	Shimomura, Akira
1921	*Monkhouse, Allan Cuthbertson	1923	Scott, John Richard

## *Master of Science*

1919	Abrams, Nathan	1905	*Agar, Herbert William
1923	Ackroyd, Herbert	1924	Ambler, Francis William

- 1916 Anderson, Leonard  
 1905 \*Andrews, William Allen  
 1920 \*Angus, Harold Thomas  
 1912 Appleyard, Alfred  
 1924 Appleyard, Harry  
 1911 \*Ark, Harry  
 1910 \*Armin, Edwin Bates  
 1908 Ashby, William Ewart  
 1922 Atkin, John  
 1912 \*Atkin, William Rearden  
 1924 Atkinson, Clifford  
 1923 Atkinson, Stanley Jackson  
  
 1922 Bakes, William Edgar  
 1924 Bandyopadhyay, Roy  
     Bankim Chandra  
 1923 Banks, Phillip Gray  
 1906 Barker, Aldred Farrer  
 1922 Barker, George  
 1923 Barnes, Colin  
 1923 Barraclough, Harold  
 1921 Barratt, Walter Alfred  
 1918 Bates, Sidney Hartley  
 1923 Battye, Albert Edward  
 1911 Bearder, Ernest Arthur  
 1923 \*Beaton, Elsie Mabel  
 1905 \*Beaumont, Roberts  
 1922 Beck, Clarence Walker  
 1923 Bedford, Thomas Henry  
     Booth  
 1906 \*Beeley, Arthur  
 1918 \*Bell, Elsie Mary  
 1922 \*Bellerby, Francis George  
 1907 \*Bennett, Hugh Garner  
 1924 \*Bennett, William  
 1914 Bennett, William Gordon  
 1922 \*Bentley, Esther Cludera  
 1905 Bevan-Lewis, William  
 1908 Bibby, Joseph Richard  
 1923 Birch, Arthur Aubrey  
 1921 Birkinshaw, John  
     Howard  
 1924 Blakeley, Joseph Haley  
 1909 Blockey, John Reginald  
 1922 Bond, James Ryding  
 1906 \*Bothamley, Charles  
     Herbert  
 1921 Bradshaw, Geoffrey  
     Gordon  
 1906 \*Brayshay, Maurice  
     William  
  
 1922 Breare, Arnold  
 1912 \*Brier, Albert  
 1922 \*Briggs, Herbert Bradley  
 1912 Bright, Alfred  
 1908 \*Brittain, Charles  
     Edward, M.Sc. *Vict.*  
 1920 \*Brostoff, Harry  
 1923 Brown, George Middleton  
 1922 Brown, Sydney Clifford  
 1911 \*Brown, Thomas  
 1905 *Brown, Walter Henry*  
 1923 Brown, William  
 1914 \*Burton, Donald  
 1920 \*Busfield, William  
 1916 Butterfield, James Arthur  
  
 1907 \*Calam, Harold  
 1924 \*Campbell, George  
     Alexander  
 1923 Carrington, Ernest  
 1921 \*Carruthers, James  
     Norman  
 1923 Carter, Dick  
 1924 Carter, Ruth Ethel  
 1924 \*Caruth, Florence  
     Elizabeth  
 1924 \*Cashon, Gregory  
 1921 Chapman, Robert  
     Edward  
 1913 \*Chapman, Sarah Elizabeth  
 1906 \*Chapman, Thomas  
     William  
 1921 \*Chappell, Norman  
 1914 \*Chester, Richard  
 1924 Cheveley, Stephen  
     William  
 1922 \*Clarkson, William Edward  
 1923 Claxton, Godfrey  
 1922 Cocking, Harold  
 1924 Collinson, George Arthur  
 1914 Collinson, James Arthur  
 1923 Compton, Henry  
     Emmanuel  
 1905 \*Cooper, Albert Henry  
 1907 Cooper, William Arthur  
 1905 \*Copley, Frederick  
 1922 \*Cornock, Arthur  
     Frederick  
 1906 \*Coulson, Alfred  
 1911 Couper, George Augustus  
 1916 Crann, Thomas William

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|---|--|
| 1915 *Crockatt, Arthur John             | 1912 Fort, Morris                                  |
| 1923 Croft, Cyril Mansley               | 1923 Foster, Frank                                 |
| 1915 Croft, George Henry                | 1923 Fouracre, Leslie                              |
| 1923 Crosland, Eric Bentley             | 1908 *Frank, George Herbert                        |
| 1923 Crossley, James Victor             | 1905 *Fry, George Cecil                            |
| 1918 *Crowther, Edward<br>Mortimer      | 1906 *Gardner, Walter Myers                        |
| 1922 *Crummett, Alan                    | 1923 Garner, Walter                                |
| 1920 *Cundall, Leonard Bertram          | 1922 Gayes, Cyril Ernest                           |
| 1915 Cusworth, Emily Ann                | 1907 Gaunt, Rufus                                  |
| 1924 Cuthill Ronald                     | 1910 *Gaut, Robert Charles                         |
| 1922 Dalby, John                        | 1905 *Gawler, Robert                               |
| 1924 Dallas, John William               | 1912 Gerard, Inglis Joseph                         |
| 1923 Dance, Edward                      | 1915 Gibson, Wilfrid                               |
| 1911 Das, Biraj Mohan                   | 1911 Gilchrist, David                              |
| 1907 Davies, Arthur Hugh                | 1924 Gilyead, John Stanley                         |
| 1921 *Davis, Charles                    | Oldfield   |
| 1924 Dawson, Edward Romer               | 1912 Glick, Nathan Bernard                         |
| 1923 Dawson, Robert                     | 1924 Goldthorpe, William                           |
| 1913 Dawson, Thomas Rayner              | Oakland  |
| 1924 *Dean, George Smith                | 1923 Goodall, Frederic Leathley                    |
| 1919 Denbigh, George James              | 1905 *Goodman, John                                |
| 1905 *Dent, Frankland                   | 1907 *Goodson, Ethel Eliza-<br>beth (Mrs. Osborne) |
| 1924 Dibb, Robert Hugh                  | 1921 *Goyer, Marie                                 |
| 1911 Dixon, Frank Metcalfe              | 1920 Gordon, Morris                                |
| 1914 Dougill, George                    | 1922 *Gott, Herbert                                |
| 1915 *Douglas, Frank                    | 1923 Garner, Walter                                |
| 1914 Dry, Francis William               | 1905 *Grant, Charles Henry                         |
| 1910 Dudley, Harold Ward                | 1924 Grassby, William                              |
| 1908 *Dudley, James                     | Buttery  |
| 1912 Duffin, Joseph Francis             | 1922 *Gray, Albert Hilliard                        |
| 1915 Duthie, Charles Sydney             | 1920 *Green, Arthur Eatough                        |
| 1913 Dutt, Pavitra Kumar                | 1905 *Green, Arthur George                         |
| 1924 Earnshaw, Hubert                   | 1916 Greenwood, Edward                             |
| 1922 *Eastham, Leonard<br>Ernest Sydney | Joseph Bernal                                      |
| 1905 *Edwards, Ernest John              | 1921 *Greenwood, Herbert                           |
| 1916 Edmondson, John                    | Donald   |
| 1918 Ellingworth, Samuel                | 1915 *Grindle, William George                      |
| 1924 *Elliot, Norman Garstang           | 1911 *Guy, Ernest                                  |
| 1924 Elliott, James Victor              | 1924 Hagues, George                                |
| 1922 Face, Frank Leslie                 | 1924 Haigh, Charles Benjamin                       |
| 1924 Farrar, Herbert Edmund             | 1910 Haigh, John Henry                             |
| 1924 *Fevre, Frederick Lucas le         | 1923 *Haler, Percy James                           |
| 1905 *Findlay, Mary Grace               | 1923 Hall, John                                    |
| 1920 *Firth, Maurice                    | 1924 Haller, John Walter                           |
| 1924 Ford, Evelyn                       | Ecroyd   |
| 1920 Forster, John Baker                | 1905 *Hammerton, Jonas                             |
| 1920 Forsyth, John Andrew               | 1924 *Hanson, Thomas                               |
| Cairns                                  | Halliday   |
|   | 1915 Harrap, Frank Nettleton                       |



- 1919 Harrison, William  
 1915 Hartley, John Alfred  
 1922 \*Hawthorne, John Eric  
 1913 Hayes, Robert Andrew  
 1921 \*Heaps, Helen  
 1905 \*Hefford, Charles Nelson  
 1923 Henderson, Alexander  
 1921 Hepworth, Edward  
 1923 Heseldin, George  
 1922 Hewerdine, Harry  
 1923 Hewitt, Edward Russell  
 1916 \*Hewlett, Mary  
 1921 \*Hey, Arthur Marsden  
 1919 Hickman, Ella Martin  
 1912 Hickson, Bernard  
 1911 Hill, James  
 1921 Hillier, Gordon  
 1924 \*Hinchliff, Mildred  
 1924 Hinchliffe, Rex Ernest  
 1910 Hinckley, Arthur  
 1923 Hind, George Edward  
     Lockhart  
 1923 Hindle, John Alfred  
 1922 \*Hockney, Harry Linslay  
 1907 \*Hodsman, Henry James  
 1923 Hoggett, Frank Noel  
 1913 Hole, Herbert Wray  
 1914 \*Hollings, Harold  
 1913 Holroyd, Thomas Arthur  
 1917 Hornby, Clement Denton  
 1907 Horsfall, Ronald Smith  
 1923 Hough, Ellis  
 1912 \*Houldsworth, Hubert  
     Stanley  
 1921 \*Howarth, Gilbert Bartle  
 1922 Howarth, John Edward  
 1923 Hoyle, Edmund Jessop  
 1922 Huddleston, William  
     Thomas  
 1919 \*Hudlikar, Madhav  
 1905 \*Hummel, John James  
 1924 \*Hunter, Herbert  
 1921 \*Hunter, Vera Muriel  
 1910 \*Hurst, Frank  
 1922 Ingram, Leslie Pool  
 1908 Jackson, Colin Gyrth  
 1905 \*Jackson, Harry Percival  
 1921 \*Jackson, Kathleen Mary  
 1915 \*Jagger, Mary Elizabeth  
     Marguerita Anne  
 1909 Jenkins, Gilbert Ramsden  
 1924 Jennings, Charles Donald  
 1915 \*Johnson, John William  
     Haigh  
 1913 \*Johnson, William  
 1922 \*Jones, Reginald Hugh  
 1907 Jordan, Albert  
 1921 \*Jordinson, Frank  
 1912 Kench, Henry  
 1905 \*Kendall, Percy Fry  
 1923 Keyworth, Charles  
     Maurice  
 1923 \*Kidd, John Thomas  
 1907 \*King, Charles Arthur  
 1905 *King, Herbert*  
 1911 King, William Norman  
 1905 \*Kirby, Frederick Oscar  
 1922 \*Laboulle, Gaston Felix  
     Lambert  
 1923 Lee, Beatrice  
 1917 \*Lee, Fang Tsung  
 1920 Levy, Simon  
 1922 Lipman, Reuben  
 1907 Lister, Mary Florence  
     Grace (Mrs. Appleton)  
 1923 \*Lister, Samuel  
 1905 *Littlewood, Harry*  
 1915 Lunn, Reginald William  
 1915 McCandlish, Douglas  
 1917 \*McFarlane, Archibald  
 1908 McGill, Ernest Arthur  
 1924 Macmaster, Alexander  
 1924 McKee, John Charles  
 1920 \*Maden, James  
 1919 Mann, Ernest Edwin  
 1924 Manners, George  
 1922 Marriott, Robert Henry  
 1920 \*Marsden, Frank  
 1913 Marsh, Frank Salton  
 1924 Marshall, Clarence Bolus  
 1909 Marshall, Francis  
 1922 \*Maude, Jessie  
 1924 Meadows, Sydney  
     Robert  
 1924 \*Mellor, Albert  
 1912 Mellor, Fred  
 1919 Midgley, Harry  
 1914 Midgley, James  
 1924 Miller, William Bertram



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|---|-----------------------------------|
| 1924 *Milne, Geoffrey                         | 1919 *Randall, William            |
| 1910 *Mitchell, John Arnold                   | 1911 *Rankin, William Munn        |
| 1922 Moffatt, Henry Robert                    | 1921 *Rea, Rosamund Mary          |
| 1920 *Moore, Lawrence                         | Lloyd                             |
| 1922 Moore, Marjorie                          | 1913 Redfearn, George Richard     |
| 1907 *Morrison, James Alex-<br>ander Shepherd | 1923 Redington, George            |
| 1905 *Motley, Parker                          | 1912 Rhodes, Norman               |
| 1922 Mott, Reginald Arthur                    | 1922 Rhodes, Oswald Stanley       |
| 1910 Mountain, Frank                          | 1917 Richardson, Herbert          |
| 1917 *Mountford, Christopher                  | 1907 Richardson, John Stocks      |
| Archibald                                     | 1924 Roberts, Reginald John       |
| 1922 Musgrave, Elsie Selena                   | 1916 Robinson, Fred               |
|   | 1917 Rodwell, Robert Ascough      |
| 1924 *Naylor, William Haydn                   | 1919 Rosenbaum, Joseph            |
| 1924 New, Archibald Alan                      | Louis                             |
| 1921 *Nicholls, Percy                         | 1924 Ross, George Ronald          |
| 1905 *Norminton, Harold                       | Percival                          |
| 1921 *North, Edith Emily                      |                                   |
|   | 1921 *Salt, Harold                |
| 1918 *Oates, Thomas                           | 1923 Saunders, Joseph             |
| 1924 Oddy, Alice Freda                        | 1913 *Scouller, Walter Daly       |
| 1924 *Olpin, Henry Charles                    | 1910 Sen, Rajendra Nath           |
| 1910 Omar, Abdel Mageed                       | 1924 Senior, Lewis                |
| 1908 *Outram, Nora Aline Jane                 | 1922 Seshachalam,                 |
|   | Katragadda                        |
| 1910 Paniker, Manakath                        | 1921 *Sewell, William Gawan       |
| Allampatath Ramunni                           | 1911 <i>Seymour-Jones, Arnold</i> |
| 1921 *Palmer, Wilfrid Ernest                  | 1922 Seymour-Jones, Frank         |
| 1923 Parkin, Thomas Reginald                  | Leslie                            |
| Victor  | 1922 *Shaw, Cecil                 |
| 1905 *Parr, George Dudley                     | 1922 Sheard, James Herbert        |
| Aspinall                                      | 1914 *Shulman, Isaac              |
| 1911 Parsons, Ernest                          | 1908 Shuttleworth, Newton         |
| 1922 *Patterson, William                      | 1915 Siderfin, Norman Edward      |
| Stewart                                       | 1908 Sinson, Israel Lewis         |
| 1914 Pearson, William                         | 1905 *Skirrow, Frederick          |
| 1914 Perry, Robert                            | William                           |
| 1920 *Petch, Frank                            | 1906 *Slater, John Henry          |
| 1924 *Pickles, Thomas Heaton                  | 1924 Sleight, William             |
| 1920 *Place, William Illing-<br>worth         | 1907 Smailes, Alan                |
| 1924 Platt, Benjamin Stanley                  | 1923 Smith, Ernest Walter         |
| 1924 Potter, Louisa                           | 1915 Smith, Jane Elizabeth        |
| 1911 <i>Powis, Frank</i>                      | 1923 Sowrey, Jack Chadwick        |
| 1905 *Procter, Henry Richard-<br>son          | 1921 Spencer, George Douglas      |
| 1923 Pyrah, Leslie Norman                     | 1910 Steinthal, Paul Telford      |
|   | 1913 *Stephenson, Cyril           |
| 1923 Radcliffe, Frances Mary                  | Richard William                   |
| 1923 Raistrick, Arthur                        | 1922 Stevenson, Francis           |
| 1916 Ram, Khub                                | Malcolm                           |
|   | 1922 *Stockdale, Leonard Moore    |
|   | 1914 Stocks, Herbert Holroyd      |

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|--|--------------------------------------|
| 1924 Storey, Ralph Charles                         | 1922 Watson, Clara Evelyn            |
| 1920 Storr, Bertram Vincent                        | 1923 Watson, John Christopher        |
| 1922 *Stross, Barnet                               | 1924 Watson, Sidney Grange           |
| 1914 Sugden, Reginald                              | 1924 Wayne, Edward Johnson           |
| 1923 *Sunley, George Raine                         | 1909 <i>Webster, Herbert William</i> |
| 1923 Sutton, Lilian Mary                           | 1910 Westerman, Mabel                |
| 1924 Swarbrick, Thomas                             | 1921 Whattam, Thomas William         |
| 1924 Swift, Frank Lawrence                         | 1918 Whitaker, Elsie Dinah           |
| 1908 Sykes, Albert Howarth                         | 1919 Whitaker, Henry                 |
| 1923 Sykes, Leonard Sheard                         | 1909 Whitaker, Herbert               |
| 1923 Tatner, Gilbert Henry                         | 1923 White, Reginald Lever           |
| 1924 Taylor, Anna                                  | 1911 *White, Robert George           |
| 1912 Taylor, Arthur                                | 1922 Whitehead, Hugh Robinson        |
| 1914 *Taylor, Ernest                               | 1924 Whitehead, Rowland Bertie       |
| 1924 Tempest, Hannah                               | 1905 *Whiteley, Charles Edward       |
| 1912 Thompson, Frederick Charles                   | 1923 *Whitfield, Elsie               |
| 1915 Thompson, Harold Winsor                       | 1921 Whitham, Harry                  |
| 1905 *Thompson, John Thomas                        | 1924 Whittle, Cyril James            |
| 1911 *Thornton, Harold Priestley                   | 1920 Williams, Arthur Trevor         |
| 1907 *Thorp, George                                | 1924 Wimpenny, Ronald Stenning       |
| 1922 Thorpe, George Sykes                          | 1924 Wilson, Arthur Ernest           |
| 1914 Tillott, Harry                                | 1915 *Wilson, Ernest Percival        |
| 1921 Tonks, Laurance Henry                         | 1912 Wilson, John Harry              |
| 1907 Townsend, Robert                              | 1917 Wilson, John Joseph             |
| 1907 Turner, Florence Mary Beatrice (Mrs. Thomson) | 1917 Wilson, Maurice Lowell          |
| 1924 *Tyrrell, Doris Mary                          | 1920 *Woffenden, Lettice May         |
| 1922 *Tyson, Gilbert John Gilbertbanks             | 1915 *Wolfe, Harold Maurice          |
| 1919 *Umanski, Arthur Joseph Victor                | 1911 Wood, George                    |
| 1906 *Unwin, Ernest Ewart                          | 1924 Wood, James Frederick Louis     |
| 1911 Varley, Gilbert                               | 1909 Woodhead, Arthur Edmund         |
| 1915 Versey, Henry Cherry                          | 1922 *Woodman, Rowland Marcus        |
| 1923 Wadsworth, Alan Eric                          | 1919 Woodmansey, Arnold              |
| 1911 Walker, Emily Farrington                      | 1914 Woodroffe, David                |
| 1905 Walker, Henry Secker                          | 1924 Woolfenden, Ean Alan Whitehead  |
| 1924 Walker, Jack                                  | 1918 Worsnop, Edith                  |
| 1920 *Ward, Florence Eleanor                       | 1923 Wray, Arthur Alexander          |
| 1921 *Ward, Harry                                  | 1905 <i>Wright, Charles James</i>    |
| 1910 Ward, Herbert Wainwright                      |                                      |

*Bachelor of Science*

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|-------------------------------|----------------------------|
| 1915 *Acklam, William Richard | 1912 <i>Ackroyd, Louis</i> |
| 1905 *Ackroyd, John Prest     | 1922 Ackroyd, Tom Hollings |

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|---------------------------------|-------------------------------|
| 1909 *Addison, Herbert          | 1905 *Barlow, Percival Smith  |
| 1911 Airey, Cecil Philip        | 1922 Barnes, Arthur           |
| 1924 Aldcroft, Arthur George    | 1924 Barraclough, Edward      |
| James                           | 1924 Barratt, Arthur          |
| 1911 *Aldersley, Arthur Howard  | 1913 Barrett, John Douglas    |
| 1923 Allen, Frederick           | 1924 Barron, Andrew Irvin     |
| 1905 *Allen, Lilian             | 1922 Barrow, William          |
| (Mrs. Moore)                    | 1920 Barry, Leonard Allan     |
| 1915 *Allen, Spencer            | 1916 Bartholomew, Gertrude    |
| 1923 Allright, Elizabeth Doris  | 1905 *Barton, Edith Beatrice  |
| 1920 Allsopp, Mildred           | 1922 Baryaktarovitch, Miodrag |
| 1924 Anderson, Frank            | 1924 Batley, John Herbert     |
| 1924 *Anderson, Oswald          | 1924 Batters, Ronald Joseph   |
| 1924 Andrade, Ruth Daisy        | 1921 Battye, Marjorie         |
| 1920 Anfield, Annie Elizabeth   | 1910 Bayley, John Henry       |
| 1924 *Angus, Leslie Herbert     | Stewart                       |
| 1906 *Anson, Emily              | 1909 Beckwith, Kathleen Mary  |
| 1909 Appleyard, Ada Evelyn      | (Mrs. Norman)                 |
| (Mrs. Hammond)                  | 1923 Bedford, Winifred        |
| 1905 *Appleyard, John Henry     | 1924 Begley, Laurence Jordan  |
| Ross                            | 1910 Bell, Alfred Glaize      |
| 1924 Aref, Youssef Hafez el     | 1907 Bell, Herbert Nutter     |
| 1905 Armes, Henry Percy         | 1923 Belt, Ernest Matthews    |
| 1906 *Armes, Jane Prue          | 1909 Bendrey, Hilda           |
| 1921 *Armitage, Bernard         | 1912 Bennett, Percy           |
| 1908 Armitage, Harry            | 1917 Benson, Marjorie         |
| 1912 *Armstrong, William Leslie | Washington                    |
| 1909 *Arnold, Joseph Sykes      | 1923 Berenblum, Isaac         |
| 1921 Ashbey, James Sydney       | 1922 Berry, Duncan Campbell   |
| 1923 Atkin, Ethel               | 1923 *Berry, Margaret         |
| 1913 Atkinson, Elsie May        | 1923 *Best, Sidney Edward     |
| 1914 Auty, Clifford Marshall    | James                         |
| 1923 Backwell, Maurice          | 1912 Best, Thomas Edward      |
| 1907 Baddiley, James            | 1919 *Bickerdike, Doris Mary  |
| 1908 Bailey, Annie Rosa         | 1923 Biddle, Vyvian           |
| 1924 *Bailey, Lulu Mary         | 1922 Birch, William           |
| 1921 Bailey, Norman             | 1907 Birkenhead, Florence     |
| 1910 Bainbridge, James Scott    | Ethel                         |
| 1920 *Baker, Beatrice Ida       | 1911 Blackburn, Clarice       |
| 1924 *Banham, Irene Petrie      | Lawton                        |
| 1922 Banks, Reginald Scaife     | 1916 *Blair, James            |
| 1909 *Bannister, Albert         | 1920 Blakeley, Rose           |
| 1924 Bannister, Cyril Bradley   | 1917 Blankley, Hannah         |
| 1924 *Barker, Austin            | 1921 *Blease, Rupert Gordon   |
| Stansfield                      | 1924 *Blench, Mary Elizabeth  |
| 1908 Barker, Christopher        | 1924 Blenkinson, Marion       |
| James                           | Emma                          |
| 1921 *Barker, Eric Victor       | 1921 *Bonar, David Doughty    |
| 1924 *Barker, John Henry        | Mill                          |
| James                           | 1922 Bonner, John             |
|                                 | 1905 Booth, Meyrick           |

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|------|--|------|--|
| 1922 | Boothroyd, Fred                          | 1914 | Cass, Edith Annie                                |
| 1907 | Bowes, George Robert                     | 1922 | Cass-Smith, Walter<br>Pentland                   |
| 1905 | *Boyd, Simeon                            | 1922 | Caygill, Leonard Edward                          |
| 1910 | *Boyle, Henry Kirk                       | 1922 | Chambers, Herbert Clive                          |
| 1918 | *Bradley, Agnes                          | 1920 | Chamley, Edith                                   |
| 1922 | Braithwaite, Robert<br>Greenwood         | 1923 | *Cheetham, Robert Lionel                         |
| 1924 | Bramley, Harold                          | 1923 | *Chopping, Gertrude                              |
| 1911 | Brekke, Lorentz Oliver                   | 1906 | Claridge, Margaret Elsie<br>(Mrs. W. D. Stedman) |
| 1924 | Brett, George Fairburn                   | 1922 | Clarke, Arthur                                   |
| 1912 | Briggs, Margery Haining                  | 1914 | Clayton, Charles Flesher                         |
| 1923 | Briggs, Marjorie Powell                  | 1905 | *Cobb, John William                              |
| 1905 | *Briggs, William, M.A.,<br>LL.D. (Camb.) | 1912 | Cobbold, Hazen Nevill<br>Herbert                 |
| 1905 | *Broadhead, James Arthur                 | 1910 | Cockburn, Edward Colin                           |
| 1906 | *Broadley, William                       | 1924 | Cockburn, William<br>Hillman                     |
| 1922 | Brogden, Ian                             | 1924 | Cockroft, Dora Mildred                           |
| 1916 | Bromley, Elsie                           | 1910 | Colbert, Thomas Henry                            |
| 1907 | Brook, Annie (Mrs. A.<br>Temple)         | 1911 | Coldbeck, Malcolm<br>Stanley                     |
| 1905 | *Brook, Harry                            | 1909 | Coope, Hilda (Mrs. Rose)                         |
| 1914 | Brooke, Harold William                   | 1923 | Cooper, Frank Marshall                           |
| 1912 | Brooksbank, Ethel                        | 1906 | Cooper, John George                              |
| 1917 | Brown, Flora Marion<br>Violet            | 1924 | Corden, Geoffrey<br>Armitage                     |
| 1922 | Brown, Hubert Scatcherd                  | 1924 | Coulson, Clarice Mary                            |
| 1914 | Browne, Walter Lord                      | 1919 | Coulson, Ivy                                     |
| 1919 | Browning, Dorothy May                    | 1912 | *Coultras, Harold Wilber-<br>force               |
| 1905 | Bruce, Mary Walbrand<br>(Mrs. McCrae)    | 1911 | Courtice, George Robert<br>Aulton                |
| 1912 | Bull, Walter                             | 1918 | *Cox, Dorothy Emma                               |
| 1905 | *Bulman, John Arthur                     | 1905 | *Coxon, Lawrence Adams                           |
| 1905 | *Burgess, William Ernest                 | 1923 | Crabtree, Charles                                |
| 1908 | Burras, Catherine                        | 1924 | Craggs, Charles<br>Marshall                      |
| 1922 | Busby, Walter                            | 1905 | Craig, David                                     |
| 1920 | *Butler, Percy                           | 1924 | Cranswick, Hubert                                |
| 1915 | Butterworth, Sarah<br>Elizabeth          | 1905 | *Crawshaw, Annie                                 |
| 1923 | Calderbank, Mona<br>Constance            | 1914 | Crawshaw, Dorothy                                |
| 1910 | Callender, George Dougal                 | 1909 | *Crawshaw, Nellie                                |
| 1920 | Calvert, Lily                            | 1922 | Crowdson, William<br>Francis                     |
| 1907 | Cameron, James Neild                     | 1924 | Crosby, Alec                                     |
| 1906 | Carlton, George<br>Westerdale            | 1909 | Crosby, Berkley Cecil                            |
| 1923 | Carr, George Hubert                      | 1905 | *Crosfill, John                                  |
| 1923 | Carrington, Leonard                      | 1915 | Crosland, Frank                                  |
| 1924 | *Carter, Charles                         | 1906 | Crosland, Percy Field                            |
| 1909 | Carter, Frederick Edward                 |      |  |
| 1924 | Cartwright, Joe Heeley                   |      |  |



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|------|------------------------------|------|----------------------------------|
| 1907 | Cross, William Ernest        | 1923 | Edmondson, Margaret Jane         |
| 1922 | Crossland, John              | 1906 | Elliott, Bertram Warren          |
| 1922 | Croudace, Henry              | 1905 | *Ellis, James John               |
| 1924 | *Crow, Harold Frederick      | 1906 | *Ellis, John Newman              |
| 1912 | Crowther, Fred               | 1922 | Ellison, Charles Ottley          |
| 1906 | *Crowther, Herbert           | 1924 | Ellison, Thomas                  |
| 1908 | Crowther, Philip Townsend    | 1922 | Ely, Albert Edwin                |
| 1907 | Crowther, William Edmund     | 1923 | Emmott, Sarah                    |
| 1924 | Croysdale, James             | 1918 | *Emsley, Lena                    |
| 1923 | Cruikshanks, Amy             | 1921 | Evans, Elizabeth                 |
| 1905 | *Cunningham, Jean Orme       | 1905 | *Everett, James Herbert          |
| 1922 | Curtis, Francis Roy          | 1911 | Farnish, John                    |
| 1911 | Curtis, Horace               | 1923 | Farrar, Annis                    |
| 1921 | Dallmeyer, John Roger        | 1916 | *Fathy, Mohamed Amin             |
| 1916 | Dalton, Jennie               | 1922 | Fawcett, Alan Ross               |
| 1922 | Dally, Ronald                | 1922 | Fawcett, Edwin                   |
| 1923 | *David, Ronald Paul          | 1905 | *Fearnley, Lewis William Knapton |
| 1907 | Davies, Hamilton             | 1910 | Feather, Myra                    |
| 1908 | Davies, Henry                | 1924 | Felton, Henry                    |
| 1905 | Davies, Ivor Parry           | 1906 | Field, Margaret                  |
| 1910 | Davison, Irene Edith         | 1910 | Fielden, Harold                  |
| 1911 | Davison, Florence Mary       | 1905 | *Finn, Cornelius Philip          |
| 1920 | Daws, Frank                  | 1921 | Finn, Kathleen Constance         |
| 1910 | Dawson, John Barkas          | 1924 | *Firth, William Ward             |
| 1920 | *Day, Muriel Mercy           | 1920 | *Fleet, Doris Gertrude           |
| 1924 | Dean, Norman Cecil           | 1907 | Fletcher, Alfred Edgar           |
| 1920 | *Denham, Basil Marmaduke     | 1921 | Flockton, Edith Gertrude         |
| 1905 | *Dickinson, Cyril            | 1924 | Ford, Sarah                      |
| 1923 | Dixon, Frederick             | 1924 | *Forster, Alexander              |
| 1909 | Dixon, James Harvey          | 1924 | Forster, Walter Leslie           |
| 1922 | Dobson, Harold Wainwright    | 1905 | *Forsyth, Christina Brand        |
| 1921 | *Dolbey, Norman Louis        | 1924 | Foster, Frank                    |
| 1924 | *Drake, Reginald Mordin      | 1908 | Fottrell, Edward Joseph          |
| 1906 | Draper, Alick Darby          | 1921 | Fowler, John                     |
| 1924 | Druce, Edward Stanley        | 1924 | Fox, Dorothy                     |
| 1910 | Duchesne, Henry              | 1924 | *Fox, Ernest Wray                |
| 1906 | Dudley, Nora                 | 1924 | *Fraser, Ian Hurst Symon         |
| 1910 | Dugdale, Norris              | 1923 | Freeman, Eric Jesse              |
| 1922 | Dyson, Grenvil               | 1924 | Freer, Dorothy May               |
| 1918 | Earle, Frances Marjorie      | 1920 | *Galloway, Jenny                 |
| 1910 | Earle, Frank Maynard         | 1923 | *Gardner, Geoffrey Harold        |
| 1915 | *Earnshaw, Norman Stephenson | 1908 | *Gaunt, Louis Henry Armistead    |
| 1918 | *Eastwood, Elsie             | 1924 | *Gibbs, Francis Alec             |
| 1908 | Ebbage, Edith Mabel          | 1924 | Gibson, William Stanley          |
|      |                              | 1924 | Gledhill, Henry                  |



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|--|--------------------------------------|
| 1923 *Glover, Thomas Bernard                     | 1905 Harding, Oswald Jackson         |
| 1905 Goddard, Clara Annie                        | 1923 Harding, Thomas Roland          |
| 1908 Goddard, Edith Eleanor                      | 1910 Hardisty, Victoria              |
| 1908 Goddard, Ethel Mary                         | Lavinia                              |
| 1912 Goldstone, Cecilia (Mrs.<br>C. R. W. Offen) | 1924 *Hardwick, Alan                 |
| 1923 *Goldthorp, Alfred                          | 1922 *Hardy, Florence Mabel          |
| Reginald   | 1905 *Hardy, Joseph                  |
| 1924 Goodchild, Undine Ethel                     | 1922 Hare, Sydney                    |
| 1924 Gooder, Walter Raymond                      | 1907 *Hargreaves, Edith              |
| 1924 Goodings, Alfred Cecil                      | (Mrs. Thorp)                         |
| 1908 Goodson, Arthur Godfrey                     | 1915 <i>Hargreaves, James Harold</i> |
| 1905 *Gomersall, Ernest                          | 1924 *Hargreaves, John               |
| Edward   | Richard                              |
| 1916 *Gordon, Isaac                              | 1921 Harris, Edward Geoffrey         |
| 1924 Gordon, Mitchell                            | 1923 Harris, Robert William          |
| 1910 Gould, Percy                                | 1923 *Harrison, Elsie Minnie         |
| 1910 Graham, Hugh Colborne                       | Coates                               |
| 1922 Grant, Allan                                | 1923 Hartfall, Stanley Jack          |
| 1905 *Grant, Frederick Ernest                    | 1922 Hartley, James Henry            |
| 1924 Grassham, William Leslie                    | 1905 *Hartley, Percival,             |
| 1919 *Green, Clara                               | D.Sc. <i>London</i>                  |
| 1912 *Green, Thomas Edwyn                        | 1922 Hassan, Khwaja Habib            |
| 1905 *Greenwood, Arthur                          | 1908 Haworth, Richard                |
| 1924 Greenwood, Dora                             | 1914 Hayes, Harry                    |
| 1922 Greenwood, Norris                           | 1924 Haynes, Marjorie                |
| 1921 *Greenwood, Sybil                           | 1921 *Hazeldon, John                 |
| 1907 Gregg, Herbert Atkinson                     | Nicholson                            |
| 1905 Gregory, Frederick                          | 1913 Hebron, Arthur                  |
| Maurice  | 1905 *Hefford, George Winfield       |
| 1915 *Gregory, George Archibald                  | 1920 Helps, Gordon                   |
| 1911 *Gregson, Annie                             | 1922 Hemingway, Albert               |
| 1924 Grimwood, Pattie                            | 1914 Henderson, William              |
| 1909 Grocock, Helena                             | Albert                               |
| 1905 *Gunter, John Henry                         | 1923 *Hendin, Henry Thomas           |
| 1918 *Guy, Hilda                                 | Richard                              |
| (Mrs. W. G. Sewell)                              | 1924 *Hennesey, Wilfrid              |
| 1922 Hall, Arthur Leonard                        | Edmund Brailsford                    |
| 1910 Hall, William                               | 1905 <i>Heptinstall, Richard</i>     |
| 1911 Hamer, Ernest Fenton                        | 1921 *Hepworth, James                |
| 1905 *Hampshire, Florence                        | Alexander                            |
| Elizabeth  | 1916 Hepworth, William               |
| 1924 Hanby, Alice Maude                          | 1924 *Herklots, Geoffrey Alton       |
| *Hanby, Thomas                                   | Craig                                |
| 1924 Hanna, Miltiadi                             | 1912 Hewitt, Percy George            |
| 1906 Hansell, John Bentley                       | 1912 Hey, Minnie                     |
| 1924 *Hardacre, Richard                          | 1905 *Hield, Mary Elsie              |
| Walter   | 1924 Higab, Mohammed Ali             |
| 1922 Hardaker, Cyril William                     | 1905 Hilary, Daisy                   |
| 1922 Hardaker, Ernest Victor                     | 1920 Hill, Donald John               |
|  | 1915 Hill, Jessie                    |
|  | 1916 Hind, Mildred                   |

1923	Hindle, John Leslie	1922	Jagger, John
1922	Hinings, Charles Leslie	1923	James, Robert
1905	*Hirst, Henry Reginald	1921	Jarvis, Violet Helena
1923	*Hirst, Herbert Frederick	1923	*Jay, Alfred
1905	*Hobart, John William	1922	Jefferson, Harold Fearnside
1905	*Hobley, Robert Arthur	1923	Jennings, James Sowden
1921	*Hodgson, David Maxwell	1910	Johnson, Charles Lester
1922	Hodgson, George	1924	Johnson, Ernest Norman
1906	Holgate, Edward	1924	Jones, Clifford Merton
1913	Holgate, James	1923	*Jones, David Webster
1922	Holgate, Mary Sarah	1921	*Jones, Doris Elissa
1913	Hollings, Dorice Mary Clotilda	1919	*Jones, Zillah Verbena
1924	*Holmes, Frank	1912	Judd, Harold Arthur
1909	Holroyd, Eleanor Mary	1921	Judson, John Albert Victor
1922	Holroyd, Percy		
1911	Hoppenstadt, Isaac	1912	Kaminski, Rebecca
1920	*Hopton, Maurice	1905	*Kay, Douglas John
1923	Hopton, William	1905	Kaye, Edward Percy
1924	Hoskins, Charles Randall	1924	*Keightley, Clifford
1914	*Hou, Yen-Ping	1921	Kendall, Geoffrey Paul
1924	*Howard, Muriel	1911	Kendall, Percy Fry (Jnr.)
1923	*Howdill, Norman	1924	Kenny, Thomas Edwin
1922	Hoy, Joseph Denzil	1923	*Kenworthy, Vernon
1924	Hoyle, Dorothy Mary	1915	Kettlewell, Ethel
1922	Hull, Marjorie	1923	Key, Roy Patterson
1905	*Hummel, Alfred Roland Ure	1923	Killick, Esther Margaret
1907	*Hummel, Ernest Lonsdale	1924	*Kirk, Frank Carlill
1905	*Hunt, Francis William	1922	Kirkbride, Harold
1923	Hunter, William	1921	*Kitchen, Ernest David
1918	*Hurst, Harold Robert	1920	Knaggs, Doris
1905	*Hurtley, William Holdsworth	1905	*Knowles, George William M.A. (Royal Univ. Ire.)
1922	Hutchinson, Charles Rowland	1922	Knowles, Philip Edwin
1905	*Hutchinson, Florrie	1921	Kubalek, Otto
1922	Hutchinson, John Yates	1921	Kuoni, Eileen Alice
1922	Hutton, Charles Mundell		
1905	Hutton, Wilfred	1907	Lacy, Arthur
		1914	Lakeman, Robert Meredew
1924	Ingall, John Heaps	1924	*Lane, Francis John
1924	*Ingham, George Henry	1905	*Langstaff, Bilton
1905	*Ingle, Herbert	1921	*Lanham, George Gilbert
1913	<i>Irish, Edward</i>	1907	Law, Marion Rosalind
1910	Ismail, Mohammed	1924	Lawson, Edward Ingleson
		1924	Lawson, Wilfrid Ernest Little
1905	*Jackson, Arthur	1916	Laycock, Edith
1922	Jackson, Douglas Price	1921	Leake, Dorothy
1914	Jackson, Herbert Guy	1924	Leben, Jacob
1911	Jackson, Percy Gladstone	1910	Lee, Elsie

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|------|--|------|--------------------------------------|
| 1921 | *Leeming, Harold Gordon                      | 1924 | Midgley, Edith Alice                 |
| 1921 | Levisohn, James Frederic                     | 1911 | *Midgley, Michael Mortimer           |
| 1911 | Lishman, Arthur Vincent                      | 1924 | Milburn John Robert                  |
| 1905 | *Livesey, Charles Edwin Leonard              | 1924 | Milne, John Victor Stewart           |
| 1922 | Llewelyn, Thomas Frederick Penderell         | 1913 | Milner, David William                |
| 1905 | *Lodge, Harry Livingston                     | 1918 | *Milnes, Thomas Wray                 |
| 1924 | *Longmaid, Arnold                            | 1920 | Moffatt, Henry Robert                |
| 1905 | Lord, William Ernest                         | 1905 | *Morris, Florence Annie              |
| 1923 | Lord, William John                           | 1905 | *Morton, Dora                        |
| 1922 | Love, Thomas                                 | 1910 | Morton, Gordon                       |
| 1905 | *Lowson, William                             | 1915 | Moses, Abram                         |
| 1907 | Loyd, Jessie                                 | 1905 | *Moss, Charles Edward                |
| 1920 | Lupton, Henry Preston                        | 1921 | Mostyn, Joseph                       |
| 1921 | Lyall, Effie                                 | 1915 | Moulden, Mary                        |
| 1914 | *McGeorge, Alexander                         | 1914 | Mountain, John William               |
| 1912 | McKee, Sarah Mary                            | 1912 | Mukerjee, Kshitish Chandra           |
| 1923 | McMillan, David                              | 1908 | Mulcahy, Julia                       |
| 1912 | McMillan, Mary McWhirter (Mrs. J. H. Wilson) | 1905 | *Murphy, Harold Newton               |
| 1907 | Maddison, Wilfred Guy                        | 1914 | Musgrave, Evelyn                     |
| 1924 | Mahon, Arthur John Rushton                   | 1919 | Musgrave, Sarah Maude Elizabeth      |
| 1911 | Makinson, Nora Isabel                        | 1906 | Myers, Mary Alice                    |
| 1913 | *Mallinson, Eric                             | 1921 | Narcross, John Watts                 |
| 1923 | Mallinson, Henry                             | 1920 | *Naylor, Frank Hyde                  |
| 1905 | *Manasseh, Antonius Joseph                   | 1923 | Neumann, Reginald                    |
| 1910 | Mann, Clarissa                               | 1920 | *Nixon, Marie Isobel                 |
| 1908 | Mann, James William                          | 1908 | Normington, May (Mrs. H. Hugh-Jones) |
| 1915 | <i>Mao, Shen Shan</i>                        | 1920 | North, Muriel                        |
| 1909 | <i>Margetts, Percy Alexander</i>             | 1911 | North, Neville Marriott              |
| 1905 | *Marriner, William Wright                    | 1921 | Novakovitch, Dooshan                 |
| 1905 | *Marsden, Ernest Vane                        | 1905 | *Novis, Rupert Stanley               |
| 1924 | *Marsden, Hermon                             | 1914 | Nuttall, Thomas Henry                |
| 1914 | Marsh, William Alfred                        | 1905 | *Oddy, Annie Maude                   |
| 1905 | *Marshall, Herbert                           | 1912 | *Ogden, Herbert                      |
| 1923 | Marshall, Philip Guy                         | 1921 | Overton, Gladys                      |
| 1924 | *Marson, Cecil Brittain                      | 1905 | Owen, Samuel Joseph                  |
| 1924 | *Martin, Lawrence Jewitt                     | 1923 | *Panter, Sydney Humphrey             |
| 1921 | *Martin, Reginald Henry                      | 1917 | Parker, Irvin                        |
| 1910 | Mason, George Samuel                         | 1923 | *Parkin, Laura                       |
| 1914 | Mathers, Ronald Cyril                        | 1913 | <i>Parkinson, Ben</i>                |
| 1909 | Mawson, John Halliwell                       | 1923 | Parratt, Harold Stanley              |
| 1924 | *Meredith, George Patrick                    | 1915 | Parsons, George                      |
| 1917 | *Meyer, Ellen Grace                          | 1921 | Pawson, Alfred Clarence              |
| 1921 | Midgley, Edward                              |      |                                      |

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|-------------------------------------|-------------------------------|
| 1923 Paxton, Arthur William         | 1905 *Rayner, Herbert Emmett  |
| 1905 *Peacock, Arthur               | 1924 *Reed, Harry Bright      |
| 1906 Pearce, Cyril Thomas           | 1912 Rhodes, Alfred Irving    |
| 1911 Pearson, William               | 1912 Richardson, Charles      |
| 1918 *Pearson, William              | Richard Sugden                |
| 1913 Peatfield, Albert Edward       | 1922 *Richardson, Esther Enid |
| 1919 Peckitt, Elsie Peckitt         | 1919 *Richardson, James       |
| 1920 *Pedley, Doris                 | Reginald                      |
| 1922 Peel, Arthur                   | 1910 Richardson, Mark         |
| 1922 Peel, Samuel Longley           | Alexander                     |
| 1920 Penn, Dorothy Edith            | 1907 Rider, Charles Matthew   |
| 1924 Pennington, Dorothy            | 1923 Ridgway, William Brooks  |
| 1913 Peniston, Annie                | 1908 Riley, Frank             |
| (Mrs. Redman King)                  | 1915 Rimmington, Miriam       |
| 1916 *Percival, Edward              | 1922 Roach, Arthur William    |
| 1924 Percival, Henry Sturdy         | 1924 Robertson, James Samuel  |
| 1912 Pickard, Miriam                | Paterson                      |
| 1905 *Phillipson, Abram             | 1909 Roberts, Augustus        |
| 1915 Pillai, Mudijil Kerula         | Alphonso                      |
| Govinda                             | 1921 Roberts, Victor Genaro   |
| 1922 Pinder, William Leatham        | 1923 Robinson, Harold         |
| 1924 Platt, Margery Isobel          | 1922 <i>Robinson James</i>    |
| 1908 Platts, Matthew George         | <i>Etchells</i>               |
| 1905 *Pocklington, Henry            | 1912 *Robinson, Milton        |
| Cabourn, B.A. ( <i>Cantab.</i>      | 1920 *Robinson, Ralph Lozulu  |
| D.Sc., <i>Lond.</i> )               | 1915 Roff, Evelyn Mary        |
| 1919 *Poole, Harold Charles         | 1924 Roscoe, Jervis           |
| 1924 *Porter, Veva                  | 1922 Rosenberg, Gerald        |
| 1921 Potter, Edith Mildred          | 1906 Ross, William Oatey      |
| 1915 Powell, Joseph Arthur          | 1921 Roth, Alfred Bernard     |
| 1924 Pratt, Marjorie                | 1915 *Rothwell, Percy         |
| 1923 *Preston, Harold               | 1920 *Rushton, Florence Mary  |
| 1910 Priestley, Edmund              | 1906 *Rydall, George Herbert  |
| 1912 <i>Priestman, Kenneth</i>      | 1924 *Ryder, Leslie           |
| <i>Mallorie</i>                     |                               |
| 1906 <i>Procter, Herbert</i>        | 1914 *Saba, el Saed Mohamed   |
| 1924 Pullan, Henry Walter           | 1922 Sanderson, Charles Eric  |
| 1913 Purdon, Arthur Oscar           | 1924 Sanderson, John William  |
|                                     | 1924 Sawney, Kathleen Mary    |
| 1914 <i>Quarumby, Frederick.</i>    | 1922 Sayce, Roger             |
| 1924 Quin, William James            | 1919 Scanlon, Caroline Teresa |
|                                     | 1923 Scarborough, Stella      |
| 1922 Rabinovich, Michel             | 1922 Schippers, Frans Arthur  |
| 1916 Raine, Alfred Holgate          | 1906 *Schmitz, Herman Emil    |
| 1907 <i>Raistrick, John William</i> | 1924 Schofield, Harold        |
| 1915 Raistrick, Margaret            | 1905 *Scholefield, Fred       |
| Walker                              | 1924 Scott, John Alexander    |
| 1919 Ralph, Harry                   | 1905 *Scruton, Harold Adams   |
| 1924 Ramsden, Douglas               | 1913 <i>Sen, Jagendranath</i> |
| MacDonald                           | 1913 *Senior, Alan            |
| 1912 *Rawling, Arthur               | 1919 Senior, Elsie            |



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|--------------------------------|--------------------------------|
| 1911 Senior, George            | 1924 Steward, Frederick        |
| 1922 Senior, George            | Campion                        |
| 1924 Senior, Stanley Alan      | 1905 *Stewart, Tom             |
| 1913 Seville, Robert Ockleston | 1911 Stillwell, Samuel Thomas  |
| 1921 *Seymour-Jones, Frank     | Cryer                          |
| Leslie                         | 1905 *Stocks, Arthur           |
| 1923 *Shadwick, Cyril          | 1919 *Stott, Clarence          |
| 1924 Sharp, Mary               | 1921 Stoyadinovitch, John      |
| 1922 Sharpe, Geoffrey Lynton   | 1921 *Strickland, James        |
| 1923 Sheard, George Arthur     | 1905 *Studley, Charles Wilcock |
| 1914 *Shepherd, Reginald       | 1921 Sucksmith, Willie         |
| Vernon                         | 1924 Sugden, John Anthony      |
| 1921 Shepherdson, Arnold       | 1924 *Summersall, Katherine    |
| 1922 Shimi, Mohammed           | Mary                           |
| Nabih                          | 1907 Sutcliffe, James          |
| 1923 Silverman, Sam            | 1921 Swaine, Annie             |
| 1924 *Silverwood, Reggie       | 1924 Swainston, Edward         |
| 1922 Simpson, James Stanley    | Frater                         |
| 1911 Simpson, Thomas Cooper    | 1923 Taylor, Alfred Stuart     |
| 1923 Sivil, Cecil Spencer      | 1922 Taylor, Eric              |
| 1905 *Skirrow, Benjamin Beck   | 1905 *Taylor, Francis          |
| 1922 Smith, Alan               | 1914 Taylor, John Robinson     |
| 1908 Smith, Bracewell          | 1922 Taylor, Reginald Charles  |
| 1924 Smith, Eric Shaw          | 1924 *Taylor, Seth             |
| 1922 Smith, Francis Walter     | 1916 *Tetley, Humphrey         |
| Hodges                         | 1920 *Thackrah, Elsie          |
| 1922 Smith, Harold             | 1915 Thistlethwaite, Hilda     |
| 1905 *Smith, Henry Archbold    | 1922 Thomas, Harold Hirst      |
| 1922 Smith, John Leslie        | 1923 Thomas, Reginald James    |
| 1915 Smith, Norman             | 1913 Thomas, Walter Morgan     |
| 1922 Smith, Norman Sampson     | 1920 Thompson, George          |
| 1924 Smith, Reginald Alonzo    | Casburne                       |
| 1922 Snaith, Dorothy           | 1905 *Thompson, George Robert  |
| 1916 Sowden, Willie            | 1905 *Thompson, Herbert        |
| 1905 *Sowerbutts, Edith Utley  | 1924 Thornburn, Philip         |
| (Mrs. N. Campbell)             | Cheveley                       |
| 1921 Spence, Samuel            | 1909 Thornton, Edwin           |
| 1923 *Spencer, William         | 1922 Thorp, Geoffrey           |
| Greenwood                      | 1905 *Thorp, Samuel            |
| 1914 Stainsby, William         | 1905 *Thorp, Walter            |
| 1905 Standing, Edwin           | 1921 Thorpe, George Sykes      |
| Mortimer                       | 1905 *Tiffany, Frank           |
| 1924 Stansfield, Clifford      | 1905 *Tiffany, Joseph Edgar    |
| Maxwell                        | 1910 Tingle, Robert Lacey      |
| 1924 Stansfield, Vera          | Aubrey                         |
| 1913 Staveley, John            | 1924 *Tiplady, George          |
| 1905 *Stead, Frank Cawthorn    | Tomlinson, John Arthur         |
| 1916 Stead, Freda Elizabeth    | 1924 Tomlinson, Samuel         |
| (Mrs. G. A. Gregory)           | 1906 Tomlinson, Thomas         |
| 1924 Stephenson, Harold        | Fowler                         |
| Edward                         |                                |



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|---|--|
| 1921 *Tomlinson, Thomas Percival              | 1913 *Wheatley, Arnold Herbert Maurice |
| 1924 Townend, Alice                           | 1910 *Wheatley, Robert                 |
| 1907 Turner, Frederick William                | 1923 Whetton, John Thomas              |
| 1924 Turner, Kathleen St. Elphin              | 1922 White, Enid Margaret              |
| 1908 Tunncliffe, Eveline Mary (Mrs. Hinckley) | 1924 White, Harry Herbert              |
| 1919 Umpleby, Dorothy                         | 1905 *White, William Henry             |
| 1924 Varley, Edith Margaret                   | 1922 Whitehead, Alfred                 |
| 1924 *Vass, Charles Cyril Norrey              | 1905 Whitehead, Pollie                 |
| 1912 Vaughan, John David                      | 1911 Whiteley, Ada (Mrs. E. O. Jones)  |
| 1908 Vernon, Edgar                            | 1924 Whiteman, John Francis            |
| 1908 Vince, Eva Mary                          | 1905 *Whittaker, Croyden Meredith      |
| 1922 Virgo, Leslie Frank                      | 1923 Whittle, Frederick                |
| 1923 *Waddington, Guy                         | 1924 Whyman, William Edward            |
| 1905 *Wagstaffe, George William               | 1923 *Wigglesworth, Maurice Handel     |
| 1924 *Wainwright, Clifford                    | 1909 *Wilby, Arthur Edwin              |
| 1905 *Waite, Joseph Harold                    | 1907 Wilkinson, Eltoft Wray            |
| 1922 Wake, Walter Arthur                      | 1920 Wilkinson, Mary                   |
| 1905 *Walbank, Wilfrid Stephen                | 1922 Wilkinson, Reginald Arthur        |
| 1913 *Walker, Albert George                   | 1914 Williams, Thomas Rhondda          |
| 1922 Walker, Edna                             | 1922 Willis, Robert Scott              |
| 1912 *Walker, Evelyn                          | 1924 Wilson, Arnold Vernon             |
| 1910 *Walker, James                           | 1922 Wilson, Charles Alfred            |
| 1905 *Walker, Joshua                          | 1905 <i>Wilson, Frances Annie</i>      |
| 1908 Walker, Leonard                          | 1924 Wilson, Ian Stewart               |
| 1923 *Walsh, George                           | 1920 Wilson, Nora Frances Mary         |
| 1922 Ward, Clifford Ardiss                    | 1923 Wilson, Norman                    |
| 1906 Ward, Margaret Naomi (Mrs. Lasker)       | 1913 Wilson, Otto Bob                  |
| 1906 *Warin, Phillipson                       | 1905 <i>Wise, Julius Stanton</i>       |
| 1905 *Warmington, Edith                       | 1921 Wisely, Annie                     |
| 1908 Watson, James Arthur                     | 1923 Wood, Doris                       |
| 1908 Watts, Frank Maxfield                    | 1912 Wood, George                      |
| 1924 *Webster, Alec                           | 1920 Wood, George Oliver               |
| 1922 Wedgwood, Philip                         | 1910 *Wood, Louis Albert               |
| 1924 *Welburn, Thomas                         | 1905 *Wood, Margaret (Mrs. Priestman)  |
| 1923 Wells, Doris Mary                        | 1918 *Wood, Sarah Jane                 |
| 1908 West, William Ernest                     | 1923 Woodall, Herbert                  |
| 1905 *Whaley, James                           | 1910 Woodhead, Gertrude Ramsden        |
| 1914 Whalley, Fred                            | 1910 Woodward, Arthur                  |
| 1910 Whalley, Lewis                           | 1919 *Woodward, Ida                    |
| 1912 Wharram, Charles Etherington             | 1923 *Wormald, Louis Percival          |
|   | 1921 Wormall, Arthur                   |

1912	*Wray, John Lamport	1910	Wrigley, Florence Mary (Mrs. Higgins)
1911	Wright, Charles	1923	*Yates, Donald Priestley
1913	Wright, Ernest Francis	1908	Zelensky, Lily Aurelia
1913	Wright, Fred	1905	*Zortman, Israel Hyam
1923	Wright, Stewart Lord		

## Faculty of Medicine

*Doctor of Medicine*

1906	*Anderson, William Jenkins Webb	1922	Hustler, George Herbert
1915	Brown, Thomas	1923	Jowett, Ronald Edward
1923	Caplan, Harry	1920	*Lodge, William Oliver
1921	Carter, Hartley Sidney	1914	Macvie, George Ernest
1915	Crawford, James Stirling	1922	Nicol, George Colin Henderson
1919	Fernandez, Zacharias Peter	1905	*Parkinson, Arthur Stanley
1918	Fisher, John Barugh	1918	Reed, Ernest William
1918	Flint, Horace Lance	1920	Robinson, William
1918	*Glover, Emily Eliza Violet	1920	*Rowling, Samuel Thompson
1910	Gloyne, Stephen Roodhouse	1919	*Samuel, Samuel
1921	Gordon, Louis	1923	*Sheard, Arthur
1917	*Greenwood, William Osborne	1905	Stoney, William Walter, M.D. (Vict.)
1918	Holt, Henry	1903	*Turton, Edward
		1910	Vallow, Harold

*Master of Surgery*

1910	Gough, Alfred
1924	Chamberlain, Digby

*Bachelor of Medicine and Bachelor of Surgery*

1924	Ábell, William Clifford	1918	Baxter, Gerald Richard
1911	Acomb, John	1923	Baxter, Marjorie
1917	Adler, Saul	1923	Bean, William Harold
1914	Anderton, William Dinsdale	1922	Bebb, Frances Martha
1912	Angel, Harry	1924	Bedford, Thomas Henry Booth
1921	*Armitage, George	1922	*Bernstein, Jack
1923	*Atkinson, John	1918	*Bertwistle, Alfred Pilkington
1905	Bailey, Fred	1915	Bhalla, Harman Singh
1918	Bamford, Jane	1907	Bibby, James Paley
1922	Baron, Edward	1905	*Birtwhistle, Frederick Percy Hewetson
1911	Bastable, Arthur Langford	1912	*Blackburn, John Holliday

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|----------------------------------|---------------------------------|
| 1921 Blackburn, John Taylor      | 1919 Drury, Edward Wilson       |
| 1921 Bolton, Effie Greig         | 1921 Duck, Henry                |
| 1920 *Botwood, Charles           | 1916 Dudley, Charles William    |
| Anselm                           | 1912 Dunbar, Leslie             |
| 1905 *Boyle, Alan                | 1920 Dyson, Reginald John       |
| 1923 Braham, David               |                                 |
| 1905 *Braithwaite, Leonard       | 1905 *Eames, Charles William    |
| Ralph                            | 1924 Edelstein, Harry           |
| 1905 *Brierley, Wilfred Edward   | 1923 *Edgecombe, Dorothy        |
| 1905 *Broadley, John             | Minna                           |
| 1922 Brostoff, Harry             | 1914 Elliott, Thomas            |
| 1911 Brown, Charles Suffield     | 1921 Elmer, Thomas Horner       |
| 1905 *Brown, Henry               | 1922 Erdheim, Solomon           |
| 1910 Brown, John Perrin          |                                 |
| 1924 Bruce, Herbert              | 1923 *Fallows, Harold           |
| 1913 Butler, Leonard Henry       | 1905 Fearnley, Harold           |
|                                  | 1912 Ferguson, John             |
| 1924 *Cannon, Alexander          | 1921 Fleming, Geoffrey          |
| 1924 *Cardis, Joseph             | Dewhurst                        |
| 1907 *Carter, Godfrey            | 1906 Flint, Ethelbert Rest      |
| 1917 Charles, Henry Ernest       | 1920 Forsyth, John Andrew       |
| 1923 Chester, Richard            | Cairn                           |
| 1915 <i>Clarke, Digby Arthur</i> | 1923 Foster, Frederick          |
| <i>Pebody</i>                    | Newton                          |
| 1924 Claye, Aileen Needham       | 1922 Fowler, Henry Percival     |
| 1924 *Claye, Andrew Moynihan     | 1914 Foxton, Hartas             |
| 1924 Clegg, Frederick            | 1916 Franklin, Hyman            |
| 1923 Cohen, Myer                 | 1923 Freeman, Jack              |
| 1914 Cohen, Sam Nathaniel        | 1908 Frobisher, James Hebble-   |
| 1923 Collins, Leon               | thwaite Martin                  |
| 1923 Compton, Henry              |                                 |
| Emmanuel                         | 1917 Gabriel, William Lawson    |
| 1922 Cowan, Isadore Henry        | Mabson                          |
| 1918 Crawford, Margaret          | 1924 Gaunt, Maria Lambert       |
| (Mrs. Pulhan)                    | 1922 Ghosh, Edith               |
| 1919 Crockatt, Howard            | 1914 Gillies, John Cruickshanks |
| Ludbrook                         | 1920 Gleave, Humphrey Hart      |
| 1923 *Crockatt, Ralph Edward     | 1922 Goodman, Abraham           |
| 1905 *Cundall, Edward            | 1921 Goodson, Bessie            |
| 1921 Currie, Donald Irvine       | 1924 Gordon, George Douglas     |
|                                  | 1918 *Gordon, John              |
| 1906 Daly, Ramsay Lamy           | 1922 Gordon, Morris             |
| 1905 *Darlow, Francis            | 1914 Gosney, Charles Marsh      |
| 1921 Davey, John Milton          | 1915 Goss, Francis Hennessey    |
| 1922 Davy, Thomas Smith          | 1924 Graham, Muriel Dorothea    |
| 1905 *Deane, Arthur Maslen       | 1918 *Graham, Reginald          |
| 1922 Denton, George              | 1905 Greaves, Frederick         |
| 1917 Dibb, William Land          | William Marshall                |
| 1915 Dixon, Robert Garside       | 1905 *Greenwood, Charles        |
| 1906 Dobson, Francis George      | Henry                           |
| 1919 Doherty, Winifred Irene     | 1905 *Greenwood, Henry          |
| 1918 Draper, Marion              | Harold                          |

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|------|---|------|-------------------------------------|
| 1906 | Hackworth, Vivian Cuthbert                | 1913 | Kitson, Frederick Hubert            |
| 1907 | Hardy, Digby Wrangham                     | 1922 | Kitson, Margarita                   |
| 1922 | Hare, Christine Mary Bathurst (Mrs. Case) | 1916 | Knowles, Cyril Reginald             |
| 1921 | Harrop, Alfred Leslie Clare               | 1914 | Knowles, Henry Rylands              |
| 1910 | Hart, Walter Sidney                       | 1921 | Knowles, Marion                     |
| 1905 | *Hayes, Frederick William                 | 1905 | *Ladell, Robert George Macdonald    |
| 1914 | Hebblethwaite, Arthur Stuart              | 1922 | Langley, Doris May                  |
| 1922 | *Hellier, Mary                            | 1922 | Lapidus, Hyman Emanuel              |
| 1909 | Hepworth, Sydney Milverton                | 1914 | La Touche, John James Digges        |
| 1910 | Hessel, William Thomas                    | 1921 | Lawson, William Arthur Donald       |
| 1914 | Hesterlow, Edward                         | 1915 | Leake, Charles Edward               |
| 1921 | Hickman, Ella Martin                      | 1921 | Leake, William Harold               |
| 1921 | Hipshon, Isaac                            | 1921 | Lee, Reginald Walter                |
| 1921 | Hodgson, Ralph                            | 1905 | *Legge, James Huntly                |
| 1921 | Holdsworth, Eric Edward                   | 1917 | Lever, John Morrison                |
| 1920 | Hollings, George William                  | 1922 | Levy, Simon                         |
| 1923 | Holmes, Edwin                             | 1923 | Linfoot, Ernest                     |
| 1917 | Holt, Harry Mainwaring                    | 1905 | Lister, Thomas Edmund               |
| 1905 | *Hopton, Ralph, M.D. Lond.                | 1911 | Little, Cuthbert Joseph Harwood     |
| 1917 | Horsfall, Herbert Victor                  | 1915 | <i>Lockwood, Herbert Sinclair</i>   |
| 1906 | Hummel, John James, M.Sc.                 | 1923 | Lodge, Raymond Hutton               |
| 1917 | Hurst, George Frederick                   | 1914 | Lonen, William Hubert               |
| 1924 | Hutchinson, Miles                         | 1906 | McKane, William Oti-phant           |
| 1916 | Hutchinson, Miriam (Mrs. Langley)         | 1905 | *Mackenzie, Alexander, M.A. (Camb.) |
| 1910 | Ingham, Harold Norman                     | 1921 | McNeice, Elsie Elizabeth            |
| 1916 | Ingham, William Leslie                    | 1905 | *Macvean, Herbert James             |
| 1923 | Jackson, Marjorie Morison                 | 1905 | *Maffin, Harry                      |
| 1905 | *Kellett, Alfred Featherstone             | 1905 | *Manknell, Arthur                   |
| 1906 | Kendall, Frank Edward                     | 1923 | Marinkovitch, Radoye                |
| 1911 | Keswick, John Barton Thompson             | 1923 | Masser, Alfred Abram                |
| 1914 | King, Frank                               | 1920 | Massey, Arthur                      |
| 1922 | King, Violet Maud Redman                  | 1905 | *Matthews, Crawford Tait            |
| 1913 | King, William Douglas Anderson            | 1912 | Mellis, George Pickard              |
| 1912 | Kirk, George William Lister               | 1913 | Menon, Kesava                       |
| 1921 | Kirk, Reginald Neville                    | 1920 | Merrington, Harold Douglas          |
|      |   | 1912 | <i>Metcalfe, John Clifford</i>      |
|      |   | 1908 | Mitchell, Guy Annesley Carter       |
|      |   | 1912 | Mitton, Norman Vernon               |
|      |   | 1905 | *Moorhouse, Charles Herbert         |



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|-------------------------------|------------------------------------|
| 1905 *Morton, Armitage        | 1913 Shackleton, Herbert Park      |
| 1920 Muschamp, Alexander      | 1910 Sharp, Claudius Galen         |
| James Ives                    | Kay                                |
| 1910 Musson, John Percy       | 1909 Shaw, William                 |
|                               | 1923 Sheard, Hubert                |
| 1911 Nunneley, Francis        | 1922 Sheard, Jessie                |
| William                       | 1920 Sheinbloom, Harry             |
|                               | 1920 Sherwin, Morris               |
| 1922 Oberman, Percy Michael   | 1917 Shillito, Paul                |
| 1922 Oddie, John Ripley       | 1914 Shockett, Harry Charles       |
| 1923 Outhwaite, James Edgar   | 1917 Silverton, Isaac              |
|                               | 1924 Simpson, John Edward          |
| 1917 Parker, Joseph Henry     | Alan                               |
| 1922 Peacock, Kathleen Mary   | 1913 Sinson, Harry Abram           |
| 1921 Petch, Horace Craven     | 1911 Sinson, Julius Barnett        |
| 1912 <i>Peto, Morton</i>      | 1910 Slocombe, Bernard             |
| 1923 *Petty, Hugh Mortimer    | Atkinson                           |
| 1920 Phelon, Harry Vernon     | 1905 *Smailes, William Herbert     |
| 1921 Phillips, Osra Muriel    | 1917 Smith, Charles Holden         |
| 1917 Pick, Norris             | 1905 Smith, Charles Nixon          |
| 1924 *Pickard, John Wilfrid   | 1919 Smith, Frederick Hugh         |
| 1912 Pickles, John Jagger     | 1916 Smith, Jessie                 |
| 1921 Platt, Phyllis Mary      | 1909 Smith, Reginald Eccles        |
| 1924 Potter, Kathleen Mary    | 1921 Smithies, Cyril Moulson       |
| 1923 Prince, Gwendoline       | 1921 Sourasky, Ahron               |
| Florence                      | 1922 Sourasky, Maurice             |
| 1924 Pyrah, Leslie Norman     | 1905 <i>Spink, Ernest William,</i> |
|                               | <i>M.D. (Lond.)</i>                |
| 1906 Radcliffe, Roland Brooke | 1905 *Stansfield, Harry            |
| 1910 *Raper, Henry Stanley    | 1920 Stewart, Alan Benjamin        |
| 1905 *Reed, John Arthur       | 1910 Stockdale, George             |
| 1911 Riley, Arthur            | Vincent                            |
| 1919 Roberts, Augustus        | 1905 *Stott, William Atkinson      |
| Alphonso                      | 1922 Sugare, Harry                 |
| 1921 Robertson, Douglas       | 1905 *Suggit, Bertram              |
| 1914 Robinson, Henry          | 1924 *Sunley, George Raine         |
| Whitteron                     | 1923 Sutherland, Donald            |
| 1915 Rose, Jack               | Moody                              |
| 1923 Rosenbloom, Philip       | 1912 *Symons, Hubert Wallace       |
| 1924 Ross, Harry              |                                    |
| 1917 Rowden, William Henry    | 1923 Taylor, Arthur Leslie         |
| 1924 *Rymer, Norman Agar      | 1924 Taylor, Harry                 |
|                               | 1913 Taylor, Herman Louis          |
| 1920 Sacks, Reuben            | 1921 Thistlethwaite, Hilda         |
| 1924 Scadding, Norris         | 1924 Thistlethwaite, Wilfred       |
| Aykroyd                       | 1920 Thornton, Charles             |
| 1920 Science, Jack            | Raymond                            |
| 1905 *Seaton, Douglas         | 1909 Thoseby, John Norman          |
| 1924 Sellers, Geoffrey        | Lonsdale                           |
| Hatfield                      | 1905 *Todd, Aldred Bertram         |
| 1915 Seville, Charles Heywood | Slingsby                           |



1905	*Tomlin, Herbert	1905	Whalley, Frederick
1915	Topham, Richard Stanley	1922	Wheatley, Bertha
1906	*Trumper, Oscar Bagster	1906	Whitehead, Thomas
1922	Trewick, John Arthur	1911	Wigglesworth, Frank
1910	Twist, Norman Stuart	1914	Wilkinson, John
1915	Umanski, Augusta (Mrs. Landman)	1905	*Wilks, Stephen Long- more Butterworth, M.D. (Lond.)
1924	Vincent, Edward Wallis	1905	*Willans, Charles Rudolph
1923	Wadsworth, Guthrie Morgan	1906	*Williamson, Joshua
1923	Walbank, Arthur	1921	Wilson, Charles Haddon
1906	Walker, Albert Latimer	1914	Wilson, Colin
1923	Walker, George Frederick	1921	Wilson, Harriette Appleby
1911	Walker, John Perry	1921	*Wilson, Kathleen
1924	Walker, Joseph Shirley	1923	Winder, Norman Frederick
1905	Walker, Meville George Leslie	1912	Wood, Bertram William Francis
1911	Walker, Thomas Lock- wood	1923	Wood, Ronald
1921	Walsh, Nathan	1924	Woodcock, Hester Elizabeth
1917	*Walton, Francis	1920	Woodroofe, Edwin Royston
1924	Ward, Joseph Griffith	1922	Woodroofe, Percy Esmonde
1922	Ward, Margarite	1914	Wright, John
1923	Wardle, Gretta Mary	1924	Yates, Donald
1919	Watson, Clifford Riley		
1905	*Wells, George Lee		
1921	Wesley-Smith, John Leslie		

*Bachelor of Dental Surgery*

1916	Baxter, Gerald Richard	1921	*Sykes, John George
1923	Ross, Ralph Norval		

## UNIVERSITY OF LEEDS HONOURS SCHOOLS

## Classics

1906	Class 1	Bibby, Edward Ernest
	"	Butterworth, George William
	Class 2	Ashburner, Frederick
	"	Matthews, Felix Hackett
	"	TenBruggenkate, George Herbert
1907	Class 2	Hodges, Raymond John
1908	Class 1	Hirst, John Crosland
	Class 2	Mallinson, Dorothy
1909	Class 2	Dearnley, Charles
1910	Class 2	Croft, Alice Mary
	"	Findlay, William Gillanders
	"	Pilling, James Arthur
	"	Pobjoy, Harold Norman
	"	Reakes, Gilbert Spofforth
	Class 3	Brown, Ralph Noel
1911	Class 2	Clarke, Charles Douglas
	"	Parker, Frank
	"	Walker, Algernon Stanley
1912	Class 1	Raisman, Abraham
	Class 3	Webster, Herbert
1913	Class 1	Effron, George Henry
	"	Whincup, Harry Hynes
	Class 3	Elliot, Gilbert Bernard
1914	Class 2	Jones, Arthur Owen
1916	Class 2	*Blease, Richard Morris Stanley
	Class 3	Solloway, Mildred Nancy Langdale
	"	*Carré, Edward Mervyn
1918	Class 2	Billam, Lois Ethel
1919	Class 3	Holroyde, Doris Helena
1920	Class 1	Raisman, John
1921	Class 2	Eley, Stanley Albert
	"	Hardy, Wilfred
	"	Midgley, Arnold Spencer
	Class 3	Normanton, Emma
1922	Class 2	Loseby, Henry Victor
1923	Class 2	Smith, Cecil Knowles

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\*Killed in Action. Assessed by Senate in 1915 "in the event of their not returning to complete the prescribed course."

**English Language and Literature**

- 1905 *Class 1* Gascoigne, Evelyn May  
       " Holmes, Carrie  
       *Class 2* Conyers, Hilda
- 1907 *Class 1* Walker, Jessie  
       *Class 2* Moulden, John William
- 1908 *Class 1* Hogan, Kathleen
- 1910 *Class 1* Speight, Philip Henry  
       *Class 2* Mellors, Clarissa Florence Horsley  
       " Pickering, Harry  
       *Class 3* Coppock, Laura  
       " Strothard, Hubert Turner
- 1911 *Class 1* Charlton, Henry Buckley  
       " Fairley, Duncan  
       " Major, Irene Carlotta  
       " Phillips, Samuel  
       *Class 2* Bean, William Harold  
       " Dawson, Thomas Henry  
       " Foggitt, Ida  
       " Wright, Bertha Helen
- 1912 *Class 1* Cowling, George Herbert  
       " Jameson, Margaret Ethel  
       *Class 2* Hoyle, Harold  
       " Huffington, Thomas  
       *Class 3* Speight, Rose
- 1913 *Class 2* Cox, William
- 1914 *Class 1* Cohen, Sam
- 1915 *Class 1* Horsley, Ernest  
       " Normington, Nellie  
       " Stuart, Emily  
       *Class 2* Hewson, Constance Freda  
       " Nesbit, John Christopher
- 1916 *Class 1* Ives, Frank  
       " Perry, Francis Charles  
       " Simpson, Helen Mary  
       " Stell, Donald  
       *Class 2* Birch, Dorothy Ellen  
       " Legge, Marian  
       " Russell, Ada Minnie  
       " Teale, Alice Dorothea  
       *Class 3* Parker, Isabel Wilson

- 1917 *Class 1* Marsden, Hilda  
 " Moss, Helenor  
*Class 2* Banks, Evelyn  
 " Birch, Thomas Albany  
 " Carr, Catherine  
 " Gibson, Gladys Louise  
 " Partridge, Doris Kathleen  
 " Todd, Helena  
*Class 3* Newstead, Fannie
- 1918 *Class 1* Berry, Arthur  
 " West, Hilda  
*Class 2* Anderson, Lucy Margaret  
 " Benn, Laura Harriet  
 " Hopkin, Jessie Melville  
*Class 3* Baker, Ruth Eveline  
 " Sowden, Marie  
 " Townsend, Gladys Elizabeth Gwendolyn
- 1919 *Class 1* Speed, Marie Elizabeth  
*Class 2* Bates, Nellie  
 " Broxup, Dorothy  
 " Gibson, Christine Madeleine  
 " Knowles, Doris Annie Williamson  
 " McLeannan, Florence Lilian  
 " Saville, Clara  
 " Williams, Margaret
- 1920 *Class 2* Bowker, Benjamin  
 " Gartside, Ruth  
 " Horrell, Ella  
*Class 3* Harland, Lois Hope
- 1921 *Class 1* Shearer, William Sinclair Russell  
 " Williams, Joseph Russell  
*Class 2* Batchelor, Mabel Shaw  
 " Chapman, William Dale  
 " Evans, John Charles  
 " Fawcett, Bertha Rylands  
 " Grange, Mary Elizabeth  
 " Hill, Harold  
 " Wimsey, Ada  
*Class 3* Fleming, James  
 " Lowry, Louise Margaret Matilda  
 " Wainwright, Amy  
 " Walker, Robert  
*Honours* \*Sykes, Gladys

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\* Not classified.

- 1922 *Class 1* Cooper, William Ralph  
 " Grice, Rosalind Margaret  
 " Oddy, Clarice May  
 " Scupham, Marjorie  
 " Tibble, John William
- Class 2* Allcock, Evelyn  
 " Brearley, Hilda  
 " Cockerlyne, Elsie  
 " Denton, Edna  
 " Forrest, Frank  
 " Luccock, Hilda  
 " Marsden, Frances Elizabeth  
 " Miller, George Miller  
 " Muschamp, Kate Sara Evelyn  
 " Opie, Eleanor Mary  
 " Pickering, Horace Sydney  
 " Schofield, Dorothy Ruby  
 " Thomas, Frederick George
- Class 3* Connett, Winifred  
 " Fairbourn, Marjorie  
 " Simpson, Nora  
 " Tuck, Gladys Helen Edwena  
 " Whiteley, Constance  
 " Wilkinson, Willy
- 1923 *Class 2* Bailey, Mary  
 " Cooper, Kathleen Louise  
 " Jackson, Ellen Gertrude  
 " Kirkby, Ethel  
 " Northgrave, Mabel Anne  
 " Rankin, Alan  
 " Smith, Dorothy Margaret  
 " Stuart, Doris Irene
- Class 3* Ayton, Margaret  
 " Bailey, Hilda Muriel  
 " Watson, Vera  
 " Wild, Thomas Brook
- 1924 *Class 1* Beaumont, Frederic Albert  
 " Roebuck, Constance Mary  
 " Senior, Jessie  
 " Sewell, William Arthur  
 " Smith, Albert Hugh  
 " Willoughby, Joyce.
- Class 2* Basleigh, Dorothy  
 " Carter, Dorothy Ruth  
 " Dawson, Mary Catherine  
 " Dyson, Marjorie  
 " Ellison, Maud



- Class 2* Gascoigne, Mary Cecilia  
 „ Hardaker, Doris Mary  
 „ Mills, Stella Marie  
 „ Porter, Winifred Edith  
 „ Shuttleworth, Clifford Wall  
 „ Sykes, Lillian Dorothy  
 „ Thubron, Nellie  
 „ Walker, Florence  
*Class 3* Elliott, Elizabeth  
 „ Hammond, Marjorie  
 „ Hartley, George William  
 „ Jenkins, Dorothy  
 „ Lucas, Florence

**French Language and Literature**

- 1923 *Class 1* Moss, Frederick William  
 „ Smith, Kathleen Gertrude Mary  
*Class 2* Binias, Alice May  
 „ Fawcett, Agnes Mary  
 „ Pennymore, Lucy Mary  
 „ Roughton, Edith Vera  
*Class 3* Mulholland, Marie  
 1924 *Class 1* Salmon, Dorothy Maude  
 „ Shufelder, Esther  
 „ Sinovitch, Esther  
*Class 2* Amies, Francis Alan  
 „ Coulson, Evelyn Louise  
 „ Wisely, Catherine Mary  
*Class 3* Fogden, Gladys May

**German Language and Literature**

- 1923 *Class 3* Craven, Hilda Mary

**Modern Languages and Literatures**

- 1905 *Class 1* Edwards, Maud Mary  
 „ Gunnell, Doris  
 1906 *Class 2* Hastings, Margaret  
 „ Illingworth, Maria Emma  
*Class 3* Whitehead, Mary  
 1907 *Class 1* Fairley, Barker<sup>1</sup>  
 „ Thorp, Hilda<sup>2</sup>  
 1908 *Class 1* Cohen, Alexander  
 „ Murphy, Bertha Mary

<sup>1</sup> Distinguished in French and German.

<sup>2</sup> Distinguished in German.

1909	<i>Class 1</i>	Longbottom, Nellie
	<i>Class 2</i>	Cridland, Dorothy
	<i>Class 3</i>	Batchelor, Ethel
1910	<i>Class 1</i>	Hobson, Julia <sup>2</sup>
	"	Kirk, Kathleen Hylda
	"	Stradling, Ethel Milnes
	<i>Class 2</i>	Butler, Gloxinia
	"	Claridge, Marjorie Muriel
	"	Phillips, Dorothy
	"	Ramsden, Arthur
	"	Spruce, Gladys
	"	Wilson, Muriel Margaret
	"	Worsnop, Edgar
	<i>Class 3</i>	Groves, Winnifred Halliday
	"	Laird, Marjorie Jane
1911	<i>Class 1</i>	Carter, John Wilfrid
	<i>Class 2</i>	Elliott, Ruth
	"	Kirtland, Dorothy Mary
1912	<i>Class 1</i>	Greenwood, Emily Maud
	"	Reynolds, Carrie
	<i>Class 2</i>	Jenkins, Elsie Mary
	"	Libbish, Barnet
1913	<i>Class 1</i>	Stead, Lilian Mary
	"	Varey, Mary
	<i>Class 3</i>	Lawson, Tom
	"	Levy, Sissie Emma
1914	<i>Class 1</i>	Allott, Wilfrid
	"	Caldwell, Mary Constance
	<i>Class 2</i>	Pickering, Jessie
	"	Whitworth, William Wilson
	<i>Class 3</i>	Crowther, Ivy Emma
	"	Greenwood, Josémeé Marguerite
1915	<i>Class 1</i>	Holliday, Marjorie Tate
	"	Snowden, Elizabeth
	<i>Class 2</i>	Catterall, Albert
	"	Hayes, Allan
	"	Kirkwood, Winifred
	"	Williams, Thomas
	<i>Class 3</i>	Carter, Jessie May
	"	Mee, Winifred Ellen
	"	Rayner, Ellen
1916	<i>Class 1</i>	Woodcock, Hester Elizabeth
	<i>Class 2</i>	Brown, Nellie
	<i>Class 3</i>	Loxley, Margaret Isabel

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<sup>2</sup> Distinguished in German.

- 1917 *Class 1* Dowson, Evelyn Rhoda  
*Class 2* Hunter, Helen  
 „ Munday, Madeleine Constance
- 1918 *Class 1* Denison, Ruby Gladys Martha  
 „ Stevenson, Hilda  
 „ Whiteley, Joseph Travis  
*Class 2* Bairstow, Dorothy  
 „ Kaye, Ruth Armitage  
 „ Rhodes, Evelyn Marion  
*Class 3* Taylor, Dora  
*Honours* \*Haythorne, Arnold
- 1919 *Class 1* Barker, Doris Wright  
*Class 2* Edelstein, Charles Solomon  
 „ Jones, Annie Frances Saville  
 „ Prince, Eleanor Edith  
 „ Wilkins, Phyllis Florence
- 1920 *Class 1* Brown, Winifred (*French and German*)  
 „ Lonsdale, Hettie (*French and German*)  
 „ Russell, Ruth Mary (*English and French*)  
*Class 2* Buckley, Edith May (*English and French*)  
 „ Glass, Helen Medley (*English and French*)  
 „ Luccock, Florence (*English and French*)  
 „ Parker, Gladys Murielle (*English and French*)  
 „ Rushworth, Hilda (*English and French*)
- 1921 *Class 1* Firth, Nellie Marguerite (*English and French*)  
 „ Ing, William (*English and French*)  
 „ Sinovitch, Israel (*French and German*)  
*Class 2* Bate, Ethel (*English and French*)  
 „ Jennings, Evelyn (*English and French*)  
 „ Jennings, Ivy Evelyn (*English and French*)  
 „ Schofield, Beatrice Rachel (*French and German*)  
 „ Warburton Mary Lilian (*French and German*)  
*Class 3* Fearnside, Winifred Marion (*English and French*)  
 „ Spink, Gerald William (*French and German*)
- 1922 *Class 1* Cooper, Norman (*English and French*)  
 „ Rhodes, Eric William (*French and German*)

\* Not classified.

*Honours Schools*

- Class 2 Boudry, Hilda (*English and French*)  
 „ Clarke, Arthur Hermon (*English and French*)  
 „ Hebb, Herbert Ernest (*English and French*)  
 „ Hirst, Lucy Kathleen (*English and French*)  
 „ Knowles, Ernest (*English and French*)  
 „ Wormald, Stanley (*English and French*)  
 „ Wright, Rowland (*English and French*)  
 Class 3 Codrington, Florence Blomfield (*English and French*)  
 „ Heath, Daphne Muriel (*English and French*)  
 „ Higgins, Gertrude Mary (*English and French*)  
 „ Pickles, Catherine (*French and German*)  
 „ Preston, John Currie (*English and French*)  
 „ Spencer, Bessie (*English and French*)  
 1923 Class 1 Dunwell, Wilfrid (*English and French*)  
 „ Firth, Dorothy (*English and French*)  
 „ Milton, Harry (*English and French*)  
 Class 2 Benn, Thomas Vincent (*English and French*)  
 „ Burnell, Noel Henry (*English and French*)  
 „ Gee, Kenneth (*French and German*)  
 „ Helliwell, Betty (*French and German*)  
 „ Holmes, Bessie Hepworth (*English and French*)  
 „ Mercer, Kathleen (*English and French*)  
 „ Weatherston, Jean Hastie (*English and French*)  
 „ Wilby, Lucy Kathleen (*English and French*)  
 Class 3 Day, Dorothy Kathleen (*English and French*)  
 „ Harrison, Sarah Muriel (*English and French*)  
 „ Hogley, Mary Kathleen (*English and French*)  
 „ Smithson, Mabel (*English and French*)  
 1924 Class 1 Halloran, John Herbert (*English and French*)  
 „ Marsden, Isabel Florence (*English and French*)  
 Class 2 Hobson, Gladys (*English and French*)  
 „ Osborn, Doreen Mary (*English and French*)  
 „ Rushforth, Winifred Dransfield (*English and French*)  
 „ Walbank, Sibyl (*English and French*)

- Class 3 Dalby, Edward Randolph (*English and French*)  
 „ Tudor, Olive (*English and French*)

## History

- 1906 Class 2 Wilson, Florence Grey  
 1907 Class 1 Findlay, Sarah Kennedy  
 Class 2 Gill, William Conrad  
 1908 Class 1 Simpkins, Nellie  
 Class 3 Hobson, Elsie Irene  
 1909 Class 1 Dean, Arthur Ernest  
 „ Peel, Albert  
 „ Wortz, Frederick Robert  
 Class 2 Cawthorn, Edwin  
 „ Gendall, Philip Parsons Watkins  
 „ Morrell, Frank  
 Class 3 Hand, Harry Aram  
 1910 Class 1 Birtles, Arthur  
 „ Caldwell, Sarah Jane  
 Class 2 Cox, Herbert  
 „ Ellis, Arthur Harold Carteret  
 „ Taylor, William Alexander  
 1910 Class 3 Hopkins, Eric Arthur  
 „ O'Neill, Wilfrid Stephen  
 „ Stainsby, George William  
 1911 Class 1 Firth, John Rupert  
 „ Garton, Ida Mary  
 „ Heaton, Herbert  
 Class 2 Hinckley, Philip  
 „ Moody, Sydney  
 „ Tomlinson, John Lansdowne  
 „ Wallace, Dorothy Kate  
 „ Warren, Albert Edmund  
 Class 3 Miller, Florence Clark  
 1912 Class 2 Anderson, Mabel Maud  
 „ Harding, Reginald  
 „ Sampson, Catherine Ruby  
 „ Standing, Christine  
 „ Taylor, Bertha  
 „ Thomas, William Calvert  
 Class 3 Dearden, Gladys May  
 „ Jordon, George Jefferis  
 1913 Class 1 Richardson, William Rowson  
 Class 2 Hudson, John  
 „ Lupton, Margaret Ella  
 „ Mawson, Constance  
 Class 3 Pay, Thomas Wilfrid



1914	Class 2	Dobson, Alan
	"	Dykes, Janet
	"	Wright, Claude Ernest
1914	Class 3	Byrne, Richard Hugh Desmond Garritt
	"	Hutton, Charles William
	"	Ladell, Arthur Randolph
	"	Leech, Dorothy Edith
1915	Class 1	Hillas, Norman
	"	Sutcliffe, Dora
	"	Woodall, Ethel Margaret
	Class 2	Clayton-Booth, Ethel Jane
	"	Coley, Norman Clarence Herbert
	"	Driver, Constance Jennie
	"	Jennings, Elsie Emmie
	"	Shepherd, Dorothy
	Class 3	Gurney, Denies St. John Cecil
1916	Class 1	Evans, Alice Mabel
	"	Sutcliffe, Dorothy
	Class 2	Bellerby, Margaret Hope
	"	Gillman, Marguerite
	"	Haigh, Margery
	"	Herbert, Mabel
	"	Mann, Enid
	<i>Honours</i>	*Hill, Harold Harrison, B.A.
1917	Class 1	Tesh, Elsie
	Class 2	Broxup, Eva Annie
	"	Burrow, Hannah Louise
	"	Butterfield, Hilda
	"	Childe, Gertrude May
	"	Mitchell, Florence Mary
	"	Pratt, Richard
	"	Wood, Mary Freda
1918	Class 1	Lumb, Sybil Victoria
	Class 2	Griffiths, Dorothy
	"	Moore, Ethel
	"	Noxon, Marion
	"	Pickles, Gladys
	"	Ross, Frances Hilda
	Class 3	Butterfield, Janet
	"	<i>Walker, Harry</i>
1919	Class 1	Taylor, Emily Augusta
	Class 2	Hogley, Marian
	"	Irvine, Jessie
	"	Lumby, Mary
	"	Preston, Edith May
	"	Swales, Hilda Mary
	Class 3	Horne, Winifred Louise
	"	Lewis, Amy Irene

\*Not classified.

- 1920 *Class 1* Dawson, Daniel  
 „ Sykes, Norman  
*Class 2* Barker, Ida  
 „ Cottam, Annie  
 „ Dunwell, Thomas Middleton  
 „ Hammond, Agnes  
 „ Haygarth, Dorothy  
 „ Knapp, Lilian Annie Mary  
 „ Lee, Margaret Ann  
 „ Richardson, Elsie Mary  
 „ Smith, Marie Kathleen  
 „ Toes, Ethel  
 „ Whiting, Dorsey  
*Class 3* Norman, Leonora Marguerite  
 „ Sharpe, Alice
- 1921 *Class 1* Hopper, Sydney Herbert  
 „ Robinson, Louis  
*Class 2* Cardwell, Albert  
 „ Garside, Berhard  
 „ Kiernan, Reginald  
 „ Leach, Nora  
 „ Midgley, Frederick William  
 „ Nowell, Elma Virtue  
 „ Parkin, Ethel Mary  
 „ Schofield, Florence  
 „ Schofield, Frank  
 „ Scott, Ethel  
 „ Sutcliffe, Annie Eliza  
 „ Sutcliffe, Walter Hill  
 „ Thackray, George Cyril  
 „ Walker, Hilda Hallam  
 „ Woodhead, Edith  
*Class 3* Knowles, Roland Ernest  
 „ Whitworth, Marjorie
- 1922 *Class 1* Crossland, Philip  
 „ Pickles, William Bradley  
 „ Smith, Marjorie May  
*Class 2* Barker, Hilda  
 „ Bateson, Clara Florence Elizabeth  
 „ Burton, George  
 „ Cray, Frank Maynard  
 „ Dalby, John  
 „ Downs, Annie  
 „ Illingworth, William Norman  
 „ Lupton, Joseph Harold  
 „ Mathers, Arthur Leslie  
 „ Millward, Francis Eric Eland  
 „ Priestley, Harold Edford  
 „ Taylor, Edward Goodsham  
 „ West, Lilian Mary

- Class 3* Austin, Emily  
 „ Caruth, Eleanor Margaret Annie  
 „ Greenan, Angela Mary  
 „ Hurst, Dorothy Ayton  
 „ Wadson, Grace Marjorie  
 „ Wright, Ernest Hotchin  
*Aegrotat* Earnshaw, James William
- 1923 *Class 1* Newman, William Henry  
*Class 2* Heptonstall, Margaret Edith  
 „ Holyday, Vera Mary  
 „ Liddle, Laura Lavinia  
 „ Olszewska, Mary Cecilia  
 „ Parkinson, Harold  
 „ Raw, Christine Emily  
 „ Wilkinson, Stanley  
*Class 3* Fenn, Francis Cuthbert  
 „ Hardacre, William  
 „ Pearson, Henry James  
 „ Waterland, Roy
- 1924 *Class 1* Elam, John Frederick  
 „ Jones, Lewis  
 „ Sykes, John Rawnsley  
*Class 2* Burgess, Reginald  
 „ Clarkson, Sarah Eleanor  
 „ Dixon, James Metcalfe  
 „ Hanson, John Lloyd  
 „ James, William John  
 „ Lineham, Wilfrid  
 „ McCahearty, Reginald George Henry  
 „ Roberts, Gertrude Mary Rayner  
 „ Smithurst, Julia May  
*Class 3* Blond, Annie Winifred  
 „ Castle, Alice Ann  
 „ Chadwick, William Godfrey  
 „ Hornsey, Margaret Alice  
 „ Powell, Mary Cutliffe  
*Aegrotat* Dyson, James Frederick  
 „ Myers, Gabriel

### Philosophy

- 1908 *Class 1* Strange, Edward Howard  
 1911 *Class 2* Papworth, Harold Charles  
 „ Peacey, Basil William  
 1913 *Class 2* Marriott, Edward  
 1914 *Class 2* Jordon, George Douglas  
 „ Whincup, Harry Hynes

- 1916 *Honours* \*Stewart, John  
 1920 *Class 3* Barrett, Ernest  
 1921 *Class 1* Crowther, David  
      *Class 2* Jessop, Tom Edmund  
 1922 *Class 2* Healey, Ernest  
      *Class 3* Armstrong, Norman  
 1923 *Class 1* McCulloch, Frederick James  
      *Class 3* Stobbart, John George

**Economic and Political Science**

- 1916 *Class 2* Silverman, Herbert Albert  
 1919 *Class 1* Dean, William Henry  
 1921 *Class 1* Bellerby, John Rotherford  
      " Whyte, William Hamilton  
      *Class 2* Sclare, Mabel  
 1922 *Class 2* Hazelip, John Cannell  
      " Spalding, Albert  
      " Sykes, Joseph  
      " Wright, Fred  
 1923 *Class 2* Gitsham, Ernest  
      *Class 3* Holmes, Robert Sidney William

**Geography**

- 1922 *Class 2* Yeomans, Kenneth Jobson  
 1923 *Class 2* Simpson, Margaret Cicely  
      " Walker, Frank  
      *Class 3* Megalli, Yusef  
 1924 *Class 2* Greenwood, Norris  
      " Tarver, Emma  
      *Class 3* Jackson, Lily

**B.Com**

- 1922 *Class 1* Witney, Denis  
      *Class 2* Murphy, Philip Patrick  
 1923 *Class 1* Dawe, Charles Vivian  
      " Raphail, Anis Azir  
      *Class 2* Burrows, Harry Raymond  
      " Holdsworth, Frank Reginald  
      " Lyles, Albert

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\*Not classified

**LL.B.**

1922	<i>Class 1</i>	Ould, Ernest
	"	Walsh, Joshua Samuel
	<i>Class 2</i>	Archibald, Myles Falcon Downes
	"	Duckworth, George Reginald Joseph
	"	Hesketh, Frank
	<i>Class 3</i>	Hellewell, Frank Wharton
1923	<i>Class 1</i>	Nutt, Richard Evan
	<i>Class 2</i>	Raisman, John
	"	Reddihough, Cyril Spencer
	<i>Class 3</i>	Hirst, Arthur John Crosleg
	"	Hutchinson, George Edward
1924	<i>Class 2</i>	Jones, Keith Miller

**Mathematics**

1905	<i>Class 2</i>	Phillipson, Abram
1907	<i>Class 2</i>	Smailes, Alan
	<i>Class 3</i>	Ashby, William Ewart
1909	<i>Class 1</i>	Marshall, Francis
1912	<i>Class 2</i>	Hayes, Robert Andrew
1916	<i>Class 1</i>	Umanski, Arthur Joseph Victor
	<i>Class 2</i>	Richardson, Herbert
1922	<i>Class 1</i>	Fawcett, Alan Ross
	"	Hardy, Florence Mabel
	<i>Class 2</i>	Clarke, Arthur
	"	Holgate, Mary Sarah
	<i>Class 3</i>	Boothroyd, Fred
1923	<i>Class 1</i>	Chopping, Gertrude
	<i>Class 2</i>	Atkin, Ethel
	"	Pickles, Thomas Heaton
	<i>Class 3</i>	Potter, Louisa
	"	Tyrrell, Doris Mary
1924	<i>Class 1</i>	Hanna, Miltiadi
	"	Higab, Mohammed Ali
	<i>Class 2</i>	Holmes, Frank
	"	Kenny, Thomas Edwin
	"	Senior, Stanley Alan
	<i>Class 3</i>	Kirk, Frank Carlill
	"	Midgley, Edith Alice
	"	Reed, Harry Bright

**Physics**

1905	<i>Class 1</i>	Mellor, Fred
1907	<i>Class 1</i>	Sykes, Albert Howarth
	"	Townsend, Robert



- 1908 *Class 1* Watson, James Arthur  
*Class 2* Jenkins, Gilbert Ramsden
- 1909 *Class 3* Ward, Herbert Wainwright  
 " Wood, George
- 1910 *Class 1* Duffin, Joseph Francis  
*Class 3* Dixon, Frank Metcalfe
- 1911 *Class 1* Houldsworth, Hubert Stanley
- 1912 *Class 1* Ogden, Herbert  
*Class 2* Bright, Alfred  
*Class 3* Pearson, William  
 " Stephenson, Cyril Richard William
- 1913 *Class 2* Firth, Maurice  
 " Perry, Robert
- 1914 *Class 1* McGeorge, Alexander  
 " Quarmby, Frederick
- 1915 *Class 2* Ram, Khub
- 1916 *Class 2* Wilson, John Joseph
- 1921 *Class 1* Sucksmith, Willie
- 1922 *Class 1* Barnes, Colin  
 " Hare, Arthur  
*Class 2* Fouracre, Leslie  
 " Hawthorne, John Eric
- 1923 *Class 3* Cheetham, Robert Lionel
- 1924 *Class 1* Brett, George Fairburn  
 " Keightley, Clifford  
 " Wainwright, Clifford  
*Class 2* Forster, Alexander  
 " Meredith, George Patrick  
 " Ramsden, Douglas MacDonald  
*Class 3* Gibbs, Francis Alec  
 " Longmaid, Arnold  
 " Martin, Lawrence Jewitt

**Chemistry**

- 1905 *Class 1* Armes, Henry Percy  
 " Bennett, Hugh Garner  
 " Davies, Arthur Hugh
- 1905 *Class 2* Crosland, Percy Field  
*Class 3* Booth, Meyrick  
 " McCandlish, Douglas  
 " Morrison, James Alexander Shepherd

- 1906 *Class 1* Hodsman, Henry James  
*Class 2* Horsfall, Ronald Smith  
 „ King, Charles Arthur
- 1907 *Class 1* Cross, William Ernest  
 „ Davies, Hamilton  
*Class 2* Jackson, Colin Gyrtn
- 1908 *Class 1* Blockey, John Reginald  
 „ Leslie, May Sybil  
 „ Riley, Frank  
*Class 2* Sinson, Israel Lewis
- 1909 *Class 1* Dudley, Harold Ward  
 „ Webster, Herbert William  
*Class 2* Carter, Frederick Edward  
*Class 3* Hurst, Frank  
 „ Thornton, Edwin  
 „ Whitaker, Herbert
- 1910 *Class 1* Bainbridge, James Scott  
 „ Hill, James  
 „ Johnson, Charles Lester  
 „ Powis, Frank  
*Class 2* Appleyard, Alfred  
 „ Thornton, Harold  
 „ Wheatley, Robert  
 „ Wood, Louis Albert  
*Class 3* Fielden, Harold
- 1911 *Class 1* Atkin, William Rearden  
 „ Glick, Nathan Bernard  
 „ Woodman, Herbert Ernest  
*Class 2* Rawling, Francis George  
*Class 3* Bales, Sidney Hartley  
 „ Thompson, Frederick Charles
- 1912 *Class 1* Dawson, Thomas Rayner  
 „ Raistrick, Harold  
 „ Taylor, Arthur  
*Class 2* Ackroyd, Louis  
*Class 3* Wilson, Ernest Percival
- 1913 *Class 1* Stocks, Herbert Holroyd  
 „ Sugden, Reginald  
 „ Woodroffe, David  
*Class 2* Bennett, William Gordon  
 „ *Irish, Edward*  
 „ *Wright, Fred*  
*Class 3* Barrett, John Douglas  
 „ Douglas, Frank  
 „ Taylor, Ernest

- 1914 *Class 1* Burton, Donald, B.Sc.  
 „ Gibson, Wilfrid  
 „ Hartley, John Alfred  
 „ Hayes, Harry  
 „ Smithells, Colin James  
*Class 2* Marsh, William Alfred  
 „ Taylor, John Robinson  
*Class 3* Harrap, Frank Nettleton  
 „ Lunn, Reginald William  
 „ Midgley, James, B.Sc.
- 1915 *Class 1* Crann, Thomas William  
 „ Robinson, Fred  
*Class 3* Abrams, Nathan  
 „ Moses, Abram
- 1916 *Class 1* Ellingworth, Samuel  
 „ Hanby, Thomas  
 „ Mountford, Christopher Archibald  
*Class 3* Hornby, Clement Denton  
 „ McFarlane, Archibald
- 1917 *Class 2* Crowther, Edward Mortimer
- 1920 *Class 2* Birkinshaw, John Howard  
 „ Ward, Harry
- 1921 *Class 1* Clarkson, William Edward  
 „ Milne, Geoffrey  
 „ Scott, John Richard  
 „ Woodman, Rowland Marcus  
*Class 2* Stockdale, Leonard Moore  
 „ Whitehead, Hugh Robinson  
 „ Wormall, Arthur  
*Class 3* Beck, Clarence Walker  
 „ Gott, Herbert  
 „ Shaw, Cecil
- 1922 *Class 1* Carter, John Stanley  
 „ Clutterbuck, Percival Walter  
 „ Rhodes, Edgar  
 „ Tatner, Gilbert Henry  
*Class 2* Barker, George  
 „ Hagues, George  
 „ Huddleston, William Thomas
- 1922 *Class 3* Cocking, Harold  
 „ Hoffenberg, Isidore Ely  
 „ Kirkbride, Harold  
 „ Moore, Marjorie  
 „ Musgrave, Elsie Selina

- 1923 *Class 1* Claxton, Godfrey  
 " Cuthill, Ronald  
 " Dean, George Smith  
 " Naylor, William Haydn  
 " Platt, Benjamin Stanley  
 " Wayne, Edward Johnson
- Class 2* Battye, Albert Edward  
 " Carter, Ruth Ethel  
 " Collinson, George Arthur  
 " Gilyead, John Stanley Oldfield  
 " Grassby, William Buttery  
 " Hinchliffe, Rex Ernest  
 " Hindle, John Alfred  
 " Manners, George  
 " Senior, Lewis  
 " Sheard, George Arthur  
 " Smith, Ernest Walter  
 " Sutton, Lilian Mary  
 " Wadsworth, Alan Eric  
 " Wigglesworth, Maurice Handel
- Class 3* Blakeley, Joseph Haley  
 " Brown, George Middleton  
 " Earnshaw, Hubert  
 " Hewitt, Ernest Russell  
 " Swift, Frank Lawrence  
 " Tempest, Hannah
- 1924 *Class 1* Dawson, Edward Romer  
 " Dean, Norman Cecil  
 " Steward, Frederick Champion  
 " Sugden, John Anthony
- Class 2* Angus, Leslie Herbert  
 " Druce, Edward Stanley  
 " Hoskins, Charles Randall  
 " Jones, Clifford Merton  
 " Schofield, Harold  
 " Smith, Eric Shaw  
 " Stansfield, Clifford Maxwell  
 " Tomlinson, Samuel  
 " Welburn, Thomas  
 " Wilson, Arnold Vernon
- Class 3* Barron, Andrew Irvin  
 " Batley, John Herbert  
 " Crosby, Alec  
 " Gooder, Walter Raymond  
 " Howard, Muriel  
 " Ingham, George Henry  
 " Quin, William James  
 " Sanderson, John William  
 " Woolfenden, Ean Alan Whitehead

**Zoology**

- 1914 *Class 1* Dry, Francis William, B.Sc.  
 1915 *Class 2* Thompson, Harold Winsor  
 1921 *Class 2* Eastham, Leonard Ernest Sydney  
 1923 *Class 2* Caruth, Florence Elizabeth  
      *Class 3* Wormald, Louis Percival  
 1924 *Class 2* Wimpenny, Ronald Stenning

**Botany**

- 1905 *Class 2* Turner, Florence Mary Beatrice  
 1909 *Class 2* Westerman, Mabel  
 1910 *Class 2* Walker, Emily Farrington  
 1913 *Class 1* Peniston, Annie  
      " Smith, Jane Elizabeth  
 1920 *Class 1* Chapman, Robert Edward  
      *Class 2* Woffenden, Lettice May  
 1921 *Class 1* Rea, Rosamund Mary Lloyd  
      *Class 2* Heaps, Helen  
      " Hunter, Vera Muriel  
 1922 *Class 1* Lee, Beatrice  
      " Maude, Jessie  
      " Radcliffe, Francis Mary  
 1923 *Class 1* Allright, Elizabeth Doris  
      " Hinchliff, Mildred  
      " Parkin, Laura  
      " Redington, George  
      *Class 2* Ford, Evelyn  
      " Oddy, Alice Freda  
      " Taylor, Anna  
      " Whitfield, Elsie  
      *Class 3* Beaton, Elsie Mabel  
 1924 *Class 1* Herklots, Geoffrey Alton Craig  
      " Swarbrick, Thomas  
      *Class 2* Ford, Sarah  
      " Greenwood, Dora  
      " Hanby, Alice Maude  
      *Class 3* Stansfield, Vera

**Physiology**

- 1905 *Class 1* Lord, William Ernest  
 1907 *Class 1* Crowther, William Edmund  
 1918 *Class 2* Hickman, Ella Martin



- 1919 *Class 1* Cohen, Emmanuel  
       "       *Class 2* Levy, Simon  
       "       *Class 2* Brostoff, Harry  
       "       "       Gordon, Morris  
 1921 *Class 1* Bedford, Thomas Henry Booth  
       "       "       Sunley, George Raine  
       *Class 2* Lipman, Reuben  
       "       "       Stross, Barnet  
 1922 *Class 1* Hemingway, Albert  
       *Class 2* Curtis, Francis Roy  
       "       "       Pyrah, Leslie Norman  
       "       "       Rabinovich, Michel  
       "       "       Rosenberg, Gerald  
 1923 *Class 1* Killick, Esther Margaret  
       *Class 2* Backwell, Maurice  
       "       "       Berenblum, Isaac  
       *Class 3* Silverman, Sam  
 1924 *Class 2* Barratt, Arthur

**Geology**

- 1906 *Class 1* Jordan, Albert  
 1909 *Class 2* Parsons, Ernest  
       *Class 3* Haigh, John Henry  
 1910 *Class 3* Guy, Ernest  
       "       "       King, William Norman  
 1911 *Class 1* Chapman, Sarah Elizabeth  
 1914 *Class 1* Versey, Henry Cherry  
 1916 *Class 2* Marsden, Frank  
 1917 *Class 1* Whitaker, Elsie Dinah  
       *Class 2* Bell, Elsie Mary  
 1920 *Class 1* Carruthers, James Norman  
       "       "       Maden, James, B.Sc.  
       "       "       Petch, Frank, B.Sc.  
       *Class 2* Ward, Florence Eleanor  
 1921 *Class 2* Hepworth, Edward  
       "       "       Tonks, Laurance Henry  
 1922 *Class 2* Sheard, James Herbert  
 1923 *Class 1* Raistrick, Arthur  
 1924 *Class 1* Carter, Charles  
       *Class 2* Barker, John Henry James  
       "       "       Sharp, Mary  
       "       "       Wilson, Arthur Ernest  
       *Class 3* Whittle, Cyril James

## Engineering

- 1905 *Class 1* Gregory, Frederick Maurice  
*Class 3* Owen, Samuel Joseph
- 1906 *Class 1* Holgate, Edward  
 „ Richardson, John Stocks
- 1907 *Class 1* McGill, Ernest Arthur
- 1908 *Class 1* Barker, Christopher James
- 1909 *Class 1* Addison, Herbert  
 „ Mawson, John Halliwell  
 „ Omar, Abdel Mageed
- 1910 *Class 1* Varley, Gilbert  
*Class 2* Couper, George Augustus  
*Class 3* Boule, Henry Kirk
- 1911 *Class 1* Stillwell, Samuel Thomas Cryer  
*Class 3* Gerard, Inglis Joseph
- 1912 *Class 1* Coultas, Harold Wilberforce  
*Class 3* Richardson, Charles Richard Sugden
- 1913 *Class 2* Green, Arthur Eatough  
 „ Seville, Robert Ockelston
- 1914 *Class 1* Nuttall, Thomas Henry  
*Class 2* Jackson, Herbert Guy  
 „ Stainsby, William  
*Class 3* Clayton, Charles Flesher
- 1915 *Class 1* Edmondson, John
- 1916 *Class 2* Fathy, Mohamed Amin
- 1919 *Class 1* Moffatt, Henry Robert  
 „ Umanski, Arthur Joseph Victor, M.Sc.  
*Class 2* Barratt, Walter Alfred
- 1921 *Class 1* Kubalek, Otto  
 „ Novakovitch, Dooshan  
*Class 2* Bellerby, Francis George  
 „ Cornock, Arthur Frederick  
 „ Gayes, Cyril Ernest  
*Class 3* Birch, Arthur Aubrey
- 1922 *Class 1* Hinings, Charles Leslie  
 „ Jagger, John  
 „ Taylor, Eric  
 „ Whitehead, Alfred  
*Class 2* Caygill, Leonard Edward  
 „ Hutchinson, Charles Rowland  
*Class 3* Heseldin, George  
 „ Raistrick, Arthur  
 „ Thorp, Geoffrey  
 „ Wray, Arthur Alexander

- 1923 *Class 1* Dibb, Robert Hugh  
*Class 2* Elliot, Norman Garstang  
 „ Sleight, William  
*Class 3* Parratt, Harold Stanley  
 1924 *Class 2* Arcf, Youssef Hafez el  
 „ Mahon, Arthur John Rushton  
*Class 3* Ingall, John Heaps

**Electrical Engineering**

- 1907 *Class 1* Shuttleworth, Newton  
*Class 2* Wilkinson, Eltoft Wray  
 1909 *Class 1* Bannister, Albert  
*Class 2* Greenwood, Edward Joseph Bernal  
 1912 *Class 1* Rawling, Arthur  
 1913 *Class 2* Midgley, Harry  
 „ Sen, Jagendranath  
 1921 *Class 1* Jones, Reginald Hugh  
 „ Midgley, Edward  
*Class 2* Fowler, John  
 „ Gray, Albert Hilliard  
*Class 3* Spence, Samuel  
 1922 *Class 2* Foster, Frank  
 1923 *Class 3* David, Ronald Paul  
 1924 *Class 1* Robertson, James Samuel Paterson  
*Class 2* Lane, Francis John

**Mining Engineering**

- 1909 *Class 2* Gilchrist, David  
 1914 *Class 1* Randall, William

**Gas Engineering**

- 1914 *Class 1* Dougill, George, B.Sc.  
 „ Hollings, Harold, B.Sc.  
 1920 *Class 1* Howarth, Gilbert Bartle  
 1921 *Class 1* Greenwood, Herbert Donald  
*Class 2* Ingram, Leslie Pool  
 1922 *Class 1* Mott, Reginald Arthur  
 „ Pexton, Stuart  
 1924 *Class 1* Watson, Sidney Grange

**Fuel and Metallurgy**

- 1915 *Class 2* Wolfe, Harold Maurice  
 1922 *Class 2* Patterson, William Stewart  
 1923 *Class 1* Henderson, Alexander  
      *Class 2* Carrington, Ernest  
 1924 *Class 1* Angus, Harold Thomas  
      " Marson, Cecil Brittain  
      *Class 2* Jennings, Charles Donald  
      " Wood, James Frederick Louis

**Colour Chemistry and Dyeing**

- 1907 *Class 1* Baddiley, James  
      *Class 2* Frank, George Herbert  
 1908 *Class 1* Rhodes, Norman  
      " Woodhead, Arthur Edmund  
 1910 *Class 1* Bearder, Ernest Arthur  
 1911 *Class 1* Hickson, Bernard  
      " Rowe, Frederick Maurice  
 1912 *Class 1* Holroyd, Thomas Arthur  
      " Johnson, William  
 1913 *Class 3* Shulman, Isaac  
 1914 *Class 2* Crockatt, Arthur John  
      " Siderfin, Norman Edward  
 1915 *Class 3* Rosenbaum, Joseph Louis  
      " Wilson, Maurice Lowell  
 1920 *Class 1* Bradshaw, Geoffrey Gordon  
      " Chappell, Norman  
      " Sewell, William Gawan  
      " Spencer, George Douglas  
      " Whattam, Thomas William  
      " Whitham, Harry  
      " Wood, George Oliver  
      *Class 2* Jordinson, Frank  
      *Class 3* Davis, Charles  
 1921 *Class 1* Breare, Arnold  
      " Dalby, John  
      " Harris, Edward Geoffrey  
      *Class 2* Briggs, Herbert Bradley  
      " Crummett, Alan  
      " Howarth, John Edward  
      " Laboulle, Gaston Felix Lambert  
      " Stevenson, Francis Malcolm  
      " Thorpe, George Sykes

- Class 3 Face, Frank Leslie  
 „ Hockney, Harry Linslay  
 „ Rhodes, Oswald Stanley
- 1922 Class 1 Ackroyd, Herbert  
 „ Banks, Philip Gray  
 „ Brown, William  
 „ Carter, Dick  
 „ Croft, Cyril Mansley  
 „ Goodall, Frederick Leathley  
 „ Hall, John  
 „ Hind, George Edward Lockhart  
 „ Peel, Samuel Longley  
 „ Roberts, Reginald John  
 „ Sowrey, Jack Chadwick  
 „ Sykes, Leonard Sheard  
 „ White, Reginald Lever
- Class 2 Crosland, Eric Bentley  
 „ Crossley, James Victor  
 „ Dance, Edward  
 „ Hall, Arthur Leonard  
 „ Hoggett, Frank Noel  
 „ Hoyle, Edmund Jessop  
 „ Keyworth, Charles Maurice  
 „ Marshall, Clarence Bolus  
 „ Wilkinson, Reginald Arthur
- Class 3 Barraclough, Harold  
 „ Garner, Walter  
 „ Kidd, John Thomas  
 „ Llewelyn, Thomas Frederick Penderell  
 „ Parkin, Thomas Reginald Victor  
 „ Saunders, Joseph  
 „ Wake, Walter Arthur
- 923 Class 1 Fevre, Frederick Lucas le  
 „ Goldthorpe, William Oakland  
 „ Macmaster, Alexander  
 „ Marshall, Philip Guy  
 „ Mellor, Albert  
 „ Miller, William Bertram  
 „ Walker, Jack
- Class 2 Ambler, Francis William  
 „ Appleyard, Harry  
 „ Campbell, George Alexander  
 „ Elliott, James Victor  
 „ Farrar, Herbert Edmund  
 „ Haigh, Charles Benjamin  
 „ Haller, John Walter Ecroyd  
 „ Hanson, Thomas Halliday  
 „ McKee, John Charles



- Class 2 Meadows, Sydney Robert  
 " Olpin, Henry Charles  
 " Paxton, Arthur William  
 " Storey, Ralph Charles  
 " Whitehead, Rowland Bertie  
 Class 3 Bandyopadhyay, Roy Bankim Chandra  
 " Harding, Thomas Roland  
 " New, Archibald Alan  
 1924 Class 1 Ellison, Thomas  
 " Hardacre, Richard Walter  
 Class 2 Crow, Harold Frederick  
 " Croysdale, James  
 " Gordon, Mitchell  
 " Lawson, Wilfrid Ernest Little  
 " Leben, Jacob  
 " Marsden, Hermon  
 " Milne, John Victor Stewart  
 " Ryder, Leslie  
 " Stephenson, Harold Edward  
 Class 3 Bannister, Cyril Bradley  
 " Johnson, Ernest Norman  
 " Tiplady, George

## Chemistry of Leather Manufacture

- 1910 Class 1 Seymour-Jones, Arnold  
 1912 Class 1 Atkin, William Rearden  
 1913 Class 2 Thompson, Frederick Charles  
 1914 Class 1 Irish, Edward, B.Sc.  
 " Woodroffe, David, B.Sc.  
 1915 Class 1 Harrap, Frank Nettleton  
 " Hayes, Harry  
 1916 Class 2 Gordon, Isaac  
 1920 Class 1 Palmer, Wilfred Ernest  
 Class 2 Hey, Arthur Marsden  
 " Salt, Harold  
 1921 Class 1 Atkin, John  
 " Seymour-Jones, Frank Leslie  
 Class 2 Marriott, Robert Henry  
 " Tyson, Gilbert John Gilbanks  
 1922 Class 3 Watson, John Christopher  
 1923 Class 2 Atkinson, Clifford  
 " Ross, George Ronald Percival  
 1924 Class 3 Webster, Alec

**M.B. and Ch.B.**

- 1908 *Class 1* Mitchell, Guy Annesley Carter
- 1909 *Class 1* Thoseby, John Norman Lonsdale  
*Class 2* Flint, Horace Lance  
 „ Smith, Reginald Eccles
- 1910 *Class 1* Raper, Henry Stanley  
*Class 2* Musson, John Percy  
 „ Slocombe, Bernard Atkinson  
 „ Stockdale, George Vincent
- 1911 *Class 1* Fisher, John Barugh  
*Class 2* Caplan, Harry  
 „ Robinson, William  
 „ Sinson, Julius Barnet  
 „ Walker, John Perry
- 1912 *Class 1* Mellis, George Pickard  
 „ Metcalfe, John Clifford  
*Class 2* Angel, Harry  
 „ Blackburn, John Holliday  
 „ Dunbar, Leslie  
 „ Ferguson, John  
 „ Kirk, George William Lister
- 1913 *Class 2* Sinson, Harry  
 „ Taylor, Herman Louis
- 1914 *Class 2* Hebblethwaite, Arthur Stuart  
 „ Shockett, Harry Charles  
 „ Wilkinson, John  
 „ Wilson, Colin
- 1915 *Class 2* Leake, Charles Edward  
 „ Topham, Richard Stanley
- 1916 *Class 2* Dudley, Charles William  
 „ Lodge, William Oliver
- 1917 *Class 1* Carter, Hartley Sidney  
*Class 2* Charles, Henry Ernest  
 „ Gabriel, William Lowson Mabson  
 „ Parker, Joseph Henry
- 1918 *Class 2* Baxter, Gerald Richard  
 „ Bertwistle, Alfred Pilkington
- 1920 *Class 1* Gleave, Humphrey Hart

- Class 2 Botwood, Charles Anselm  
 " Dyson, Reginald John  
 " Hollings, George William  
 " Massey, Arthur  
 " Phelon, Harry Vernon  
 " Sheard, Arthur  
 " Thornton, Charles Raymond
- 1921 Class 1 Armitage, George  
 " Blackburn, John Taylor  
 " Chamberlain, Digby  
 Class 2 Currie, Donald Irvine  
 " Duck, Henry  
 " Fleming, Geoffrey Dewhirst  
 " Leake, William Harold  
 " Smithies, Cyril Moulson  
 " Thistlethwaite, Hilda  
 " Walsh, Nathan  
 " Wesley-Smith, John Leslie  
 " Wilson, Charles Haddon
- 1922 Class 2 Bernstien, Jack  
 " Fowler, Henry Percival  
 " Hellier, Mary  
 " Jowett, Ronald Edward  
 " Trewick, John Arthur
- 1923 Class 1 Walker, George Frederick  
 " Chester, Richard  
 Class 2 Cohen, Myer  
 " Fallows, Harold  
 " Foster, Frederick Newton  
 " Holmes, Edwin  
 " Rosenbloom, Philip  
 " Wardle, Greta Mary
- 1924 Class 2 Bedford, Thomas Henry Booth  
 " Claye, Andrew Moynihan  
 " Edelstein, Harry  
 " Ross, Harry  
 " Ward, Joseph Griffith

## DIPLOMAS (UNIVERSITY OF LEEDS)

## Education

- 1905 Barton, Edith Beatrice
- 1906 Conyers, Hilda  
Edwards, Maud Mary  
Owen, Florence  
Robinson, Lilian Dorothea
- 1907 Claridge, Margaret Elsie  
Dunlop, Marian Vaughan  
Illingworth, Maria Emma  
Myers, Mary Alice  
Ourtam, Nora Aline Jane  
Whitehead, Mary
- 1908 Flynn, Bridie  
North, Fanny Caroline  
Thomas Sydney Hardisty  
Walker, Jessie
- 1909 Bailey, Annie Rosa  
Frank, Dorothea Ethel  
Golding, Mary Muriel  
Hirst, John Crosland  
Mallinson, Dorothy  
Normington, May  
Simpkiss, Nellie  
Zelensky, Lily Aurelia
- 1910 Bendrey, Hilda  
Dean, Arthur Ernest  
Hobson, Elsie Irene  
Lawson, Leah Gardner  
Maud, Ida Marian  
Perham, Ethel Kate  
Ward, Herbert Wainwright
- 1911 Butler, Gloxinia  
Caldwell, Sarah Jane  
Phillips, Dorothy  
Wilson, Muriel Margaret
- 1912 Broadley, Mary Anne  
Foggitt, Ida  
Gregson, Annie  
Hooper, Dorothy  
Kirtland, Dorothy Mary  
Miller, Florence Clark  
Wright, Bertha Helen

- 1913 Jenkins, Elsie May  
Reynolds, Carrie  
Standing, Christine  
Sykes, Florence Mary  
Walker, Dorothy
- 1914 Blamires, Florence Mary  
Boothroyd, Elsie  
Brooksbank, Ethel  
Hirst, Beatrice May  
Levy, Sissie Emma  
Mawson, Constance  
Tempest, Mable Dorothy
- 1915 Caldwell, Mary Constance  
Chadwick, Florence Maud  
Crawshaw, Dorothy  
Jole, Nora Bancroft  
Needham, Alice Margaret  
Sheard, Kathleen
- 1916 Carter, Jessie May  
Ferraby, Margaret Illingworth  
Holliday, Marjorie Tate  
Kirkwood, Winifred  
Kitson, Fanny Edith  
Musgrave, Evelyn  
Rimmington, Miriam
- 1917 Birch, Dorothy Ellen  
Dawes, Marjorie  
Dawson, Esther Mary  
Mee, Winifred Ellen  
Nixon, Hilda  
Simpson, Helen Mary
- 1918 Bellerby, Margaret Hope  
Burrow, Hannah Louise  
Dixon, Ella  
Dowson, Evelyn Rhoda  
Moss, Helenor  
Thompson, Elsie Elizabeth  
Vincent, Janet Lucy  
Wood, Mary Freda
- 1919 Bairstow, Dorothy  
Billam, Lois Ethel  
Eastwood, Elsie  
Hellier, Agatha Sowerby  
Kaye, Ruth Armitage  
Noxon, Marion  
Richeux, Muriel Victoria Maley



- 1920 Barran, Emma Bottomley  
Hillas, Norman  
McLeannan, Florence Lilian  
Preston, Edith May  
Speed, Marie Elizabeth  
Stevenson, Hilda  
Wheatley, Winifred Margaret  
Wilkins, Phyllis Florence
- 1921 Berry, Florence Ada  
Bose, Sujata  
Buckley, Edith May  
Gurney, Denies St. John Cecil  
Halloran, Honora Nancy  
Knapp, Lilian Annie Mary  
Muhiyuddin, Mohamed Sultan  
Mukharji, Bhabanath  
Nixon, Marie Isobel
- 1922 Bate, Ethel  
Beeforth, Laura  
Cardwell, Albert  
Evans, John Charles  
Evans, Elizabeth  
Fawcett, Bertha Rylands  
Flockton, Edith Gertrude  
Garside, Bernard  
Gaukroger, Mildred Anne  
Hill, Harold  
Ing, William  
Jennings, Ivy Evelyn  
Leach, Nora  
Lowry, Louise Margaret Matilda  
Normanton, Emma  
Nowell, Elma Virtue  
Parkin, Ethel Mary  
Pawson, Alfred Clarence  
Robinson, Louis  
Schofield, Beatrice Rachel  
Schofield, Florence  
Sutcliffe, Annie Eliza  
Sykes, Gladys  
Thomson, Edith  
Tomlinson, Thomas Percival  
Trenholme, Winifred  
Walker, Hilda Hallam  
Walker, Robert  
Whitworth, Marjorie  
Wimsey, Ada

- 1923 Allcock, Evelyn  
Austin, Emily  
Barker, Hilda  
Bateson, Clara Florence Elizabeth  
Boothroyd, Fred  
Brearley, Hilda  
Chambers, Herbert Clive  
Clark, Elsie  
Clarke, Arthur  
Cockerlyne, Elsie  
Cohen, Nathan  
Cooper, Norman  
Crewdson, William Francis  
Denton, Edna  
Dyson, Charles  
Elsworth, Winifred  
Fairbourn, Marjorie  
Fouracre, Leslie  
Green, Lilian Beatrice  
Greenwood, Norris  
Grice, Rosalind Margaret  
Haigh, Herbert  
Hardy, Florence Mabel  
Hawthorne, John Eric  
Heath, Daphne Muriel  
Hebb, Herbert Ernest  
Holgate, Mary Sarah  
Huxley, Margaret Arnold  
Jackson, Douglas Price  
Jarvis, Violet Helena  
Knowles, Ernest  
Leake, Dora Margaret  
Luccock, Hilda  
Marsden, Frances Elizabeth  
Mathers, Arthur Leslie  
Oddy, Clarice May  
Opie, Eleanor Mary  
Pauley, Cecilia Gwendoline Dorothy  
Pickering, Horace Sydney  
Pickles, Catherine  
Potts, Annie Edith  
Priestley, Harold Edford  
Rhodes, Eric William  
Richardson, Esther Enid  
Roach, Arthur William  
Robinson, Ethel May  
Schofield, Dorothy Ruby  
Scupham, Marjorie  
Shaw, Harry Balmforth  
Silcock, Thomas

*Diplomas*

- 1923 Simpson, Nora  
Smith, Dorothy  
Smith, Marjorie May  
Snaith, Dorothy  
Spalding, Albert  
Spencer, Bessie  
Steel, Henry Northrop  
Thomas, Frederick George  
Tibble, John William  
Tilling, Norman  
Troughton, Emma Penrose  
Wadson, Grace Marjorie  
Walker, Edna  
West, Lilian Mary  
White, Enid Margaret  
Wright, Fred  
Wright, Roland
- 1924 Allright, Elizabeth Doris  
Atkin, Ethel  
Atkinson, Ada Alice  
Ayton, Margaret  
Bailey, Hilda Muriel  
Bailey, Mary  
Beaton, Elsie Mabel  
Bedford, Winifred  
Berry, Margaret  
Best, Sidney Edward James  
Bickerdike, Eleanor Bland  
Binias, Alice May  
Birch, Frances Beatrice  
Booth, Hilda  
Bradbury, Edith Agnes  
Briggs, Marjorie Powell  
Brunskill, Elizabeth  
Burnell, Noel Henry  
Calderbank, Mona Constance  
Carter, Ruth Ethel  
Cheetham, Robert Lionel  
Chopping, Gertrude  
Cooper, Frank Marshall  
Cooper, Kathleen Louise  
Coultas, George  
Cruikshanks, Amy  
Day, Dorothy Kathleen  
Dean, George Smith  
Dixon, Mary Hilda  
Downs, Annie  
Earnshaw, Hubert  
Edmondson, Margaret Jane

- 1924 Emmott, Sarah  
Farrar, Annis  
Fawcett, Agnes Mary  
Firth, Dorothy  
Ford, Evelyn  
Grassby, William Buttery  
Haigh, Hubert  
Hanks, Harry  
Harrison, Elsie Minnie Coates  
Helliwell, Betty  
Heptonstall, Margaret Edith  
Hirst, Herbert Frederick  
Hogley, Mary Kathleen  
Holdsworth, Frank Reginald  
Holyday, Vera Mary  
Howdill, Norman  
Illingworth, William Norman  
Jackson, Ellen Gertrude  
Kirkby, Ethel  
Lord, William John  
Marshall, Clarence Bolus  
Martin, Herbert  
Mercer, Kathleen  
Milne, Dora Winifred  
Milton, Harry  
Mulholland, Marie  
Muschamp, Kate Sara Evelyn  
Naylor, William Haydn  
Northgrave, Mabel Anne  
Oakes, Winifred  
Oddy, Alice Freda  
Olszewska, Mary Cecilia  
Panter, Sydney Humphrey  
Parkin, Laura Irene  
Parkinson, Harold  
Pennymore, Lucy Mary  
Pickles, Thomas Heaton  
Potter, Louisa  
Rankin, Alan  
Raw, Christine Emily  
Roughton, Edith Vera  
Saiyidain, Khwaja Ghulam  
Scarborough, Stella  
Seton, Charles MacGregor  
Shadwick, Cyril  
Shah, Yusuf  
Sheard, George Arthur  
Simpson, Margaret Cicely  
Smith, Dorothy Margaret  
Smithson, Mabel

*Diplomas*

- 1924 Solloway, Mildred Nancy Langdale  
 Stuart, Doris Irene  
 Taylor, Anna  
 Tempest, Hannah  
 Tyrrell, Doris Mary  
 Walker, Frank  
 Waterland, Roy  
 Weatherston, Jean Hastie  
 Wilby, Lucy Kathleen  
 Wild, Thomas Brook  
 Wilkinson, Stanley  
 Wood, Doris

**Commerce**

- 1904 Whiting, John Roland  
 1906 Potts, Roland Beeton  
 1910 Barringer, Ronald  
 1914 Umanski, Esther Ellen  
 Wahab, Ahmed Mohamed abdel  
 1921 Gupta, Shamirendra Nath  
 1923 Behari, Hari Krishna  
 Warren, Vera

**Teachers of French**

- 1907 Crowther, Jane Elizabeth  
 Woodman, Hilda  
 1908 Hawkes, Geoffrey  
 Holdsworth, Ethel  
 Lavington, Mabel Jessie  
 Lord, Mabel Alice  
 Poustie, Jessie  
 Robinson, Joseph  
 Spink, Gertrude Annie  
 Warren, Frederick  
 1909 Abbott, Constance Maude  
 Best, Winifred Jane  
 Cooke, Sarah Grace  
 Frank, Dorothea Ethel  
 Hollom, Edith Gertrude  
 Ife, Mary Eleanor  
 Lingard, Jonas Hartley  
 Walker, Theodora Minnie Hirst  
 1910 Abbott, Clifford Hewson  
 Copland, Marjorie Sempill  
 Cromie, Eily Kathleen



- 1911 Hutchinson, Herbert Stafford  
Lochore, Beatrice  
Riley, Sarah Annie  
Storr-Best, Gertrude Morfydd  
Ward, Edith  
Young, Constance Evelyn
- 1912 Castle, Clara Jane  
Edwardes, Henry Fred Edgecumbe  
Irwin, Guendolen  
Müllett-Ward, Annie  
North, Kate Victoria  
Whillier, Agnes  
Wylde, Jessie Irene  
Young, Arthur Button
- 1913 Bury, Jane Ellen  
Dykes, Mary Wall  
Morrison, Jeannie  
Sim, Alice Matilda  
Tomlinson, Alice Marian
- 1914 Padgett, Wilfred Wood  
Rosewitch, Elfiera  
Rowe, Annie Jane  
Walsh, Ethel Mary  
Ward, Clara Mabel  
West, Evangeline
- 1920 Anderson, Alice Ramsden  
Fearnside, Marion Campbell  
Kreling, Charles Joseph Marie  
Mather, Ethel Mary  
Paget, Elsie Deborah  
Wheatley, Winifred Margaret  
Wilkins, Phyllis Florence
- 1921 Hewitt, Margaret Eleanor  
Longton, Doris  
O'Sullivan, Margaret Rose  
Quarrie, Edith Margaret  
Turner, Lilian Binden
- 1922 Hauskind, Isidore  
Simms, Ellen
- 1923 Ingle, Elsa Mary  
Senior, Lucy
- 1924 Hird, Joseph Henry  
Mitchell, Rose Edmondson

**Teachers of German**

- 1907 Oates, Ethel Marian  
 1908 Ife, Mary Eleanor  
 1910 Boardman, Ernest Edmund  
 1911 Edwards, Henry Fred Edgecumbe  
       Lingard, Jonas Hartley  
       Palmer, Margaret Elizabeth  
 1912 Bolton, Ethel Addison  
       Broadley, Mary Anne  
       Jones, Anne Elizabeth  
       Kirtland, Dorothy Mary  
       Taylor, Dora  
 1913 Lochore, Beatrice  
       Werquin, Charles Louis  
       Whittaker, Joseph  
       Young, Arthur Button  
 1914 Crowther, Florence  
       Hinckel, Hans  
       Levy, Sissie Emma  
       Wheatley, Bertha  
 1915 Addison, Muriel Mary  
       Caldwell, Mary Constance  
       Cox, Alice Balkens  
       Downsborough, Ernest  
       Oates, Jessie Mary  
 1921 Holroyd, Henrietta  
       Padgett, Wilfred Wood  
       Pickles, Catherine  
 1923 Hauskind, Isidore  
 1924 Edelstein, Chales Solomon  
       Fox, Arthur

**Diploma in Social Organisation and Public Service**

- 1913 Dixon, Wilfrid  
       Dodgshun, Gladys Frankland  
       Fairweather, Frances Elizabeth  
       Heppenstall, Florence  
       Parrish, Florence Emily  
       \*Steinthal, Dorothea  
       \*Sykes, Emily Gertrude  
 1914 Cohen, Mary  
       Collier, Bertram George Curtis  
       \*Dodgson, Elsie Mary  
       Ellis, Margaret Winifred  
       Taylor, Gwendolen Margaret Douglas

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\* With distinction.

- 1915 Umanski, Esther Ellen
- 1916 Wager, Alice Mary
- 1918 \*Cridland, Dorothy
  - \*Cridland, Ivy
  - Fay, Rosetta Miriam
  - Owen, Annie Ethel
  - Pickering, Doris Evans
- 1919 \*Johnson, Amy Mary
  - Proctor, Luther
  - Pugh, Alice Maud
  - Singleton, Maude
  - Whitaker, Amy Rutherford
- 1920 Averdick, Mabel
  - \*Burlingham, Winifred May
  - Claybourn, Harry Young
  - Findlay, Ellen Margaret
  - Haslam, Edith Maria
  - \*Laughton, Frances Beatrice
- 1920 Lister, Joan Somerset
  - \*Lupton, Margaret Ella
  - Priestman, Madeline
- 1921 David, John Eric
  - Piercy, Marguerite
- 1922 Courtney, Dorothy Frances
- 1923 Ledsham, Eileen Rhoda
  - \*Walker, Ethel Margaret Learoyd
- 1924 Hirst, Phyllis

#### Teachers of Geography

- 1922 Boyd, Simeon
  - Butterfield, James Arthur
  - German, George Arthur
  - Harding, Oswald Jackson
  - Henry, Gwendoline May
  - Hislop, James Henry
  - Hudson, Arthur
  - Lupton, Ernest Edward
  - Ogden, Dinah Ann
  - Scouler, Agnes Jane Mackenzie
  - Slater, Oswald
  - Toothill, Joseph
- 1923 Bailey, Norman
  - Carrodus, Asa Joseph
  - Croudace, Henry
  - Crowther, Fred
  - Dawson, Ethel Maria

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\* With distinction.

- 1923 Fawcett, Edwin  
Fleet, Doris Gertrude  
Harrison, Eric John  
Holmes, Alice  
Humberstone, Gertrude  
Smith, Frank Wadsworth  
Twist, Herbert  
1924 Wright, Dorothy Katharine

**Mechanical Engineering**

- 1905 Wharton, John  
1909 Tsing, Ming-Poh  
1911 Farnell, Maurice  
1913 Clark, Eric Stanley  
1914 Mosby, Sydney Warrington  
1915 Wray, Frederick George  
1919 Harwood, Edmund  
1920 Pickard, Gordon Dower  
Seel, Clifford  
1921 Gilchrist, James Andrew  
Haigh, Albert  
Stead, Edward Stephen  
Swallow, Wilfrid  
1922 Blackburn, Frank  
Broadbent, Harry  
Crawford, Arthur  
Hulme, Harold  
Laine, John  
Tillotson, Alfred  
Whiteley, Cecil  
1923 Alderson, Laurence Alfred  
Blythe, George Edward  
Coates, Arnold Clement  
Cooling, Wilfred  
Edwards, Leslie Trevor  
Holdsworth, George Frederick  
Horne, Harold Nicholls  
James, Henry  
Lipman, Isaac  
Lowden, Arthur Sheridan  
McBurnie, Robert Stewart  
Mahon, William Stewart Ireton  
Moore, Donald Keith Strickland  
Pearson, Alfred Harold  
Sellers, William  
Varley, Henry  
Woodhead, Bertram

- 1924 Bennett, Herbert  
Harwood, Alfred Hambley  
Jones, Frank Hubert  
Morgan, Frank  
Seel, John William

**Civil Engineering**

- 1908 Bauer, Noah  
1909 Hsu, Hoon Yu  
1912 Foad, Mohammed  
Kerr, Harold  
1913 Clark, Stanislaus Eustace  
Thorpe, Hugh Stanley  
1914 Magid, Ahmed Abdel  
Mao, Shen Shan  
1916 Liu, Tsou Bing  
1919 Glass, John Buchan  
1920 Kirk, William Arthur  
Wood, John Noel  
1921 Brooksbank, Arnold  
Drake, Norman  
Holmes, Norman Kenneth  
1922 Goldthorp, Alfred Reginald  
Martin, Reginald Thomas  
Trye, Charles Brandon  
1923 Allderidge, Cecil Gordon  
Anderson, James Alexander Dunlop  
Gill, Eric  
Stead, George Edward  
1924 Hunter, Eric Vyvyan

**Electrical Engineering**

- 1904 Foulds, John Rhodes  
1905 Chippindale, Isaac Murray  
Hamilton, James  
1906 Richardson, Thomas Brook  
1909 Baldwin, Ewart Vernon  
Humphreys, Percy Harry Illingworth  
Peam, Ferdinand  
Pedley, Francis Leonard  
Sheard, Percy  
1913 Milner, Geoffrey  
1914 Croft, Edward Hugh



- 1921 Bannister, Harold  
Fry, Eric Rosewarne  
Ripley, Ronald Vincent
- 1922 Barker, Eric  
Clarke, Henry Rowland  
Cooper, Walter Fletcher  
Crymble, Clarence Frederick
- 1922 Hardy, George Gordon  
Pratt, Alfred Stewart Redvers  
Sanderson, Donald Hector Stuart  
Waite, John Selwyn
- 1923 Binns, Joshua William  
Elliot, Gordon Bevan  
Hague, Charles Kenneth Felix  
Irving, Leslie John  
Robertson, Philip White  
Symonds, John

**Coal Mining**

- 1904 Frazer, Edgar Hamilton  
Paterson, George Stewart  
Willey, Edward
- 1908 Holden, Athole Frederick
- 1901 Kay, Stanley Burnett  
Mawson, Frank
- 1912 Gill, Joseph
- 1913 Campbell, Robert Currie

**Mining Engineering**

- 1917 Udom, Nai
- 1920 Evers, Norman
- 1921 Paterson, George Stewart
- 1922 Berry, Samuel  
Flint, Douglas William  
Law, John Norman
- 1923 Bose, Anil Kumer  
Das, Jatindranath  
Jackson, Ernest  
Mellor, Fred
- 1924 Peel, Christopher Manners  
Wright, Alan

**Fuel and Metallurgy**

- 1911 Walker, James
- 1915 Kerr, Horace
- 1924 Hellewell, Harry

**Gas Engineering**

- 1911 Armstrong, Percy  
1920 Clucas, Alfred Henry  
Stott, Clarence  
1921 Pexton, Stuart  
1923 Owen, Albert Arthur George  
Scott, John Alexander  
1924 Tatham, Frank Chennel  
Wandless, Anthony Muncaster

**Textile Industries**

- 1909 Cockroft, Ernest Edward  
Chattapadhaya, Nolini Mohan  
1910 Lo Ting Yu  
Meirielles, Joas Magalhaes de Azevedo  
Wong, Ka Luen  
Kelly, John  
1912 Bonhomme, Jean Raymond  
Crowley, Frederick Hugh  
Dircks, Hugh Douglas  
Krishna, Raj  
Saruvanov, Dimitre  
Turner, Ernest  
1913 Ackroyd, John Henry  
Borochin, David  
Clarke, George Walter Scott  
Craven, Thomas Ernest  
Goodall, Herbert  
Ireland, James Alexander  
McErvell, William Alfred  
Siniscalco, Augusto  
Smith, John Rider  
Spencer, Hugh  
1914 Baines, Arthur Richard  
Blair, James  
Brodsky, Maurice  
Healey, James Russell  
1915 Baker, Brian Bernard  
Davison, Emerson  
Kay, Charles Bagnall  
1916 Balsaert, Arthur Joseph Alphonse  
1918 Saleh, Ibrahim

- 1919 Baily, Bernard Xavier Clarke  
Bennett, John  
Chadwick, Arthur Leslie  
Hardy, Harry  
Trimmell, Frederick William
- 1920 Cook, Robert Flashcombe  
Cooper, Roland  
Hudson, Ernest  
Wong, Tan Pung
- 1921 Collins, Arthur Stanley Marcus  
Hainsworth, Sydney Beetham  
Hoskins, Horace William  
Lefeaux, Keith Ovenden  
Lord, Frederic
- 1922 Allan, William Humphrey  
Atkinson, Francis Hepworth Dampier  
Barker, Aldred Farrer Bradshaw  
Barker, George  
Burton, Charles Richard  
Gardner, Sydney Wilson  
Holden, Arthur Peter Tordoff  
Marsh, George Frederick  
Morfitt, Denys Hewson  
Nankivell, William Henry  
Quickfall, Percy Holgate  
Russell, Rupert  
Taylor, Henry Bernard
- 1923 Balaram, Arcot Cothandapany  
Devanayagam, Arcot Chelvaroy  
Goldberg, Joseph  
Horsfall, Henry Spencer  
Ling, Chao Chieh
- 1924 Jackson, Tom Garth Blacker  
Link, Paul  
Lui, Man Chenk  
Sutcliffe, Max

**Dyeing**

- 1906 Sen, Gopal Chunúra
- 1907 Dawson, Walter  
Marchant, Ernest Norman
- 1908 King, Percival Edgar
- 1909 Sen, Rajendra Nath
- 1910 Bearder, Ernest Arthur  
Viccajee, Sohrab Framjee
- 1911 Rowe, Frederick Maurice

- 1912 Fort, Morris  
Hickson, Bernard  
Holroyd, Thomas Arthur  
Johnson, William
- 1913 Shulman, Isaac
- 1916 Jowett, Harold
- 1919 Chang, Ti-Sung  
Saleh, Ibrahim
- 1920 Breare, Arnold  
Briggs, Herbert Bradley  
Dalby, John  
Face, Frank Leslie  
Harris, Edward Geoffrey  
Hockney, Harry Linsley  
Howarth, John Edward  
Laboulle, Gaston Felix Lambert  
Rhodes, Oswald Stanley
- 1921 Ackroyd, Herbert  
Blakeley, Eric St. John  
Bradley, David  
Crossley, James Victor  
Crummett, Alan
- 1921 Ellingham, Christopher Frederick  
Hall, John  
Hill, George Graham  
Hoggett, Frank Noel  
Hoyle, Edmund Jessop  
Leventhall, Henry  
Mann, William  
Saunders, Joseph  
Sowrey, Jack Chadwick  
Stevenson, Francis Malcolm  
Thomson, Alexander  
Thorpe, George Sykes  
White, Reginald Lever  
Wimberley, Sydney Herbert
- 1922 Ambler, Francis William  
Appleyard, Harry  
Banks, Philip Gray  
Barraclough, Harold  
Bennett, William
- 1922 Brown, William  
Carter, Dick  
Croft, Cyril Mansley  
Crosland, Eric Bentley  
Dance, Edward  
Elliott, James Victor

- Fevre, Frederick Lucas|Le  
 Farrer, Herbert Edmund  
 Freeman, Eric Jesse  
 Goldthorpe, William Oakland  
 Goodall, Frederic Leathley  
 Haller, John Walter Ecroyd  
 Hanson, Thomas Halliday  
 Hind, George Edward Lockhart  
 Hodgson, George  
 Keyworth, Charles Maurice  
 Kidd, John Thomas  
 Llewelyn, Thomas Frederick Penderell  
 Macmaster, Alec  
 Meadows, Sydney Robert  
 Mellor, Albert  
 Miller, William Bertram  
 Olpin, Henry Charles  
 Parkin, Thomas Reginald Victor  
 Peel, Samuel Longley
- 1922 Ridgway, William Brooks  
 Roberts, Reginald John  
 Storey, Ralph Charles  
 Sykes, Leonard Sheard  
 Umanski, Jacob Rudolph  
 Wilkinson, Reginald Arthur
- 1923 Bandyopadhyay, Roy Bankim Chandra  
 Campbell, George Alexander  
 Carrington, Leonard  
 Clarke, Douglas  
 Crow, Harold Frederick  
 Croysdale, James  
 Cuthbert-Smith, Austin Godwin  
 Hardacre, Richard Walter  
 Hermes, William Robert  
 Lawson, Wilfrid Ernest Little  
 Ling, Zau Tsoong  
 Liu, Tao Chiu  
 Marr, Wo Yu  
 Marshall, Philip Guy  
 New, Archibald Alan  
 Ryder, Leslie  
 Tsai, Yu Chin  
 Walker, Jack  
 Whittles, Thomas Geoffrey  
 Wood, Percival John
- 1924 Ackroyd, Percy  
 Barford, Lancelot Ingrey  
 Campbell, Eric Duncan  
 Dunsby, Edward



Ellison, Thomas  
Freshwater, Stanley Bruce  
Johnson, Ernest Norman  
Story, Charles William Herbert  
Talbot, Charles Reginald  
Thompson, Thomas Edward  
Walker, Eric Eaton  
Watson, Ronald

### **Colour Chemistry**

- 1920 Mablesen, Godfrey  
1921 Ellingham, Christopher Frederick  
Hill, George Graham  
1922 Mann, William  
1924 Barford, Lancelot Ingrey

### **Leather Manufacture**

- 1904 Casaburi, Vittorio  
Doikawa, Saichiro  
Prévo, Jules Mathieu  
1906 Feldheim, Herman Dietrich Ernst  
Mende, Stephan  
1907 Blyth, James Rupert  
Hardie, Alexander Greenhorn  
Morrison, James Alexander Shepherd  
1908 Fenner, Joseph Henry  
1909 Bose, Surendra Nath  
Ellis, Leonard Eric Kensett  
Paniker, Manakath Allampatath Ramunni  
Sen, Atul Chandra  
Seymour-Jones, Arnold  
1910 Callendar, George Dougal  
Coulthard, Ernest  
Ismail, Mohammed  
1911 Dobson, Joseph Stanley  
Rashid, Mohammed Abdur  
1912 Faizuddin, Syed  
Friestedt, Sven Hjalmar  
Hilton, Frank  
Uddin, Syed Mohammed Amin  
1913 Muckenhirn, Francis Carl  
1915 Barber, Charles Frederick Lee  
Djambezdis, George Alexander  
Wilson, John Arthur

- 1916 Pickles, John Edward
- 1918 Sjoblom, Magnus Erland
- 1921 Morrison, Robert Henry  
Mukharjee, Jogesh Chandra  
Smith, Thomas Alfred
- 1922 Hirst, Charles Littlewood  
Jowett, Jack  
Wainman, Wilfred Ernest
- 1923 Douglas, Gordon Watson  
Kopecky, Ferdinand  
Wilkins, Eric Compton Foster
- 1924 Campos, Jose Maria  
Galhano, Jose Manuel Barbedo  
Graf, Alfredo Gonzalez

### Public Health

- 1906 Halliwell, Thomas Oates
- 1907 Scatterty, William  
Sharpe, Frederick Augustus  
Mason, Harry
- 1909 Carnes, William  
Crake, Herbert Milverton
- 1910 Greaves, Frederick William Marshall  
Ashmore, Patricius Wallace  
Hitchins, William Mayne  
Mason, John Harold
- 1911 Smith, Charles Nixon  
Pickles, Clifford Crawshaw
- 1912 Chambers, Guy Oldham  
Dick, Alexander  
Dobson, Donald Frederick  
Horne, Harold Forster
- 1913 Lyons, William Campbell
- 1920 Hebblethwaite, Arthur Stuart  
Smith, Jessie  
Wolfe, Hermon
- 1921 Gordon, John  
Massey, Arthur  
Sykes, William Stanley  
Wells, Henry James Gordon
- 1922 Fleming, George William  
Gordon, Louis  
Harris, Marjorie  
Sinson, Harry

- 1923 Bolton, Effic Greig  
Maclean, Mabel Mary  
O'Neill, Michael John  
Science, Jack  
Sheard, Jessie

#### Dental Surgery

- 1909 Salt, Charles Frederick  
Wilson, Francis Cecil
- 1910 Bentley, Harold Rawbert  
McKay, George Simpson  
Howden, Ernest
- 1912 Rushton, Irvine
- 1913 Shoesmith, Harold Percy
- 1914 Gill, John Edgar
- 1915 Fraser, Alexander Lickley  
Rogerson, Ernest Arthur  
Waddington, Horace Victor
- 1916 Waring, Laurence
- 1917 Macrae, John Munro
- 1919 Clubb, Douglas Bailey  
Appleyard, Florence Maude
- 1920 Davey, Norman Henry  
Hill, Walter Samuel  
Knowles, Charles Reginald  
Senior, William Goodwin  
Tiplady, Herbert Newton  
Webb, George Herbert
- 1921 Colls, Benjamin Archie  
Gisburn, Alfred Ernest (Senr.)  
King, Norman Leonard  
Sutcliffe, John William  
Temple, Leslie  
Tomlinson, Francis Leslie  
Vallow, James Percival Owen
- 1922 Brown, Geoffrey Barlow  
Channon, Geoffrey Colin  
Chubb, Andrew Daniel  
Craig, Wilfred John James  
Finlayson, Roderick Macdonald  
Hamer, Joseph Henry  
Murgatroyd, Harry  
Page, Arthur Denyer  
Ross, Ralph Norvel  
Smith, Thomas Ernest  
Syder, Arthur  
Woods, Malcolm

- 1923 Armitage, Wilfrid  
 Brewer, Albert  
 Burn, Sydney  
 Cook, Ewart  
 Crossley, John Cyril  
 Dinsdale, Reginald Basil Taft  
 Dunleavy, James  
 Gordon, Joseph  
 Gisburn, Alfred Ernest (Junr.)  
 Jowett, Sidney Hirst  
 Knowles, Eleanor Mary  
 Lake, Fred  
 Lumb, William Henry  
 Maclean, William Stewart  
 Orton, Robert  
 Ramsden, Thomas Horatio  
 Ratcliffe, Sydney Brittain  
 Rayner, Donald Stuart  
 Reid, George Barclay  
 Sabine, Charles Shirley Wilmshurst  
 Shaw, Howard  
 Slater, Oswald  
 Stapleton, Herbert  
 Sunderland, Walker  
 Taylor, Alfred Leslie
- 1924 Chester, Abraham Banks  
 Cristol, Joshua  
 Ellis, Vivian Paul  
 Forth, Alfred Richard  
 Griffiths, Robert Louis  
 Houston, Caroline Sofia  
 Moxon, Joseph Noel  
 Palmer, Ernest Kenneth  
 Richardson, Frank Herbert  
 Sclare, Rachel  
 Sutcliffe, Nevil Clifford  
 Wells, John

#### **Psychological Medicine**

- 1912 Babington, Alice Elizabeth May  
 Moyes, John Murray  
 Waldron, Ethel Annie
- 1913 Robinson, William
- 1920 McGrath, Mathew Joseph  
 Russell, John Ivison
- 1922 Ewing, Cecil Wilmot  
 Kerr, Felix Arthur  
 Macmillan, Donald Macphail  
 Roe, George Charles Frederick

## Nursing.

- 1921 Innes, Euphemia Steele (*honoris causa*)  
Claye, Nora Needham  
Craven, Marjorie Eadon  
Fleming, Gladys Margaret  
Hebdon, Mary Emily Morley  
Ryder, Kathleen Thelma Elizabeth
- 1922 Blakesley, Alfreda  
Briggs, Elsie Kathleen  
Mitchell, Rose Mary  
Oakes, Lois (*with distinction*)  
Overton, Constantia  
Salton, Margaret Bessie
- 1923 Carr, Marion Amy  
Clarke, Nellie Phoebe  
Grant, Lucy Gwendoline Duff (*with distinction*)  
Lodge, Phyllis Mary (*with distinction*)  
Snowden, Lillie
- 1924 Burke, Mathilde  
Grossart, Helen Fraser  
Milner, Eva  
Powlson, Mary Madeline  
Wilson, Frances Margaret

## Surveyors' Certificates under the Coal Mines Act 1911

- 1914 Parker, William Henry
- 1917 Crossland, John  
Brown, Thomas  
Brown, Sydney Clifford
- 1918 Hampson, James  
Brook, John  
Firth, David
- 1919 Darwent, Herbert  
Baxendale, Harold
- 1921 Dunkley, William Henry  
Joyce, John William



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