THE

UNIVERSITY OF LEEDS

Session 1940-1941

Faculties of Arts, Economics and Commerce, Law, Science and Technology

UNIVERSITY TERMS

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

First Term .. Tuesday, 24th September, 1940, to Wednesday, 4th December, 1940.

Second Term Tuesday, 7th January, 1941, to Friday, 14th March, 1941.

Third Term.. Thursday, 17th April, 1941, to Monday, 30th June, 1941.

ADMISSION OF STUDENTS

The classes and laboratories are open to men and women on the same terms.

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.

Applications for admission to the University from persons residing out of the United Kingdom should be sent in not later than May 31st of each year, and must in all cases be accompanied by certificates of good conduct duly authenticated. Overseas students are, in addition, required to produce certificates of identity.

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* In the case of the Faculty of Medicine (including Dentistry) students must normally have reached the age of 17 years 3 months before entering the University,

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 TUESDAY, SEPTEMBER 24th, and the following day or days. *Students will be informed individually of the times at which they should attend for enrolment. 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 Tutor of Women Students as to their studies. The Accountant will be in attendance to receive the fees and to register students whose courses of study have been duly approved.

All students 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 for approval the address of such lodgings. Students who have taken registered lodgings are required to inform the Supervisor of Lodgings beforehand if they desire to move into other registered lodgings.

2. Students who do not return or enter 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. Regular, punctual, and orderly attendance at lectures, laboratories and departmental examinations is required of every student, in order to obtain certificates of attendance. In the case of persistent neglect of work, repeated failure at

* The arrangements for the admission of students are subject to review in the light of circumstances existing at the time.

† Women students are not normally expected to live in lodgings. Any student wishing to do so should first consult the Tutor of Women Students.

examinations, or unreasonable delay in presenting himself for such examinations, a student may be required to withdraw from the University.

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

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

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 Vice-Chancellor.

9. All students of the University who are reading for degrees are required to produce a certificate of having passed the examination for Matriculation 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 be charged.

12. 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

Arrangements are made by which the laboratories are open during a portion of the vacations to students capable of independent work. A nominal fee is charged (see Fees, section (*c*) (iv). Application for admission in such cases must be made to the heads of departments, with whom the decision as to the suitability of students for admission rests.

QUALIFICATIONS FOR ENTRY UPON A DEGREE COURSE

1. A candidate for a degree in any Faculty of the University must satisfy the requirements of the Joint Matriculation Board. *Enquiries should be directed to "The Secretary, Joint Matriculation Board,* 315, *Oxford Road, Manchester,* 13."

2. The University imposes the following additional requirements for entry into the Faculties of Arts and Medicine :—

Arts :

Candidates will not be admitted to the course of study for the degree of Bachelor of Arts unless they have satisfied the examination requirements for entry upon degree courses as laid down by the Joint Matriculation Board *and* have either (*i*) obtained a "credit" in Latin or Greek in one of the recognised School Certificate examinations or (*ii*) have passed in Latin or Greek as a Full or as a Subsidiary subject in one of the recognised Higher School Certificate examinations, provided that translation at sight from Latin or Greek into English forms part of the examination.

Candidates who have passed the examination for persons of mature years are exempted from this requirement.

Medicine :—

Except in cases specially approved by the Senate, candidates for a degree in the Faculty of Medicine (M.B., Ch.B. or B.Ch.D.) are required to present

evidence of possessing a knowledge of Mathematics at least equivalent to that of the "Pass" standard at a School Certificate examination.

3. For candidates who may not be able to satisfy the conditions normally required for entry upon a degree course, a Special Examination will be held in July and in September. Candidates must be not less than 17 years of age on 31st July of the year of examination and must satisfy the examiners in English Language and in five other subjects. Full information regarding the Special Examination can be obtained from the Secretary to the Joint Matriculation Board.

A certificate will not be issued to successful candidates.

4. *An examination for persons of mature years.*

(*a*) This examination is intended to meet the case of the *exceptional* candidate who has been unable to qualify at the normal time, but who shows promise of obtaining more than ordinary success in a University course. The examination will be held in May or June, and applications must be received not later than 1st May.

(*b*) Only *bona fide* candidates who intend to enter on a degree course at one of the constituent Universities are normally eligible to enter for the examination.

(*c*) A candidate must be not less than 23 years of age on 1st May of the year of application, and may not take this examination a second time except by special permission of the examiners.

(*d*) Each candidate will be interviewed by the Board and must submit himself to such oral and written examination as the Board considers necessary. The examination test will vary according to the interests and qualifications of the individual candidate. No syllabus is laid down, but normally each candidate will be required to write an English essay and to answer

questions on non-technical subjects chosen by himself with the approval of the Board or bearing on the University course upon which he desires to enter.

(*e*) The purpose of the examination is to test the educational fitness of a candidate for admission to a definite Faculty in a given University. Success in the examination does not qualify him for admission to any other Faculty or University and the examination carries no other privileges with it. Further, a successful candidate is not exempted from fulfilling the special requirements of the Faculty to which he desires to be admitted.

(*f*) Applications under these regulations must be made on the prescribed form, which may be obtained from the Secretary to the Board. The examination fee is £2. If a candidate has been examined, no portion of this fee is returnable whether he is accepted or rejected.

A certificate will not be issued to successful candidates.

5. *An examination for persons who have been engaged in industry.*

(*a*) An examination will be held annually in July admission to which will only be granted after special application to the Board. The examination is intended only for candidates who desire to proceed to a degree course in one of the constituent Universities and

(i) have been engaged in full time industrial employment for a period of at least three years* ;

(ii) have attended systematic courses of instruction satisfactory to the Board for a period of at least three years ;

(iii) are not less than 19 years of age on 31st July of the year of examination.

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*The Board is prepared to consider applications for admission to this examination from persons not engaged in industry whose employment and qualifications may entitle them to special consideration.

(*b*) The standard of the examination will be at least equal to that of the Special Examination referred to in in paragraph 4 above. A successful candidate will be entitled to enter upon a degree course in a specified Faculty in one of the constituent Universities, provided that he also satisfies any additional requirements of that Faculty.

(*c*) A candidate will be required to appear before an interviewing committee at the University to which he desires admission, and subsequently to present himself for examination in five subjects as follows :—

I. English Language.

As for the Subsidiary Subject in the Higher School Certificate Examination.

II. English Literature.

Acquaintance with the two plays of Shakespeare prescribed for Subsidiary English Literature. Alternative A, and with the works prescribed for Subsidiary English Literature. Alternative B, in the Higher School Certificate Examination.

III. and IV. Any two other subjects from the schedule of Subsidiary subjects of the Higher School Certificate Examination.

V. An industrial subject.

The following subjects have been approved : Mechanical Engineering, Electrical Engineering, Mining, Naval Architecture, Metallurgy, Cotton Weaving.

Application for the approval of other subjects may be made to the Board.

(*d*) The fee for the examination is £2. Application to be admitted to the examination must be made on the prescribed form at as early a date as possible and in any case not later than 25th April of the year of examination. Application forms may be obtained from the Secretary to the Board.

A certificate will not be issued to successful candidates.

DEGREE COURSES

Full particulars of the requirements for degrees 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.

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; provided that the Registration Fee payable by overseas students will be £5 except in the case of Research and Ph.D. students who will pay £2.

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 a 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 £4.

Unless otherwise stated, the Union subscription is included in the Composition Fees. The subscription is payable 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

*For Medical and Dental Course fees see separate prospectus or the Calendar.

entitles students to the use of the New Union Building (which is 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.

Students and members of the staff who have paid five annual subscriptions or the equivalent thereof, shall become Life Members of the Union and shall have all the privileges of ordinary members. but shall not take part in games and athletic sports unless they pay an annual fee of one guinea.

The Union Fee for students who attend for only part of a session and who do not pay a sessional Composition Fee shall be £2 16s. od. for two terms and £1 8s. od. for one term.

4. Lecture and Laboratory Fees

(*a*) *General Regulations.*

The composition fees for lecture and laboratory courses may be paid either sessionally, in advance, or (with certain exceptions) terminally by instalments. Fees paid by instalments are at a slightly higher rate than when paid in advance. The terminal instalment scales of fees are not applicable to students ordinarily resident outside the British Isles ; such students must pay fees sessionally in advance.

A student ceasing, for any reason whatsoever, to attend at the University during the session has no claim to a return of fees.

A student who elects to pay composition fees by instalments and who withdraws from the University before the end of a session, must pay the whole of the remaining instalments of the session's fees.

During the war, a refund of a proportion of a sessional composition fee will normally be made where a student is called up or volunteers for national service before the end of the session for which a fee has been paid.

On presentation of a form signed by the Dean of the Faculty authorising attendance upon courses of study, and upon payment of the requisite fees, the Accountant will issue a class ticket entitling the student to attend such courses. This class ticket must be presented by the student, before commencing a course, to the Professors or Lecturers whose classes or lectures he is authorised to attend.

(*b*) *Composition Fees for Complete Courses.*

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.

The composition fees include the subscription to the University Union unless otherwise stated.

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, Fuel, and Colour Chemistry Departments will be charged the Technological composition fee for each year of the course.

Subject to the foregoing, students paying a composition fee of £35 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.

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 4 (*c*) (iv)).

	Fee when paid sessionally *in advance.*	Fee when paid in terminal instalments *on the 1st day of each term* 1st Term	2nd Term	3rd Term
	£	£	£	£
(i) Arts§				
For each of first three sessions ...	35 each session	16	12	9
4th session ...	29* ,,	14	9	7
(ii) Science				
(a) For each of first three sessions	43† ,,	20	15	10
4th session ...	35* ,,	16	12	8
(b) Pre-Registration Course for degree in Medicine** ...	43 ,,	20	15	10
(iii) Technology‡				
For each of first three sessions ..	47 ,,	22	17	10
4th session ...	39* ,,	19	12	9

Department of Education.

(1) *Recognised Students in Training.*

(*a*) Undergraduate Courses—Arts and Science. The fee, as stated for Arts and Science in (i) and (ii) above, is reduced by the amount of grant paid to the University by the Board of Education. (The conditions of award and

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* Applicable only in the case of a student who for three successive years has paid the composition fee appropriate to any one Faculty.

† Students in the Chemistry department, in addition to purchasing a working set of apparatus, will also pay a deposit of 30s. at the beginning of each session, to cover the cost of replacing broken apparatus, etc. This deposit will be paid with the tuition fee, and will be refunded at the end of each session after deducting cost of breakages, retort stand rent (1/-), etc.

‡ Students from overseas admitted to the Textile Department will be required to pay, in addition to the Technological composition fee, a special fee of £10 a session for the use of technical equipment and apparatus. This special fee will be payable at the same time as the composition fee.

§ Students taking an Honours Course in French or German are normally required to spend the third term of the second year of their course at an approved University in France or Germany. Such students must therefore be prepared to face additional expenditure in that year over and above the full sessional composition fee. The cost of travelling and of residence abroad varies from £20 to £30 a term according to the University selected. Tuition fees at the foreign University to a maximum of £3, together with a grant of £3 towards the cost of travelling, are paid by the University of Leeds. The remainder of the cost must be met by the student.

**For Medical and Dental Course fees see Prospectuses or Calendar.

the scale of grants are given in the prospectus of the Department of Education).

(*b*) Year of professional training.

The fee is paid to the University by the Board of Education.

(2) *Non-Recognised Students in Training.*

Arts and Science.

Fees as stated for Arts and Science in (i) and (ii) above.

Diploma in Education.

£36 each session if paid in one sum. If paid in terminal instalments—1st term £18; 2nd term £12; 3rd term £8.

Theology.

Course for B.D. degree :—

(1) Candidates who have not graduated in the University of Leeds :—

Registration fee : £2 (if not previously paid).

Fees at the scale set out in Section 4 (c) (i) (separate fees 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 £8 8s. per session (including Union Fee).

(2) Candidates who are graduates of the University of Leeds :—

Fees at the scale set out in Section 4 (c) (i) (separate fees scale) for any classes attended.

B.Sc. (*Physiology or Bacteriology*). Students who combine a course in Physiology or Bacteriology with the Medical course will be required to pay the usual Medical composition fee, and at the commencement of the year in which a student enters upon the Physiology or Bacteriology course for the Honours degree, a supplementary composition fee will be payable, namely,

£43 if paid in one sum, or if paid in terminal instalments, 1st term £23, 2nd term £21. This supplementary fee will cover all necessary attendance in the subjects of the course.

Mathematics. Candidates for the degree of B.Sc. with Honours in Mathematics:

	Fee when paid sessionally *in advance.*	Fee when paid in terminal instalments *on the 1st day of each term*		
		1st Term	2nd Term	3rd Term
	£	£	£	£
1st session	43	20	15	10
2nd session	43	20	15	10
3rd session	35	16	12	9
4th session	29	14	9	7

Diploma in Social Organisation and Public Service.

(1) Two Sessions' Course (including practical work), Fee if paid in one sum in advance £28 each session. (If paid in terminal instalments: 1st term £14, 2nd term £11, 3rd term £5).

(2) One Session's Course (including practical work):

(*a*) Payable by a student who during three successive sessions has paid to this University a composition fee of £35 or more:—

Fee if paid in one sum in advance £29.

Fee if paid in terminal instalments: 1st term £14, 2nd term £9, 3rd term £7.

(*b*) Payable by other students:—

Fee if paid in one sum in advance £35.

Fee if paid in terminal instalments: 1st term £16, 2nd term £12, 3rd term £9.

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.

Diploma in Geography.

(1) In the case of candidates who are graduates of the University of Leeds, and who have previously paid to this University three composition fees of not less than £34 each.

(*a*) If the course is completed in one year: £29.
(*b*) If the course is spread over two years: £17 a year.

(2) Other candidates:
Registration Fee: £2 (if not previously paid).
(*a*) If the course is completed in one year: £35.
(*b*) If the course is spread over two years: £20 a year.

Diploma in Biology.

(1) In the case of candidates who are graduates of the University of Leeds, and who have previously paid to this University three composition fees of not less than £34 each, a fee of £16 a session will be payable.

(2) Other candidates:
A fee of £19 a session will be payable.

Diploma in Animal Biology. Fee for a sessional course, (1) if paid in one sum, £36; (2) if paid in terminal instalments: 1st term, £16, 2nd term, £13, 3rd term, £9.

Commerce Degree Course, £35 each session, unless:—

(1) one of the subjects under v. (*a*, *b*, *c* or *d*) is offered (see Final B.Com. Regulations), in which case the fee to be paid will be £47 for each session devoted to the study of that subject; or

(2) the course taken necessitates attendance of more than 9 hours a week in one or more of the Science Departments, when the sessional fee will be £43.
(For instalment scale see Section 4 (*b*)).

Law. Course for degree of LL.B., £15 11s. per session, payable in advance; Course for Final examination of the Law Society, £11 11s. per session (excluding Union fee), payable in advance; Statutory course for Certificate under the Solicitors Act, 1932, £11 11s., payable in advance for the full course if taken during three consecutive terms. (An additional fee calculated at the separate fee rate (see Section 4 (*c*) (i)) will be charged if the course is spread over a longer period than three consecutive terms).

	If paid sessionally *in advance.*	If paid in terminal instalments *on the 1st day of each term*		
		1st Term	2nd Term	3rd Term
	£	£	£	£
Agriculture.				
Degree Course :				
1st session	43 ..	20	15	10
2nd, 3rd & 4th sessions	47 ..	22	17	10
Diploma Course :				
1st session	32 ..	15	12	7
2nd and 3rd sessions (two Winter terms)	£20/13/4 ..	—	—	—*

Students who enter upon a four years' course may elect to pay in their first year £47, being the composition fee for the Faculty of Technology, instead of £43, which is the composition fee for the Faculty of Science. They will then be entitled in their fourth year to a reduction of the fee from £47 to £39. (For terminal instalment scale see Section 4 (*b*)).

Students in the department of Agriculture, in addition to purchasing a recognised set of apparatus, will also pay a deposit of 20s. at the beginning of each session, to cover the cost of replacing broken apparatus. This deposit will be paid with the tuition fee, and will be repaid at the end of each session after deduction of the cost of breakages.

Medical and Dental. For Medical and Dental Course fees, see separate prospectus or the Calendar.

Master of Arts in the Department of Education or Master of Education.

(1) Candidates who are not graduates of the University of Leeds :—

(*a*) Candidates who combine the Diploma and Degree Courses :—

1st Year .. Registration fee, £2†
Tuition fee, £36 (including Union fee).
2nd Year .. £26 (including Union fee).
3rd Year .. £16 (including Union fee).

* Instalment scale not applicable.

† The Registration Fee payable by overseas students (except in the case of research and Ph.D. students) will be £5. Research and Ph.D. students will pay £2.

(*b*) Candidates who do not combine the Diploma and Degree Courses:

1st Year .. Registration fee, £2†
Tuition fee, £16 (including Union fee).

2nd Year .. £16 (including Union fee).

3rd Year .. £16 (including Union fee).

Fees for lectures and laboratory work not expressly recommended by the Professor of Education will be charged at two-thirds the scale set out in Section 4 (*c*) (i).

(2) Candidates who are graduates of the University of Leeds:—

Fees calculated at the scale set out in Section 4 (*c*) (i) for any classes attended.

Master of Law.

(1) Candidates who have not graduated in the University of Leeds:—

Registration fee, £2† (if not previously paid).

Fees at the scale set out in Section 4 (*c*) (i) 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 £8 8s. per session (including Union Fee).

(2) Candidates who are graduates of the University of Leeds:—

Fees at the scale set out in Section 4 (*c*) (i) for any classes attended.

Master of Arts or Commerce (*other than M.A. in the Department of Education*).

(1) Candidates who have not graduated in the University of Leeds:—

1st Year .. Registration fee, £2† (if not previously paid).
Tuition fee, £16 (including Union fee).

2nd Year .. £16 (including Union fee).

3rd Year .. £16 (including Union fee).

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† The Registration Fee payable by overseas students (except in the case of research and Ph.D. students) will be £5. Research and Ph.D. students will pay £2.

(2) Candidates who are graduates of the University of Leeds :—

Fees at the scale set out in Section 4 (*c*) (i) for any classes attended.

Master of Science.

(1) Candidates who have not graduated in the University of Leeds or who have not been awarded a Diploma in Applied Science under the conditions stated in paragraph (2) below :—

(*a*) *M.Sc.* (*Maths.*) :—

Registration fee, £2‡ (if not previously paid).

Fees at the scale set out in Section 4 (*c*) (i) for any attendance at lectures or classes in the University, provided that the minimum tuition fee payable by any candidate shall be £8 8s. per session (including Union fee).

(*b*) *Candidates for M.Sc., in Departments other than Mathematics* :—

Registration fee, £2‡ (if not previously paid).

Fees at the scale for Research Students under Section 4 (*d*) (ii).

(2) Candidates who are graduates of the University of Leeds ; or

Candidates who have been awarded a Diploma in Applied Science in the University of Leeds not less than two years before proceeding to the degree, and whose candidature has been approved by the Senate :—

If Research is undertaken in the University, fees will be payable at the scale for Research Students under Section 4 (*d*) (ii).

If Research is undertaken outside the University, under the supervision of a member of the Staff of the University, or if the candidate attends the University for lectures, fees will be payable at the scale set

‡The Registration Fee payable by overseas students (except in the case of research and Ph.D. students) will be £5. Research and Ph.D. students will pay £2.

out in Section 4 (*c*) (i), provided that the minimum fee payable in respect of supervision or lectures shall be £8 8s. per session, including Union Fee.

Doctor of Philosophy (Ph.D.). Faculty of:	Graduates of Leeds University. *Sessional Fee.** £	Other candidates. *Sessional Fee.** £
Arts	15	17
Science (Maths.)	15	17
Science (other than Maths.)	19	22
Technology†	19	22

Fees for lectures and laboratory work not expressly recommended by the head of the department concerned will be at two-thirds the scale set out in Section 4 (*c*) (i).

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

(i) The following fees, payable in advance, 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 class £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.

(ii) Students who have taken a degree or a diploma in the technological departments, and who desire to fill in time at the University while waiting for an appointment

* These fees will be proportionately reduced where a candidate is in attendance or only a part of a session having received permission to pursue part of the course in another University or Institution. A Supervision fee will be payable by such candidates while not in attendance at this University at the nominal rate of £2 a session.

† Students from overseas admitted to the Textile Department will be required to pay, in addition, a special fee of £10 a session for the use of technical equipment and apparatus. This special fee will be payable at the same time as the composition fee.

shall, on approval by the heads of the departments concerned, be permitted to attend for short periods in these departments at a fee of £1 per week plus any cost entailed for special material.

(iii) 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	,,

(iv) 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 upon the following conditions :—

(i) 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.

(ii) Graduates and advanced students will, if admitted as research students, be charged fees at the following rates† :—

	Leeds graduates.	Other than Leeds graduates.
Sessional	£15 0 0 ..	£18 0 0
Terminal	£5 5 0 ..	£6 10 0
One month ..	£2 10 0 ..	£3 0 0

These fees will include any University lectures or laboratory work recommended by the head of the department. The fee for any other lectures or laboratory work will be

*In certain special cases, Research Students may pay the fees mentioned under Section 4 (*c*) (i).

†Plus the Union Fee if a student attends the University for more than six hours a week, unless exemption from payment of the Union Fee is granted by the Vice-Chancellor. In the case of Textile Department students, a special fee of £10 a session for the use of technical equipment and apparatus will also be payable.

charged at two-thirds the scale set out in Section 4 (*c*) (i). The sessional research fee 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.

(iii) 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.

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

(v) Research students in the Chemistry and Textile departments will pay a deposit of 30s. at the beginning of each session to cover the cost of replacing broken apparatus. This deposit is payable with the research fee, and is repayable at the end of each session after deduction of the cost of breakages.

5. Examination Fees

No fee will entitle a candidate 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. Where a student is exempt from an examination the normal examination fee is payable. All fees are payable in advance.

For Ordinary B.A., a total examination fee of £6, payable in two instalments, £3 on presentation for first examination, and £3 at the end of the second session.

For Honours Schools with no first year qualifying examination (Modern Languages, Classics), £6 for Honours examination.

For Honours Schools with a qualifying examination, £3 for qualifying examination, and £3 for Honours examination.

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

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

B.Sc. degree :—

(1) 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.

(2) 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.

Pre-Registration examination for Medical Course*, £3.

B.D. degree :—
Qualifying examination, £5.
Degree examination, £5.

For the examination or report upon dissertation for the degree of M.A., M.Sc., M.Ed., M.Com., or LL.M., £5.

For the examination or report upon dissertation for the degree of Litt.D., LL.D., or D.Sc., £15 ; Ph.D., £10.

For the examination in Education for the Government Certificate, £1.

For the Final examination for any Diploma in the Faculties of Arts, Economics and Commerce, £3.

For the Diploma in Biology, £3.

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

(1) The fee for graduates of this University (or for candidates who have paid the full degree examination fee of £6) or for the holders of a diploma of this University, £3.

*For Medical and Dental Courses examination fees see Prospectuses or Calendar.

(2) 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.

(3) 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.

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.

6. Re-examination Fees

(i) *B.A. degree :—*

£1 for each re-examination in each subject ; but the aggregate fees for the *first* re-examination in all subjects shall not exceed £8.

(ii) *B.Com. degree :—*

15/- for a Subsidiary subject.

(iii) *B.Sc. degree :—*

£1 for an Introductory (or one year) subject

£2 for a Subsidiary (or two year) subject

£3 for a Principal (or three year) subject

but the aggregate fees for the *first* re-examinations in all subjects shall not exceed £8.

Agriculture in the Ordinary degree shall rank as a three-year subject for this purpose.

(iv) *Diplomas in Technology :—*
Fee for re-examination, £3.

(v) *Diploma in Education :—*
Fee for re-examination in either part taken separately, £1 10s.

Medical and Dental Course Examination Fees.
See separate prospectus or the Calendar.

7. Degree Fees

On conferment of a first degree, £7 (including Convocation fee). On conferment of a further degree, £6.

SCHOLARSHIPS

The University offers a certain number of Entrance, Senior and Graduate Scholarships, full particulars of which are given in the Scholarship Prospectus and the Calendar.

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 West Ridings of Yorkshire.

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.

BROTHERTON LIBRARY

Regulations

The Brotherton Library, erected by the generous gift of the late Lord Brotherton, contains the books of the University Library. It also houses the Brotherton Collection, the private library of Lord Brotherton, presented to the University in 1935 by Mr. Charles Brotherton and Mrs. Dorothy Una McGrigor Phillips in accordance with Lord Brotherton's desire.

The University Libraries, apart from the Brotherton Collection, contain 270,531 books and pamphlets. The Brotherton Collection

contains 37,101 books and pamphlets, 424 manuscripts, 4,105 deeds and 31,137 letters.

The Medical Library, consisting of 19,557 books and pamphlets, is housed in the School of Medicine, the Agricultural Library of 22,030 books and pamphlets is housed in the Department of Agriculture, and there are small departmental libraries, mainly in the Faculty of Technology.

The books in the Brotherton Library are arranged on three floors. On the main ground floor and in the gallery are the author and subject catalogues, such classes of books in most subjects as are suitable for open access, a room for current and unbound periodicals, and a room for pamphlets.

The lower ground floor is devoted to the following purposes :— the Law Library ; a room for Record Publications ; the library presented by the Leeds Philosophical and Literary Society to the University in 1936 ; a Newspaper Room ; a series of rooms devoted to the Icelandic Collection of 11,354 books and pamphlets formed by Mr. Bogi Melsteð and since augmented by many gifts from Iceland ; rooms for the Anglo-French collection and for other special collections, such as the Chaston Chapman books on the history of science and the Blanche Leigh cookery books.

Hours of Opening*

The Library is open on

(*a*) Monday, Tuesday, Thursday and Friday during term from 9 a.m. to 9 p.m., except during the period of the Annual Inspection and the last fortnight of the third term, when it is open from 9 a.m. to 5.30 p.m.

(*b*) Wednesday during term from 9 a.m. to 5 p.m.

(*c*) Saturday during term from 9 a.m. to 1 p.m.

(*d*) From Monday to Friday during vacation from 9 a.m. to 5 p.m.

(*e*) Saturday during vacation from 9 a.m. to 12.30 p.m.

It is closed during one week at Christmas, and on the public holidays.

General Regulations

1. Members of the University, Associates of the Yorkshire College and holders of Diplomas of the University are entitled to the use of the Library subject to the following regulations.

Persons not members of the University may be allowed by the Librarian to consult books on stating the subject of their studies and on producing a satisfactory recommendation. In special cases and on payment of 5/– for twelve months they may also be allowed to borrow books subject in particular, *mutatis mutandis*, to Regulations 23–26 and 28–29.

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

*The hours of opening are subject to alteration during the war.

3. No mark of any kind shall 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 necessary to make good the loss or injury. Should it be impossible to make good the loss or injury, such fine shall be imposed as the Library Committee may determine.

4. The Librarian has power to suspend the Library privileges of any person who breaks the rules of the Library. All such cases shall be reported to the Library Committee.

5. Reference books marked with a yellow label may, subject to the permission of the Librarian, be taken out of the Library, but only after 4 p.m. on Monday, Tuesday, Thursday and Friday, and after 12 (noon) on Wednesday and Saturday. They must be returned before 10 a.m. on the next day on which the Library is open.

6. Certain books of exceptional importance or rarity, labelled "Not to be taken out of the Library," including dictionaries, encyclopædias and current numbers of periodicals, may not be removed from the Library without the authority of the Librarian.

7. No person shall borrow a book from 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.

8. 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.

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

10. Readers requiring books from the lower ground floor must reserve them or apply for them before 5 p.m. after which time this portion of the Library will be closed.

11. No bag, attaché case or parcel may be taken into the Library. Provision has been made for depositing such articles in the vestibule.

12. In view of the fact that very large numbers of books are available to readers by direct access to the shelves, *all books whether University Library books or not*, are examined and checked by the Janitor at the exit before they are removed from the building.

13. If classes are held in any of the recesses opening out of the main reading room, the door to any recess so used shall remain closed only during the session of the class. The Librarian and his staff shall at all times have the right of access to the books in such a recess.

14. Books shall not be sent through the post to individual borrowers save under exceptional circumstances.

15. Books may not be taken abroad without the special permission of the Librarian.

Regulations affecting Members of the Academic Staff

16. No member of the Academic Staff shall be entitled to have at one time more than twenty-five books borrowed from the Library, save with the special permission of the Librarian.

17. Any member of the Academic Staff shall be entitled to take out such books as he requires up to the prescribed number and to retain them until such time as he may receive 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.

18. Postgraduate research students shall have the same privileges and be subject to the same regulations in respect of borrowing from the Library as members of the Academic Staff, save that they may not borrow more than ten books from the Library at one time.

Annual Inspection

19. 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 until the books on the shelves in the section involved have been checked.

20. A fine of twopence per book shall be imposed, up to the limit of the price of the book, for every day that it 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

21. 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 a 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.

22. All evening students and all past students who are neither graduates nor holders of Diplomas of the University are entitled to the use of the Library on payment of a fee of 2s. 6d. a session.

23. No present or past student shall have the right to borrow more than three books at one time. Any such student desiring to borrow more than this number of books shall make application to the Librarian.

24. Every book must be returned to the Library on or before the fourteenth day following that on which it was taken out. A book may, however, be renewed for a further fortnight 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.

25. 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.

26. All books must be returned to the Library before the end of the second term in accordance with Regulations 19 and 20.

27. Students provided with a written recommendation from a Professor or Lecturer shall be entitled with the permission of the Librarian to borrow the books specified in Regulation 6, but books taken out under this rule must be returned to the Library before the borrower leaves the University buildings.

28. Any person borrowing a book under Regulation 5, and failing to return it by the time therein specified, shall be fined 2d. a day, and any person who does not comply with Regulation 24, shall be fined 2d. if the book is returned within seven days following the day on which it is due and 4d. a week for each week or portion of a week after that period. A notice shall be posted to the borrower on the week-day following that on which the return of the book was due, informing him that a fine is being incurred.

29. Books may be taken out at the beginning of, or during, any of the vacations, and may be retained until the borrower has received 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. It shall be returned to the Library within seven days following the day on which a notice is posted to the borrower informing him that it is overdue, subject to a fine of 2d. for the first week or portion of a week thereafter and 4d. a week for each successive week or portion of a week. All books taken out during any of the vacations shall be returned within the first three days of the ensuing term, subject to a fine of 2d. for the first week or portion of a week thereafter and 4d. a week for each successive week or portion of a week. A notice shall be posted to the borrower on the fourth day of term informing him that a fine is being incurred.

Regulations respecting Special Libraries and Libraries on the Lower Ground Floor

1. The lower ground floor is devoted to the following purposes:—(*a*) the Law Library; (*b*) a room for Record Publications; (*c*) the library presented by the Leeds Philosophical and Literary Society; (*d*) a Newspaper Room; (*e*) the Icelandic Collection; (*f*) rooms for the Anglo-French Collection and for other special collections.

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

3. *Law Library.*—All members of the University shall have the right to consult the books in this Library, but students other than law students may not use the room unless they are consulting the books on the shelves.

4. *Admission to Special Libraries other than the Law Library.*—

(*a*) *Academic Staff.*—Members of the Academic Staff requiring direct access to the room on the main floor containing pamphlets or to the Special Libraries on the lower ground floor shall apply to the Librarian for admission.

(*b*) *Students.*—The Librarian may give permission to students to read in any of the Special Libraries upon the recommendation of the Head of the Department concerned.

Students thus given permission shall apply to the Librarian for admission to the room required and shall sign a register kept for that purpose.

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

Regulations for the Agricultural Library

1. *General Reference Books.*—These books may not be removed from the library until after 5 p.m., except by members of the staff. They must be returned by 10.15 a.m. next day. They may be removed from the library on Saturdays after 11.45 a.m., and must then be returned by 10.15 a.m. on the following Monday. Members of the staff borrowing books before 5 p.m. must not take them out of the building until after that time.

2. *Advisory Reference Books, i.e., books which may be required urgently at very short notice in connection with advisory work.*—Conditions to be the same as for General Reference Books with the exception that students may not borrow the books.

3. *Serials.*—Current numbers may be borrowed under the same conditions as Advisory Reference Books.

Regulations for the Brotherton Collection

A. General Conditions affecting access to the Brotherton Collection Rooms

1. The rooms containing the Brotherton Collection are reserved exclusively for the purposes of the Collection and for persons having the right of access to the rooms.

2. Entrance to the Collection shall be only by way of the main entrance to the Brotherton Library building.

3. No attaché case may be brought into the Brotherton Library building.

4. Exit from the Brotherton Library building by the main entrance will be subject in every way to the regulations imposed by the University on all readers, the attendant being instructed to examine all books and parcels that are taken past the barrier.

5. Smoking is strictly forbidden.

6. The rooms are open to authorised readers from 9 a.m. to 1 p.m., and from 2.30 to 5 p.m. from Monday to Friday; on Saturday from 9 a.m. to 12 noon.

7. The rooms are closed for one week at Christmas, on the public holidays, and on all occasions when the Brotherton Library is closed.

B. Access to the Brotherton Collection

1. Members of the Court, Council and the Senate of the University, members of the academic staff of the University and such administrative officers as the Council of the University may decide, and, with special permission, graduates and undergraduates of the University shall be allowed to visit the rooms during any of the statutory hours when the rooms are open, always provided that such persons shall have no access to the shelves or cases unless accompanied by the Keeper. They shall sign the register upon entering.

2. Members of the Court, Council, Senate and academic staff may have access to the Collection for purposes of research and reference subject to the permission of the Keeper, and upon signing the register.

3. Graduates and undergraduates of not less than 18 years of age may be admitted as readers (*a*) on the recommendation of a member of the professorial staff and/or the Vice-Chancellor, (*b*) on receiving the ticket issued for that purpose, defining the object of the research or the books of reference to be consulted, and (*c*) after signing the register. Each ticket shall be available for such period as may be decided in each case, but not longer than three months at a time.

4. Persons other than members of the University may be admitted as Readers on the following conditions :—

(*a*) Every application shall normally be made two days at least before admission is required.

(*b*) Applicants must apply to the Keeper and state in writing their place of residence, occupation, age and qualifications and the object for which they wish to use the Collection. The application must be accompanied by a written recommendation from a person of recognised position having personal knowledge of the applicant and certifying his fitness, reliability and competence to make proper use of the Collection.

(*c*) The application must receive the approval of the Keeper and the Librarian. All applications shall be reported to the Vice-Chancellor and to the Brotherton Collection Committee.

(*d*) On permission being granted the applicant will receive a ticket, which must be presented to the attendant on entering the building and to the Keeper on entering the Brotherton Collection, and shall be available for such time as may be decided in each case. He shall sign the register each day. Such tickets shall not be transferable and shall be returned when expired.

5. Individual persons not being members of the University may be given special permission to visit the Collection accompanied by the Keeper.

6. Groups of persons not being members of the University may be admitted to visit the Collection at such times as may be prescribed.

7. In the absence of the Keeper, the Librarian or his accredited deputy shall act in his place.

C. Rules applicable to all Readers

1. Readers admitted to use the Collection shall be subject to the general regulations of the University Library so far as relevant.

2. No books, MSS. or other articles in the Collection may be removed from the Brotherton Collection Rooms.

3. Books of exceptional value or rarity may be consulted only in the presence of the Keeper.

4. The use of fountain pens or ink while consulting the books or MSS. is forbidden, and no tracing, copying or reproduction shall be allowed without the express permission of the Keeper.

5. No mark of any kind may be made by a reader on any book or MS.

6. The Keeper, in consultation with the Librarian, may cancel or suspend the use of a reader's ticket at any time when deemed necessary. Such cancellation or suspension shall be reported to the Committee.

HOLDEN LIBRARY

Particulars of the Regulations governing the Holden Library can be obtained on application to the Librarian.

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.

*Under the Equal Franchise Act, 1928, the qualifying age is now 21 years.

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.

(*c*) All persons who graduate on or after June 1st, 1926, having already paid, in accordance with Ordinance XXV, a Convocation fee of £1, will be entered on the Parliamentary register without further fee as soon as they have completed the qualifying age.

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

APPOINTMENTS BOARD

The Board has been set up for the purpose of assisting present and past students of the University who desire help in obtaining posts. A detailed register is kept of all

students who enrol, and notices of suitable appointments are sent out regularly. The Secretary is in touch with the Ministry of Labour, the Universities Bureau, the Federation of British Industries, and all Government Departments. Many Education Authorities now notify their vacancies direct to the Secretary, and the number of enquiries from private employers is steadily increasing.

It is desirable to emphasise the fact that registration with the Board is permanent, and the Secretary endeavours to keep up to date information regarding the whereabouts and nature of employment of all Old Students who are registered with the Board.

No fees are charged either for registration or for negotiations conducted between students and prospective employers.

The Board will welcome the views of employers on matters relating to the employment of University graduates in business houses, and will at all times be glad to hear of suitable vacancies.

All communications should be addressed to the Secretary, Appointments Board, The University, Leeds.

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.D., a Dark Green Hood, with White Lining and Band one inch of Scarlet laid on the White Silk.

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 Dark Green Hood, lined with Light Green.

B.Ch.D., a Dark Green Hood, 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.Com., a Light Green Hood with White Lining and Band one inch of Dark Green laid on the White Silk.

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 Divinity or 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 a Doctor of Divinity is to be of Scarlet with sleeve linings of Dark Green and facings of White. The Hood is to be of Scarlet, lined with Dark Green, and bound with White.

The Gown of a 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.

The academic dress of a Licentiate in Dental Surgery is to comprise a gown without hood. The gown is to be of black with facings and yoke of middle green. The sleeves are to be of elbow length bordered with green outside and with white inside.

The Senate of the University has laid down the following definitions of correct academic dress for ceremonial occasions :—

(*a*) Academic undress : Black gown.

(*b*) Academic dress :—

Bachelor	...	Black Bachelor's gown with appropriate hood.
Master	...	Black Master's gown with appropriate hood.
Ph.D.	...	Black Master's gown with Ph.D. hood.

Doctor ... Black Master's gown with Doctor's hood.

(*c*) Full academic dress :—

Bachelor .. Black Bachelor's gown with appropriate hood.

Master ... Black Master's gown with appropriate hood.

Ph.D. ... Ph.D. gown without hood.

Doctor ... Scarlet gown, without hood if the gown is faced with the distinctive colour of the specific Doctor's degree.

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 Mullets 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."

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.

THE YEAR BOOK OF THE UNIVERSITIES OF THE EMPIRE.

This volume is published annually in March and contains an epitome of the Calendars of the Universities of the British Empire and a brief record of the developments in each University, together with a number

of Appendices which include among other useful information particulars relating to professions and careers for which University studies are a fitting preparation, qualifications for admission to a first degree in the Universities of Great Britain and Ireland, details of open Fellowships, Postgraduate Scholarships and Grants for advanced study and research and short descriptions of the centres of scientific research and information within the Empire. Copies (15/- and postage) may be obtained from the Universities Bureau of the British Empire, 88a Gower Street, London, W.C. 1. Universities which are Ordinary Members of the Universities Bureau and university colleges and institutions connected therewith, as well as Associate and Additional Members, and members of the staffs of all such institutions, may obtain copies direct from the Bureau at a reduced price of 10/- net.

STUDENTS' SOCIETIES

The University Union comprises the Cricket, Football (Rugby and Association), Tennis and other athletic Clubs, and undertakes the management of the Gymnasium, and the Debating Society.

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

The formation of all Societies is subject to the final approval of the Union Committee. Such Societies are divided as follows:—

Incorporated Union Societies.

1. The Union shall accept full financial responsibility for all such Societies.
2. All members of the Union shall be members of such a society without further fee.
3. The President of the Union shall be *ex-officio* President of such societies.
4. The other officers and members of the Committee shall be elected at the A.G.M. of such societies.
5. The Constitution of all such societies shall be approved individually by the Union Committee.

UNION SOCIETIES.

1. Such Societies shall have the right to use a room in the University Union for the purpose of assembly.
2. Such Societies shall conform to the Drafted Constitution for Societies.

NOTE.—The Union is free to support any Union society by any means within its power, such as financial assistance, the use of Union Rooms, and publication of information concerning the Society in the Handbook.

RECOGNISED BODIES.

The Union Committee has authority to extend the official recognition of the Union to such organised bodies as it may consider worthy. This recognition will be extended to those bodies whose nature and objects preclude their being included in the preceding two paragraphs. The constitution of bodies seeking recognition must be submitted to the Union Committee for consideration. Recognition does not necessarily imply that the Union accept any responsibility for the body recognised, but the Union Committee may, at its own discretion, assume a limited amount of responsibility. It may also grant money. Recognised bodies are not entitled to use the name "Leeds University Union."

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 may be obtained for the session, or a part of it, by depositing 5s. with the Janitor, who will lend the student a key, which will, however, remain the property of the University. A charge of 3s. 6d. 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 4s. for the session or term, 1s. 6d. of which will be repaid on compliance with the above conditions.

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 Janitor.

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.

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

OXLEY HALL .. .. *Warden :* Miss H. J. McLaren.
WEETWOOD HALL .. *Warden :* Mrs. Redman King, B.Sc

These Halls are situated in their own grounds, adjacent to the University Athletic Grounds and tennis courts.

For Men

DEVONSHIRE HALL .. *Warden* Professor FRANK SMITH.

Fees for Residence

The fees if paid during the first week of the Session are as follows :—

(*a*) *Ordinary Students.*

Men : The fee for full board and residence (not including personal laundry) is £68 a session, if paid in advance.

Residence out of term, £2 2s. 6d. per week.

Women : For students entering the Halls for the first time in session 1939-40 or later, the normal fees for full board and residence (not including personal laundry) : £64 to £67 a session (according to accommodation chosen).

Residence out of term, £2 per week.

The above fees may be paid in instalments at a slightly increased rate.

(*b*) *Recognised Students in Training.*

The fees as stated in paragraph (*a*) above, are reduced by the amount of grant paid to the University by the Board of Education. (The conditions of award and the rate of grants are given in the prospectus of the Department of Education).

REFECTORY

For the convenience of students, lunches are served daily in the University Refectory, from 12.30 to 2 p.m. A two-course lunch is provided at a charge of 1/-, and a three-course lunch at 1/2. Cold meats, tea, coffee, and other light refreshments may also be obtained up to 6 p.m.

Special Prospectuses

Special Prospectuses are issued of courses of study, examinations, &c., in—

	Prices.
Arts	6d.
Science	3d.
Medicine	6d.
Dentistry	6d.
Law	3d.
Commerce	3d.
Education Department	Free
Agriculture	Free
Civil, Mechanical and Electrical Engineering	3d.
Mining	3d.
Coal Gas and Fuel Industries and Metallurgy	3d.
Textile Industries	3d.
Colour Chemistry and Dyeing	3d.
Leather Industries	3d.
Evening Courses	Free
University Extension Lectures	Free
Scholarships and Fellowships	3d.

These Prospectuses may be obtained from the Registrar.

UNIVERSITY STAFF

FACULTY OF ARTS

Greek Language and Literature

Professor : W. M. EDWARDS, M.C., M.A., *Oxford.*

Lecturer in Classical Archaeology : Vacant.

Assistant Lecturer : F. F. BRUCE, M.A., *Aberdeen,* B.A., *Cambridge.*

Latin Language and Literature

Professor : EDWARD J. WOOD, M.A., *Aberdeen* and *Cambridge.*

Senior Lecturer : E. E. BIBBY, M.A., *Leeds* and *Cambridge.*

Lecturers : D. E. F. BINYON, B.A., *Oxford*; A. N. NEWELL, B.A., *Cambridge.*

Part-time Lecturer : The Rev. H. E. SYMONDS, M.A., *Oxford.*

English Language and Literature

Professor of English Literature : BONAMY DOBRÉE, O.B.E., M.A., *Cambridge.*

Professor of English Language : BRUCE DICKINS, M.A., *Cambridge.*

Lecturers (English Literature) : WILFRED R. CHILDE, M.A., *Oxford*; D. W. JEFFERSON, B.A., *Leeds,* B.Litt., *Oxford*; K. MUIR, B.A., *Oxford.*

Lecturers (English Language) : A. S. C. ROSS, B.A., *Oxford*; R. M. WILSON, M.A., *Leeds.*

Honorary Lecturer in Modern Icelandic : E. O. G. TURVILLE-PETRE, B.A., B.Litt., *Oxford.*

Temporary Lecturer : EDWARD ALLAM, M.A., B.Mus., A.R.C.M.

French Language and Literature

Professor : IVOR D. O. ARNOLD, M.A., *Wales,* Docteur de l'Université, *Strasbourg.*

Senior Lecturer : Miss DORIS GUNNELL, M.A., *Leeds,* Docteur de l'Université, *Paris.*

Lecturers : J. P. INEBNIT, L. ès L. *Neuchâtel*; T. V. BENN, B.A., Ph.D., *Leeds*; G. HAINSWORTH, M.A., *Leeds,* Docteur de l'Université, *Paris.*

Temporary Assistant Lecturer : R. DELANEY, B.A., Ph.D., *Leeds.*

Italian Language and Literature

Lecturer : ADRIANO UNGARO, D.Sc. (Polit.), *Rome.*

German Language and Literature

Professor : R. PEACOCK, M.A., *Leeds,* Dr. Phil., *Marburg.*
Lecturers : Miss M. CONSTANCE CALDWELL, B.A., *Leeds;*
Assistant Lecturer : M. O'C. WALSHE, M.A., *London.*
Temporary Part-time Assistant :

Hebrew

(*See Theological Studies*).

Russian Language and Literature

Acting Head and Lecturer : Vacant.

Spanish Language and Literature

Acting Head and Lecturer : PEDRO PENZOL, L.D., *Oviedo.*
Lecturer : AGUSTIN DE IRIZAR.

History

Professor of Modern History and Head of Department : A. S. TURBERVILLE, M.C., M.A., B.Litt., *Oxford.*
Professor of Mediæval History : D. C. DOUGLAS, M.A., *Oxford.*
Lecturers : A. H. DAINTON, M.A., *Oxford ;* J. C. DICKINSON, M.A., B.Litt., *Oxford.*
Lecturer in Ancient History : G. W. RICHARDSON, M.A., *London.*
Honorary Lecturer in the History of Painting : P. HENDY, Slade Professor of Fine Art in the University of Oxford, Director of the Leeds City Art Gallery.

Philosophy

Professor : J. W. HARVEY, M.A., *Oxford.*
Lecturer : A. M. MacIVER, M.A., *Oxford.*
Honorary Lecturer in Medieval Philosophy : S. J. CURTIS, Ph.D., *London.*

Economics

(*See Faculty of Economics and Commerce*)

Geography

(*See also Faculty of Science*)

Reader and Head of Department : A. V. WILLIAMSON, M.A., *Liverpool.*
Lecturers : K. G. T. CLARK, B.A., *Leeds ;* A. DAVIES, M.Sc., *Wales.*
Assistant :

Education

Professor: FRANK SMITH, B.A., B.Sc., *Manchester*, M.A., *Cambridge*, Ph.D., *Wales*.

Senior Lecturers in Education: Miss E. M. BLACKBURN, M.A., *Leeds*; A. J. MONAHAN, M.A., *Leeds*.

Senior Lecturer (Experimental Psychology): Ll. WYNN JONES, M.A., *Oxford*, Ph.D., *Leipzig*, D.Sc., *Wales*.

Lecturers in Education: S. J. CURTIS, Ph.D., *London*; Miss WINIFRED F. ROBSON, M.A., *Liverpool*; Miss EDITH NEWCOMB, M.A., *Columbia*; C. A. SMITH, B.A., *London*.

Assistant Lecturer: F. MASON, B.A., *Cambridge*.

Part-time Assistants: C. CORDINGLEY; W. GAWTHORPE, B.A., *Leeds*; Miss LEWIS; Mrs. W. R. GRIST, B.Sc., *London*; Mrs. M. LAING.

Music

Lecturer: EDWARD ALLAM, M.A., *Cambridge*, B.Mus., *London*, A.R.C.M.

Assistant Lecturer (Part-time): V. H. RHODES, M.A., Mus.B., *Cambridge*.

Law

(*See Faculty of Law*)

Mathematics

(*See Faculty of Science*)

Theological Studies

Professor of the Philosophy and History of Religion: The Rev. E. O. JAMES, D.Litt. *Oxford*, D.D., *St. Andrews*, Ph.D. *London*, F.S.A.

Lecturer in Old Testament Studies and Hebrew: The Rev. J. N. SCHOFIELD, M.A. *Cambridge*, B.D. *London*.

Part-time Assistant in Hebrew: The Rev. E. J. E. BRIGGS, M.A., B.D.

Recognised Teachers: The following members of associated Theological Colleges are Recognised Teachers of the University:—

The Rev. H. CUNLIFFE-JONES, B.A., B.D., B.Litt., (*Philosophy of Religion, Biblical and Historical Theology*).

Recognised Teachers :

The Rev. L. H. MARSHALL, B.A., B.D., (*New Testament Language and Literature*).

The Rev. J. C. ORMEROD, M.A. (*Old Testament History, Literature and Religion, New Testament Language and Literature*).

The Rev. Principal E. J. PRICE, M.A., B.D. (*Ecclesiastical History, Biblical and Historical Theology, History of Religion*).

The Rev. H. ROBERTS, M.A., Ph.D., (*Philosophy of Religion and Biblical and Historical Theology*).

The Rev. N. H. SNAITH, M.A., (*Old Testament History, Literature and Religion, and Hebrew Language and Literature*).

The Rev. H. E. SYMONDS, M.A., B.D., (*Ecclesiastical History and the History of Doctrine*).

The Rev. VINCENT TAYLOR, Ph.D., D.D., (*New Testament Language and Literature*).

The Rev. L. S. THORNTON, M.A., B.D., (*Systematic Theology and Philosophy of Religion*).

The Rev. A. C. UNDERWOOD, M.A., B.Litt., D.D., (*Ecclesiastical History and Biblical and Historical Theology*).

The Rev. H. WATKIN-JONES, M.A., D.D., (*Ecclesiastical History*).

DEGREES IN ARTS

ORDINANCE II

1. The degrees in Arts shall be: Ordinance

Bachelor of Arts (B.A.).
Bachelor of Divinity (B.D.).
Master of Arts (M.A.).
Master of Education (M.Ed.).
Doctor of Philosophy (Ph.D.).
Doctor of Letters (Litt.D.).
Doctor of Divinity (D.D.).

DEGREE OF BACHELOR OF ARTS

2. The degree of Bachelor of Arts shall be conferred either (i) as an Ordinary degree or (ii) as an Honours degree.

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

Candidates will not be admitted to the courses of study for the degree of Bachelor of Arts unless they have satisfied the examination requirements for entry upon degree courses as laid down by the Joint Matriculation Board *and* have either (i) obtained a " credit " in Latin or Greek* in one of the recognised School Certificate examinations or (ii) have passed in Latin or Greek* as a Full or as a Subsidiary subject in one of the recognised Higher School Certificate examinations, provided that translation at sight from Latin or Greek into English forms part of the examination. Regulations

*Candidates who have passed the examination for persons of mature years shall be exempted from this requirement.

Candidates of non-European descent, who are natives of Asia or Africa, may be allowed to substitute one of the following languages for Latin or Greek, provided that they shall also give evidence of possessing a sufficient knowledge of English.:—

Arabic, Sanskrit. Persian, Pali, Classical Chinese.

Ordinary Degree of Bachelor of Arts

Ordinance

4. All candidates other than those proceeding to the degree of B.A. in Theological Studies, shall be required to attend approved courses of study, and to pass the prescribed examination or examinations in *either* :—

(*a*) Three subjects for three years each ; *or*

(*b*) Two subjects for three years each, one other subject for two years, and one other subject for one year ; *or*

(*c*) One subject for three years, and three other subjects for two years each ; *or*

(*d*) One subject for three years, two other subjects for two years each, and two other subjects for one year each.

5. Candidates proceeding to the degree of B.A. in Theological Studies shall be required to attend approved courses of study, and to pass the prescribed examination or examinations in *either* :—

(*a*) Three subjects for three years each, and one other subject for two years ; *or*

(*b*) Three subjects for three years each, and two other subjects for one year each ; *or*

(*c*) Two subjects for three years each, two other subjects for two years each, and one other subject for one year.

6. All candidates shall select their subjects from those specified in the Regulations for the Ordinary degree.

7. All candidates, other than those proceeding to the degree of B.A. in Theological Studies, shall be required to comply with the following :—

(*a*) Either three or four approved courses, one of which shall be Greek or Latin, shall be attended in the first year. If three approved courses are attended, not more than two of these may be languages other than English. If four approved courses are attended, not more than three of these may be languages other than English.

(*b*) One language other than English shall be included for not less than two years.

(*c*) Not more than one of the Sciences specified in the Regulations shall be included.

8. Candidates proceeding to the degree of B.A. in Theological Studies shall be required to comply with the following :—

(*a*) Not less than four[1] approved courses, one of which shall be Greek or Latin, shall be attended in the first year, and not more than three of these may be languages other than English.

(*b*) One language other than English shall be included for not less than three years.

(*c*) One of the following one year courses shall be included : General Economics or Philosophy I.

(*d*) Not more than one of the Sciences specified in the Regulations may be included.

9. Candidates shall not be permitted to present themselves for examination in any subject unless they have regularly attended the prescribed course of study, and performed the work of the class to the satisfaction of the Professor or Lecturer.

10. Candidates, other than those proceeding to the degree of B.A. in Theological Studies, may be awarded Honours (without division into classes) in General Studies, if their performance is considered by the Committee of Examiners to be of sufficient merit.

11. Candidates proceeding to the degree of B.A. in Theological Studies shall be awarded Distinction, if their performance is considered by the Committee of Examiners to be of sufficient merit.

1. The subjects in which courses are approved for the Ordinary Degree are as follows :— Regulation

(*a*) Greek, Latin, Hebrew, French, German, Spanish, Russian, Italian, English, History, Philosophy, Economics, Anthropology, Philosophy and History

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[1]Candidates for the degree of B.A. in Theological Studies may take three subjects instead of four in the first year *and* an additional subject in the third year.

of Religion, History of Religion*, Biblical Studies, Geography, Mathematics, Music, Icelandic.†

Approved courses in these subjects extend over either *one* year, *two* years, or *three* years.

(*b*) Philosophy of Religion.

For students proceeding to the degree of B.A. in Theological Studies (Approved courses in this subject extend over one or two years).

(*c*) *Sciences* :—Physics, Chemistry, Zoology, Botany, Geology, Statistics.

Approved courses in these subjects extend over *one* year only.

(*d*) Old Testament History, Literature and Religion ; New Testament Language and Literature ; Biblical and Historical Theology.

Approved courses in these subjects, which will extend over one or two years, may be taken only by students reading for the degree of B.A. in Theological Studies.

2. Candidates proceeding to the degree of B.A. in Theological Studies must, in addition to conforming with the terms of the Ordinance for the Ordinary Degree of Bachelor of Arts and the relative Regulations, satisfy the following conditions :—

(*a*) The first year courses must be selected in terms of Article 8 of the Ordinance from groups (*a*), (*b*) and (*c*) of Section 1 of the Regulations for the Ordinary Degree of Bachelor of Arts, and must be taken at the University.

(*b*) The second and third year courses must be selected from the following subjects :—

(1) Old Testament History, Literature and Religion.
(2) New Testament Language and Literature.
(3) Hebrew Language and Literature.
(4) Ecclesiastical History.
(5) History of Religion.
(6) Philosophy of Religion.
(7) Biblical and Historical Theology.

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*For students proceeding to the degree of B.A. in Theological Studies.
†Icelandic at present can only be taken as a one year or a two years course.

(*c*) Candidates who have taken the course in Classical Greek in the first year and the courses in New Testament Language and Literature in the second and third years will be regarded as having satisfied the requirements of the Ordinance Article 8 (*b*).

(*d*) Hebrew may be combined with Old Testament History, Literature and Religion to constitute approved *two* or *three* years courses for the purposes of the Ordinance, Article 5.

(*e*) Ecclesiastical History may be combined with Biblical and Historical Theology to constitute an approved *two* years course for the purposes of the Ordinance, Article 5.

3. Candidates proceeding to the degree of B.A. in Theological Studies will be required to attend at the University for not less than four hours a week during the second and third sessions.

4. Any course extending over one year for the degree of Bachelor of Arts with Honours in any School, may, with the sanction of the Board of the Faculty of Arts, be accepted as a *one* year course for the Ordinary degree.

5. Candidates holding a Higher School Certificate in any subject selected for the Ordinary Degree may, subject to the approval of the Board of the Faculty of Arts, substitute for the course and examination for the first year in that subject those of the second year, and for the course and examination for the second year those of the third year. If the subject is studied for three years a more advanced course may then be attended in the third year, success in the examination in such course being recorded on the graduation certificate.

6. Subject to such other restrictions as are set forth in the Ordinances and Regulations, approved one year or two years courses may be attended at any period subsequent to Matriculation.

7. Candidates may present themselves for examination in any subject when they have satisfactorily completed

the course. Where subjects are studied for two years or three years candidates must pass the examination in the course appropriate to each year before proceeding to the course for the next year.

8. The examination in each Modern Foreign Language shall include an oral examination.

9. The examinations will ordinarily be held in June of each year, but supplementary examinations in one year subjects will also be held in September. Candidates will be accepted for the supplementary examination in any subject only with the special permission of the Senate.

N.B.—The latest date of entry and payment of fees for B.A. degree examinations (ordinary and honours) held in June, will be MARCH 1st in year each.

Prescribed Courses

(The texts prescribed and the periods selected for study in certain subjects will be found set out in subsequent pages under "Courses in Arts").

GREEK.

One Year Course:		Greek I
Two Years Course:	*1st year:*	Greek I
	2nd year:	Greek II
Three Years Course:	*1st year:*	Greek I
	2nd year:	Greek II
	3rd year:	Greek III

LATIN

One Year Course:		Latin I
Two Years Course:	*1st year:*	Latin I
	2nd year:	Latin II
Three Years Course:	*1st year:*	Latin I
	2nd year:	Latin II
	3rd year:	Latin III

ENGLISH

One Year Course:		English IA and IB
Two Years Course:	*1st year:*	English IA and IB
	2nd year:	English IIA, IIB and IIC
Three Years Course:	*1st year:*	English IA and IB
	2nd year:	English IIA, IIB and IIC
	3rd year:	English IIIA and IIIB

ICELANDIC.

One Year Course:		Icelandic IA and IB
Two Years Course:	*1st year:*	Icelandic IA and IB
	2nd year:	Icelandic IIA and IIB

FRENCH.

One Year Course:		French IA or IB and IC
Two Years Course:	*1st year:*	French IA or IB and IC
	2nd year:	French IIA and IIB
Three Years Course	*1st year:*	French IA or IB and IC
	2nd year:	French IIA and IIB
	3rd year:	French IIIA and IIB

ITALIAN.

One Year Course:		Italian I
Two Years Course:	*1st year:*	Italian I
	2nd year:	Italian II
Three Years Course:	*1st year:*	Italian I
	2nd year:	Italian II
	3rd year:	Italian III

GERMAN.

One Year Course:		German I and IIB
Two Years Course:	*1st year:*	German I and IIB
	2nd year:	German II and IIB
Three Years Course:	*1st year:*	German I and IIB
	2nd year:	German IIA and IIB
	3rd year:	German IIIA and IIB

HEBREW

One Year Course:		Hebrew I
Two Years Course:	*1st year:*	Hebrew I
	2nd year:	Hebrew II
Three Years Course:	*1st year:*	Hebrew I
	2nd year:	Hebrew II
	3rd year:	Hebrew III

RUSSIAN.

One Year Course:		Russian IA and IIB
Two Years Course:	*1st year:*	Russian IA and IIB
	2nd year:	Russian IIA and IIB
Three Years Course:	*1st year:*	Russian IA and IIB
	2nd year:	Russian IIA and IIB
	3rd year:	Russian IIIA and IIB

SPANISH.

One Year Course:		Spanish I
Two Years Course:	*1st year:*	Spanish I
	2nd year:	Spanish II
Three Years Course:	*1st year:*	Spanish I
	2nd year:	Spanish II
	3rd year:	Spanish III

HISTORY.

One Year Course:		History IA or IB
Two Years Course:	*1st year:*	History IA or IB
	2nd year:	History IIA, IIB or IIC
Three Years Course:	*1st year:*	History IA or IB
	2nd year:	History IIA, IIB or IIC
	3rd year:	Two courses selected from IIIA, IIIB, IIIC, IIID, IIIE

PHILOSOPHY.

One Year Course:		Philosophy I.
Two Years Course:	*1st year:*	Philosophy I.
	2nd year:	Philosophy II.
Three Years Course:	*1st year:*	Philosophy I.
	2nd year:	Philosophy II.
	3rd year:	Philosophy IIIA and IIIC *or* IIIB and IIIC *or* IIIA and IIIB.

ANTHROPOLOGY.

One Year Course:		Anthropology I.
Two Years Course:	*1st year:*	Anthropology I.
	2nd year:	Anthropology II.
Three Years Course:	*1st year:*	Anthropology I.
	2nd year:	Anthropology II.
	3rd year:	Anthropology III.

PHILOSOPHY AND HISTORY OF RELIGION.

One Year Course:		Philosophy and History of Religion I.
Two Years Course:	*1st year:*	Philosophy and History of Religion I.
	2nd year:	Philosophy and History of Religion II.
Three Years Course:	*1st year:*	Philosophy and History of Religion I.
	2nd year:	Philosophy and History of Religion II.
	3rd year:	Philosophy and History of Religion III.

History of Religion: *For B.A. in Theological Studies.* Courses extend over one, two or three years.

Philosophy of Religion: *For B.A. in Theological Studies.* Courses extend over one or two years.

THEOLOGICAL STUDIES:

Old Testament History, Literature and Religion.
New Testament Language and Literature.
Biblical and Historical Theology.
Courses extend over one or two years.

BIBLICAL STUDIES.

One Year Course:		Biblical Studies I
Two Years Course:	*1st year:*	Biblical Studies I
	2nd year:	Biblical Studies II
Three Years Course:	*1st year:*	Hebrew I *or* Greek I
	2nd year:	Biblical Studies I
	3rd year:	Biblical Studies II

ECONOMICS.

One Year Course:		Economics I
Two Years Course:	*1st year:*	Economics I
	2nd year:	Economics II and *one* of the following: IIE, IIF, IIG, IIH *or* Economics II and *two* of the following: IIB, IIC, IID

Three Years Course :	*1st year :*	Economics I
	2nd year :	Economics II and *one* of the following : IIE, IIF, IIG, IIH *or* Economics II and *two* of the following : IIB, IIC, IID
	3rd year :	Either (*a*) Any *two* of the following : IIE, IIF, IIG, IIH *or* (*b*) *One* of the following : IIE, IIF, IIG, IIH *together with two* of the following : IIA, IIB, IIC, IID, *or* (*c*) IIA, IIB, IIC, IID, provided that any course chosen in the third year has not already been taken in the second year.

GEOGRAPHY.

One Year Course :		Geography I
Two Years Course :	*1st year :*	Geography I
	2nd year :	Geography II
Three Years Course :	*1st year :*	Geography I
	2nd year :	Geography II
	3rd year :	Geography III

MUSIC.

One Year Course :		Music I
Two Years Course :	*1st year :*	Music I
	2nd year :	Music II
Three Years Course :	*1st year :*	Music I
	2nd year :	Music II
	3rd year :	Music III

MATHEMATICS.

One Year Course :		Mathematics Intro.
Two Years Course :	*1st year :*	Mathematics Intro.
	2nd year :	Mathematics F1 and F2
Three Years Course :	*1st year :*	Mathematics Intro.
	2nd year :	Mathematics F1 and F2
	3rd year :	Mathematics F3 and F4

SCIENCES.

Physics
Chemistry
Zoology
Botany
Geology
Statistics

The Introductory course in these subjects forms the prescribed one year course.

Degree of Bachelor of Arts with Honours

12. 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 Ordinance.

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.

13. 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.

14. 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 :

Greek
Latin
English Language and Literature
French Language and Literature
German Language and Literature
Russian Language and Literature
Spanish Language and Literature
History
Geography
Philosophy
Economic and Political Science
Mathematics

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

Classics
Greek-English
Latin-English
Latin-French
Latin-Spanish
Modern Languages and Literatures.

Subject to the approval of the Heads of the Departments concerned and of the Board of the Faculty of Arts, any other two subjects in which Honours courses are given may be combined, together with one one-year subject at Pass standard.

16. Candidates who have completed the courses and passed the final examinations prescribed for the Ordinary degree of Bachelor of Arts may, with the sanction of the Senate, proceed to the degree of Bachelor of Arts with Honours in any School after one or two years attendance in such School, provided that the attendance is given in the year or years immediately following the completion of their courses and examinations for the Ordinary degree.

17. 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.

18. 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.

19. 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 Senate may determine.

20. Candidates for the degree of Bachelor of Arts with Honours who at the end of their first year are unable to continue their Honours course may proceed to the Ordinary degree of Bachelor of Arts; and it shall be in the power of the Senate to accept their attendance on the courses prescribed for the first year in any Honours School in place of the attendance prescribed in *Ordinance* II, *Article* 7 (*a*); provided that every such candidate shall include at some stage a course and examination in Greek or Latin for not less than one year.

egulations In Honours schools for which a qualifying examination at the end of the first year of study is prescribed such examinations will ordinarily be held in June of each year; but candidates who do not pass in all of the required subjects of a qualifying examination may be admitted to supplementary examinations held in September in the subject or subjects in which they have failed. No candidate will be admitted to a supplementary qualifying examination in any subject who has not already presented himself in his first year at the ordinary June examination in that subject, except with the special permission of the Senate.

Classics

Candidates for the degree of Bachelor of Arts with 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.

The attendance on courses required for the first year for the Ordinary degree of Bachelor of Arts may also be accepted by the Senate in place of the above attendance for the first year, 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 Course for the first year in the Honours School of Classics.

Examination

Greek prose composition (1 paper).
Latin prose composition (1 paper).
Greek unprepared translation (1 paper).
Latin unprepared translation (1 paper).
Translation from prescribed Greek books, with questions arising out of them (2 papers).
Translation from prescribed Latin books, with questions arising out of them (2 papers).
General paper (Greek), including questions on Greek literary criticism, antiquities, language and metre.
General paper (Latin), including questions on Latin literary criticism, language and metre, and on Roman antiquities.
Two of the following:
Ancient History (1 paper).
Ancient Philosophy (1 paper).
Special subject in Greek or Latin Literature (1 paper).
Greek and Latin verse composition (1 paper) (optional).

Honours Classics:

GREEK:

Books prescribed for 1940-41

Homer, *Odyssey* i-vi; Iliad i, vi, ix, xxiv; Aeschylus, *Prometheus Vinctus, Agamemnon*; Sophocles, *Oedipus Rex, Antigone*; Euripides, *Ion, Bacchae*; Aristophanes, *Birds, Frogs*; Herodotus vii-ix; Thucydides i-iii; Plato, *Phaedo, Republic* I, II; Greek Lyric and Elegiac Poetry (selections); Demosthenes, *De Corona, In Midiam*; Aristotle, *Poetics*; Theocritus, i, ii, vii, xv.

LATIN:

Books prescribed for 1940-41

(*a*) *Plautus, *Captivi*; *Lucretius V; *Cicero, *de Oratore* III; *Horace, *Ars Poetica*; *Seneca *Letters* (ed. Summers); *Lucan VII.

(*b*) Terence, *Adelphi*; Cicero, *Pro Milone, Tusculan Disputations* I, *Selected Letters* (ed. Prichard and Bernard); Cæsar *Bellum Gallicum* I-VII; Catullus (ed. Macnaghton and Ramsay); Virgil, *Eclogues, Aeneid* II, IV, VI, X; Horace, *Odes* III, IV, *Satires* II; Livy IX, XXVII; Ovid *Heroides* I-VII; Tacitus *Annals* I, *Agricola*; Juvenal I, III, IV, VI (ed. Duff.).

N.B.—The books marked with an asterisk are to be studied with special care in all their bearings, including criticism of the text.

Books prescribed for 1941-42

Plautus, *Menæchmi*; Terence, *Adelphi*; Lucretius I; Catullus (Macnaghton and Ramsay); Cicero, *Pro Roscio Amerino*; *Pro Milone*; *Academica* Book I; *Somnium Scipionis*; *Selected Letters* (Bernard and Pritchard).

Cæsar, *Bellum Civile* I.

Virgil, *Eclogues*, *Aeneid* II, IV, VI, X.

Horace, *Odes* III, IV; *Satires* II; *Ars Poetica*.

Livy IX, XXII; Propertius I; Ovid, *Heroides* I-VII; Lucan VII.

Seneca *Select Letters* (ed. Summers, Macmillan).

Tacitus. *Histories* I, *Agricola*.

Juvenal *Satires* 1, 3, 4, 6.

Greek

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

1. The Greek books prescribed for Honours in Classics (2 papers).
2. Translation from further Greek authors. (1 paper).
3. General paper as for Honours in Classics. (1 paper).
4. Greek unprepared translation. (1 paper).
5. Greek prose composition. (1 paper).
6. A period of Greek history studied in connexion with the original authorities. (1 paper).
7. Development of the Greek language with an elementary knowledge of the dialects. (1 paper).
8. *One* of the following (1 paper) :—
   (*a*) History of Greek language.
   (*b*) Outlines of Greek philosophy.
   (*c*) Greek life and manners (with some reference to inscriptions).
   (*d*) The special study of an author or *one* of the following types of literature :—(1) Homeric poems; (2) Greek lyric poetry; (3) Greek drama in the 5th century; (4) Greek oratory, with special reference to Demosthenes.
   (*e*) Greek sculpture *or* vase painting.
   (*f*) Greek art and architecture.
   (*g*) Greek verse composition.

Attendance in the subjects of the school shall be required as follows :—During the first year not less than 7 hours a week, during the second year not less than 9 hours a week and during the third year not less than 7 hours a week.

Candidates (other than those who have already completed the course for an Honours degree in Latin) may, in place of a certain number of the books prescribed in Greek, be permitted to substitute a certain number of the books prescribed for the course in Honours in Latin to be specified from year to year.

Special requirements :—

(1) Candidates are required to attend the Three Years course in Latin as prescribed in the Regulations for the Ordinary degree and to pass the prescribed examination in that subject.

(2) Candidates are required to attend the One Year course in Ancient History and to pass the prescribed examination in that subject.

Some modification of the special requirements may be made, subject to the approval of the Board of the Faculty of Arts, for candidates who have obtained a Higher School Certificate.

Greek—English

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

A. GREEK.

1. The Greek books prescribed for Honours in Classics. (2 papers).
2. General paper, including questions on Greek history, literary criticism, antiquities, language and metre. (1 paper).
3. Greek unprepared translation. (1 paper).
4. Greek prose composition. (1 paper).
5. *One* of the following (1 paper) :—
   (*a*) The *Poetics* of Aristotle and history of the Greek drama.
   (*b*) The development of the Greek language with an elementary knowledge of the dialects.
   (*c*) Outlines of Ancient philosophy.
   (*d*) Greek Art and Architecture.
   (*e*) Greek life and manners.
   (*f*) Latin unprepared translation to the Three Years course standard, together with certain books prescribed by the Board of the Faculty of Arts.

B. ENGLISH, as for English (Modern Languages Honours).

Attendance in the subjects prescribed for the above degree shall be required as follows :—Not less than 10 hours a week in the first and second years and 8 hours a week in the third.

Special requirement :—

Students will be required to attend a one year course in one additional subject as prescribed in the Regulations for the Ordinary degree of Bachelor of Arts, and to pass the prescribed examination in that subject, which shall normally be Latin.

Some modification of the special requirement may be made, subject to the approval of the Board of the Faculty of Arts, for candidates who have obtained a Higher School Certificate.

Latin

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

1. The Latin books prescribed for Honours in Classics (2 papers).
2. Translation from further Latin authors. (1 paper).
3. General paper as for Honours in Classics. (1 paper).
4. Latin unprepared translation. (1 paper).
5. Latin prose composition. (1 paper).
6. A period of Roman history studied in connexion with the original authorities. (1 paper).
7. Development of the Latin language with an elementary knowledge of the Italic dialects. (1 paper).
8. *One* of the following (1 paper) :—
   (*a*) History of Latin language from Plautus to Tacitus.
   (*b*) Stoicism and Epicureanism in Roman life and thought.
   (*c*) Roman life and manners (with some reference to inscriptions).
   (*d*) A special study of an author or part of an author or *one* of the following types of literature :—(i.) epic poetry, with special knowledge of the fragments of Livius Andronicus, Naevius and Ennius ; (ii.) satire, with special knowledge of the fragments of Lucilius ; (iii.) dramatic poetry, with special knowledge of the fragments of Latin dramatic poetry ; (iv.) oratory, with special knowledge of the fragments of Latin oratory.
   (*e*) Latin verse composition.
   (*f*) Greek Art and Architecture.

Attendance in the subjects of the school shall be required as follows :—During the first year not less than seven hours a week, during the second year not less than nine hours a week, and during the third year not less than seven hours a week.

Candidates (other than those who have already completed the course for an Honours degree in Greek) may, in place of a certain number of the books prescribed in Latin, be permitted to substitute a certain number of the books prescribed for the course in Honours in Greek to be specified from year to year.

Special requirements :—

(1) Candidates are required to attend the Three Years course in Greek, as prescribed in the Regulations for the Ordinary degree and to pass the prescribed examinations in that subject.

(2) Candidates are required to attend the One Year course in Ancient History and to pass the prescribed examination in that subject.

Some modification of the special requirements may be made, subject to the approval of the Board of the Faculty of Arts, for candidates who have obtained a Higher School Certificate.

Latin—English, Latin—French, Latin—Spanish

Candidates for the degree of Bachelor of Arts with Honours in any one of the above-mentioned groups of subjects shall be required to pursue courses of study and to submit themselves for examination in the following subjects :—

I. LATIN—ENGLISH.

A. Latin.

1. Latin prose composition. (1 paper).
2. Latin unprepared translation. (1 paper).
3. The Latin books prescribed for Honours in Classics. (2 papers).
4. General paper as for Honours in Classics. (1 paper).
5. *One* of the following (1 paper) :—
   - (*a*) Colloquial Latin and inscriptions.
   - (*b*) Development of the Latin language with an elementary knowledge of the Italic dialects.
   - (*c*) A period of imperial history.
   - (*d*) Outlines of Ancient Philosophy.
   - (*e*) Roman life and manners (with some reference to inscriptions).
   - (*f*) Latin literary criticism.
   - (*g*) Greek unprepared translation to the Three Years course standard together with the translation of certain Greek books prescribed by the Board of the Faculty of Arts.

B.—English, as for English (Modern Languages Honours).

II. LATIN—FRENCH.

A.—Latin, as under I.

B.—French, as for French (Modern Languages Honours).

III. LATIN—SPANISH.

A.—Latin, as under I.

B.—Spanish, as for Spanish (Modern Languages Honours).

Attendance in the subjects prescribed for the above degrees 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.

Special requirement :—

Students will be required to attend a One Year course in one additional subject as prescribed in the Regulations for the Ordinary degree of Bachelor of Arts, and to pass the prescribed examination in that subject. For candidates in the Latin-English group this subject shall normally be Greek.

Some modifications of the special requirement may be made, subject to the approval of the Board of the Faculty of Arts, for candidates who have obtained a Higher School Certificate.

English Language and Literature

Candidates for the degree of Bachelor of Arts with Honours in English Language and Literature shall be required to pursue courses of study and to submit themselves for examination as follows :—

There shall be alternative schemes of study, A and B : *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 the course of study for the first academic year shall normally include Greek *or* Latin *or* a Modern Language ; English Literature ; English Language and Early English Literature ; and any one of the following :—Modern History, Philosophy, Music—four subjects in all.

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

Some modification of the course and examination required for the first year may be made, subject to the approval of the Board of the Faculty of Arts, for candidates who have obtained a Higher School Certificate.

The attendance on courses required for the first year for the Ordinary degree of Bachelor of Arts, and the prescribed examinations in such courses, may also be accepted by the Senate in place of the above course and qualifying examination, provided that candidates must satisfy the heads of the department of English that they possess a sufficient knowledge of 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: (1) during three academic years courses in English Literature, 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; (2) during the first academic year courses of three hours a week on Old English Texts; during the second academic year courses of two hours a week on Old English Texts and one hour on Middle English Texts; and during the third academic year courses of two hours a week on Middle English Texts.

For details of the first year courses in literature and language, see under Courses in Arts, in subsequent pages.

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

Honours Examination Part I

Old English Literature with selected texts (1 paper).
Chaucer and the fifteenth century *or* Shakespeare and the Elizabethan drama (in alternate years) (1 paper).

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

Honours Examination Part II

1. Middle English Literature with selected texts (1 paper).
2. Shakespeare and the Elizabethan drama *or* Chaucer and the fifteenth century (in alternate years) (1 paper).
3. Prose and the Novel (1 paper).
4. Poetry (1 paper).
5. Two selected periods (1 paper).
6. Essay on a selected author (1 paper).
7. Special subject (1 paper).

In place of 6, students specially approved by the head of the department may present an extended essay on a subject agreed upon with the head of the department.

In place of 7, a candidate may pursue a prescribed course in a subject included in the Faculty of Arts and approved by the Professor of English Literature, for a period extending over three years. At the end of his third year he must present himself for examination in this subject as for a three years subject for the Ordinary degree of Bachelor of Arts. The Class obtained by him in the Honours School will not be published until he has satisfied the examiners in this subject; but in the event of his failure to do so, he may present this subject alone at any subsequent examination.

The selected texts for the Old English paper in Part I in 1941 will be *Beowulf* and the Heroic Fragments (3rd ed. Klaeber, Heath and Co.); *The Dream of the Rood* (ed. Dickins and Ross); *The Parker Chronicle* 832-900 (ed. A. H. Smith); Sweet's *Anglo-Saxon Reader* (9th ed.), omitting sections iii, v-viii, xi-xiv, xx, xxiv, xxv, xxviii-xxix.

The selected texts for the Middle English paper in Part II in 1941 will be *The Owl and the Nightingale* (ed. Wells); *The Lay of Havelok the Dane* (ed. Skeat and Sisam); *Sir Gawain and the Green Knight* (ed. Tolkien and Gordon); selections from Cook's *Literary Middle English Reader* (Ginn) and Sisam's *Fourteenth Century Verse and Prose.*

Candidates will be required to translate passages from these texts and from unprescribed texts, and to answer literary and historical questions suggested by them. Questions involving a detailed knowledge of linguistic features will not be set.

Chaucer (for Part II in 1941): general knowledge of the complete works, and of their language and metre, with special study of *Troilus and Criseyde* (and Henryson's *Testament of Cresseid*), *The House of Fame, The Reves Tale, The Knightes Tale.*

Shakespeare and the Elizabethan drama (for Part I in 1942). Candidates will be expected to have read widely in Shakespeare and in the chief Elizabethan dramatists. For the Examination in 1942 a special study of the text of the following plays will be required: *Love's Labour's Lost, Henry the Fourth* (*Part Two*), *Othello, The Winter's Tale.*

Special subject. One of the following (by arrangement with the head of the department concerned):—(i) Old Icelandic; (ii) English Literature in relation to Latin Literature; (iii) English philosophy in the seventeenth and eighteenth centuries; (iv) Italian Literature; (v) Spanish Literature; (vi) Music.

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 three academic years courses of three hours a week on periods of English Literature.

Candidates shall also be required to attend an approved course in *one* of the following subjects : Gothic, Old Icelandic, Modern Icelandic, Old High German, Old French, Vedic Philology, Mediaeval Welsh, Russian and Old Bulgarian, Greek Philology, Latin Philology, Elementary Old and Middle English Palæography.

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

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

Honours Examination Part I.

1. Old English Literature with selected texts (as for Scheme A, but with an additional section of linguistic questions).
2. Chaucer and the fifteenth century *or* Shakespeare and the Elizabethan drama (in alternate years) (1 paper).

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

Honours Examination Part II

1. Translation of unseen passages in Old and Middle English with literary, historical and linguistic questions (1 paper).
2. Middle English Literature with selected texts (as for Scheme A, but with an additional section of linguistic questions) (1 paper).
3. Chaucer and the fifteenth century *or* Shakespeare and the Elizabethan drama (in alternate years) (1 paper).
4. Two selected periods (1 paper).
5. History of the English Language, with references to allied languages and to the general principles of linguistic study (1 paper).
6. A paper on *one* of the following : Gothic, Old Icelandic, Modern Icelandic, Old High German, Old French, Vedic Philology, Mediaeval Welsh, Russian and Old Bulgarian, Greek Philology, Latin Philology, Elementary Old and Middle English Palæography.
7. In addition Candidates shall be required to offer one of the above subjects (Gothic, Old Icelandic, &c.) not already taken, *or* to present a dissertation on a subject approved by the Board of the Faculty of Arts.

Oral examination.

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 the professor of English Language.

Texts for 1940-41

The selected texts for the Old English paper in Part I in 1941 will be as for Scheme A.

The selected texts for the Middle English paper in Part II in 1941 will be as for Scheme A.

For additional reading in preparation for the unseen paper the following are recommended :—

Andreas (ed. G. P. Krapp) ; *Exodus* (ed. F. A. Blackburn) ; *The Anglo-Saxon Chronicle* (ed. C. Plummer) ; *Sawles Warde* (ed. R. M. Wilson) ; *Middle English Metrical Romances* (ed. W. H. French and C. B. Hale) ; *Morte Arthure* (ed. E. Björkman) ; *Pearl* (ed. I. Gollancz).

Chaucer and the fifteenth century (Parts I and II in 1941) : as for Scheme A.

The history of the English language : knowledge of language of all English texts prescribed in other courses, with Sweet's *Second Anglo-Saxon Reader* and Hall's *Selections from Early Middle English*. The following books are recommended for reference and amplification of the outline given in lectures : Jespersen, *The Philosophy of Grammar* ; Hjelmslev, *Principes de Grammaire générale* ; Bloomfield, *Language* ; Brugmann, *Kurze vergleichende Grammatik* (or trans. into French as *Abrégé de Grammaire comparée*); Meillet, *Introduction à l'Étude comparative des Langues indo-européennes* (6th ed.); Hirt, *Indogermanische Vokalismus* (vol. 2 of his *Indogermanische Grammatik*) ; Streitberg *Urgermanische Grammatik* ; Schrijnen, *Einführung in das Studium der indogermanische Sprachwissenschaft* ; Kluge, *Urgermanisch* ; Wright, *Old English Grammar* (3rd ed.) ; Sievers, *Grammar of Old English*, trans. Cook ; Bülbring, *Altenglisches Elementarbuch* ; Jordan, *Handbuch der mittelenglischen Grammatik* ; Luick, *Historische Grammatik der englischen Sprache* ; Björkman, *Scandinavian Loanwords in Middle English* ; Vising, *Anglo-Norman* ; The Place-Name Society's *Introduction to the Survey of English Place-Names* ; Mawer, *Problems of Place-Name Study*; Sievers, *Altgermanische Metrik*.

Shakespeare and the Elizabethan drama (Parts I and II in 1942) : as for Scheme A.

Two periods of English Literature : as for Scheme A.

Old Icelandic : Gordon, *Introduction to Old Norse* (Oxford) ; *Gunnlaugssaga Ormstungu* ; *Edda Snorra Sturlusonar* ; *Guðrúnarkviða* ii, *Vegtamskviða* ; Zoëga, *Old Icelandic Dictionary* ; Noreen, *Altisländische und altnorwegische Grammatik* (4th ed.) ; *Geschichte der nordischen Sprachen* ; Ker, *Epic and Romance* ; Phillpotts, *Edda and Saga*.

The more important of the Icelandic sagas should be read in translation.

Modern Icelandic: Jónsson, *A Primer of Modern Icelandic;* Nordal, *Íslenzk Lestrarbók;* Thoroddsen, *Maður og Kona;* Jóhann Sigurjónsson, *Fjalla-Eyvindur*; Brynjúlfur Jónsson, *Saga Natans Ketilssonar og Skáld-Rósu*; Zoëga, *Íslenzk-Ensk Orðabók.*

Old Saxon and Old High German.

Gothic: Wright, *Gothic Grammar* (Oxford); Streitberg, *Gotische Bibel*; *Gotisches Elementarbuch* (5/6 ed.); Kieckers, *Handbuch der vergleichenden gotischen Grammatik*; Bradley, *The Goths; Cambridge Medieval History,* Vol. i (relevant chapters).

Vedic Philology: Macdonell, *A Vedic Grammar for Students* (Oxford); *A Vedic Reader for Students* (Oxford).

Mediaeval Welsh: Strachan, *An Introduction to Early Welsh*; *Mabinogion,* ed. Ivor Evans, 1930.

Greek Philology: Meillet, *Aperçu d'une histoire de la langue grecque* (Paris, 1930); Meillet, *Traité de grammaire comparée des langues classiques* (Paris, 1927); Buck, *Greek Dialects* (Boston, 1927); Thumb, *Handbuch der griechischen Dialekte* (Heidelberg, 1909).

Latin Philology: Meillet, *Esquisse d'une histoire de la langue latine* (Paris, 1928), Lindsay, *Short Historical Latin Grammar* (Oxford); Ernout, *Recueil de textes latins archaïques* (Paris, 1916).

Russian and Old Bulgarian: Forbes, *Russian Grammar* (Oxford); Meyer, *Historische Grammatik der russischen Sprache* (Bonn, 1923); Leskien, *Handbuch der altbulgarischen Sprache;* Dearmer and Tananevich, *First Russian Reader* (Oxford), Duff, *Russian Lyrics* (Cambridge).

Old and Middle English Palaeography: Keller, *Angelsächsische Palaeographie*; Maunde Thompson, *Introduction to Greek and Latin Palaeography*; Johnson and Jenkinson, *English Court Hand* 1066-1500.

Modern Languages and Literatures

Candidates for the degree of Bachelor of Arts with Honours in Modern Languages shall be required to pursue courses of study and to submit themselves for examination in any *two* of the following subjects:—French, German, English, Spanish, Russian.

Candidates shall also be required to study auxiliary subjects, of which Latin or Greek 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 or German or Spanish or Russian.

The course of study and subjects of examination in French or German or Spanish or Russian shall be: Prescribed texts of various periods, studied from a literary and linguistic standpoint; literature; history of the language; translation; institutions.

Candidates taking French or German or Spanish or Russian shall be required to attend all the lectures in the two subjects selected from the Honours School.

II. English:

For students in the Honours School of Modern Languages there shall be in the English portion of their course alternative schemes of study, A and B, related to the schemes of study in the Honours School of English. In Scheme A, special attention will be paid to Literature. In Scheme B, special attention will be paid to Language (including the literary and linguistic study of Old and Middle English).

Candidates will be required to attend:—

(i) During their first year, courses of not less than three hours a week in English Language, and three hours a week in English Literature and Composition;

(ii) During their second and third years, courses of not less than five hours a week in English Language and Literature, the proportion to be determined by the candidate's choice of scheme and of subjects within the scheme.

Examination

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

FRENCH :

Composition and essay (1 paper).
Unprepared translation (1 paper).
Language (1 paper).
Literature and prescribed texts (3 papers).

GERMAN :

Composition and essay (1 paper).
Unprepared translation (1 paper).
Prescribed texts of before 1500, with literary and linguistic questions (1 paper).
Prescribed texts of after 1500, with literary and linguistic questions (1 paper).
Literature (1 paper).
Grammar : history of the language and versification (1 paper).

RUSSIAN :

Composition and essay (1 paper).
Unprepared translation (1 paper).
Prescribed texts of before 1500, with literary and linguistic questions (1 paper).
Prescribed texts of after 1500, with literary and linguistic questions : The history of the language (1 paper).
Prescribed texts of XIX century literature, with literary questions (1 paper).
Russian history and the history of Russian literature (1 paper).

SPANISH :

Composition and essay (1 paper).
History and institutions of Spain and unprepared translation (1 paper).
Prescribed texts of before 1500, with literary and linguistic questions (1 paper).
Prescribed texts of after 1500, with literary and linguistic questions (1 paper).
Literature (1 paper).
Grammar : history of the language and versification (1 paper).

ENGLISH. SCHEME A.

Honours Examination Part I

(at end of second academic year).

Old English literature with selected texts (as for Honours English Scheme A) (1 paper).

One *paper selected from the following :—

Chaucer and the fifteenth century (1 paper).

Shakespeare and the Elizabethan drama (1 paper).

*This may be taken either in Part I of the Examination or in Part II. Students are advised to take it in Part 1.

Honours Examination Part II

(at end of third academic year).

Middle English literature with selected texts (as for Honours English Scheme A) (1 paper).

Three papers selected from the following :—

Poetry (1 paper).

Prose and the Novel (1 paper).

Two selected periods (1 paper).

Essay on a selected author (1 paper).

ENGLISH. SCHEME B.

Honours Examination Part I

(at end of second academic year).

Selected texts in Old English, with literary, historical and linguistic questions suggested by them (as for Honours English Scheme B) (1 paper).

**One* paper selected from the following :—

Chaucer and the fifteenth century (1 paper).

Shakespeare and the Elizabethan drama (1 paper).

*This may be taken either in Part I of the Examination or in Part II Students are advised to take it in Part I.

Honours Examination Part II

(at end of third academic year).

Selected texts in Middle English with literary, historical and linguistic questions suggested by them (as for Honours English Scheme B) (1 paper).

History of the English Language (as for Honours English Scheme B) (1 paper).

Two selected periods (as for Honours English Scheme A) (1 paper).

A paper on *one* subject selected from the following :—
Germanic Philology, with special reference to Old English ; Old and Middle English Philology (as for Honours English Scheme B) ; or any of the special subjects laid down for English Honours Scheme B, except that candidates taking French may not select Old French, and candidates taking German may not select Old High German, and candidates taking Russian may not select Russian and Old Bulgarian.

GERMAN HONS.

Books and Periods prescribed for 1940-41

Books before 1500 : Braune, *Althochdeutsches Lesebuch*, Selected passages ; Walther von der Vogelweide (ed. Paul) ; *Der Nibelunge Nôt* ; *Gudrun* (Sammlung Göschen) ; Hartmann ; *Der arme Heinrich*.

Books after 1500 : Luther : *Selections*. Lessing, *Hamburgische Dramaturgie* ; Goethe, *Faust* I, *Iphigenie auf Tauris* ; Schiller, Selected Plays and *Aesthetische Briefe* ; Heine, *Prosa* ; Mörike, *Gedichte* ; Nietzsche, *Also sprach Zarathustra*, Rilte, *Duineser Elegien* ; Mann, *Tonio Kröger*.

Periods of Literature : Middle High German Literature, Schiller, Goethe, Romanticism, Twentieth Century Poetry, The Twentieth Century Novel.

French Language and Literature

Candidates for the degree of Bachelor of Arts with Honours in French Language and Literature shall be required to pursue courses of study and to submit themselves for examination as follows :—

The course of study for the first academic year shall normally include the following subjects : (1) French Language and Literature ; (2) French History and Institutions, (3) a language (other than English), (4) another approved subject.

A qualifying examination in all these subjects must normally be passed by candidates before they proceed to further study.

Some modification of the course and examination required for the first year may be made, subject to the approval of the Board of the Faculty of Arts, for candidates who have obtained a Higher School Certificate.

During the second and third years candidates shall be required to attend courses in the subjects of the school (see 1 and 2), and in addition, a prescribed course in one of the subjects chosen under (3) and (4) shall be taken during both years. At the end of his third year, the candidate must present himself for examination in this subsidiary subject as for a three years subject for the Ordinary degree of Bachelor of Arts. The Class obtained by him in the Honours School will not be published until he has satisfied the examiners in this subsidiary subject ; but in the event of his failure to do so, he may present this subject alone at any subsequent examination.

The third term of the second year will normally be spent at an approved French University.†

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

Final examination.

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

Essay and composition (1 paper).

Unprepared translation (1 paper).

Language (1 paper).

Literature and prescribed texts (3 papers).

History and institutions of France, and special subjects (2 papers).

In addition, candidates shall be required to present a dissertation on a subject approved by the Head of the department.

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† Students taking an Honours Course in French or German are normally required to spend the third term of the second year of their course at an approved University in France or Germany. Such students must therefore be prepared to face additional expenditure in that year over and above the full sessional composition fee. The cost of travelling and of residence abroad varies from £20 to £30 a term according to the University selected. Tuition fees at the foreign University to a maximum of £3, together with a grant of £3 towards the cost of travelling are paid by the University of Leeds. The remainder of the cost must be met by the student.

German Language and Literature

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

The course of study for the first academic year shall normally include the following four subjects : (1) German Language and Literature ; (2) Latin, French, English Language *or* Spanish ; (3) a second subject from (2), *or* English Literature, Philosophy, Music, *or* another approved subject ; (4) Modern History with special reference to Germany.

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

Some modification of the course and examination required for the first year may be made, subject to the approval of the Board of the Faculty of Arts, for candidates who have obtained a Higher School Certificate, but all candidates will be required to attend the lectures on Modern History with special reference to Germany.

During the second and third years 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.†

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† Students taking an Honours Course in French or German are normally required to spend the third term of the second year of their course at an approved University in France or Germany. Such students must therefore be prepared to face additional expenditure in that year over and above the full sessional composition fee. The cost of travelling and of residence abroad varies from £20 to £30 a term according to the University selected. Tuition fees at the foreign University to a maximum of £3, together with a grant of £3 towards the cost of travelling, are paid by the University of Leeds. The remainder of the cost must be met by the student.

Candidates shall also be required to present *either* a special subject in medieval or modern German, together with an extended essay, *or* Gothic and Old Icelandic.

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 subsidiary subject as for a three years subject for the Ordinary degree of Bachelor of Arts. The Class obtained by him in the Honours School will not be published until he has satisfied the examiners in this subsidiary subject; but in the event of his failure to do so, he may present this subject alone at any subsequent 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 (1 paper).

Prescribed texts of after 1500 with literary and linguistic questions (1 paper).

Essay and composition (1 paper).

Unprepared translation (1 paper).

History of the language and versification (1 paper).

Literature (2 papers).

History and institutions of Germany (1 paper).

Special subject (1 paper).

Russian Language and Literature

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

The course of study for the first academic year shall normally include the following four subjects : (1) Russian Language and Literature ; (2) Greek, Latin, French, German, *or* English Language ; (3) a second subject from (2), *or* English Literature, Economics, *or* another approved subject ; (4) Modern History with special reference to Russia, the history and geography of Russia.

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

Some modification of the course and examination required for the first year may be made, subject to the approval of the Board of the Faculty of Arts, for candidates who have obtained a Higher School Certificate, but all candidates will be required to attend the lectures on Modern History with special reference to 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 normally 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 Russian, for a period extending over three years. The candidate must present himself for examination in this subsidiary subject as for a three years subject for the

† The cost of residence abroad is not included in the normal fee for an Arts course.

Ordinary degree of Bachelor of Arts. The Class obtained by him in the Honours School will not be published until he has satisfied the examiners in this subsidiary subject; but in the event of his failure to do so, he may present this subject alone at any subsequent 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 (1 paper).
The History and philology of the Russian Language :
An outline of the Slavonic group of languages in Europe and their geographical distribution (1 paper).
Prescribed texts of after 1500 with literary and linguistic questions (1 paper).
Essay and composition (1 paper).
Unprepared translation (1 paper).
Literature (2 papers).
History, especially social history, of Russia (1 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.

Spanish Language and Literature

Candidates for the degree of Bachelor of Arts with Honours in Spanish Language and Literature shall be required to pursue courses of study and to submit themselves for examination as follows :—

The course of study for the first academic year shall normally include the following four subjects : (1) Spanish Language and Literature ; (2) Latin, French, *or* English Language ; (3) a second subject from (2), *or* English Literature, Economics, *or* another approved subject ; (4) Modern History with special reference to Spain.

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

Some modification of the course and examination required for the first year may be made, subject to the approval of the Board of the Faculty of Arts, for candidates who have obtained a Higher School Certificate, but all candidates will be required to attend the lectures on Modern History with special reference to Spain.

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

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

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 Spanish for a period extending over three years. At the end of his third year, he must present himself for examination in this subsidiary subject as for a three years subject for the Ordinary degree of Bachelor of Arts. The Class obtained by him in the Honours School will not be published until he has satisfied the examiners in this subsidiary subject; but in the event of his failure to do so, he may present this subject alone at any subsequent 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 (1 paper).

Prescribed texts of after 1500 with literary and linguistic questions (1 paper).

† The cost of residence abroad is not included in the normal fee for an Arts course.

Essay and composition (1 paper).
Unprepared translation (1 paper).
History of the language and versification (1 paper).
Literature (2 papers).
History and institutions of Spain (1 paper).

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 and to submit themselves for examination as follows :—

The course of study for the first academic year shall normally include the following five subjects : (1) Greek *or* Latin ; (2) French *or* German ; (3) History ; (4) Economics ; (5) Set Books in History.

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

Some modification of the course and examination required for the first year may be made, subject to the approval of the Board of the Faculty of Arts, for candidates who have obtained a Higher School Certificate.

The attendance on courses required for the first year for the Ordinary degree of Bachelor of Arts, and the prescribed examinations in such courses, may also be accepted by the Senate in place of the above course and qualifying examination.

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

Honours Examination (Part I)

Outlines of European History (2 papers).
Colonial History (1 paper).
Materials for Historical Research (1 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 (1 paper).

English (including Constitutional) History (2 papers).

Special period, studied in connection with the original authorities (2 papers).

Political theory (1 paper).

In addition, candidates shall be required to present a short dissertation on some subject connected with their course of study.

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 1940-41

(1) Roman History (44 B.C.–14 A.D.); (2) The Norman Conquest; (3) The Reign of James I; (4) English History (1812-1837).

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

1. Selections from Cicero's Letters and Speeches; Suetonius, *Augustus*; Velleius Paterculus, *Historia Romana*, book ii; *Res Gestae Divi Augusti*; selected Inscriptions illustrating the period.

2. A selection from the following: *Anglo-Saxon Chronicles C. D. and E.* (in translation); *Domesday Book*; Ordericus Vitalis, *Historia Ecclesiastica*; *De Injusta Vexatione Willelmi* I (Symeon of Durham, Rolls Series, vol. I, pp. 170-195;); William of Poitiers, *Gesta Willelmi*; H. W. C. Davis, *Regesta Regum Anglo-Normannorum* (1913); D. C. Douglas, *Feudal Documents from the Abbey of Bury St. Edmunds* (1931).

3. Selections from *Calendar of State Papers* (*Domestic*), 1603-10; ditto (*Venetian*) 1617-19; Selected items in Tanner: *Constitutional Documents of the Reign of James I*; *Hardwicke State Papers*, vol. i, pp. 377-566; *Somers Tracts* (ed. 1809-15), vol. ii, pp. 97-117; 262-304; 408-458; 492-555; vol. iii, pp. 259-304; Sully, *Œconomies Royales* (ed. Michaud) cc. 114-122.

4. Grant Robertson, *Statutes, Cases and Documents* (1936 ed.), pp. 312-350, 512-524; Greville's *Memoirs of the Reigns of George IV and William IV* (3 vols. 1875); *British Diplomacy* 1813-1815, ed. C. K. Webster; Mémoires de Metternich (Paris, 1886), vol. ii, pp. 461-529; *Mémoires du Prince de Talleyrand* (Paris, 1891), vol. ii, pp. 192-567.

Geography

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

The course of study for the first academic year shall normally include the following five subjects : (1) Geography ; (2) A language other than English ; (3) Economics ; (4) Geology ; (5) Modern History *or* Physics *or* Mathematics *or* a second approved foreign language.

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

Some modification of the course and examination required for the first year may be made, subject to the approval of the Board of the Faculty of Arts, for candidates who have obtained a Higher School Certificate.

The attendance on courses required for the first year for the Ordinary degree of Bachelor of Arts, and the prescribed examinations in such courses, may also be accepted by the Senate in place of the above course and qualifying examination.

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	(1 paper).
General and Regional Geography	(1 paper).
Principles of Human Geography	(2 papers).
Either History or Economics	(1 paper).

or

SCHEME B.

Honours Examination (Part I)

Physical Geography	(1 paper).
General and Regional Geography	(1 paper).
Principles of Human Geography	(1 paper).
Economics	(1 paper).
Economic History	(1 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	(1 paper).
General and Regional	(2 papers).
Human Geography	(3 papers).
Oral and practical examination.	

or

SCHEME B.

Honours Examination (Part II)

Essay	(1 paper).
Human Geography	(1 paper).
A special region	(1 paper).
A selected industry	(1 paper).
International Trade	(1 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 courses of study, and to submit themselves for examination as follows :—

The course of study for the first academic year shall normally include the following four subjects :—(1) Philosophy I ; (2) A second philosophical subject ; (3) Greek *or* Latin ; (4) a second non-philosophical subject.

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

Some modification of the course and examination required for the first year may be made, subject to the approval of the Board of the Faculty of Arts, for candidates 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 vary the course of study required for the first year.

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 subsidiary subjects, the number of lectures amounting to not less than two hours a week in each year.

Examination

Essay (1 paper).
General Questions (1 paper).
Logic (1 paper).
Psychology (1 paper).
Ethics (1 paper).
Advanced Psychology *or* Moral and Political Philosophy, (1 paper).
Oral examination.
Either History of Ancient Philosophy (1 paper), and 2 papers on *one* of the following:
- Medieval 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.
- Philosophy of Religion.
- Some other subject approved by the Board of the Faculty of Arts.

Or, History of Modern Philosophy (1 paper), and 2 papers on *one* of the following:
- Greek Philosophy before Socrates.
- Socrates and Plato.
- Aristotle.
- Medieval Philosophy.
- Philosophy of Religion.
- 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 for examination as follows:—

The courses of study and the examinations for the first academic year shall normally be the same as for the Ordinary degree of Bachelor of Arts, provided that

at least one of the following subjects must be included : (1) Economics ; (2) Logic.

Some modification of the courses and examinations required for the first year may be made, subject to the approval of the Board of the Faculty of Arts, for candidates who have obtained a Higher School Certificate.

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 subsidiary subjects, the number of lectures amounting to not less than two hours a week in each year.

Examination

Essay (1 paper).
Economics (including Industrial and Commercial Organisation and Industrial Relations) (2 papers).
History of Economic Theory (1 paper).
Economic History (1 paper).
Political Theory (1 paper).
Constitutional Law (1 paper).
A special Economic subject (1 paper).

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

Mathematics

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

The course of study shall include, in addition to the Special Honours courses in Mathematics, not less than *two* of the subjects, other than Mathematics, approved in the *Regulations for the Ordinary degree of Bachelor of Arts, Article I* (*a*), at least one of which shall be Greek or Latin. Candidates shall attend courses and present themselves for examination in *one* of these additional subjects taken as a one-year subject, and in the *second* taken as a two-years subject, as approved for the Ordinary degree of Bachelor of Arts. The study

of each subsidiary subject shall commence in the first academic year.

Candidates who have obtained a Higher School Certificate in any of these subsidiary subjects may, subject to the approval of the Board of the Faculty of Arts, substitute for the course and examination for the first year in that subject, those of the second year of the course for the Ordinary degree of Bachelor of Arts; and for the course and examination for the second year, those of the third year of the course for the Ordinary degree.

The Class obtained by any candidate shall not be published until he has satisfied the examiners in these subsidiary subjects, but in the event of his failure to do so in any of these subsidiary subjects, he may present that subject alone at a subsequent examination.

DEGREE OF MASTER OF ARTS

I

Graduates of the University

Ordinance 21. The degree of Master of Arts may be conferred, on payment of the proper fee, upon registered Bachelors of Arts, subject to the conditions contained in the following paragraphs.

22. Bachelors of Arts who have graduated with Honours, including those who have graduated with Honours in General Studies, and are of not less than one year's standing may proceed to the degree of Master of Arts either (*a*) by presenting a dissertation satisfactory to the Senate on a subject approved by the Board of the Faculty of Arts, or (*b*) in special cases by examination on a course of study approved by the Board of the Faculty of Arts.

23. Bachelors of Arts who have obtained the Ordinary degree and are of not less than two years' standing may proceed to the degree of Master of Arts either (*a*) by presenting a dissertation satisfactory to the Senate on a subject approved by the Board of the Faculty of Arts, or (*b*) in special cases by examination on a course of study approved by the Board of the Faculty of Arts.

Candidates accepted under Article 23 shall normally be required to pass a qualifying examination in a subject upon which instruction is given in the Faculty of Arts not less than one year after the date of their acceptance, provided (i) that 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 waive the qualifying examination, and (ii) that it shall be in the power of the Senate to permit a candidate proceeding by dissertation to take the qualifying examination concurrently with the presentation of the dissertation.

24. Bachelors of Arts who have shown outstanding merit in the examinations for the Ordinary degree may, on the special recommendation of the Board of the Faculty of Arts, be permitted to proceed to the degree of Master of Arts after not less than one year from the date of their graduation as Bachelors either (*a*) by presenting a dissertation satisfactory to the Senate on a subject approved by the Board of the Faculty of Arts, or (*b*) in special cases by examination on a course of study approved by the Board of the Faculty of Arts.

25. Graduates of the University other than Bachelors of Arts may become candidates for the degree of M.A. under the conditions laid down in Article 23 for Bachelors of Arts who have obtained the Ordinary degree, provided that they attend for not less than two years such courses of lectures as the Board of the the Faculty of Arts may require.

26. Any person who has qualified for the degree of M.A. in one subject and proceeded to the degree and has subsequently fulfilled to the satisfaction of the Senate the regulations for the degree of M.A. in another subject, shall be entitled to have a statement to that effect endorsed on his certificate of graduation as Master of Arts.

27. All candidates who offer a dissertation either as sole test or in combination with other tests, may be required to present themselves for examination—

written, or oral, or both—in the subject of their dissertation.

28. Certificates of attendance on courses of study in the University shall not be required in the case of B.A. graduates of the University (Honours or Ordinary).

II

Graduates of other Universities

29. Graduates in Arts, or persons who have passed the Final examination for a degree in Arts, of other approved Universities may, 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 Master of Arts after not less than two years of such advanced study or research.

30. Candidates admitted under the provisions of Article 29 shall be required to fulfil the following conditions :—

(i) To be registered as students of the University.

(ii) To pursue a course of advanced study or research extending over not less than two years under the supervision of the Head of the Department concerned.

(iii) To attend such courses of lectures at the University as the Senate, on the recommendation of the Board of the Faculty of Arts, may require.

31. Such candidates may, at the end of their course of study, proceed to the degree of Master of Arts either (*a*) by presenting a dissertation satisfactory to the Senate upon a subject approved by the Board of the Faculty of Arts, or (*b*) in special cases by passing an examination upon the subjects included in their course of study, provided (1) that candidates who have graduated with Honours, or have passed the Final examination for a degree with Honours, shall further be required at the end of the first year of their course of study to give evidence to the Senate that their work has been satisfactory, and (2) that candidates who have obtained an Ordinary degree, or have passed the Final examination

for an Ordinary degree, shall further be required at the end of the first year of their course of study, to pass a qualifying examination in a subject upon which instruction is given in the Faculty of Arts.

Candidates who present a dissertation may be required to satisfy such further test as the Senate shall deem expedient, and may be called upon to present themselves for examination—written, or oral, or both—in the subject of their dissertation.

III

Non-Graduates

32. Persons who are not graduates, or have not 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 Master of Arts after not less than three years of such advanced study or research.

33. Candidates admitted under the provisions of the preceding paragraph shall be required to fulfil the following conditions :—

(i) To be registered as matriculated students of the University.

(ii) To pursue an approved course of study under the supervision of the Head of the Department concerned.

(iii) To attend such courses of lectures at the University as the Senate, on the recommendation of the Board of the Faculty of Arts, may require.

34. Such candidates may proceed to the degree of Master of Arts either (*a*) by passing an examination on a course of study approved by the Board of the Faculty of Arts, or (*b*) on the recommendation of the Board of the Faculty of Arts, by presenting a dissertation satisfactory to the Senate on a subject the title of which has already

been approved by the Board of the Faculty of Arts, provided—

(*a*) that at the end of the first year of their course of study they have given evidence to the Senate that their work has been satisfactory, and

(*b*) that at the end of the second year of their course of study, they have passed a general examination in the subject of their study, or in the case of candidates proceeding to the degree by dissertation, in the subject within which their dissertation is presented.

At the end of their course of study, if proceeding to the degree by means of a dissertation, they may be required to satisfy such further test as the Senate shall require and may be called upon to present themselves for examination—written, or oral, or both—in the subject of their dissertation.

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35. The names of candidates who have satisfied the examiners shall be arranged in alphabetical order, and distinction may be awarded for work of exceptional merit at the discretion of the examiners.

N.B.—The latest date of entry and payment of fee for candidates presenting themselves for examination in June is 1st MARCH in each year. 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 1st MAY. It is desirable that all candidates who present a dissertation should furnish at least two copies of such dissertation.

Regulations

Subject to the provisions of Articles 21–35 of Ordinance II candidates for the M.A. degree must present a dissertation *or* pass an examination in any *one* of the following subjects :—

Greek, Latin, English Language and Literature, French, Italian, German, Hebrew, Russian, Spanish, History, Philosophy, Philosophy and History of Religion, Anthropology, Economics, Geography, Music, Mathematics, Education.

Candidates presenting a dissertation may be required to satisfy such further test as the Senate shall deem

expedient and may be called upon to present themselves for examination—written, or oral, or both—in the subject of their dissertation.

Details of Examination.

Candidates proceeding to the degree of M.A. by examination alone will be required to take the following papers at their Final Examination :—

Greek

1. Translation from prescribed Greek books. (2 papers).
2. Translation from further Greek authors. (1 paper).
3. General paper as for Honours in Classics. (1 paper).
4. Greek unprepared translation. (1 paper).
5. Greek prose composition. (1 paper).
6. Special subject (2 papers).

Latin

1. Translation from prescribed Latin books. (2 papers).
2. Translation from further Latin authors. (1 paper).
3. General paper as for Honours in Classics. (1 paper).
4. Latin unprepared translation. (1 paper).
5. Latin prose composition. (1 paper).
6. Special subject. (2 papers).

English Language and Literature

SCHEME A (Literature).

1. Shakespeare ; or Chaucer and the 15th Century.* (1 paper).
2. Prose and the Novel (1 paper).
3. Poetry (1 paper).
4. Two selected periods (1 paper).
5. Special subject.
6. Criticism.

*These are taken in alternate years.

SCHEME B. (Language).

1. Old English Texts (1 paper).
2. Middle English Texts (1 paper).
3. Old English and Middle English Unseens (1 paper).
4. Linguistic Theory (1 paper).
5. Gothic (1 paper).
6. Old Icelandic (1 paper).

French

1. Composition and essay (1 paper).
2. Prescribed texts in Old French (1 paper).
3. Prescribed texts in Modern French (1 paper).
4. Unprepared translation (1 paper).
5. Historical grammar (1 paper).
6. French literature (2 papers).
7. Oral examination.

Italian

1. Composition and Essay (1 paper).
2. Prescribed texts of before 1400 with linguistic questions (1 paper).
3. Prescribed texts of after 1400 with linguistic questions (1 paper).
4. Unprepared translation (1 paper).
5. The history of Italy (1 paper).
6. Italian literature (2 papers).
7. Oral examination.

German

1. Composition and essay (1 paper).
2. Prescribed texts in Middle High German (1 paper).
3. Prescribed texts in Modern German (1 paper).
4. Unprepared translation (1 paper).
5. Historical grammar (1 paper).
6. German literature (2 papers).
7. Oral examination.

Period of Literature prescribed for 1940-41
1740-1832.

Hebrew

1. Grammar, including comparative Semitic grammar, philology, epigraphy, and composition (1 paper).
2. Prescribed books of the Old Testament, and unprepared translation and pointing (2 papers).
3. Critical introduction to the books of the Old Testament, including questions of sources, authorship and date (1 paper).
4. Prescribed portions of Aramaic and Post-biblical Hebrew and unprepared translation (1 paper).
5. Syriac grammar, composition and translation of prescribed books (1 paper).

Russian

1. Composition and essay (1 paper).
2. Prescribed texts in Old Bulgarian and in Old Russian, including literary and linguistic study (1 paper).
3. Unprepared translation and historical grammar (1 paper).
4. Russian literature (general outlines and special period or periods) (2 papers).
5. The history of Russia (1 paper).
6. Oral examination.

Spanish

1. Composition and essay (1 paper).
2. Prescribed texts in Old Spanish (1 paper).
3. Prescribed texts in Modern Spanish (1 paper)
4. Unprepared translation (1 paper).
5. Historical grammar (1 paper).
6. Spanish literature (2 papers).
7. Oral examination.

History

1. An essay (1 paper).
2. *Either* Ancient History (to 337 A.D.); General (2 papers), with special period in Ancient History (2 papers).

Or Medieval History (300 to 1500 A.D.); General (2 papers), with special period in Medieval History (2 papers).

Or Modern History (since 1500 A.D.); General (2 papers), with special period in Modern History (2 papers).

Special Periods prescribed for 1940-41

(1) Roman History (44 B.C.-14 A.D.); (2) The Norman Conquest; (3) The Reign of James I; (4) English History (1812-1837).

Philosophy

1. An essay (1 paper).
2. General Questions (1 paper).
3. *Three* of the following:
   Logic (1 paper).
   Psychology (1 paper).
   Ethics (1 paper) *or* Moral and Political Philosophy (1 paper)
   History of Philosophy, Ancient or Modern (1 paper).
4. *One* of the following special subjects (1 paper):
   Greek Philosophy before Socrates.
   Socrates and Plato.

Aristotle.
Post-Aristotelian Ancient 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.
Post-Kantian 19th century Idealism.

5. Oral examination.

Philosophy and History of Religion

1. An essay (1 paper).
2. History of Religion (1 paper).
3. Philosophy of Religion (1 paper).
4. Two papers on a selected religion and philosophical system with prescribed texts.
5. Oral examination.

Anthropology

1. *Either* General Ethnology (2 papers).
   Social Anthropology (2 papers).
   or General Ethnology (1 paper).
   Social Anthropology (1 paper).
   Outlines of Prehistory (1 paper).
   Racial Geography (1 paper).
2. Special subject (1 paper).
3. Oral examination.

Economics

1. An essay (1 paper).
2. Principles of Economics (2 papers).
3. History of Economic Thought (1 paper).
4. Economic History (1 paper).
5. Special subject (1 paper).

Geography

1. General Geography (1 paper).
2. Regional Geography (2 papers).
3. Human Geography (3 papers).
4. Economic Geography (1 paper).
5. Oral examination.

Music

1. Harmony (1 paper).
2. Counterpoint (1 paper).
3. Fugue (1 paper).
4. History of Music till 1700 (1 paper).
5. History of Music from 1700 to 1900 (1 paper).
6. Unseen passages in two of the following languages for translation into English :—
   French, German, Italian (1 paper).

Mathematics

Examination in the following subjects (4 papers) :—

(*a*) Higher Algebra and Trigonometry (Plane and Spherical)
(*b*) Analytical Geometry (Plane and Solid).
(*c*) Calculus and Differential Equations.
(*d*) Statics.
(*e*) Hydrostatics.
(*f*) Dynamics of a Particle.
(*g*) Rigid Dynamics.
(*h*) Mathematical Analysis.
(*i*) Elements of the Theory of Functions.
(*j*) Potential Theory.
(*k*) Hydrodynamics.

Education

1. An essay (1 paper).
2. Four papers to be selected from two of the following groups :—

(*a*) Theory of Education (2 papers).
(*b*) History of Education (2 papers).
(*c*) Experimental Psychology (2 papers).
(*d*) Methodology (2 papers).

DEGREE OF MASTER OF EDUCATION (M.Ed.)

36. 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. Ordinance

37. 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.

38. (*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.

39. 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 Article 37 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.—Candidates must make their entry, pay the prescribed fee, and send in their thesis not later than 1st MAY in each year. The thesis should be typewritten and at least two copies should be furnished.

DEGREE OF BACHELOR OF DIVINITY (B.D.)

I. *Graduates of the University.*

40. The degree of Bachelor of Divinity may be conferred on payment of the appropriate fee upon registered graduates of the University subject to the conditions contained in the following paragraphs. Ordinance

41. Graduates of the University may proceed to the degree of B.D. not less than two years after graduation on presenting a thesis satisfactory to the Senate upon a subject approved by the Board of the Faculty of Arts, provided that they have passed the B.D. Qualifying Examination* not less than one year before the presentation of the thesis. Candidates may also be required to pass an examination—written or oral, or both—in the subject of their thesis.

In all cases candidates wishing to present a thesis connected with Old Testament studies must, before acceptance as candidates for the degree, have passed an examination in Hebrew of a standard equivalent to that required of candidates taking Hebrew as a three years subject for the B.A. degree. Similarly, candidates wishing to present a thesis connected with New Testament studies, must before acceptance as candidates for Regulation

* For details see under Courses in Arts (Theological Studies).

the degree, have passed an examination in Greek of a standard equivalent to that required of candidates taking Greek as a three years subject for the B.A. degree.

Candidates for the B.D. Qualifying Examination will be excused those subjects or parts of subjects in which they have passed in their degree examination.

II *Graduates of other Universities.*

Ordinance

42. Graduates of other Universities may proceed to the degree of B.D. :—

(*a*) after becoming registered students of the University ;

(*b*) after attending for not less than two years such courses of lectures in the University as the Senate, on the recommendation of the Board of the Faculty of Arts, may require ;

(*c*) after passing the B.D. Qualifying Examination*;

(*d*) after presenting, not less than one year after passing the B.D. Qualifying Examination, a thesis satisfactory to the Senate upon a subject approved by the Board of the Faculty of Arts. Candidates may also be required to pass an examination written, or oral, or both—in the subject of the thesis.

Regulation

In all cases candidates wishing to present a thesis connected with Old Testament studies must, before acceptance as candidates for the degree, have passed an examination in Hebrew of a standard equivalent to that required of candidates taking Hebrew as a three years subject for the B.A. degree of the University. Similarly, candidates wishing to present a thesis connected with New Testament studies must, before acceptance as candidates for the degree, have passed an examination in Greek of a standard equivalent to that required of candidates taking Greek as a three years subject for the B.A. degree of the University.

* For details see under Courses in Arts (Theological Studies).

Candidates for the B.D. Qualifying Examination will be excused those subjects or parts of subjects in which they have passed the equivalent in their degree.

N.B.—Candidates must make their entry, pay the prescribed fee, and send in their thesis not later than 1st MAY in each year. The thesis should be typewritten and at least two copies should be furnished.

DEGREE OF DOCTOR OF PHILOSOPHY (Ph.D.)

43. The Degree of Doctor of Philosophy (Ph.D.) is conferred, on payment of the proper fee :— Ordinance

(*a*) On persons who are registered graduates of the University of Leeds or graduates of an approved University :

(*b*) On the holder of a Diploma awarded by an approved institution of university rank not empowered to confer degrees, provided that the course of study in the subject for which the Diploma has been awarded has extended over not less than three years of full-time study.

(*c*) In exceptional cases on the holder of a Diploma of the University of Leeds, provided that the Senate is satisfied regarding the course of study towards such Diploma and the standard attained by the candidate in the examination for the Diploma :

provided always that the conditions laid down in Article 44 have been satisfied by candidates for the degree of Doctor of Philosophy.

44. 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 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, subject to candidates in all cases spending in the University not less than one academic year or its equivalent as determined by the Senate.

Regulations

1. 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.

2. 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.

3. 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.

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 he proposes to study.

4. 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.

5. 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.

6. 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.

7. 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, two copies of a thesis, which must be accompanied by a short abstract. Theses must be bound in a standard form, particulars of which may be obtained from the Clerk to the Senate. A copy of the thesis will be retained in the University Library.

DEGREE OF DOCTOR OF LETTERS (Litt. D.)

45. 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. Ordinance

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.

46. 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 admission to the Bachelor's degree, or from the date of his acceptance as a candidate for the M.A. or Ph.D. degrees.

47. Such applications shall be made in writing to the Clerk to the Senate, 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. A copy of the thesis submitted will be retained in the University Library.

48. 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, or from the date of his acceptance as a candidate for the M.A. or Ph.D. degrees.

N.B.—The latest date for application and payment of fee is 1st MARCH in any year.

Holders of other Masterships of this University wishing to proceed to the Doctorate should communicate with the Clerk to the Senate.

DEGREE OF DOCTOR OF DIVINITY (D.D.)

Ordinance

49. The degree of Doctor of Divinity shall be conferred by the University upon registered Bachelors of Divinity 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 theological research or learning.

Provided that the Senate may, in such cases as it shall think fit, after considering the 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.

50. A Bachelor of Divinity of the University may make application for the degree of Doctor of Divinity in the sixth or any subsequent year from the date of his admission to a first degree in the University, or from the date of his acceptance as a candidate for the B.D. degree.

51. Such applications shall be made in writing to the Clerk to the Senate, and shall contain a full statement of the candidate's academic record and any other qualifications on which the application for the degree is based, together with two or more copies of the published work or works submitted whether in print or in typescript which the candidate may desire to submit in support of the application. A copy of the work or works approved for the degree shall be retained in the University Library.

52. If the application be approved by the Senate, the degree may be conferred at the first convenient date thereafter.

N.B.—The latest date for application and payment of fee is 1st March in any year.

DIPLOMAS IN ARTS

Ordinance

53. 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.

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

55. 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.

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. Normally at least sixty days will be devoted to class work in school.

Candidates who have had adequate experience of class teaching may be permitted to substitute for this period of practical training an approved course of visits to educational institutions.

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.
(*i*) Physical Development, Hygiene and Physical Training.

In addition there are various optional courses.

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.

The written examination for the diploma will take place in June.

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 above;
(*b*) Attendance on course (*g*) above;
(*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 he has been teaching, and must submit records of work done.

Diploma in Educational Administration

The courses of study for the Diploma in Educational Administration are intended to meet the needs of those who are engaged in administrative work under Local Education Authorities, or of those who wish to gain a knowledge of such administrative work.

Admission

The lecture courses are open to all who have passed the Matriculation Examination of a University or its equivalent, or to those who can give evidence that their experience and education have been such as to enable them to profit by attendance at them.

Early application for admission is desirable and should be made to the Registrar in any case not later than 15th October. The University reserves the right to suspend the course if the entry of students is regarded as insufficient.

Duration of Courses

The full course of study for the Diploma comprises about 60 lectures on the subjects given below and extends over the two Winter Sessions, 1939-40 and 1940-41.

Examinations

Candidates who wish to obtain the Diploma must have attended the full course and have passed the appropriate examinations.

Lecture Courses

1. Development of educational administration in England and Wales—local and central authorities.
2. Organisation and duties of the administrative departments of Local Education Authorities—County, County Borough and Borough.
3. Organisation and duties of the Central Authority.
4. The university system.
5. The school system—types of schools and co-ordination.
6. Supervision of schools—inspection and examination.
7. Educational finance.
8. Educational statistics.
9. School buildings and equipment.
10. School medical service.
11. Social and welfare activities.
12. The training of teachers.
13. The legal aspect of education.
14. Educational systems of other countries.

Lecturers

The Lectures will be given by members of the Staff of the Education Department of the University, Directors of Education, and others with expert knowledge and experience.

Dates and Fees.

The Lectures will be given on Wednesdays and Fridays at 6.15 p.m., beginning in November.

The fee for the full Diploma Course of two Sessions is £5 5s.; or for one Session £3 3s.; or for a group of 8 lectures £1 1s.

Diploma in Public Administration

The Course for the Diploma in Public Administration extends over two Winter sessions, comprising in each session about 80 lectures of one hour each.

An examination is held at the end of each session, and the Diploma will be awarded to those who are successful in the examinations after having made satisfactory attendance (*i.e.* not less than 75 per cent.) throughout the complete course.

The lectures are given in the University on Tuesdays and Fridays from 6.30 p.m. to 7.30 p.m. and 7.30 p.m. to 8.30 p.m. each evening.

The tuition fee is £7 a session, with an examination fee of £1 each session.

The syllabus is as follows:—

First Year:

1. General Economics (two hours a week).
2. Constitutional Law, with special reference to local government (one hour a week).
3. Political and Social Science (one hour a week).

Second Year:

1. Public Administration, Central and Local (one hour a week).
2. Public Finance, Central and Local (one hour a week).

3 and 4. Two of the following courses, of which not more than three will be held in any year (each one hour a week) :—

(*a*) Industrial and Social History of Great Britain since 1760.

(*b*) Constitutional History (with special reference to local government).

(*c*) Statistics.

(*d*) The Economics of Public Utility and Public Undertakings.

Students will be required to write at least one essay in connexion with each course.

The first year course will begin in October.

Diploma in Geography

Candidates for the Diploma in Geography must be graduates of a recognised University, or must furnish evidence satisfactory to the Senate of educational qualifications sufficient to enable them to profit by the course.

Candidates will ordinarily attend as full-time students in the Department for one session, but in special cases attendance equivalent in time to the foregoing but spread over a longer period may be permitted.

The content of the Diploma course, and the nature and standard of the examination, will be the same as obtain for a student presenting Geography as a Principal subject for the Ordinary Degree of B.A.

The fees payable will be as follows :—

1. In the case of candidates who are graduates of the University of Leeds, and who have previously paid to this University three composition fees of not less than £33 each—

No Registration Fee.

(*a*) If the course is completed in one year .. £28

(*b*) If the course is spread over two years £16 10s. a year.

2. Other candidates:
   Registration Fee £2
   (*a*) If the course is completed in one year .. £34
   (*b*) If the course is spread over two years £19 10s. a year.

Diploma in Biblical Studies*

In response to a widely-felt need for a more adequate training on the part of those who give, or may be called upon to give, religious instruction in schools, the University has instituted a Diploma in Biblical Studies.

The course for the Diploma extends over two years of part-time study. The lectures, of which there are two in each week, are designed to give the teacher an adequate literary, historical and comparative knowledge of the Old and the New Testament.

Admission

The lecture courses will be open to all whose education has been such as to enable them to profit by attendance at them. Applicants for admission should state their educational qualifications.

The University reserves the right to suspend the course if the entry of students is regarded as insufficient.

Duration of Courses

The full course of study for the Diploma comprises about a hundred lectures on the subjects given below and extends over two sessions.

Examination

An examination will be held at the end of the course. To qualify for the Diploma a candidate must pass the examination after making satisfactory attendance upon the full course.

Lecture Courses

The following subjects will be included in the course :—

(i) *Old Testament :*

(*a*) A general knowledge of the history of Israel and Judaism to A.D. 70, and the literature of the Old Testament.

*The course for this Diploma is at present in abeyance.

(*b*) The development of theological thought, ethics and worship during the same period.

(*c*) Two prescribed books (in English).

(ii) *New Testament:*

(*a*) The life and teaching of Christ as contained in the Gospels.

(*b*) The history and religious thought of the Apostolic Age.

(*c*) A general knowledge of the Synoptic problem and the Textual Criticism of the New Testament with a more detailed study of one Gospel and one Epistle (in English).

(iii) *Historical and archæological background of the Old and New Testaments:*

One or more of the following optional subjects may also be taken:

New Testament Greek.
Old Testament Hebrew.
Church History (with prescribed periods).

Dates and Fees

The lectures will be given on Tuesdays at 6 p.m. and Saturdays at 11 a.m., throughout the session.

The fee for the course will be £5 5s. a session, with an examination fee for the Diploma of £3.

COURSES IN ARTS

GREEK LANGUAGE AND LITERATURE

Greek I

The work in this course will comprise composition, translation at sight and the special study of Euripides, *Medea* ; Plato, *Crito* and *Phædo* (c. 57 to end).

Four hours to be arranged later.

Books recommended

North and Hillard's *Greek Prose Composition* (Rivington).
Euripides, *Medea* (Headlam, Cambridge Press).
Plato, *Crito* and *Phædo* (Keene, Macmillan).

Greek II

The work in this course will comprise composition, translation at sight, and the special study of Homer, *Odyssey* XI, XII ; Thucydides II (selection).

Four hours to be arranged later.

Books recommended

Sidgwick's *Greek Prose Composition* (Rivington).
Homer, *Odyssey* I-XII (Merry, Clarendon Press).
Thucydides II (Marchant, Macmillan).

Greek III

The work in this course will comprise composition, translation at sight, and the special study of Euripides, *Bacchæ* ; Plato, *Protagoras*.

Four hours to be arranged later.

Books recommended

Sidgwick's *Greek Prose Composition* (Rivington).
Euripides, *Bacchæ* (Tyrrell, Macmillan).
Plato, *Protagoras* (Adams, Cambridge Press).

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

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.

LATIN LANGUAGE AND LITERATURE

Latin I

The work in this course will comprise composition, translation at sight and the special study of prescribed authors.

Mondays, Wednesdays and Fridays at 10 a.m., with a composition class on *either* Tuesdays at 11 a.m., or Thursdays at 10 a.m.

Books recommended

Cicero, *In Catilinam* I and II.
Virgil, *Aeneid* VIII.
Caesar, *Gallic War* IV, c. 20—V c. 23.

Latin II

The work in this course will comprise composition, translation at sight and the special study of prescribed authors.

Mondays, Tuesdays, Wednesdays, Fridays at 12 noon.

Books recommended

Tacitus, *Agricola.*
Terence; *Heauton Timorumenos.*
The Selections from Virgil, Tibullus and Ovid in "*Latin Poetry,*" ed. C. E. Freeman, Clarendon Press.

Latin III

The work in this course will comprise more advanced composition, translation at sight and the special study of prescribed authors.

Mondays and Fridays at 3 p.m., Wednesdays at 12 noon, and a composition class on Tuesdays at 12 noon.

Books recommended

Cicero, *Philippic* II.
Horace, *Odes* I.
The Selections from Catullus, Propertius, Statius and Claudian in "*Latin Poetry,*" ed. C. E. Freeman, Clarendon Press.

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 9 a.m., Thursdays at 9 a.m. and 10 a.m., and Fridays at 12 noon, with other hours to be arranged.

ENGLISH LANGUAGE AND LITERATURE

English IA (Literature)

A first year course for Honours (qualifying) and Pass students. It consists of a study of poetic forms and of the drama. The following texts will be used :—

The English Parnassus, ed. Grierson, etc. (Oxford); *English Poetry*, Muir, (Oxford); Milton's *Samson Agonistes* (ed. Verity, Cambridge); Dryden's *Absalom and Achitophel* (ed. Christie and Firth, Oxford); Keats' *Hyperion* (ed. Arnold and Robertson, Oxford); Browning's, *Men and Women* (ed. Hadow, Oxford); *Five Pre-Shakespearian Comedies*; *Pre-Shakespearian Drama*, (Everyman, Vol. I); *Six Plays by Contemporaries of Shakespeare* (World's Classics); *Restoration Plays* (Everyman); *Tragedy*, by F. L. Lucas, (Hogarth).

Mondays and Fridays at 11 a.m.

English IB (Composition and Criticism)

For both Honours (qualifying) and Pass students. The work will consist of (i) the study and practice of English Composition; (ii) an elementary course in criticism. The following books will be used :—

The London Book of English Prose, Read and Dobrée (Eyre & Spottiswoode); Bacon's, *Essays* (ed. West, Cambridge); Defoe's *Moll Flanders* (Everyman); *Critical Essays of the 16th to 18th Centuries* (World's Classics); *Critical Essays of the 19th Century* (World's Classics); *Critical Essays of the 20th Century* (World's Classics).

Wednesdays at 11 a.m.

English Ic (Essays and Discussions)

The work will take the form of discussions, following upon essays read by students to the class, on the subjects lectured upon in Ia and Ib.

In tutorial groups at times to be arranged.

English Id (Language and Early Literature)

This course is intended only for Honours (qualifying) students in their first year. The work will comprise the outlines of English Language, Literature and History, to the close of the Old English period.

The following books are selected for study in 1940-41: Wright, *Elementary Old English Grammar*; Sweet, *Anglo-Saxon Reader* (Oxford, 9th edition), extracts i, ii, iv, ix-x, xv-xviii, xxi, xxii, xxvi; *The Dream of the Rood* (ed. Dickins and Ross); *The Parker Chronicle*, 832-900 (ed. A. H. Smith); Jespersen, *Growth and Structure of the English Language* (Blackwell).

Mondays and Fridays at 3 p.m.: Thursdays at 12 (noon).

Books recommended

Wyld, *The Historical Study of the Mother Tongue.* (Murray).
Bradley, *The Making of English.* (Macmillan).
Brook, *Notes on some English Sound Changes.*
Ker, *English Literature: Medieval.* (Home Univ. Library).
Chambers, *England before the Norman Conquest.* (Longmans).
Oman, *England before the Norman Conquest.* (Methuen).
British Museum *Guide to Anglo-Saxon Antiquities.*

English IIa (Literature)

For Pass students in their second and third years. The work will each year consist of the study of English Literature in a selected period, which will vary from year to year. The period to be studied in the year 1940–1941 is that from 1740-1832. A general knowledge of the period will be expected; the following books are recommended for special study:—

Poetry:

Cowper's, *Selected Poems* (Everyman); Crabbe's, *Poems* (Oxford Standard Authors); Blake's *Poems* (Everyman); *Poems* of Johnson, Goldsmith, Gray and Collins (Muses' Library); Wordsworth's, *Poems*

Published in 1807 (Oxford Miscellany); *The Prelude* (Temple Classics); *Poems* of Coleridge (World's Classics); *Poems* of Keats (World's Classics); *Selected Poems* of Shelley (World's Classics); *Poems* of Byron, vol. 3 (Everyman).

PROSE:

Johnson's, *Lives of the Poets*, 2 vols. (World's Classics); *Burke's Reflections on the French Revolution* (Everyman); Gibbon's, *Decline and Fall of the Roman Empire*, vol. 1 (World's Classics); Gray's *Letters* (World's Classics); Hazlitt's, *The Spirit of the Age* (World's Classics); Lamb's, *The Essays of Elia* (Everyman); De Quincey's, *Opium Eater* (Everyman); Keats', *Letters* (Nelson); Landor's, *Imaginary Conversations* (World's Classics); Cobbett's, *Rural Rides*, vol. 1 (Everyman).

NOVELS:

Fielding's, *Tom Jones* (Everyman); Richardson's, *Pamela* (Everyman); Sterne's, *A Sentimental Journey* (World's Classics); Smollett's, *Peregrine Pickle* (Everyman); Scott's, *The Antiquary* (Everyman); Jane Austen's, *Mansfield Park* (Everyman); Peacock's, *Crotchet Castle* (World's Classics).

Mondays and Fridays at 11 a.m.

English IIB (Composition and Literary Forms)

This consists of tutorial classes: practical composition on subjects lectured on in IIA, and typical forms.

At times to be arranged.

English IIC (Language and Early Literature)

The work in this course will comprise a study of Old English (Language and Literature). The following texts will be used:—

Sweet, *Anglo-Saxon Primer*, with a study of selections iv and v; Sweet, *Anglo-Saxon Reader*, selections i, ii, viii, ix, xxi, xxvi.

Wednesdays at 11 a.m. throughout the session.

English IIIA (Literature)

As for English IIA (Literature).

English IIIB (Language and Literature)

The work of this course will comprise a study of Middle English language and literature, with special attention to the works of Chaucer. A general knowledge of the history of the English language will also be required.

The following texts will be read :—

Sisam, *Fourteenth Century Verse and Prose*, selections ii, v, vi, viii, xiv, xv, xvii ; Chaucer, *Knight's Tale* (ed. Pollard), *Nun's Priest's Tale* and *Clerk's Tale* (both ed. Sisam).

Fridays at 12 noon throughout the session.

Books recommended

French, *A Chaucer Handbook* (Crofts, New York).
Ker, *English Literature : Medieval.*
Jespersen, *Growth and Structure of the English Language* (Blackwell).
Bradley, *The Making of English* (Macmillan).

FINAL HONOURS AND M.A. COURSES

A. Literature.

Ha1. (Scheme A) Second and Third Years

The treatment of philosophic ideas in English poetry, from Sackville to Eliot.

This course will be given in alternate years. It will next be given in 1941-1942.

Thursdays at 2 p.m.

Ha2. (Scheme A) Second and Third Years

The development of the English novel from Lyly to E. M. Forster.

This course will be given in alternate years. It will next be given in 1940-41.

Tuesdays at 11 a.m.

Ha5. (Scheme A and B) Second and Third Years

Chaucer.

This course will be given in alternate years. It will next be given in 1940-41.

Wednesdays at 11 a.m.

H*a*6. (Scheme A) Second and Third Years

The fifteenth century.

This course will be given in alternate years for one term only. It will next be given in 1940-41.

H*a*7. (Scheme A and B) Second and Third Years

Shakespeare.

This course will be given in alternate years. It will next be given in 1941-42.

Wednesdays at 11 a.m.

H*a*8. (Scheme A and B) Second and Third Years

Elizabethan Drama.

This course will be given in alternate years for one term only. It will next be given in 1941-42.

At a time to be arranged.

H*a*9. (Scheme A and B) Second and Third Years

On a special period.

That for 1940-41 will be 1798-1832.

Thursdays at 2 p.m.

H*a*10. (Scheme A and B) Second Year

Tutorial classes on the special period (see H*a*9).

At times to be arranged.

H*a*11. (Scheme A) Third Year

Seminar classes on one author.

The one chosen for 1940-41 is Wordsworth.

At times to be arranged.

B. Language.

H*b*1. (Scheme B) Second Year

The History of English.

Mondays and Wednesdays at 12 noon.

H*b*2. (Scheme A and B) Second Year

Introduction to Middle English.

Mondays at 10 a.m.

H*b*3. (Scheme A and B) Third Year

Middle English Texts and Literature with special study of *The Owl and the Nightingale, Havelok the Dane* and *Sir Gawain and the Green Knight.*

Wednesdays at 10 a.m., and Thursdays at 12 noon.

H*b*4. (Scheme A and B) Second Year

Old English Texts and Literature, with special study of *Beowulf and the Heroic Fragments.*

Wednesdays at 12 noon and Thursdays at 10 a.m.

H*b*5. (Scheme B) Second Year

Early Middle English Texts.

Fridays at 2 p.m.

H*b*7. (Scheme B) Second and Third Years

Old and Middle English Philology: Second Year, Thursdays at 10 a.m.; Third Year, Mondays at 10 a.m.

H*b*8. (Scheme B) Third Year

Introduction to Germanic Philology.

Thursdays at 10 a.m.

H*b*9. (Scheme B) Second and Third Years

Elementary Old and Middle English Palaeography.

At times to be arranged.

H*b*10. (Scheme A and B) Second and Third Years

Old Icelandic.

(i) Second Year, Fridays at 12 noon.

(ii) Third Year, Tuesdays at 11 a.m.

H*b*11. (Scheme B) Second and Third Years

Modern Icelandic.

At times to be arranged.

H*b*12. (Scheme B) Second and Third Years

Gothic.

(i) Second Year, Tuesdays at 10 a.m.
(ii) Third Year, Thursdays at 12 noon.

H*b*13. (Scheme B) Second and Third Years

Vedic Philology.
At times to be arranged.

H*b*14. (Scheme B) Second and Third Years

Medieval Welsh.
At times to be arranged.

H*b*15. (Scheme B) Second and Third Years

Old Saxon and Old High German.
By arrangement with the German department.

H*b*16. (Scheme B) Second and Third Years

Old French.
By arrangement with the French department.

H*b*17. (Scheme B) Second and Third Years

(i) Second Year, Russian.
(ii) Third Year, Old Bulgarian.
By arrangement with the Russian department.

H*b*18. (Scheme B) Second Year

Latin Philology.
By arrangement with the Latin department.

H*b*19. (Scheme B) Second Year

Greek Philology.
By arrangement with the Greek department.

Hb20. (Scheme B) Second and Third Years

Essays and discussions.

(i) Second Year, at a time to be arranged.

(ii) Third Year, Tuesdays at 10 a.m.

Hons. Modern Language Students who offer the History of the English Language should attend this class, if possible.

Hb21. (Scheme B) Third Year

Old Icelandic literature.

ICELANDIC LANGUAGE AND LITERATURE

Icelandic IA

This course is an introduction to Old Icelandic Language and Literature (from the beginnings to 1400). It comprises a study of the grammar of the language, including phonology, accidence and syntax, and detailed study of selected texts.

Fridays at 12 noon.

Book recommended

Gordon. *An Introduction to Old Norse.* (Oxford).

Icelandic IB

This course is an introduction to modern Icelandic Language and Literature (from 1400 to the present day). It comprises (i) a study of the grammar of the language, (ii) prose composition in modern Icelandic, (iii.) practice in speaking present-day Icelandic, and (iv) detailed study of selected texts.

Mondays and Thursdays at 3 p.m.

Books recommended

Snæbjörn Jónsson, *A Primer of Modern Icelandic.* (Oxford)
Sigurður Nordal, *Íslenzk Lestrarbók.* (Reykjavík).
Geir Zoëga, *Íslenzk-ensk Orðabók.* (Reykjavík).
Oxford Book of Scandinavian Verse (selections).

Icelandic IIA

The work of this course will comprise the study of Old Icelandic grammar and philology, and of prescribed texts.

Tuesdays at 11 a.m.

Books recommended

Edda Snorra Sturlusonar (ed. Guðni Jónsson, Reykjavík).
Gunnlaugssaga Ormstungu. (ed. L. M. Small).
Zoëga, *Old Icelandic Dictionary.* (Oxford).
Ker, *Epic and Romance.* (Macmillan).
Phillpotts, *Edda and Saga.* (Home Univ. Library).
Liestøl, *The Origin of the Icelandic Family Sagas.* (Oslo).

Icelandic IIB

The work of this course will comprise (i) the study of prescribed literary texts in modern Icelandic, (ii) Icelandic prose composition, (iii) conversations and discussions of work in Icelandic.

Two hours a week at times to be arranged.

Books recommended

Jón Thoroddsen, *Maður og Kona.*
Jóhann Sigurjónsson, *Fjalla-Eyvindur.*
Brynjúlfur Jónsson, *Saga Natans Ketilssonar og Skáld-Rósu.*
Sigurður Nordal, *Íslenzk Lestrarbók.*

FRENCH LANGUAGE AND LITERATURE

French I

The work done in this course will comprise the study of Modern French literature and institutions, and translation exercises.

Lectures will be given on Mondays, Wednesdays and Fridays at 12 noon and on Tuesdays at 3 p.m.

Students will be supplied with a list of prescribed books at the beginning of the term.

French II

The work in this course will comprise advanced syntax and composition and the study of literature, with prescribed authors.

Mondays, Tuesdays and Fridays at 2 p.m.; Tuesdays at 3 p.m.

French III

The work in this course will comprise composition, literature and the study of language and institutions, with prescribed authors.

Mondays, Tuesdays and Fridays, at 2 p.m.; Tuesdays at 3 p.m.

H. Honours Course

Students taking Honours should consult the Head of the Department as to the lectures they must attend.

ITALIAN LANGUAGE AND LITERATURE

Italian I

Three hours a week at times to be arranged.

This course is intended for candidates entering for the first year examinations in Arts, Science and Commerce and for general students who wish to acquire a greater proficiency in Italian. In addition to prescribed books, grammar, composition and dictation will be studied and there will be practice in Italian conversation. The course will also include a certain number of lectures on Italian geography.

Books recommended

Grandgent, *Italian Grammar.*
Contemporary Italian Short Stories. (Ed. Marraro, pub. Harrap).
Pirandello, *Enrico IV.*
Abba, *Da Quarto al Volturno.*

Italian II

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 general outline or a period or periods of Italian History together with grammar, composition and conversation in Italian.

Books recommended

Rodolico, *Sommario Storico* (III vol.).
Leopardi, *Opere.*
Foscolo, *I Sepolcri.*
Alfieri, *Filippo.*
Carducci, *Prose Scelte.*

Italian III

The work of this class comprises the study of advanced texts, a general outline or a period or periods of Italian literature together with the revision of Italian syntax, the elements of historical grammar and phonetics. The class will be taught in Italian.

Books recommended

Rossi, *Storia della Letteratura Italiana* (III vol.).
Carducci Pascoli e D'Annunzio, *Antologia Poetica.*
Manzoni, *I Promessi Sposi.*
Leopardi, *Pensieri.*

GERMAN LANGUAGE AND LITERATURE

German I

This course is intended for candidates entering for the first year 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

Paul Ernst : *Geschichten von deutschen Art* (Crofts).
German Lyrics (Dent's Treasuries of German Literature).
Theilkuhl : *Deutsches Land and deutsches Leber* (Methuen).

German II and III

The work of this class will comprise the study of composition, phonetics, German life and thought, periods of literature, and prescribed authors.

Books recommended

Mörike : *Gedrichte* (Duckworth).
Thomas Mann : *Toniokröger* (Crofts).
Eichendorff : *Ans dem Leben eines Tangenichts.*
C. F. Meyer : *Gustav Adolfs Page* (Harrap).

H. Honours Course

The work of this class will comprise the study of composition, historical grammar, medieval and modern texts, periods of literature, and a course on German life and thought.

Books and periods will be found under the Honours School of Modern Languages and Literatures for the B.A. degree with Honours.

SPECIAL CLASSES

S*a*. 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.

Book recommended

M. L. Barker: *Basic German for Science Students* (Heffer, Cambridge).

S*b*. Lower Elementary Class for Arts Students

Two hours per week.

This class is intended for beginners who desire later to take German as an Ordinary Degree subject, and for Arts students wishing to acquire a reading knowledge of German.

Book recommended

Sack and Thompson, *A Practical German Course* (Longmans).

HEBREW LANGUAGE AND LITERATURE

Hebrew I

1. Hebrew Grammar.

2. Translation, exegesis, retranslation and pointing of set portion of the Old Testament.

3. Composition; introduction to the Pentateuch.

Tuesdays and Thursdays, 9 a.m. One additional hour to be arranged.

For session 1940-41 the prescribed portion is Genesis, 1–8.

Book required: Davidson's "Hebrew Grammar": Revised by MacFadyen. (22nd or later Edition). T. & T. Clark.

Skinner, Genesis (International Critical Commentary).

Hebrew II

1. Hebrew Syntax.

2. Translation, exegesis, grammar, retranslation, and pointing of set portion of the Old Testament ; introduction to and subject matter of the Books from which the set portions are taken.

3. Either (*a*) composition and pointing.

OR (*b*) introduction to the literature of the Old Testament.

Tuesdays and Thursdays, 10 a.m. One additional hour to be arranged.

For session 1940-41 the prescribed portions are 1 Samuel, 1-14 ; Judges, 1-5 ; Amos.

Books required : Brown, Driver and Briggs' " Hebrew and English Lexicon of the Old Testament." (Clarendon Press). Davidson's " Hebrew Syntax " (T. & T. Clark). Unpointed Text : " Former Prophets " (Brit. & For. Bible Society).

Hebrew III

1. Translation, exegesis, grammar, syntax, retranslation ad pointing of set portions of the Old Testament ; introduction to and subject matter of the Book from which the set portions are taken.

2. Either (*a*) composition ; unprepared translation from the Old Testament.

OR (*b*) history and development of the moral and religious ideas in the Old Testament.

Three hours weekly to be arranged.

The prescribed portions for session 1940-41 are Isaiah, 40-55 ; Psalms, 1-30 ; Ecclesiastes.

Books required : In addition to Lexicon mentioned above, Collins and Cowley's " Gesenius-Kautzsch Hebrew Grammar," Driver's " Hebrew Tenses."

SPANISH LANGUAGE AND LITERATURE

Spanish I

Three hours a week at times to be arranged.

This course is intended for candidates entering for the first year 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.

Book recommended

J. W. Barlow, *Basic Spanish* (Crofts, New York).
Azorín : *Al Margen de los Clásicos.*
Larra, *Seis Artículos.*

Spanish II

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

Historia de España by A. Blànquez Fraile (Ed. Sopena, Barcelona).
Antologia de Ensayos Españoles (Ed. A. Alonso).
Cervantes, *Don Quijote.*
F. Courtney and Augusto Centeno, *A Graded Spanish Grammar with Composition* (F. S. Wofts & Co., New York).
Las Cien Mejores Poesías.

Spanish III

The work of this class comprises revision of Spanish syntax, the elements of historical grammar and phonetics, study of advanced texts, and composition. The class will be taught in Spanish.

Books recommended

Calderón, *La Vida es Sueño.*
Lope de Vega, *El Caballero de Olinedo.*
J. R. Jiménez, *Platero y Yo.*

Spanish Honours

The work of this class comprises historical grammar, interpretation of old, seventeenth century and modern texts, and three courses of literature as follows: up to 1500 A.D. in the first year, the classical period in the second year, and the novel of the nineteenth century in the third year.

HISTORY

History IA

(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:—*Cimon, Lysander, Cato (the elder), Sulla.*

The text used will be the translation by Stewart and Long in Bohn's Library. The above Lives are all contained in Vol. II, which can be procured separately.

History IB

(Modern History from 1812 to 1919)

Two of the following hours each week: Wednesday at 9 a.m., and Tuesday and Thursday at 12 (noon).

History IIA

(An Outline Course on English History)

Tuesdays and Thursdays at 2 p.m.

History IIB

(Medieval Life and Thought)

Tuesdays and Thursdays at 11 a.m.

This is also a course for the qualifying 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.

History IIC

(Ecclesiastical)

Courses towards this degree are provided by the staff of the University in co-operation with teachers recognised for this purpose by the Senate, from the staffs of the Wesley College, Headingley, the Rawdon Baptist College, the Yorkshire United Independent College, Bradford, and the College of the Resurrection, Mirfield.

History IIIA

(Greek History from 478 to 362 B.C.)

Wednesdays at 11 a.m. and Fridays at 10 a.m.

History IIIB

(Roman History from 133 to 30 B.C.)

Tuesdays and Thursdays at 10 a.m.

History IIIC

(English History from 1815 to 1919)

Mondays and Fridays at 10 a.m.

History IIID

(The History of the British Empire)

Wednesdays and Fridays at 9 a.m.

HONOURS AND M.A. COURSES

H1. Roman History 44 B.C. to 14 A.D.

Mondays and Wednesdays at 10 a.m.

H2. Roman History 44 B.C. to 14 A.D.

For students in their third year.
Fridays at 11 a.m.

H3. English Constitutional History to 1485

Tuesdays and Thursdays at 12 noon.

H4. The Norman Conquest

Wednesdays and Fridays at 12 noon.

H5. The Reign of Richard II

A supplementary class for students in their third year.
Wednesdays at 10 a.m. and Fridays at 11 a.m.

H6. The Reign of James I

Wednesdays and Fridays at 12 noon.

H7. The Reign of James I

A supplementary class for students in their third year.
Wednesdays and Fridays at 11 a.m.

H8. English History 1812 to 1837 with special reference to International Relations from 1812 to 1815

Wednesdays and Fridays at 12 noon.

H9. English History 1812 to 1837

A supplementary class for students in their third year
Tuesdays and Thursdays at 10 a.m.

H10. European History

Mondays and Wednesdays at 11 a.m.

H11. Materials for Historical Research for Honours Students in their second year

Fridays at 10 a.m.

H12. Essay Class

One hour a week at times to be arranged.

H13. Political Theory

At times to be arranged.

H14. The History of the British Empire

Wednesdays and Fridays at 9 a.m.

H15. An Outline Course on English History

Tuesdays and Thursdays at 2 p.m.

H16. Roman History for Classics Honours Students

Tuesdays at 4 p.m. and Fridays at 11 a.m.

PHILOSOPHY

Philosophy I

Three lectures each week throughout the session at hours to be arranged.

IA. Introduction to Moral Philosophy: two hours.

IB. Introduction to Metaphysics: one hour.

These courses will involve the special study of selected books, viz.:

(*a*) Plato: *Republic* 1-4 and 8-9, *Apology, Crito.*
Mill: *Utilitarianism.*

(*b*) Berkeley: *Introduction to "Principles of Human Knowledge"* and *Three Dialogues between Hylas and Philonous.*
Bertrand Russell: *The Problems of Philosophy.*

Philosophy II

Three lectures each week throughout the session at hours to be arranged.

IIA. History of Modern Philosophy : two hours.

IIB. Psychology : one hour.

IIC. Logic : one hour.

Note.—IIC is primarily for Honours students, but may be taken by others as an extra course if they intend to take IIIA in their third year.

Philosophy III

Three lectures each week throughout the session at hours to be arranged.

IIIA. Contemporary Philosophy : two hours.

IIIB. Ethics : two hours.

This course includes the special study of the following : Aristotle's *Ethics* ; Butler, *Sermons* I-III and XI, and Kant, *Fundamental Principles of the Metaphysics of Ethics*.

IIIC. Study of a special set book : one hour.

Course III will normally consist of *either* IIIA *or* IIIB together with IIIC : but IIIA and IIIB may be taken together as an alternative if desired.

Greek Philosophy

This course is mainly for students in the Honours Schools of Philosophy and Classics.

Political Theory

This course is mainly for students in the Honours Schools of Philosophy and History, and gives a primarily historical survey of the subject.

H. Honours Courses

Lectures will be delivered on subjects for the Honours degree, as required, at hours to be arranged.

ANTHROPOLOGY

Anthropology I (General Ethnology)

Two or three lectures and three hours' practical work a week throughout the session at times to be arranged.

The concept of human " races " and the limitations of classifications of mankind on the basis of race. A comparative study of the physical criteria employed to distinguish racial types. The distribution and regional grouping of racial types. Problems of the relationships of racial types to geographical environment. The geographical setting of early " modern man." The idea of racial drifts.

The meaning and content of culture. Culture (including language) versus race. Elementary comparative study of language. The classification of peoples in relation to language. Regional studies of primitive economies and their relation to environment. The geographical background of the ancient civilizations of the Near East, India, China and the Aegean. The dawn of civilization in Europe. The material cultures of pre-Columbian America. Diffusion and independent origins.

Anthropology II (Physical Anthropology)

Two or three lectures and three hours' practical work a week throughout the session at times to be arranged.

The comparative anatomy of the man-like apes and man (Primates) with special reference to the skeleton and brain. The evolution of man. Palæontology and the antiquity of man. The classification and distribution of living races of mankind. The physical characters of races of living man and the methods of anthropometry.

Anthropology III (Social Anthropology)

Two or three lectures a week throughout the session at times to be arranged.

The scope of social anthropology. Historical, comparative and functional method of approach. The

investigation of the nature and structure of human society by the comparative study of communities of divers kinds. Forms of social structure. The family and kinship. Patrilineal and matrilineal organization. The extension of kinship, clans, tribes and nations. Regulation of sexual life. Rules of marriage and sex division in relation to economic, religious and social activities. Primitive law, land tenure, property and inheritance. Political organization. Chieftainship, kingship, secret societies. The sanctions of authority. Genesis and growth of moral ideas, and of magico-religious customs and beliefs.

PHILOSOPHY AND HISTORY OF RELIGION

I. Study of Origins and of the Philosophical Approach to Religion

Three lectures a week throughout the session at times to be arranged.

This course deals with the historical and philosophical approach to the study of religion in relation to general principles and fundamental ideas and institutions. Special attention is given in this course to the primitive cultures.

II. Ancient Religions and Philosophies of Religion

Three lectures a week throughout the session at times to be arranged.

This course consists of a general outline of the history, literatures and philosophical systems of the principal religions of antiquity with a more detailed study of (*a*) Greek thought, and (*b*) one selected religion and its texts.

III. Higher Living Religions and Oriental Philosophies of Religion

Three lectures a week throughout the session at times to be arranged.

This course comprises the comparative study of the main tenets of the higher living religions. One selected

oriental religion and philosophical system to be studied in greater detail.

Books recommended

History :
E. O. James. *Comparative Religion.*
G. F. Moore. *History of Religions* (2 vols.).
F. H. Smith. *The Elements of Comparative Theology.*

Philosophy :
G. Galloway. *The Philosophy of Religion.*
J. Baillie. *The Interpretation of Religion.*
W. Pringle Pattison. *The Idea of God.*
F. R. Tennant. *Philosophical Theology.*

THEOLOGICAL STUDIES

Courses towards this degree are provided by the staff of the University in co-operation with teachers recognised for this purpose by the Senate, from the staffs of the Wesley College, Headingley, the Rawdon Baptist College, the Yorkshire United Independent College, Bradford, and the College of the Resurrection, Mirfield.

Syllabuses

I. Old Testament History, Literature and Religion

The first year course comprises the History and Religion of Israel to the beginning of the Exile ; critical introduction to the literature of the Old Testament down to and including the Deuteronomic writers together with a detailed study of prescribed books in the Revised Version.

The second year course comprises the History of Israel from the Exile to 70 A.D., the development of Religion from the Exile to the end of the Old Testament period ; critical introduction to the Post Exilic literature of the Old Testament and the Apocrypha and a detailed study of prescribed books.

Set Books

First year course : 1939-1940 and 1940-1941 } Judges.

Second year course : 1939-1940 and 1940-1941 } Isaiah 40-66.

II. New Testament Language and Literature

Three lectures are given each week at times to be arranged. The course may be taken for one or two years.

The first year course includes :—

1. The grammar and syntax of the Greek New Testament.
2. Translation, criticism and exegesis of a prescribed portion of the New Testament, which for Session 1939-40 is St. Mark's Gospel.
3. Introduction to the Gospels and the Acts of the Apostles ; the textual criticism of the New Testament.

The second year course will include :

1. Unprepared translation from the Greek New Testament.
2. Translation, criticism and exegesis of a prescribed portion of the New Testament which for Session 1939-40 will be II Corinthians.
3. Introduction to the New Testament Epistles and the Apocalypse ; the History of the Formation of the New Testament Canon.

Set Books

First year course :	1939-1940	St. Mark.
	1940-1941	St. Matthew (Chaps. 1-20, verse 16).
Second year course :	1939-1940	II Corinthians.
	1940-1941	Colossians and Ephesians.

Text Books

1939-1940	H. B. Swete on St. Mark. International Critical Commentaries on II Corinthians.
1940-1941	A. H. McNeile on St. Matthew. R. H. Lightfoot on Colossians. Armitage Robinson on Ephesians.

Books recommended

Vincent Taylor : *The Gospels.*
R. H. Clogg : *Introduction to the New Testament.*
F. G. Kenyon : *The Text of the Greek Bible.*
A Souter : *Text and Canon.*
Anderson Scott : *Christianity according to St. Paul.*

IV. Ecclesiastical History

Two lectures are given each week at times to be arranged.

This subject may be taken for one or two years.

Candidates take one or two of the following periods :—

1. 70 A.D. to 313 A.D. Vol. I of Kidd's *Documents Illustrative of the History of the Church* will be studied in connection with this course.
2. 313 A.D. to 451 A.D. Vol. II of Kidd's *Documents* will be studied in connection with this course.
3. General Outlines of Ecclesiastical History from 1453 A.D. to 1845 A.D.
4. General outlines of Ecclesiastical History from 1054 A.D. to 1845 A.D.

VII. Biblical and Historical Theology

Two lectures are given each week at times to be arranged.

This subject may be taken for one or two years.

The course is divided into two sections which are taken in alternate years.

Section A. The Incarnation and the Trinity with special reference to the following :—The Old Testament antecedents ; New Testament data and their interpretation ; the controversies of the Conciliar Period ; the Middle Ages and the Reformation Period ; modern presentations.

Section B. The Atonement with special reference to the following :—The Old Testament antecedents ; New Testament data and their interpretation ; early Christian conceptions, Greek and Latin, of salvation through Christ ; the teaching of Anselm

and Abelard; Reformation and Post Reformation conceptions of the Atonement; modern presentations.

Section A will be taken during the session 1939-40 and Section B during the session 1940-41.

Qualifying Examination for B.D. Degree

1. The qualifying examination referred to in Articles 42 and 45 (*c*) of Ordinance II consists of the following subjects :—

Old Testament History, Literature and Religion with or without Hebrew Language and Literature (2 papers in Old Testament or 1 in Old Testament and 1 in Hebrew).
New Testament Language and Literature (2 papers).
Ecclesiastical History (2 papers).
Biblical and Historical Theology (2 papers).
The Philosophy of Religion (2 papers) *or*
The History of Religion (2 papers) *or*
The Philosophy of Religion (1 paper) *and*
The History of Religion (1 paper).

2. The syllabus for the qualifying examination is that prescribed for the second and third year courses in the relevant subjects for the B.A. degree in Theological Studies. In the case of Ecclesiastical History candidates must offer *either* Period 1 and Period 2 *or* one of these two Periods together with Period 3 or Period 4.

3. If desired the first part of the Qualifying Examination in each subject may be taken in one year and the second part in the subsequent year. Candidates who wish to divide the Qualifying Examination in this way will be required to take the appropriate papers for the B.A. degree in Theological Studies.

DETAILS OF EXAMINATION.

Old Testament History, Literature and Religion.

First Paper : The history of Israel to 70 A.D. with a detailed study of prescribed books in the Revised Version.

1940 Judges.
1941 Judges.

Second Paper: The religion of Israel to 70 A.D.; critical introduction to the literature of the Old Testament and the Apocrypha; detailed study of prescribed books in the Revised Version.

1940 }
1941 } Isaiah 40-66.

Books recommended

W. O. E. Oesterley and T. H. Robinson: *History of Israel*
J. N. Schofield: *The Historical Background of the Bible.*
C. F. Burney: *Judges.*
W. O. E. Oesterley and T. H. Robinson: *Hebrew Religion* (2nd ed.).
S. R. Driver: *Introduction to the Literature of the Old Testament.*
J. Skinner: *Isaiah* (Cambridge Bible).

New Testament Language and Literature.

First Paper: The grammar and syntax of the Greek New Testament. Translation, criticism and exegesis of the prescribed Gospel. Introduction to the Gospels and the Acts of the Apostles. The textual criticism of the New Testament.

Prescribed Gospels:

1940 St. Mark.
1941 St. Matthew, Chaps. 1-20, verse 16.

Second Paper: Unprepared translation from the Greek New Testament. Translation, criticism and exegesis of the prescribed Epistle. Introduction to the New Testament Epistles and the Apocalypse. History of the formation of the New Testament Canon.

Prescribed Epistles:

1940 II Corinthians.
1941 Colossians and Ephesians.

Text Books

1940 H. B. Swete on St. Mark.
International Critical Commentaries on II Corinthians.

1941 A. H. McNeile on St. Matthew.
R. H. Lightfoot on Colossians.
Armitage Robinson on Ephesians.

Books recommended

Vincent Taylor : *The Gospels.*
R. H. Clogg : *Introduction to the New Testament.*
F. G. Kenyon : *The Text of the Greek Bible.*
A. Souter : *Text and Canon.*
Anderson Scott : *Christianity according to St. Paul.*

Ecclesiastical History.

Period I : 70 A.D.–313 A.D.

Period II : 313 A.D.–451 A.D.

Kidd's Documents Illustrative of the History of the Christian Church will be studied in connexion with these two periods.

Period III : General outlines of Ecclesiastical History from 1453 A.D.–1845 A.D.

Period IV : General outlines of Ecclesiastical History from 1054 A.D. to 1845 A.D.

Books recommended

Periods I and II.
Foakes Jackson : *History of the Church.*
J. W. C. Wand : *History of the Early Church to 500 A.D.*
J. Moffat : *First Five Centuries of the Church.*

Period III.
Willeston Walker : *History of the Christian Church* (T. T. Clark).
J. W. C. Wand : *A history of the Modern Church* (Methuen).

Biblical and Historical Theology.

First Paper : The Incarnation and the Trinity with special reference to the Old Testament antecedents ; New Testament data and their interpretation ; the controversies of the Conciliar Period ; the Middle Ages and the Reformation ; modern presentations.

Second Paper: The Atonement with special reference to the Old Testament antecedents; New Testament data and their interpretation; early Christian conceptions, Greek and Latin, of salvation through Christ; the teaching of Anselm and Abelard; Reformation and Post-Reformation conceptions of the Atonement; modern presentations.

Books recommended

H. R. Mackintosh: *The Person of Christ.*
A. E. J. Rawlinson: *Essays on the Trinity and the* Incarnation.
A. E. J. Rawlinson: *The New Testament Doctrine of the Christ.*
Vincent Taylor: *Jesus and His Sacrifice.*
J. K. Mozley: *The Doctrine of the Atonement.*

Philosophy of Religion.

First Paper; The philosophical approach to the study of religion in relation to general principles and fundamental ideas, with special reference to the development of theology in Greek thought.

Second Paper: Modern Theism based on the study of selected works.

1940 A. E. Taylor: *The Faith of a Moralist.*
1941 W. Temple: *Nature, Man and God.*

(The first paper will be taken by candidates who are required to take only one paper).

Books recommended

G. Galloway: *The Philosophy of Religion.*
J. Baillie: *The Interpretation of Religion.*
W. Pringle Pattison: *The Idea of God.*
F. R. Tennant: *Philosophical Theology.*

History of Religion.

First Paper: Religious origins together with the outlines of the history of religion in Egypt, Babylonia, Assyria, Greece, Rome, Persia, India, China and Japan.

Second Paper : A detailed study of the history and literature of one of the following higher religions :—

1940 Buddhism.
1941 Hinduism.

Books recommended

G. F. Moore : *History of Religions* (2 vols.).
R. E. Hume : *The World's Living Religions.*
E. O. James : *Comparative Religion.*

Entries for the Qualifying Examination should be made on the appropriate form not later than 1st March in each year.

BIBLICAL STUDIES

Biblical Studies I

The historical background of the Bible.

Biblical Studies II

Introduction to the literature and religion of the Bible.

ECONOMICS

I. 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

II. Principles of Economics

The general relations of demand, supply and value, including distribution and international trade.

Tuesday and Thursday at 11 a.m.

IIA. Industrial Fluctuations

A study of fluctuations in various forms of economic activity, including seasonal, cyclical and secular changes in industry and trade. Theories of the trade cycle.

One hour a week at a time to be arranged.

IIB. Industrial Administration

Business organisation and management; large and small businesses; joint stock enterprise; selling syndicates; trusts; public utility undertakings. The movement towards monopoly.

Thursday at 12 noon.

IIC. 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.

One hour a week at a time to be arranged.

IID. Financial Organisation

Currency and banking; the money market; foreign exchanges. The organisation of foreign trade.

Tuesday at 12 noon.

IIE. Industrial Relations

Methods of remuneration; structure and policy of trade unions and employers' organisations; causes and settlement of industrial disputes; conciliation and arbitration; joint industrial councils, works committees, etc. Personnel management. Industrial psychology. State regulation of working conditions, including factory legislation and trade boards. International Labour Organisation.

Tuesday and Thursday at 10 a.m.

IIF. Social Science and Administration

The influence of industrial conditions on social life; the problems of poverty, housing and unemployment. Some social aspects of industry. Employment of women and children. Schemes of industrial betterment. Industrial and social legislation.

Tuesday and Thursday at 2 p.m.

IIG. and IIH. Economic History

A general course beginning with the Manor and ending with the Nineteenth Century, with special attention to a particular period.

The course will be divided into two parts (IIG and IIH), each part being given in alternate years.

IIG. *Economic History (up to 1750).*

1. The Middle Ages. The manor—the growth of towns—the guilds—agricultural changes—industry—foreign trade—public finance.

2. The Age of Mercantilism. Agriculture—industry and industrial organisation—foreign trade—social legislation—public finance.

IIH. *Economic History (1750-1900).*

1. The Rise of Modern Industry. Transport—markets—agriculture—industrial technique—capital—labour—the factory system—social changes—social legislation—public finance.

2. Industrial and commercial trends of the Nineteenth Century. The economic consequences of mechanical transport—changes in industrial technique—the new international division of labour—free trade and protection—agriculture—social reform—the spirit of association—foreign trade and the export of capital—banking and finance—the new colonial era—social and political trends—public finance.

Monday and Friday at 12 noon.

HONOURS AND M.A. COURSES

H1. Advanced Economic Theory

H2. History of Economic Thought

H3. Economic History: Special Period

H4. Industrial and Financial Organisation

H5. Industrial Relations

H6. Economic Policy

H7 Political Theory

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 Interpretation of Social Statistics, Local Government, and The Social History of the XIXth century. A course of one hour a week in Economic Statistics will be provided. 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.

GEOGRAPHY

Geography I

General Geography.

Lectures 2 hours per week throughout the session (Tuesdays and Fridays at 9 a.m.).

Tutorials and practical work of not less than 3 hours per week at times to be arranged.

Geography II

A.—Principles of Human Geography. Lectures two hours per week throughout the session. (Tuesdays 10 a.m. and Wednesdays 9 a.m.).

B.—The geography of a selected area (one hour per week throughout the session).

C.—Tutorials and practical work of three hours per week at times to be arranged.

Geography III

Three of the following courses, normally including two under (A).

(A) Selected studies on a regional basis.

(i) India.

(ii) English Speaking North America.

(iii) An area to be arranged from year to year.

(A course of one lecture per week throughout the session for each area).

(B) Selected studies in Economic Geography.

(Two lectures per week throughout the session).

(C) Selected studies in Historical and Political Geography.

(Two lectures per week throughout the session).

Tutorials and practical work at times to be arranged. All students are required to undertake a Regional Survey under the supervision of a member of the staff.

All students in Geography are required to attend class excursions. At intervals, vacation courses are arranged, in conjunction with other British Universities for the intensive study of type regions at home and abroad.

Courses adapted to requirements of Modern Language students to be arranged as required.

HONOURS COURSES

Probationary Honours

General Principles of Geography and a regional course together with at least one tutorial class per week.

Second Year

A.—Principles of Human Geography—two hours per week.

B.—Geomorphology—one lecture and three hours laboratory per week.

C.—A regional course—one lecture per week.

D.—Studies in Economic Geography—two hours per week.

Tutorials and discussions at times to be arranged. All students are required to undertake a Regional Survey under the supervision of a member of the staff.

Third Year

Lectures and discussion classes, about 8 hours, at times to be arranged.

All students are required to attend class excursions. At intervals, vacation courses are arranged in conjunction with other British Universities for the intensive study of type regions at home and abroad.

MUSIC

Music I

The harmonization of given melodies and unfigured basses in not more than four parts.

Strict counterpoint in not more than three parts.

History of Music.

Musical form.

Music II

More advanced harmony in not more than four parts.

Strict counterpoint in not more than four parts.

Free counterpoint in not more than three parts.

Free composition in the simplest forms.

History of Music, with a special period for detailed study.

Music III

Harmony in not more than five parts.

Double counterpoint, canon and fugue.

Free composition.

History of Music, with a special subject for detailed study.

EDUCATION

The courses of study organised in connexion with the Department of Education are (1) a Four Year Course, (2) a Post-graduate Course for the Diploma in Education, (3) Post-graduate Courses for the higher degrees of M.A. (Education) or M.Ed. Students may enter upon one or other of the first two 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 may be 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 attainment for admission to an Honours Course is that of a satisfactory pass at one of the Higher School Certificate Examinations.

(*B*) Professional

The scope of the work is practically the same as given in Section II. following.

This course of professional training is taken by all Recognised Students in the fourth year, but in the case of those who have failed to pass the final examination for a degree, leads only to the Teacher's Certificate of the Board of Education.

A Recognised Student who fails during the undergraduate course to pass the examination or examinations which it is necessary for him to pass in order to complete the degree course in three years will cease to be recognised as a Four Year Student. The student will then terminate the course, *or*, if the authorities of the Department approve, be allowed to intercalate a year at his own expense, and to resume his Recognised Studentship if he retrieves his failure.

Where a Recognised Student fails in his final degree examination the Board of Education will be prepared to recognise him for the year of professional training on the special recommendation of the University authorities. Such a candidate is not eligible for the Diploma in Education, but if he completes the course of professional training and passes the necessary examinations he may be recommended to the Board of Education for recognition as a certificated teacher.

II. Post-graduate Course for Diploma in Education

This course is open to graduates of the University of Leeds or other approved Universities, and normally extends over one year.

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*) Physical Development, Hygiene and Physical Training.

In addition there are various optional courses.

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*) attendance at various schools, elementary, continuation, central and secondary, for observation and practice ; (*d*) visits to special schools and institutions.

Attendance is required at courses on Teaching Illustration by Drawing, Handicrafts, Needlework, Music or Gardening.

Candidates for the Diploma in Education 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.

III. Higher Degree Courses

(i) M.A. (EDUCATION).

Education is one of the subjects which may be taken for the degree of M.A.

For detailed regulations see under Degree of Master of Arts.

(ii) M.ED.

The degree of Master of Education has been established to promote advanced study, independent criticism, and original research in education.

For detailed regulations see under Degree of Master of 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.

ADMISSION AS RECOGNISED STUDENTS

A. Application for a Four Year Course

1. Candidates must be over 18 years of age on the first day of the academic year in which they wish to be admitted, except that under special circumstances candidates who are over 17 and under 18 years of age on that date may be admitted.

2. A candidate is required to have qualified for admission to the University as an undergraduate. (See Regulations as to Entrance Examinations for Degree Students).

3. The qualification for admission as a Recognised Student in Training is covered by the qualification for admission as an undergraduate.

4. In the selection of candidates preference is given to those who have obtained good "credits" or "distinctions" at one

of the recognised School Certificate Examinations, or have obtained satisfactory results at one of the recognised Higher School Certificate Examinations. As a rule accepted candidates who have not passed the Higher School Certificate Examination before applying for admission are required to enter for that examination and their admission will be conditional on their obtaining satisfactory results.

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 Department they take advantage of the Parliamentary Grants by which it is aided in order to quality themselves for the profession of teacher and for no other purpose.

INDEX.*

*Scales of fees are published in a separate Fees Pamphlet.

UNIVERSITY STAFF

FACULTY OF SCIENCE

Mathematics

(See also Faculty of Arts)

Professor and Head of Department: WILLIAM P. MILNE, M.A., D.Sc., *Aberdeen*, M.A., *Cambridge*.

Professor of Applied Mathematics: S. BRODETSKY, M.A., *Cambridge*, Ph.D., *Leipzig*.

Reader in Mathematical Analysis: R. M. GABRIEL, M.A., *Cambridge*.

Lecturer in Statistical Method and Computation: GLENNY SMEAL, M.Sc., *Melbourne*.

Lecturers: C. W. GILHAM, M.A., *Cambridge*; H. D. URSELL, M.A., *Cambridge*; K. MITCHELL, B.A., Ph.D., *Cambridge*.

Physics

Cavendish Professor and Head of Department: R. WHIDDINGTON, M.A., D.Sc., F.R.S., Late Fellow of St. John's College, *Cambridge*.

Professor of Theoretical Physics: E. C. STONER, Sc.D., F.R.S., Late Fellow of Emmanuel College, *Cambridge*.

Lecturers: F. A. LONG, B.Sc., *London*; J. EWLES, M.A., *Cambridge*; G. W. BRINDLEY, M.Sc., *Manchester*, Ph.D., *Leeds*; J. McDOUGALL, M.A., Ph.D., *Cambridge*.

Demonstrator: C. CURRY, B.Sc., *Durham*.

Temporary Part-time Demonstrator: W. E. MARTIN, B.Sc., *Birmingham*.

Research Assistant: Vacant.

Chemistry

Professor and Administrative Head of Chemistry Departments: R. W. WHYTLAW-GRAY, O.B.E., Ph.D., F.I.C., F.R.S., Fellow of University College, *London*.

Reader in Colloid Chemistry: F. L. USHER, D.Sc., *London*.

Lecturers in Chemistry : J. HUME, B.Sc., *Edinburgh*, A.I.C. ; C H. DOUGLAS CLARK, D.Sc., *London*, A.R.C.S., A.I.C., D.I.C. ; F. J. GARRICK, M.A., *Oxford ;* J. COLVIN, Ph.D., *Liverpool ;* R. S. BRADLEY, M.A., *Cambridge.*

Part-time Demonstrators : Vacant.

Research Assistant : H. WHITAKER, M.Sc., *Leeds.*

Organic Chemistry

Professor : FREDERICK CHALLENGER, D.Sc., *Birmingham*, B.Sc., *London*, Ph.D., *Gottingen*, F.I.C.

Lecturers : J. W. BAKER, D.Sc., *London*, F.I.C. ; H. BURTON, Ph.D., D.Sc., *London*, M.Sc., *Sheffield*, F.I.C. ; W. A. WIGHTMAN, M.A., *Oxford ;* F. R. GOSS, Ph.D., *London ;* C. W. SHOPPEE, D.Sc., Ph.D., *London.*

Assistant Lecturer : E. ROTHSTEIN, Ph.D., *London*, A.R.C.S.

Research Assistant : A. L. BETTISON, M.Sc., *Leeds.*

Physical Chemistry

Professor : M. G. EVANS, D.Sc., *Manchester.*

Lecturers : G. F. SMITH, Ph.D., *Wales and Cambridge ;* J. W. BELTON, Ph.D., *Liverpool*, R. SPENCE, Ph.D., D.Sc., *Durham*,

Assistant Lecturer : W. WILD, B.Sc., Ph.D., *Leeds*, A.I.C.

Research Assistant : J. H. BAXENDALE, M.Sc., *Manchester.*

Zoology

Professor : ERIC A. SPAUL, D.Sc., Ph.D., *London.*

Reader in Entomology and Protozoology : Ll. LLOYD, D.Sc., *Leeds.*

Lecturers : H. HENSON, Ph.D., *Birmingham ;* T. KERR, M.A., *Glasgow.*

Lecturer (part time) : Mrs. W. O. REDMAN KING, B.Sc., *Leeds.*

Demonstrator : W. S. BULLOUGH, Ph.D., *Leeds.*

Part-time Demonstrators : Miss BARBARA BEATTY, Ph.D., *Leeds ;* T. B. REYNOLDSON, Ph.D., *Leeds.*

Research Assistant : Mrs. VINCENT, B.Sc., *Manchester*, Ph.D., *Leeds.*

Botany

Professor : JOSEPH H. PRIESTLEY, D.S.O., B.Sc., *London*, F.L.S.

Lecturers in Botany : Miss LORNA I. SCOTT, M.Sc., *London ;* W. A. SLEDGE, Ph.D., *Leeds ;* R. D. PRESTON, Ph.D., *Leeds.*

Part-time Demonstrators : B. C. SHARMAN, Ph.D., *Leeds ;* A. ALLSOP, M.Sc., Ph.D., *Manchester.*

Honorary Demonstrator : Mrs. W. R. GRIST, B.Sc., *London.*

Research Assistant : Miss K. M. MATTINSON, B.Sc., *Leeds.*

Museum Curator : B. C. SHARMAN, Ph.D., *Leeds.*

Geology

Professor : Vacant.

Senior Lecturer and Acting Head of Department : H. C. VERSEY, D.Sc., *Leeds*, F.G.S.

Research Fellow : R. G. S. HUDSON, D.Sc., *London*, F.G.S.

Assistant Lecturers : J. E. HEMINGWAY, Ph.D., *Leeds ;* Miss D. H. RAYNER, B.A., Ph.D., *Cambridge.*

Geography

(*See also Faculty of Arts*)

Physiology

(*See also Faculty of Medicine*)

Professor : A. HEMINGWAY, M.Sc., M.B., Ch.B., *Leeds.*

Reader in Pharmacology : W. A. BAIN, B.Sc., Ph.D., *Edinburgh*, F.R.S.E.

Lecturers : G. WINFIELD, M.A., *Cambridge* ; H. R. NOLTIE, M.A., B.Sc., *Aberdeen.*

Lecturer in Bio-Chemistry : F. C. HAPPOLD, D.Sc., Ph.D., *Manchester.*

Lecturer in Pharmacy and Pharmaceutical Chemistry : A. W. LUPTON, M.C., Ph.C., M.P.S.

Part-time Lecturer in Physiology and Hygiene : Vacant.

Demonstrator in Bio-Chemistry : W. C. EVANS, M.Sc., *Bangor*, Ph.D., *Manchester.*

Demonstrator : C. LUDWIG, M.B., Ch.B., *Aberdeen.*

Assistant in Pharmacy : J. G. DARE, Ph.C.

Bacteriology

(*See also Faculty of Medicine*)

Professor : J. W. McLEOD, O.B.E., M.B., Ch.B., *Glasgow*, F.R.S.

Senior Lecturer : J. GORDON, M.D., D.P.H., *Leeds.*

Lecturer : K. I. JOHNSTONE, B.Sc., Ph.D., M.B., Ch.B., *Leeds.*

Demonstrators : E. A. HORNE, M.A., B.Sc., M.B., Ch.B., *Aberdeen ;* I. S. STEWART, M.B., Ch.B., *Leeds ;* Miss B. WHEATLEY, M.B., Ch.B., *Leeds ;* K. S. ZINNEMANN, M.D. ; D. E. DOLBY, Ph.D., *Birmingham.*

DEGREES IN SCIENCE

ORDINANCE V

(*a*) Degrees in Pure Science

1. The degrees in Pure Science[1] 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. Ordinance

3. All candidates for the degree of Bachelor of Science shall be required to have passed the examination for Matriculation or to have 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 Ordinance for those proceeding to a degree. Additional subjects need not be confined to those prescribed in the Regulations for the Science 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 of study in the third session approved by the Board of Science and Technology.

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1 Graduates in Pure Science may also proceed to the degree of Master of Education (M.Ed.)

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 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 examinations *either* (i) in two principal subjects and two introductory subjects, *or* (ii) in two principal subjects and one subsidiary subject *or* (iii) in one principal subject, two subsidiary subjects 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 Mathematics or Physics or Chemistry 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. Ordinance

9. Names of candidates who have passed the examination for the degree of Bachelor of Science 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 17 and 21 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

Ordinance

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 normally present themselves for examination in two subjects at General Honours standard to be taken at one and the same time; in addition, candidates must satisfy the examiners in either (*a*) one other subject at subsidiary standard, or (*b*) two other subjects at introductory standard.

16. Duly qualified candidates may, with the consent of the Dean of the Faculty of Science, present in place of 15 (*a*) or 15 (*b*) either a principal subject or a third subject at General Honours standard. In the latter case, this subject shall be taken into account, in the same way as the other two main subjects in assessing the general result of the examination.

17. Candidates who, after taking examinations for General Honours, propose to proceed to Special Honours, Medicine, Applied Science or other approved courses of study, may present themselves for the General Honours examination 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 after matriculation.

18. The class awarded to a candidate shall be determined on the results of the examination in the subjects carried to General Honours standard and taken as a whole, but no credit will be given for any subject in which the candidate fails to attain a reasonable minimum standard.

19. Candidates are allowed a choice of the subjects specified in the Regulations for the General Honours degree, provided that Mathematics or Physics or Chemistry be included for at least one year.

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. Ordinance

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.

DEGREES OF BACHELOR OF SCIENCE IN PURE SCIENCE

I. Ordinary Degree

Regulations

1. Introductory, subsidiary and principal subjects can be selected as follows, subject to the restrictions laid down in Ordinance V, Articles 4–7:—

Introductory:

Mathematics	A one year course in Arts selected from the first year subjects for the Ordinary B.A. degree.
Physics	
Chemistry	
Zoology	
Botany	*Any approved course in Technology.
Geology	
Geography	

Subsidiary:

Mathematics	Geology
Statistics	Geography
Physics	Human and Comparative Anatomy
Chemistry	Bacteriology
Zoology	Anthropology
Botany	†Any approved course in Technology
Physiology	

Principal:

Mathematics	Geology
Physics	Geography
Chemistry	Human and Comparative Anatomy
Zoology	Bacteriology
Botany	
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 not take Statistics as a

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* The following courses have been approved: Fuel and Metallurgy.
General Engineering I

† The following courses have been approved: Plant Physiology and Horticulture.
Civil Engineering.
Engineering IIs.

subsidiary subject, but 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 or 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

1. Candidates must choose at least two subjects from the following list :— Regulations

Mathematics	Physiology
Physics	Geology
Chemistry	Geography
Zoology	Human and Comparative Anatomy
Botany	

2. Candidates must choose the additional subject or subjects, whether principal, subsidiary or introductory, from the lists prescribed for the Ordinary B.Sc. degree.

3. 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

Regulations 1. Candidates may choose a Special Honours School from the following list :—

Mathematics	Botany
Physics	Physiology
Physics with Electrical Engineering	Geology
Chemistry	Human and Comparative Anatomy
Zoology	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

Regulations 1. *Degree Examinations :*

(*a*) The examinations will ordinarily be held in June of each year, but supplementary examinations in introductory subjects will also be held in September. Candidates will be accepted for the supplementary examinations in any subject only with the special permission of the Senate.

(*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

(For further details see under Courses in Science)

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.

STATISTICS (*as a Subsidiary subject*).

1st year: Mathematics for Applied Science students, J.
2nd year: Statistics S. and Mathematical Laboratory M.L.

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., F1, F2, F3, 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) :—
Course arranged in consultation with the Professor.
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 F1 (A or B), with three hours laboratory.
2nd year : Botany F1 (A or B), with six hours laboratory.
Principal Course (three sessions) :—
1st year : Botany Intro.
2nd and
3rd years : Botany F 1 (A and B), with six hours laboratory work for two sessions.

HUMAN AND COMPARATIVE ANATOMY.
Principal Course :—
1st year : Zoology Intro.
2nd and
3rd years : Anatomy I and II, and selected parts of Anatomy III as defined in Special Honours school.

N.B.—(i) The work covered in the above course will not be the same as that required for the 2nd M.B., Ch.B. examination and it is not intended for medical students.

(ii) No course in Anatomy covering a period of only one year may be offered for the Ordinary B.Sc. degree.

(iii) Students taking Zoology as a subsidiary or a principal subject may take the above two-years course in Anatomy in place of a subsidiary subject.

PHYSIOLOGY.

(1) *Subsidiary Course:—*
1st year: Zoology Intro. and Botany Intro.
2nd year: Physiology IIB and IID.

(2) *Principal Course:—*
1st year: Zoology Intro. and Botany Intro.
2nd year: Physiology IIB. and IID
3rd year: Physiology IIC. and IIE. with one additiona term practical work.

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: Zoology Intro. or Botany Intro.
2nd year: Bacteriology VIIA. and VIIB. (ii).
Bacteriology IXA.

Principal Course (three sessions):—

1st year: Zoology Intro. or Botany Intro.
2nd year: Bacteriology VIIA. and VIIB. (ii) and IXA.
3rd year: Bacteriology IXB. and Laboratory Work.

II. General Honours Degree

MATHEMATICS.

Mathematics F1, F2, F3, F4, G, together with a course in the History of Mathematics.

PHYSICS.

Physics Intro., F1, F2 and Honours lectures (9 hours lectures and laboratory work each week). In addition special reading will be prescribed.

CHEMISTRY.

Chemistry Intro, F1, F2, F3, together with one Honours Course and laboratory work (6 hours each week) in the Inorganic, Organic and Physical Chemistry laboratories.

ZOOLOGY.

The principal course for the Ordinary B.Sc. degree, together with such Honours lectures during one session as the Professor may determine.

BOTANY.

The principal course for the Ordinary B.Sc. degree, together with attendance at the Honours lectures during one session.

HUMAN AND COMPARATIVE ANATOMY.

Anatomy I, II and selected portions of Anatomy III with the addition of special studies to be arranged by the Professor of Anatomy, the whole to cover a period of three years.

N.B.—Zoology up to at least introductory standard must be taken in the first year.

PHYSIOLOGY.

1st year: Introductory subjects.
2nd year: Physiology IIB. and IIE.
3rd year: Physiology IIc and IIF, together with attendance at Honours lectures and practical work.

GEOLOGY.

1st year: Geology Intro.
2nd and 3rd years: Geology F1 and F2, with six hours laboratory work.
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.

The Principal course for the Ordinary B.Sc. degree, together with attendance at selected Honours lectures and discussion classes (not less than 3 hours per week) during one session.

NOTE.—In the case of specially well prepared candidates, modifications of the above courses may be arranged to enable them to present themselves for the General Honours Examination after two session, under Article 17 of the Ordinance.

III. Special Honours Degree

MATHEMATICS.

Students in 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 one-year 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 one-year or Introductory standard, or (ii) Statistics and one additional subject at the one-year or introductory standard.

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.

Honours students are recommended to attend lectures in their 2nd or 3rd years on some subject other than Physics, such as for example History, English, Philosophy, Economics, Engineering, Agriculture, Textiles, etc. No examination in the chosen subject will be required, although one may be taken for test purposes if desired.

PHYSICS WITH ELECTRICAL ENGINEERING.

Three Years Course :—

1st year : Physics Intro. and F1.
Mathematics F1 and F2.
Chemistry Intro.

2nd year : Mathematics F3 and F4.
Physics F2 and H (certain lectures omitted).
Physics laboratory. Nine hours.
Electrical Engineering IIF.
Electrical Engineering Laboratory. Three hours.

3rd year : Physics H (certain lectures omitted).
Physics Laboratory. Nine hours.
Electrical Engineering. Two subjects chosen from IIIF (1), IIIH, IIIJ or IIIK.
Electrical Engineering Laboratory. Three hours.

Examinations.—Electrical Engineering IIF will be taken at the end of the second year as a qualifying subject, while in the Final Honours examination, candidates will be examined on the subject matter of the two chosen Electrical Engineering subjects together with selected portions of the normal four papers in Physics.

CHEMISTRY.

(Three or four sessions).

Chemistry : Intro., F1, F2, F3, H1, H2, H3, together with two or more of the short courses (S) on special subjects.

Physics : Intro. and F1 with laboratory work.

Mathematics : J (for Applied Science students)

Additional Courses: An additional course or courses selected from the following list:—

Physics F2.
Mathematics F3 and F4.
Botany for Chemists.
Engineering.
Agricultural Chemistry.
Some other branch of Applied Chemistry.
Some other subject cognate to Chemistry.

Approval of the additional course or courses must be obtained from the Head of the Department.

ZOOLOGY.

Four Years' Course (which may be shortened to three years if the student is sufficiently prepared to begin the Final Course in his first session).

1st year: Zoology Intro.
Physics Intro. (or Maths. J.).
Chemistry Intro. (unless satisfactory evidence of previous knowledge is given).
One other Intro. subject.

2nd and 3rd years: Zoology F. (A. and B.), together with one other principal or two subsidiary subjects. (For Agriculture as the equivalent of a Principal subject the student must have completed the course laid down for the first three years of the Special Course (*d*) for Honours in Agricultural Zoology).

4th year: Zoology H., with full-time laboratory work, including advanced study with special reference to an approved problem or subject.

N.B.—Candidates proceeding to Special Honours in Zoology, Botany or Geology after General Honours may, in addition to attendance upon the courses in the subject selected for Special Honours, be required to take additional courses in subjects which are included in the Regulations for the Special Honours. In such cases the relevant Departmental Examinations may be accepted as qualifying towards the Special Honours degree.

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.

See also N.B. under Zoology.

HUMAN AND COMPARATIVE ANATOMY.

Course A :—

1st year : Physics Intro.
Chemistry Intro.
Zoology Intro.
Botany Intro.

2nd year : Anatomy I (including Systematic Human Anatomy, Embryology, Histology, Neurology).
Physiology (or another subject approved by the Professor of Anatomy).

3rd year : Anatomy II (including Systematic Human Anatomy, Advanced Embryology and Histology).
Further course in Physiology (or another subject approved by the Professor of Anatomy).

4th year : Anatomy III consisting of special courses in Anatomy including Comparative Primate Morphology, Physical Anthropology, Comparative Neurology, and other special fields as may be arranged.

Course B :—

Students taking the normal course for the M.B., Ch.B. degrees may, on the recommendation of the Professor of Anatomy and with the permission of the Board of the Faculty, be admitted to the Honours school subsequent to passing Part II of the 2nd M.B., Ch.B. examination. Four terms will then be devoted to the study of Anatomy III.

PHYSIOLOGY.

Course A :—

1st year : Physics Intro.
Chemistry Intro.
Zoology Intro.
Botany Intro.

2nd year : Physiology IIB and IID.
Chemistry F4.

Candidates must attain a satisfactory standard in the Departmental Examination in F3.

3rd year : Physiology IIC, IIE. and V.

4th year : Physiology V.

Candidates must take *one* other subject at a principal standard or *two* other subjects at a subsidiary standard. The subjects approved are :—

Principal : Chemistry (in this case H1 *or* H3 must be taken as additional), Physics, Botany, Zoology, Anatomy.

Subsidiary : Chemistry, Physics, Botany, Zoology, 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.

Students who do not offer Anatomy as a principal subject must take the medical course in Histology in the Department of Anatomy in the 2nd or 3rd year.

Course B :—

Students taking the normal course for the M.B., Ch.B. degrees who reach a sufficient standard in Chemistry F4 and F5, or who take Chemistry F2 or F3, or Physics F1 in their first year may on the recommendation of the Professor of Physiology and with the permission of the Board of the Faculty be admitted to the Honours School subsequent to passing Part II of the 2nd M.B., Ch.B. examination. One year shall be devoted entirely to Physiology V.

GEOLOGY.

(Three or four sessions).

1st year : Geology Intro.
Physics Intro.
Two of the following : Mathematics for Applied Science students, Chemistry Intro., Zoology Intro., Botany Intro., Geography 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.

See also N.B. under Zoology.

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 IXA. Chemistry F2 or F3. Physiology I., or Physics F1, or Zoology F1, or Botany F1.
3rd year :	Bacteriology VII. Chemistry F3, or H1, or H3. Physiology Vc. or VI., or Zoology F1, or Botany F1.
4th year :	Honours work in Bacteriology. Bacteriology IXB. 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 IXA., and Chemistry F2 or F3 ; and in their third year Chemistry F3 or H1 or H3. Subsequently to passing the Final M.B., Ch.B. Examination (Part I) 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

Ordinance 23. The degrees in Applied Science[1] shall be :—

Bachelor of Science (B.Sc.)
Master of Science (M.Sc.)
Doctor of Philosophy (Ph.D.)
Doctor of Science (D.Sc.)

1. Graduates in Applied Science may also proceed to the Degree of Master of Education (M.Ed.)

DEGREE OF BACHELOR OF SCIENCE

24. The degree of Bachelor of Science shall be conferred either (i) as an Ordinary degree, or (ii) as a Special Honours degree. Ordinance

25. All candidates for the degree of Bachelor of Science shall be required to have passed the examination for Matriculation or to have 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 Ordinance for those proceeding to a degree. Additional subjects need not be confined to those prescribed in the Regulations for the Science 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 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 Technology in the case of any other candidate.

Ordinary Degree of Bachelor of Science

Ordinance

26. Every candidate shall be required to attend courses of study as set forth in the Regulations for his particular School of Applied Science.

27. The courses of study in each School of Applied Science shall extend over at least three years.

Degree of Bachelor of Science with Honours

Ordinance

28. 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.

29. 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.

30. 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.

31. 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.

32. 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.

33. 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

34. 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. Ordinance

35. 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. Regulation

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

Regulations 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

Regulations 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 the Regulations 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 36. The degree of Master of Science may be conferred, on payment of the proper fee and subject to the conditions laid down in Articles 37 and 38 :—

(*a*) Upon Bachelors of Science of the University who have graduated with Honours of not less than one year's standing and upon 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.

(*d*)*Upon persons approved by the Senate who have been awarded, not less than two years before proceeding to the degree, a Diploma in Applied Science in the University, provided :—

(i) that the course of study in the subject for which the Diploma is awarded is in length and content comparable with that leading to an Ordinary degree in that subject and provided

* The attention of persons who desire to avail themselves of Sections (*c*) and (*d*) is directed to Statute XIII, to Ordinance IX and to the particulars relating to the examination for Matriculation in the University Calendar.

(ii) that the standard attained in the examination for the Diploma is not lower than that required for students taking the Ordinary degree in that subject.

37. Candidates for the degree of Master of Science shall in all cases prosecute research on a subject approved by the Board of the Faculties 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.

38. Candidates who are required under Article 36, (*b*) and (*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.

39. The names of candidates who have satisfied the examiners shall be arranged in alphabetical order, and distinction may be awarded for work of exceptional merit at the discretion of the examiners.

Regulations

1. Candidates admitted under the provisions of Article 36 (*b*) or (*c*) 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 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 thesis, 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 thesis.

2. Graduates of the University of Leeds and persons admitted under Article 36 (*d*) of the Ordinance shall be required to present a thesis, 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 thesis.

3. A copy of the thesis submitted in support of the application will be retained in the University Library.

N.B.—The latest date of entry and payment of fee will be 1st MAY in each year. Two copies of the thesis should be sent at the same time.

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

Ordinance 40. 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 their original contributions to science.

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.

41. A Master of Science or a Doctor of Philosophy of the University may make application for the degree of Doctor of Science in the sixth, or any subsequent year from the date of his admission to the Bachelor's degree, or from the date of his acceptance as a candidate for the M.Sc. or Ph.D. degrees.

42. 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, or from the date of his acceptance as a candidate for the M.Sc. or Ph.D. degrees.

Application for the degree of Doctor of Science shall be made in writing to the Clerk to the Senate before 1st February in any session. It should be accompanied by three copies of the thesis and/or publications submitted in support of the application. Theses not already published shall be drawn up in a form suitable for publication. In the case of work submitted under joint authorship, the applicant shall be required to indicate to the satisfaction of the Senate his own share in the joint production. A copy of the thesis submitted in support of the application will be retained in the University Library. Regulation

Holders of other Masterships of this University wishing to proceed to the Doctorate should communicate with the Clerk to the Senate.

DIPLOMAS IN SCIENCE AND TECHNOLOGY

43. 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. Ordinance

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

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

1. 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 departmental examinations that may be held in the same. The record of students at their departmental examinations will be taken into account in deciding the results of Diploma examinations. Regulations

2. 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.

3. 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.

4. Diplomas are granted by the University in the following subjects :—

Agriculture
Biology
Animal Biology
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

MATHEMATICS

Introductory Course

Mondays and Fridays at 2 p.m. and Wednesdays at 9 a.m.

Subjects : Trigonometry, Calculus, Statics and Dynamics, Hydrostatics, 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. Pure Mathematics

Mondays, Wednesdays and Fridays at 12 (noon).

Subjects : Selected portions of Pure Mathematics.

F2. Applied Mathematics

Tuesdays and Thursdays at (12 noon).

Subjects : Selected portions of Applied Mathematics.

F3. Pure Mathematics

Mondays, Wednesdays and Fridays at 10 a.m.

Subjects : Further portions of Higher Algebra; Elementary Theory and Applications of Power Series; 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.

Honours Courses

The Honours Course in Mathematics consists of the study of those general branches of both Pure and Applied Mathematics, with which every graduate in Mathematical Honours is expected to be familiar. In addition the student is asked to choose that special branch of mathematics in which he is particularly interested and attends special lectures on this subject and its ancillary subjects.

R. Introduction to Statistics

Selected portions of Pure Mathematics as a basis for the study of Statistics. Elementary treatment of Statistical Data with practical applications. (The course is primarily intended for students of Commerce).

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 : practice in the manipulation of numerical data by the use of calculating machines.

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 Course

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.

Medical Course.

A course similar to Intro. B., but intended particularly for Medical and Dental Diploma students, and compressed into the first two terms.

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.

Honours students are recommended to attend lectures in their 2nd or 3rd years on some subject other than Physics, such as for example History, English, Philosophy, Economics, Engineering, Agriculture, Textiles, etc. No examination in the chosen subject will be required, although one may be taken for test purposes if desired.

S. Special Course

A special course on experimental mechanics for Introductory and Medical students is given every year.

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., Ch.B. course	four	,,	,,	2	,,
Final courses :—					
Subsidiary	six	,,	,,	3	,,
Principal	six	,,	,,	6	,,
Honours (General)	six	,,	,,	6	,,
Honours (Special) ..	twelve	,,	,,	6	,,

In the Final courses, the times mentioned are based on the supposition that the student has passed or been excused the introductory course.

CHEMISTRY

LECTURE COURSES

Introductory Course

Mondays, Wednesdays, and Fridays, at 12 (noon), throughout the session.

In connection with these courses a tutorial class will be held one hour weekly throughout the session at times to be arranged.

*Medical Inorganic Chemistry

This course is intended for medical and dental students, and will be held during the first and second terms.

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* For particulars see Medical prospectus.

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 and Thursdays at 12 (noon), and Saturdays at 11.15 a.m , throughout the session.

* F4. Medical Organic Chemistry

This course is held during the second and third terms.

*F5. Medical Physical Chemistry

This course is held during the third term.

HONOURS COURSES

H1. Inorganic Chemistry

Tuesdays and Thursdays, at 10 a.m. throughout the session.

H2. Physical Chemistry

Mondays and Fridays, at 10 a.m. throughout the session.

H3. Organic Chemistry

Mondays and Wednesdays, at 11 a.m. throughout the session.

Colloid Chemistry

A general course intended for honours students and others interested in the subject will be given.

Times will be arranged at the beginning of the session.

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*For particulars see Medical prospectus.

Opportunities for practical work in this branch will be given to students possessing the necessary experience in chemical methods.

Short courses of lectures in connection with the work of technological or other departments will be arranged as required.

Microchemistry

A general course of inorganic microchemistry, intended for honours students and others interested in the subject, will be given at times to be arranged.

Opportunities for practical work (qualitative) will be given. Facilities for quantitative work will be afforded to those students possessing the necessary experience of manipulation.

PRACTICAL CHEMISTRY

General Laboratory Courses

Laboratory courses of instruction are provided in Inorganic, Organic, Medical 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,[1] 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.[2]

Practical Course in Sanitary Chemistry

Tuesdays and Thursdays, from 2 to 5 p.m.,[3] during the first and second terms.

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1 For the convenience of students a supply of apparatus is kept at the University, and may be purchased from the laboratory steward.

2 Students in the Chemistry department, in addition to purchasing a working set of apparatus, will also pay a deposit of 30/- at the beginning of each session, to cover the cost of replacing broken apparatus, etc. This deposit will be paid with the tuition fee, and will be refunded at the end of each session after deducting cost of breakages, retort stand rent (1/-), etc.

3 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

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.

The course includes elementary comparative anatomy and physiology, the elements of reproduction and development, with an introduction to histology.

Course for First M.B., Ch.B. Examination

Classes on Thursdays and Fridays from 10 a.m. to 1 p.m. during the first and second terms of the second year of the medical course.

F. Final Course (Principal)

Lectures on Tuesdays and Thursdays at 11 a.m. throughout the session, and on Wednesdays at 9 a.m.

Groups A (Vertebrates) and B (Invertebrates) will be taken in alternate years each occupying one session together with courses of lectures upon evolutionary evidence and theories of evolution, cytology and genetics, entomology, parasitology, experimental zoology, ecology and animal behaviour.

Final Course (Subsidiary)

The course is arranged in consultation with the Professor.

H. Honours Courses

The hours for Honours (Special and General) lectures and the advanced work will be arranged with students at the beginning of the session.

DIPLOMA IN ANIMAL BIOLOGY

Students from Training Colleges, who have completed the normal Training College course for the Teaching Certificate, may qualify for this Diploma by one year's full-time study in the Zoological Department, and by satisfying the Examiners at the end of the session.

Students preparing for this Diploma will ordinarily be required to pursue the following courses of lectures and practical work, unless exemption from particular courses be granted by the Head of the Department on the ground of previous knowledge, or to facilitate special studies :—

1. Introductory Degree Course (Intro.).
2. A special course (to be arranged) including a period at the Marine Laboratory.

The Examination for the Diploma will occupy two days, and will include two papers together with practical examinations.

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*, 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

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

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 form, structure, development and 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.

The principles of classification and systematic botany will be briefly considered in the case of the flowering plants.

Each student is required to provide himself with a microscope, a pocket lens, a biological drawing book, a razor, a scalpel and a pair of forceps.

Intro. A. Course for First M.B., Ch.B. Examination

At times to be arranged.

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 permeability, 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.

F1. Final Course: Botany

Lectures on Mondays, Wednesdays and Fridays at 10 a.m. throughout the session.

A minimum of six hours laboratory work at hours to be arranged.

A. Comparative morphology: Algæ, Fungi and Bryophyta.
Physiology of metabolism.
Cytology and heredity.

B. Comparative morphology: Pteridophyta, Gymnosperms and Angiosperms.
Ecology. Systematic Botany.
Physiology of growth and water relations.

Courses A and B are held in alternate years, the two years' course will prepare for the Final B.Sc. Examination.

Subsidiary Course. Three lectures and six hours laboratory work throughout the session at hours to be arranged. The course will include a brief review of the comparative morphology of the main groups and experimental plant physiology.

H. Honours Courses

General Honours students take the three years work as specified in the Introductory and Final course above and in the third session also attend special lectures and give additional attendance in the laboratory.

Special additional courses of Lectures will be given for Special 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.

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., Ch.B. students can obtain the loan of a Microscope for their course in Botany at a fee of 10s. 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 are charged for the use of a microscope during the hours the student is in laboratory classes.

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 AND BACTERIOLOGY

For courses in these departments, see Medical Prospectus.

GEOGRAPHY

Students intending to offer Geography as a principal subject must pass in Geology at the introductory stage.

Introductory Course

General Geography.

Lectures: two hours per week throughout the session (Tuesdays and Fridays at 9 a.m.).

Tutorials and practical work of not less than three hours per week at times to be arranged.

F1 Courses

A.—Principles of Human Geography (two hours per week throughout the session).

B.—The Geography of a selected area (one hour per week).

C.—Tutorials and practical work at times to be arranged (6 hours per week).

F2 Courses

A.—Geomorphology (one lecture and three hours laboratory work throughout the session).

Two of the following courses including at least one under B.

B.—Selected studies on a Regional Basis:—

(i) Europe.
(ii) English Speaking North America.
(iii) An area to be arranged from year to year.

(A course of one lecture per week throughout the session for each area).

C.—Selected studies in Economic Geography. (Two lectures per week throughout the session).

D.—Selected studies in Historical and Political Geography. (Two lectures per week throughout the session).

Tutorials and practical work at times to be arranged. All students are required to undertake a Regional Survey under the supervision of a member of the staff.

All students are required to attend class excursions. At intervals, vacation courses are arranged in conjunction with other British Universities for the intensive study of type regions at home and abroad.

GEOLOGY

LECTURE COURSES

Introductory Course

Lectures on Mondays, Wednesdays and Fridays at 11 a.m. throughout the session.

Subjects: The elements of mineralogy; igneous, sedimentary and metamorphic rocks; processes of denudation and deposition; movements of earth's crust; volcanoes and earthquakes; Historical Geology; the interpretation of fossil fauna and flora; the building of the British Isles; the elements of Economic Geology.

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: Excursions to important districts in Yorkshire will be made during the session.

FINAL COURSES

F1.

A.—Mondays and Fridays at 2 p.m.
General Stratigraphy.

B.—Tuesday at 9 a.m.
Economic Geology.

F2.

Three hours per week at hours to be arranged.

Subjects: Advanced Dynamical Geology; Detailed study of Sedimentation; Glacial Geology.

F3. Final Courses in Palæontology

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; 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. Detailed examination of sedimentary rocks. Metamorphic processes.

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). Times to be arranged.

SPECIAL CLASSES

S. Agricultural Geology

A course of about 60 Lectures will be given during the first and second terms on Mondays and Wednesdays at 10 a.m.

Subjects : 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, rocks and characteristic fossils. Interpretation and use of geological maps (solid and drift).

Field Geology : One or more excursions will be arranged during the session.

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.

ANTHROPOLOGY

First Year

Anthropology I (General Ethnology)

Two or three lectures a week and three hours' practical work.

The concept of human races and the limitations of classifications of mankind on the basis of race. A comparative study of the physical criteria employed to distinguish racial types. The distribution and regional grouping of racial types. Problems of the relationships of racial types to geographical environment. The geographical setting of early modern man. The idea of racial drifts.

The meaning and content of culture. Culture (including language) versus race. Elementary comparative study of language. The classification of peoples in relation to language. Regional studies of primitive economies and their relation to environment. The geographical background of the ancient civilizations of the Near East, India, China and the Aegean. The dawn of civilization in Europe. The material cultures of pre-Columbian America. Diffusion and independent origins.

Second Year

Either Anthropology II (Physical Anthropology)

Two or three lectures a week and six hours' practical work.

The comparative anatomy of the man-like apes and man (Primates) with special reference to the skeleton and brain. The evolution of man. Palæontology and the antiquity of man. The classification and distribution of living races of mankind. The physical characters of races of living man and the methods of anthropometry.

Or **Anthropology III (Social Anthropology)**

Three lectures a week.

The scope of social anthropology. Historical, comparative and functional method of approach. The investigation of the nature and structure of human society by the comparative study of communities of divers kinds. Forms of social structure. The family and kinship. Patrilineal and matrilineal organization. The extension of kinship, clans, tribes and nations. Regulation of sexual life. Rules of marriage and sex division in relation to economic, religious and social activities. Primitive law, land tenure, property and inheritance. Political organization. Chieftainship, kingship, secret societies. The sanctions of authority. Genesis and growth of moral ideas, and of magico-religious customs and beliefs.

Note.—Students wishing to take these courses are advised to consult the Professor of the Philosophy and History of Religion.

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*Scales of fees are published in a separate Fees Pamphlet.

FACULTY OF ECONOMICS AND COMMERCE

The Faculty of Economics and Commerce offers opportunities for the study of industrial, commercial and social questions. Students who have specially entered in this Faculty 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 Faculty 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 industrial relations and 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 Ordinance 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, industrial relations, 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 Introductory 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, Course J ; 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 a 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 ; Italian.

Second year : Economics ; Commercial Law ; Economic Geography ; French ; Spanish ; Italian.

Third year : Economics ; Accountancy ; French (or Spanish or Italian).

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 III

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 examination for Matriculation or to have obtained exemption therefrom, 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 for 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 :— Regulations

i. Economics.

ii. Commercial Law.

iii. One of the following groups (*a*) and (*b*) :—

(*a*) (i.) Mathematics J, and (ii) Physics or Geology or Chemistry.

(*b*) (i) Mathematics J, or Geography, and (ii) *Two* of the following :—French, German, Spanish, Russian, Italian, English Literature, Modern History, Philosophy, Geography (if not selected under (i)), Mathematics J. (if not selected under (i)).

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

Candidates who intend to select v. (*f*) in the Final course may substitute Mathematics R for Mathematics J in the Intermediate course.

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*)[1] Textiles (principal subject).
(*c*) Mining (principal subject).
(*d*) Agriculture (principal subject).
(*e*) Printing* (principal subject).
(*f*) Chemistry of Leather Manufacture.
(*g*) One principal *and* one subsidiary subject from the following lists :—

Principal subjects : French, German, Spanish, Russian, Italian, English, History, Philosophy, Law (including Constitutional and International).

Subsidiary subjects : French, German, Spanish, Russian, Italian, 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 J or R 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.

[1] 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.

Provided further that no candidate shall be admitted to the final course in Printing in the third year unless he has (*a*) taken Mathematics for Applied Science students 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.

Degree of Bachelor of Commerce with Honours

9. 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

10. 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.

11. 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.

12. 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.

13. 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.

14. No candidate for a degree of Bachelor of Commerce with Honours shall be admitted more than once to examination in the Honours School.

15. 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, or the degree of Bachelor of Laws with Honours 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.

16. 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.

17. 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

Regulation

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:

The course of study for the first academic year shall include the following subjects: (1) Economics, (2) Mathematics, J or R, (3) Modern History, (4) French or German or Spanish or Russian, and (5) one of the following:—English, Geography, Constitutional Law, International Law, Philosophy, Modern Language (if not already taken), Physics, Chemistry, Geology or Anthropology. 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., 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 and Industrial Relations), 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

Candidates for the Diploma in Commerce must either be graduates of some University of the United Kingdom or have obtained one of the following diplomas granted by the University of Leeds :—Civil Engineering, Electrical Engineering, Gas Engineering, Mechanical Engineering, Mining Engineering, Colour Chemistry, Dyeing, Fuel and Metallurgy, Leather Manufacture, Textile Industries, Social Organisation and Public Service. Applicants who have obtained such diplomas of other Universities in the United Kingdom as shall be approved for this purpose by the Senate of the University of Leeds may also be admitted as candidates for the Diploma.

The course extends over one session, and consists of the following subjects :—The organisation of industry and commerce ; industrial relations ; business finance and administration ; accountancy ; commercial law, and *either* statistics *or* economic geography *or* some other subject approved by the Senate. The course may be

modified, with the approval of the Senate, to meet the special requirements of individual students. Candidates will be expected, before entering upon the course, to have studied the elementary principles of Economics. An examination in each subject will be held at the end of the course.

Ordinary Degree of B.A.

18. The Ordinary degree of B.A. can be taken with Economics as a Principal Subject at the Final Standard. Ordinance

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 for examination, as follows:—

The course of study and the examinations for the first academic year shall normally be the same as for the Ordinary degree of Bachelor of Arts, provided that at least one of the following subjects must be included: (1) Economics; (2) Logic.

Some modification of the courses and examinations required for the first year may be made, subject to the approval of the Board of the Faculty of Arts, for candidates who have obtained a Higher School Certificate.

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 subsidiary subjects, the number of lectures amounting to not less than two hours a week in each year.

Examination

Essay, one paper.
Economics (including Industrial and Commercial Organisation and Industrial Relations), 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 Commerce (M.Com.)

Ordinance

19. The degree of Master of Commerce may be conferred, on payment of the proper fee, and subject to the conditions laid down in *Articles* 20, 21, *and* 22 on:

(*a*) Registered Bachelors of Commerce of the University who have graduated with Honours, after not less than *one* year from the date of their graduation;

(*b*) Other registered graduates of the University and graduates of other approved Universities, after not less than *two* years from the date of their graduation.

20. Candidates who are not registered Bachelors of Commerce of the University shall be required:

(*a*) to satisfy the Senate that they are qualified to pursue advanced study or research within the field of Economics and Commerce;

(*b*) to attend approved courses of study within the University for not less than *two* years; but it shall be in the power of the Senate, on the recommendation of the Board of the Faculty of Arts, to excuse specially qualified graduates of the University from this attendance.

21. Every candidate, with the exception provided for under *Article* 22, shall present a thesis, satisfactory to the Senate, on a subject approved by the Board of the Faculty of Arts, embodying the results of his independent study or original research within the field of Economics and Commerce.

22. Registered Bachelors of Commerce of the University who have not graduated with Honours may be permitted or required, in place of the thesis prescribed under *Article* 21, to submit themselves for examination in a course or courses upon which instruction is given within the department of Economics and Commerce, and to present a dissertation satisfactory to the Senate on a subject approved by the Board of the Faculty of Arts.

1. Candidates who are not registered graduates of the University must become registered as students of the University. Regulations

2. Candidates who are not registered Bachelors of Commerce of the University shall be required:

(*a*) to pursue a course of advanced study or research under the supervision of the Head of the Department of Economics and Commerce;

(*b*) to give evidence to the Senate at the end of the first year of their period of study that their work has been satisfactory.

3. Candidates may be required to submit themselves for examination (written, or oral, or both) in the subject of their thesis (or dissertation).

Courses of Study

The following syllabus explains more in detail the nature of the various courses.

Economics

I. 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

II. Principles of Economics

The general relations of demand, supply and value, including distribution and international trade.

Tuesday and Thursday at 11 a.m.

II (*a*). Industrial Fluctuations

A study of fluctuations in various forms of economic activity, including seasonal, cyclical and secular changes in industry and trade. Theories of the trade cycle.

One hour a week at a time to be arranged.

II (*b*). Industrial Administration

Business organisation and management; large and small businesses; joint stock enterprise; selling syndicates; trusts; public utility undertakings. The movement towards monopoly.

One hour a week at a time to be arranged.

II (*c*). 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.

One hour a week at a time to be arranged.

II (*d*). Financial Organisation

Currency and banking; the money market; foreign exchanges. The organisation of foreign trade.

One hour a week at a time to be arranged.

II (*e*). Industrial Relations

Methods of remuneration; structure and policy of trade unions and employers' organisations; causes and settlement of industrial disputes; conciliation and arbitration; joint industrial councils, works, committees, etc. Personnel management. Industrial psychology. State regulation of working conditions, including factory legislation and trade boards. International Labour Organisation.

Tuesday and Thursday at 10 a.m.

II (*f*). Social Science and Administration

The influence of industrial conditions on social life; the problems of poverty, housing and unemployment. Some social aspects of industry. Employment of women and children. Schemes of industrial betterment. Industrial and social legislation.

Tuesday and Thursday at 2 p.m.

II (*g*) and II (*h*). Economic History

A general course beginning with the manor and ending with the nineteenth century, with special attention to a particular period.

The course will be divided into two parts II (*g*) and II (*h*) each part being given in alternate years.

II (g). Economic History (up to 1750).

1. The Middle Ages. The manor; the growth of towns; the guilds; agricultural changes; industry; foreign trade; public finance.

2. The Age of Mercantilism. Agriculture; industry and industrial organisation; foreign trade; social legislation; public finance.

II (h). Economic History (1750-1900).

1. The Rise of Modern Industry. Transport; markets; agriculture; industrial technique; capital; labour; the factory system; social changes; social legislation; public finance.

2. Industrial and Commercial Trends of the Nineteenth Century. The economic consequences of mechanical transport; changes in industrial technique; the new international division of labour; free trade and protection; agricultural social reform; the spirit of association; foreign trade and the export of capital; banking and finance; the new colonial era; social and political trends; public finance.

Monday and Friday at 12 noon.

HONOURS AND M.A. COURSES

H1. Advanced Economic Theory

H2. History of Economic Thought

H3. Economic History: Special Period

H4. Industrial and Financial Organisation

H5. Industrial Relations

H6. Economic Policy

H7. Political Theory

Special Courses

Students in the Economics department may attend other courses provided for students in the Faculty of Economics and Commerce.

A course of one hour a week in Economic Statistics will be provided.

Courses will normally be offered on the interpretation of social statistics, local government, and the social history of the nineteenth 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.

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 examination for matriculation conducted by 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.

The course will begin in October in each year.

Courses of Study

The normal 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.

Graduates of an approved University may present themselves for examination after attending a modified course of lectures and practical work extending over one year only, the course in each case, modified to suit the requirements of the student in question, to be approved by the Board of the Faculty of Arts.

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.
INDUSTRIAL RELATIONS*..	Two hours a week.

Practical Work

During the course the equivalent of two days a week will be devoted to practical social work under the direction of the Tutor in Practical Work. Part of this will consist of continuous work during the long vacation

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 obtained satisfactory reports on their practical work.

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.

Training of Hospital Almoners

Each candidate for the position of Hospital Almoner is required to take the Diploma in Social Organisation and Public Service before proceeding to the rest of her training.

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* Other subjects may be taken if they are more suitable for the particular career the candidate has in view.

THE FACULTY OF LAW

The primary objects of the Faculty of Law are to provide the training and courses necessary for obtaining a degree in law, and to enable articled clerks to fulfil the requirements of the Solicitors' Acts, 1932 and 1936, in the matter of compulsory attendance at an approved law school. The training designed for these purposes may be usefully undertaken by those who are studying for the examinations of the Council of Legal Education, before admission to the Bar, and by those who, having completed their statutory year, require further tuition for the examinations of the Law Society.

The conditions under which a degree in Law is to be obtained are set out in the following Ordinance and Regulations. Normally, three years is the period of study for the degree of LL.B.

ORDINANCE IV

Part I

Degrees in Law

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.)

Part II

Degree of Bachelor of Laws

1. The degree of Bachelor of Laws shall be conferred either as an ordinary degree or as a degree with Honours.

2. All candidates for the degree of Bachelor of Laws shall be required to have passed the examination for Matriculation except such as may have been exempted therefrom, and thereafter to have pursued approved courses of study for not less than three academic years ; provided that graduates of this University other than graduates in Law, or, subject to the approval of the

Senate, graduates of other approved Universities, may proceed to the final examination for the degree of Bachelor of Laws after pursuing approved courses of study in Law for not less than two years.

3. Every candidate for the degree of Bachelor of Laws, whether Ordinary or with Honours, shall be required to attend approved courses of study, and to pass the prescribed examinations.

4. The prescribed examinations shall ordinarily be held in June of each year.

5. All candidates shall be required, before presenting themselves for a prescribed examination, to furnish certificates testifying that they have regularly attended the courses of study approved for such examination. Some modification of the amount of attendance required may, in exceptional cases, be made by the Senate.

6. The following provisions shall apply to the degree of Bachelor of Laws with Honours :—

(*a*) Every candidate for the degree of Bachelor of Laws with Honours shall be required to present himself for examination not later than 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.

(*b*) Candidates who have passed the final examination for an ordinary degree of Bachelor of Laws may, on furnishing certificates of having attended the approved course or courses for the degree with Honours which are not approved courses for the Ordinary degree, present themselves for examination for the degree of Bachelor of Laws with Honours.

(*c*) 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.

7. 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.

8. Candidates who do not merit the award of an Honours degree may be excused the whole or such part of the examination for the ordinary degree as the Senate may determine.

Part III

Degree of Master of Laws

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 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. All candidates may be called upon to present themselves for an examination—written, oral, or both—in the theme of their dissertation.

4. 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.

5. 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 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.

6. 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 extending over not less than two years under the supervision of the Head of the Department.

(*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 the fee (including Registration and Library fee) prescribed for such candidates.

7. 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, or subsequent years, 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, oral, or both, in the theme of their dissertation.

Part IV

Degree of Doctor of Philosophy

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 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 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, subject to candidates in all cases spending in the University not less than one academic year or its equivalent as determined by the Senate.

Part V

Degree of Doctor of Laws

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 Clerk to the Senate, 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.

Holders of other Masterships of this University wishing to proceed to the Doctorate should communicate with the Clerk to the Senate.

REGULATIONS

Ordinary Degree of Bachelor of Laws

1. *Approved Courses.*

Every candidate, subject to concessions to graduates under Part II, Article 2 of Ordinance IV. shall be required after passing the examination for matriculation, or obtaining exemption therefrom, to attend courses as follows :—

(*a*) In his first year of study courses on :—

(i) Constitutional Law.
(ii) The History and Organisation of the Courts.
(iii) Roman Law.
(iv) The Law of Property.
(v) The Law of Contract.
(vi) The Law of Tort.

(*b*) In his second year of study courses on :—

(i) The Common Law.
(ii) The Law of Property and Equity.
(iii) The History of the Common Law.

(*c*) In his third year of study courses on :—

(i) The Common Law.
(ii) The Law of Property and Equity.

(*d*) In either his second or third year of study the candidate is required to attend a course on Jurisprudence.

2. *Prescribed Examinations.*

Every candidate shall, subject to the concessions to graduates above mentioned, satisfy the examiners in the following prescribed examinations :—

(*a*) After the completion of his first year of study he shall be examined as follows :—

(i)	Constitutional Law	one paper.
(ii)	Roman Law	one paper.
(iii)	The Law of Property	one paper.
(iv)	The Law of Contract	one paper.
(v)	The Law of Tort	one paper.

(*b*) After the completion of his second year of study he shall be examined as follows :—

(i)	The Common Law	one paper.
(ii)	The Law of Property and Equity	one paper.

(*c*) After the completion of his third year of study he shall be examined as follows :—

(i)	The Common Law	one paper.
(ii)	The Law of Property and Equity	one paper.
(iii)	Legal History	one paper.
(iv)	Jurisprudence	one paper.
(v)	Essay	one paper.

No candidate shall be permitted to enter upon the second year of his course until he has satisfied the examiners in the examination prescribed at the end of his first year of study.

Degree of Bachelor of Laws with Honours

1. *Approved Courses.*

(*a*) The approved courses for the degree with Honours are identical with those above for the ordinary degree in paragraph 1 (*a*), (*b*) and (*c*),

(*b*) In his second and third year of study respectively the candidate is required to attend courses on Jurisprudence and Conflict of Laws or on Conflict of Laws and Jurisprudence according as the order is determined by the time-table.

2. *Prescribed Examinations.*

The subjects of the prescribed examination for the degree with Honours are as to the first and second years of study identical with those set out above for the ordinary degree ; after the completion of the third year of study the examination shall consist of 2 (*c*) (i) to (iv) as for the ordinary degree and in addition of (v) Conflict of Laws—one paper and (vi) a paper on one or more special subjects.

Degree of Doctor of Philosophy

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.

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.

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.

NOTE.—A candidate is advised, before making application to the Clerk to the Senate, to consult the Head of the Department of Law.

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.

N.B.—The latest date of entry and of payment of fees will be 1st MARCH. The LL.M. examination and the LL.D. examination if required, will be held in June.

The relation of the degree to the Professional Examinations and the Period of Articles

(*a*) *Curriculum.*

The relation of the degree subjects to the examinations of the Law Society is as follows: the subjects taken for the Intermediate LL.B. are all necessary for the intermediate examination of the Law Society with the exception of Roman Law, and provide all that is necessary with the exception of Trust Accounts and Book-keeping. The subjects taken for the final examination for the degree provide what is necessary for the Compulsory Subjects of the Law Society Final Examination, with the exception of the procedure and practice of the various courts, and the law as to income tax and death duties. Those who take the degree with Honours will also have studied Conflict of Laws, which is one of the Optional Subjects for the Law Society Final Examination. The above comparison is necessarily general in its nature, but serves to indicate that under the new regulations for the Law Society Examinations it is possible to a very large extent for the curricula for the degree and the professional examinations to cover common ground. In this way unity of effort is brought into legal studies.

The relation of the degree courses to the examinations of the Council of Legal Education is as follows: The courses in the first year of study on Roman Law, Constitutional Law, History of the Courts, Contract, Tort, and the Law of Property will serve as an introduction to the subjects required for Part I of the Examination for Call to the Bar. Generally speaking, the courses for the second and third years of study cover what is required for Part II of the Examination, but those who wish to attend for a limited period may ascertain on enquiry what lectures are available during the period which they wish to attend.

(*b*) *Exemptions and Remissions.*

Consequent upon the common element in the curricula for the degree and professional examinations, a system of exemptions is in force, by which students may

be relieved of part of their professional examinations as the result of having taken a degree in the Faculty of Law of the University. Certain remissions in the period of articles for those about to become solicitors are also conceded. The remissions conceded in the period of articles are as follows :—

i. Any person who, before entering into articles of clerkship, has obtained the Higher School Examination Certificate of the Joint Matriculation Board of the Northern Universities, Certificate A, may be admitted and enrolled as a solicitor after having served for four and a half years only : provided that

(*a*) Latin shall be one of the subjects taken, and if Latin is not a compulsory subject, the Examination Certificate shall state that the candidate has passed in Latin.

(*b*) All the subjects to be taken by a candidate shall be taken at one examination, and the Examination Certificate shall state that they have been so taken.

The above remission in the period of articles is also granted upon the basis of examinations of equal standard conducted by other Universities. Particulars can be obtained on application to the University.

ii. Any person who, before entering into articles of clerkship, has passed the intermediate examination for the degree of LL.B. at any University in England and Wales may be admitted and enrolled as a solicitor after having served four and a half years only.

iii. Any person who, before entering into articles of clerkship, has passed both the examinations indicated in the two preceding paragraphs may be admitted and enrolled as a solicitor after having served for four years only.

iv. Any person who, before entering into articles of clerkship, has passed examinations conducted by the Joint Matriculation Board which qualify him to enter upon a degree course at a Northern University (Latin being one of the subjects in which he has passed), or has passed any examination approved by the Law Society and accepted by the said Board as qualifying him to enter upon such a degree course (Latin being one of the subjects in which he has passed), and has passed the Intermediate LL.B. examination of such University, having attended the full curriculum prescribed, may be admitted and enrolled as a solicitor after having served for four years only.

NOTE.—The above regulations apply as from 1st January, 1937.

The exemptions for those about to become solicitors concern the Law Society's intermediate examination other than the part relating to Trust Accounts and Book-keeping, and are as follows :—

i. Persons who, before or after entering into articles of clerkship, have passed the examination required for the degree of LL.B. are exempt from the legal portion of the Law Society's intermediate examination.

ii. Persons who, before or after entering into articles of clerkship, have obtained the degree of LL.B. after passing the examination required for the degree, or obtaining an aegrotat certificate in respect of that examination, are exempt as aforesaid.

NOTE.—The above regulations apply to persons becoming bound by articles of clerkship on and after 1st January, 1937.

The exemptions for those about to become barristers are as follows : a student may apply to the Council of Legal Education for exemption from the whole or any section of Part I of the examination for Call to the Bar when he will receive a form indicating the standard required in the several sections before exemption will be granted.

Lectures given for Degree Courses

Time Table

The courses appropriate to each year of study are indicated in the regulations for the degree which have already been set out above. The relation of these courses to the lectures given is as follows, the lectures being so arranged that students are brought into the University on two days in the week during the University terms.

In the first year of study for the Intermediate LL.B. each of the six prescribed courses consists of one lecture per week during term time, with the exception of the course in the Law of Property which consists of two lectures per week. A normal timetable would therefore be Tuesday, 11–12 and 12–1, the Law of Property; 2–3 Contract: 3–4 Tort: Friday: 12–1 History of the Courts, 2–3 Roman Law, 3–4 Constitutional Law. This may be subject to variation from year to year as to the days and hours, but can be taken as representative of what is required.

In the two final years, the work consists of (i) two hours per week on each of two days, one day for the Common Law, and one for the Law of Property and Equity: (ii) students in their second year will take a further hour on Legal History, and in their second or third year, a further hour on Jurisprudence; (iii) honours students will also take a further hour on Conflict of Laws, alternating in successive years with the course on Jurisprudence; (iv) a further hour will be required upon a special subject in English Law, from both pass and honours students.

Assuming that the special subject is chosen from the Common Law a normal time table for the two final years will therefore be: Monday, 11–12, Legal History (for second year students only); 12–1, 2–3, 3–4, Common Law: Thursday, 12–1, Jurisprudence, and (for Honours students only) Conflict of Laws (in alternating years); 2–3, 3–4, The Law of Property and Equity.

For the guidance of the student's reading, a more detailed account of the courses is as follows:

In the first year of study the lectures will guide the students towards a general survey of the subjects indicated, and should be supplemented by the following reading:—

Constitutional Law. *Wade and Phillips.*

The History and Organization of the Courts. *Radcliffe and Cros.*

Roman Law *as advised in lectures.*

The Law of Property. *Radcliffe.*

The Law of Contract. *Sutton and Shannon.*

The Law of Tort. *Underhill.*

In the second year of study the lectures on Legal History will be concerned with the History of the Common Law, and students will be referred to portions of standard works on legal history in the course of their lectures. The lectures on Jurisprudence will be chiefly concerned with the processes of law-making, and may be supplemented by reading:

Law in the Making. *Allen.*

The Mechanics of Law Making. *Ilbert.*

For Honours students, since in alternate years Conflict of Laws will fall into the second year, it may be stated here that the students will be expected to read:

Private International Law. *Cheshire.*

The three hours per week on the Common Law constitutes a two-year cycle of lectures, following upon the preparation given in the first year, so that the subjects taken by students will vary in their order according to the year in which the student enters upon his final course. For those who enter upon their second year in session 1940-41, the subjects taken will be as follows: The Law of Contract, Evidence, Sale of Goods, Bankruptcy, Insurance.

This will be followed in the third year by the following subjects: The Law of Tort, Criminal Law, and Bills of Exchange.

The same principle of the two years' cycle applies to the Law of Property and Equity. For those who enter upon their second year in 1940-41 the subjects taken will be as follows: Equity (including Trusts), Administration of Assets, Equitable Remedies, Company Law, Partnership.

This will be followed in the third year by the following subjects: The Law of Property, The Law of Succession.

The relation of the above courses to the prescribed Examinations.

At the end of the first year of study one paper will be set upon each of the courses indicated above with the exception of the History of the Courts, which is reserved for the paper on Legal History at the end of the third year. At the end of the second year of study, the paper on the Common Law will be set upon the whole of the subjects taken in the lectures on the Common Law during the second year of study: and the paper on the Law of Property and Equity will be set upon the whole of the subjects taken in the lectures during the second year of study.

At the end of the third year of study, the papers on Jurisprudence and Legal History will be set upon ground covered by the courses given upon those subjects together with the supplementary reading recommended. The essay for the ordinary degree will be set upon a legal topic for which no special preparation is required. The paper on the Common Law will be set upon the subjects covered during the third year of study, and so also will the paper on the Law of Property and Equity. The paper on Conflict of Laws will be set (for Honours candidates only) upon the ground covered in lectures and by the reading recommended.

Tuition Fees

For the degree of LL.B.	£14 11s. per session (including Union Fee).
Final Examination of the Law Society.	£11 11s. per session.
Statutory Course for the Certificate under the Solicitors Acts, 1932 and 1936.	£11 11s. for the Full Course if taken during three consecutive terms. (An additional fee calculated at the Separate Subjects rate will be charged if the course is spread over a longer period than three consecutive terms.)
Separate Subjects: for each lecture hour per week.	£4 per session.

NOTE.—(Applicable to separate subjects only).

i. When more than one lecture hour per week is attended in any *one class* the fee for each hour beyond the first will be £2 per session.

ii. For two terms, three-quarters of the above amounts will be charged. For one term, half the above amounts will be charged.

Fees for the higher degrees can be ascertained by application to the University.

The Statutory Year

Section 32 of the Solicitors' Act, 1932, provides that a person articled to a solicitor shall not be admitted to the Final Examination unless he satisfies the Law Society that he has, during a period of one year, complied with the requirements of the Society as to attendance at a course of legal education at a law school approved by the Society. The attendance may be before service under articles, or during such service.

Section 7 (1) of the Solicitors' Act, 1936, provides that a person articled after 1st January, 1937, must (except with the consent in writing of the Law Society)

commence the attendance at a course of legal education at a Law School not later than fifteen months after the execution of his articles.

The compulsory attendance is not required from one who has passed the Final Examination for the degree of LL.B.

Attendance must be during three or more academic terms, each of not less than five weeks' duration, amounting to at least 72 hours, in periods of not less than two hours per week.

The usual practice amongst students reading for the Intermediate Examination is to attend on the day when the lectures are given on Property, Contract and Tort in the first year of study. This provides a four hour day over some 25 weeks, giving an ample margin for the attendance of 72 hours. No allowance can be made for absence due to any cause including illness either on the part of the student or of the lecturer. Students are therefore advised to attend regularly, and to note that the third term must be kept even though the statutory number of attendances has been completed.

A person attending a statutory course will be required, in pursuance of regulations made by the Law Society, to submit himself to terminal examinations for the purpose of satisfying the Society of his diligence and application during attendance. If a person fails to satisfy the Society, the Society may refuse to count, as part of the attendance, the whole or any part of the period in respect of which the examination has been held.

Railway Fares

The Yorkshire Board of Legal Studies will pay one third of the fares of persons who reside out of Leeds who attend lectures, being articled clerks, or persons about to be articled, or persons reading for the Bar who have become members of an Inn of Court, or persons reading for a Law Degree.

DEPARTMENTS OF

CIVIL, MECHANICAL AND ELECTRICAL ENGINEERING

The work of these Departments 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 practical training received in engineering works and offices. An apprenticeship or pupilage in such works or offices 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. This, however, is not essential and students may be admitted direct from school.

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.

It is hoped that all Engineering students will join the Students' Engineering Society.

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 Civil Engineering students will pursue a course in Geology, and the Mechanical and Electrical Engineering students a course in Fuel and Metallurgy. 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 the Honours or Ordinary Degree of B.Sc. or the Diploma of the University, in Civil, Mechanical or Electrical Engineering.

Diploma Students who pursue the courses set out for the Honours Degree may be awarded a Diploma with Distinction provided they reach a sufficiently high standard.

Courses for the Honours Degree of B.Sc. in Civil Engineering, Mechanical Engineering and 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., *comprising*—

Strength of Materials	IIA (1).
Structures	IIA (2).
Heat Engines	IIB.
Theory of Machines	IIC.
Hydraulics	IID.
*Surveying..	IIE.
Electrical Engineering	IIF.
Drawing and Design	IIX.
Engineering Laboratory.	

Mathematics F3 and F4 (full courses).

Third Year Civil Engineering :

Civil Engineering (Hons.), *comprising*—

Strength of Materials	IIIA (1).
Theory of Structures	IIIA (2).
*Surveying..	IIIE.
Public Works Engineering ..	IIIG.
Drawing and Design	IIIY.
Engineering Laboratory.	

and one course selected from the following :—

Heat Engines	IIIB.
Theory of Machines ..	IIIC.
Hydraulics	IIID.
Theory of Electrical Machines	IIIF (1).
Electrical Communications I	IIIK i.
Electrical Communications II	IIIK ii.
Electric Power Engineering ..	IIIL.

†Geology.

Applied Economics.

Third Year Mechanical Engineering :

Mechanical Engineering (Hons.), *comprising*—

Strength of Materials	IIIA (1).
Heat Engines	IIIB.
Theory of Machines	IIIC.
Hydraulics	IIID.
Drawing and Design	IIIX.
Engineering Laboratory.	

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* Easter Vacation Course in addition.

† Field work plus Vacation Course (optional) in addition.

and one course selected from the following :—

Theory of Structures ..	IIIA (2).
*Surveying	IIIE.
Theory of Electrical Machines	IIIF (1).
Public Works Engineering ..	IIIG.
Electrical Communications I	IIIK i.
Electrical Communications II	IIIK ii.
Electric Power Engineering ..	IIIL.

Fuel and Metallurgy.
Applied Economics.

Third Year Electrical Engineering :

Electrical Engineering (Hons.), *comprising—*

Theory of Electrical Machines IIIF (1).
Electrical Engineering Laboratory.
Mechanical Engineering Laboratory.

and four courses selected from the following in such a way as to include at least two electrical subjects and at least one non-electrical subject :—

Strength of Materials ..	IIIA (1).
Theory of Structures ..	IIIA (2).
Heat Engines	IIIB.
Theory of Machines	IIIC.
Hydraulics	IIID.
*Surveying	IIIE.
Theory of Electrical Machines	IIIF (2).
Public Works Engineering ..	IIIG.
Electrical Communications I	IIIK i.
Electrical Communications II	IIIK ii.
Electric Power Engineering ..	IIIL.

Fuel and Metallurgy.
Applied Economics.

Courses for the Ordinary Degree of B.Sc. in Civil, Mechanical and Electrical Engineering

First Year :

Mathematics for Applied Science Students.
Physics Introductory.
Physics Laboratory.
Chemistry Introductory.
Chemistry Laboratory.
General Engineering I.

---

*Easter Vacation Course in addition.

Second Year :

General Engineering II., *comprising*—

Strength of Materials	IIA (1).
Structures	IIA (2).
Heat Engines	IIB.
Theory of Machines	IIC.
Hydraulics	IID.
*Surveying..	IIE.
Electrical Engineering	IIF.
Drawing and Design	IIX.
Engineering Laboratory.	

Mathematics F3 and F4 (short courses).

Third Year Civil Engineering :

Civil Engineering (Ordinary), *comprising*—

Theory of Structures	IIIA (2).
*Surveying..	IIIE.
Public Works Engineering ..	IIIG.
Drawing and Design	IIIY.
Engineering Laboratory.	

and one course selected from the following :—

Strength of Materials ..	IIIA (1).
Heat Engines	IIIB.
Theory of Machines	IIIC.
Hydraulics	IIID.
Theory of Electrical Machines	IIIF (1).
Electrical Communications I	IIIK i.
Electrical Communications II	IIIK ii.
Electric Power Engineering ..	IIIL.

†Geology.

Applied Economics.

Third Year Mechanical Engineering :

Mechanical Engineering (Ordinary), *comprising*—

Strength of Materials	IIIA (1).
Heat Engines	IIIB.
Theory of Machines	IIIC.
Drawing and Design	IIIX.
Engineering Laboratory.	

---

*Easter Vacation Course in addition.

†Field Work plus Vacation Course (optional) in addition.

and one course selected from the following :—

Theory of Structures.. ..	IIIA (2).
Hydraulics	IIID.
*Surveying	IIIE.
Theory of Electrical Machines	IIIF (1).
Public Works Engineering ..	IIIG.
Electrical Communications I	IIIK i.
Electrical Communications II	IIIK ii.
Electric Power Engineering ..	IIIL.

Fuel and Metallurgy.

Applied Economics.

Third Year Electrical Engineering :

Electrical Engineering (Ordinary), *comprising*—

Theory of Electrical Machines IIIF (1).

Electrical Engineering Laboratory.

Mechanical Engineering Laboratory.

and three courses selected from the following in such a way as to include at least one electrical subject and at least one non-electrical subject :—

Strength of Materials ..	IIIA (1).
Theory of Structures.. ..	IIIA (2).
Heat Engines	IIIB.
Theory of Machines	IIIC.
Hydraulics	IIID.
*Surveying	IIIE.
Theory of Electrical Machines	IIIF (2).
Public Works Engineering ..	IIIG.
Electrical Communications I	IIIK i.
Electrical Communications II	IIIK ii.
Electric Power Engineering ..	IIIL.

Fuel and Metallurgy.

Applied Economics.

DEGREE AND DIPLOMA EXAMINATIONS

Students are recommended to take the B.Sc. Degree Course in Civil or Mechanical or Electrical Engineering (Ordinary or Honours). Students intending to read for a degree must pass or obtain exemption from, the examination for Matriculation conducted by a Joint Board of the Universities of Manchester, Liverpool, Leeds, Sheffield and Birmingham, before taking the Engineering Course.

*Easter Vacation Course in addition

The work done in the Laboratories and Drawing Office will be taken into consideration in the degree examinations.

Candidates for Diplomas are required :—

(*a*) To give satisfactory attendance in the subjects which constitute the Honours or Ordinary degree course.

(*b*) To present themselves for any departmental examinations that may be held in the subjects constituting their course of study.

(*c*) To make formal entry for the Final Diploma Examination, on the prescribed form, not later than 1st March of the last session of the course, and to pay at the same time the prescribed examination fee.

(*d*) To pass the examinations held at the end of their course.

The record of students during their course in the Laboratories and Drawing Office will be taken into account in awarding the Diploma.

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.

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.

The subjects of examination are detailed below.

Honours Degree of B.Sc. in Civil Engineering, Mechanical Engineering and Electrical Engineering

First Year Examination.

Mathematics for Applied Science Students.
Physics Introductory.
Chemistry Introductory.
General Engineering I.

Final Examination.

CIVIL ENGINEERING—

‡General Engineering II.

‡Mathematics F3 and F4 (full courses).

Civil Engineering (Hons.), *comprising*—

Strength of Materials .. .. IIIA (1).
Theory of Structures .. .. IIIA (2).
Surveying.. .. .. .. IIIE.
Public Works Engineering .. IIIG.
Laboratory, two days.
and one of the following :—
Heat Engines .. .. .. IIIB.
Theory of Machines .. .. IIIC.
Hydraulics .. .. .. IIID.
Theory of Electrical Machines IIIF (1).
Electrical Communications I IIIK i.
Electrical Communications II IIIK ii.
Electric Power Engineering .. IIIL.

Geology.

Applied Economics.

MECHANICAL ENGINEERING—

‡General Engineering II.

‡Mathematics F3 and F4 (full courses).

Mechanical Engineering (Hons.), *comprising*—

Strength of Materials .. .. IIIA (1).
Heat Engines .. .. .. IIIB.
Theory of Machines .. .. IIIC.
Hydraulics .. .. .. IIID.
Laboratory, two days.
and one of the following :—
Theory of Structures .. IIIA (2).
Surveying .. .. .. IIIE.
Theory of Electrical Machines IIIF (1).
Public Works Engineering .. IIIG.
Electrical Communications I IIIK i.
Electrical Communications II IIIK ii.
Electric Power Engineering .. IIIL.

Fuel and Metallurgy.

Applied Economics.

ELECTRICAL ENGINEERING—

‡General Engineering II.

‡Mathematics F3 and F4 (full courses).

Electrical Engineering (Hons.), *comprising*—

Theory of Electrical Machines IIIF (1).
Electrical Engineering Laboratory.

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‡Taken at the end of second year.

and four subjects selected from the following in such a way as to include at least two electrical subjects and at least one non-electrical subject :—

Strength of Materials.. ..	IIIA (1).
Theory of Structures ..	IIIA (2).
Heat Engines	IIIB.
Theory of Machines	IIIC.
Hydraulics	IIID.
Surveying	IIIE.
Theory of Electrical Machines	IIIF (2).
Public Works Engineering ..	IIIG.
Electrical Communications I	IIIK i.
Electrical Communications II	IIIK ii.
Electric Power Engineering ..	IIIL.

Fuel and Metallurgy.

Applied Economics.

Ordinary Degree of B.Sc. in Civil Engineering, Mechanical Engineering and Electrical Engineering

First Year Examination.

Mathematics for Applied Science Students.
Physics Introductory.
Chemistry Introductory.
General Engineering I.

Final Examination.

CIVIL ENGINEERING—

‡General Engineering II.
‡Mathematics F3 and F4 (short courses).
Civil Engineering (Ord.), *comprising*—

Theory of Structures ..	IIIA (2).
Surveying	IIIE.
Public Works Engineering ..	IIIG.

Laboratory, one day.

and one of the following :—

Strength of Materials ..	IIIA (1).
Heat Engines	IIIB.
Theory of Machines ..	IIIC.
Hydraulics	IIID.
Theory of Electrical Machines	IIIF (1).
Electrical Communications I	IIIK i.
Electrical Communications II	IIIK ii.
Electric Power Engineering	IIIL.

Geology.

Applied Economics.

---

‡Taken at the end of second year.

MECHANICAL ENGINEERING—

‡General Engineering II.

‡Mathematics F3 and F4 (short courses).

Mechanical Engineering (Ord.), *comprising*—

Strength of Materials ..	IIIA (1).
Heat Engines	IIIB.
Theory of Machines	IIIC.

Laboratory, one day.

and one of the following :—

Theory of Structures ..	IIIA (2).
Hydraulics	IIID.
Surveying	IIIE.
Theory of Electrical Machines	IIIF (1).
Public Works Engineering	IIIG.
Electrical Communications I	IIIK i.
Electrical Communications II	IIIK ii.
Electric Power Engineering	IIIL.

Fuel and Metallurgy.

Applied Economics.

ELECTRICAL ENGINEERING—

‡General Engineering II.

‡Mathematics F3 and F4 (short courses).

Electrical Engineering (Ord.), *comprising*—

Theory of Electrical Machines	IIIF (1).

Electrical Engineering Laboratory.

and three subjects selected from the following in such a way as to include at least one electrical subject and at least one non-electrical subject :—

Strength of Materials ..	IIIA (1).
Theory of Structures ..	IIIA (2).
Heat Engines	IIIB.
Theory of Machines ..	IIIC.
Hydraulics	IIID.
Surveying	IIIE.
Theory of Electrical Machines	IIIF (2).
Public Works Engineering	IIIG.
Electrical Communications I	IIIK i.
Electrical Communications II	IIIK ii.
Electric Power Engineering	IIIL.

Fuel and Metallurgy.

Applied Economics.

‡Taken at the end of second year.

The Institution of Civil Engineers

All Engineering students, whether following Civil, Mechanical 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 examination for Matriculation 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 examination for 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.

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.

The 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 examination for Matriculation 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.

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 Ordinary and Honours Degrees of B.Sc. in Electrical Engineering and the Diploma in Electrical Engineering are recognised as educational qualifications for Associate Membership. The Ordinary and Honours Degrees of B.Sc. in Civil, Mechanical, and Mining Engineering are also recognised, provided that the candidate has passed in at least two distinct Electrical Engineering subjects, one of which must have been taken at the Final Examination for the degree.

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.

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

(Engineering and Electrical Engineering Lecture Theatres)

First, Second and Third Terms: Mondays at 10 and 11 a.m., Fridays at 10 a.m.

Materials; Boilers; Steam Engines; Steam Turbines; Internal Combustion Engines; Air Compressors and Motors; Refrigerators; Hydraulic Machinery; Transmission of Power.

Manufacture, physical and mechanical properties of building materials, including stone, bricks, cement, concrete and timber. Methods of construction in masonry, brickwork, concrete, steelwork and timber. Foundations; Timbering of excavations; Floors and roofs; Piles and piling; Retaining walls, dams and arches. General principles of road-works, railways, water supply works, drainage and sewerage. Elementary principles of Surveying. Surveying instruments.

Fundamental principles; Ohm's law and Kirchoff's laws applied; Elementary principles of electric machinery, measuring instruments; Electric and magnetic circuits.

(Drawing Office).

First, Second and Third Terms: Thursdays, 2 to 5 p.m., and Fridays, 2 to 4 p.m.

Geometrical and machine drawing.

General Engineering II

IIA (1). Strength of Materials

(Engineering Lecture Theatre)

First, Second and Third Terms: Wednesdays at 11 a.m.

Stress, strain and elasticity; Mechanical properties and tests; Suddenly-applied loads; Bending moments and shearing forces; Theory of bending and stress distribution in beams; Slope and deflection of beams; Built-in beams; Columns and struts; Torsion and combined stresses in shafts and helical springs; Thin cylinders; Failure and fatigue of metals.

IIA (2). Theory of Structures

(Electrical Lecture Theatre, first term; Engineering Lecture Theatre, second term.)

First Term: Thursdays, at 12 noon; *Second Term:* Tuesdays, at 12 noon.

Bending moments and shearing forces for simple beams with moving loads ; Influence lines for simply supported beams ; Equivalent uniformly distributed loads. Forces in statically determinate framed structures with dead loads ; Roof trusses and braced girders. Complete design of a plate girder ; Reciprocal figures for combined wind and dead loads on roof trusses ; Design in detail of a roof truss.

IIB. Heat Engines

(Engineering Lecture Theatre)

First, Second and Third Terms : Tuesdays at 11 a.m.

(Electrical Engineering Lecture Theatre)

Third Term : Thursdays at 11 a.m.

Thermodynamics ; Theory of the steam engine ; Theory of the internal combustion engine ; Steam turbines and condensers.

IIC. Theory of Machines

(Electrical Engineering Lecture Theatre).

First and Second Terms : Thursdays at 11 a.m.

Kinematics of machines ; Belts ; Gears ; Friction of dry and lubricated surfaces ; Roller and ball bearings ; Flywheels ; Governors ; Balancing.

IID. Hydraulics

(Engineering Lecture Theatre)

First and Second Terms : Tuesdays at 10 a.m.

Hydrostatic pressure ; Floating bodies.

Principles of Hydraulics ; Discharge from orifices, notches and weirs ; Flow in pipes and channels ; Measurement of stream discharge ; Fluid friction ; Transmission of power by fluids ; Water hammer ; Impact of water ; Theory and operating characteristics of turbines and pumps.

IIE. Surveying

(Electrical Engineering Lecture Theatre)

Second Term : Thursdays at 12 noon.

Chain surveying ; Surveying instruments ; Traverse surveying; Measurement of heights and levelling; Tacheometry.

IIF. Electrical Engineering

(Electrical Engineering Theatre)

First, Second and Third Terms : Thursdays at 10 a.m.

First and Third Terms : Tuesdays at 12 noon.

Principles of direct current circuits ; Principles of alternating current circuits ; Alternating current measurement. Principles of alternating current machines ; Principles of direct current machines.

IIX. Drawing and Design

(Drawing Office)

First, Second and Third Terms : Monday and Friday afternoons.

The design of bearings ; Couplings ; Clutches ; Spur, bevel and spiral gearings, etc. and Engine details.

Bending moment and shear force diagrams from funicular polygon ; Graphical determination of moments, centroids and moments of inertia of sections ; Deflection and slope of beams from bending moment diagrams ; Beams of varying cross-section ; Design of plate girder and roof truss.

General Engineering IIs

This course has been arranged for students from the Departments of Fuel and Mining. It consists of courses in Strength of Materials, Heat Engines, Hydraulics and Electrical Engineering, together with Laboratory and Drawing Office Work. The class hours are as under :—

Lecture.—Tuesdays, Wednesdays, Thursdays, Fridays at 9 a.m. (Electrical Engineering Theatre).

Laboratory.—Monday and Tuesday afternoons.

Drawing Office.—Friday afternoons.

Special Course on Winding Engines

(Engineering Lecture Theatre)

Third Term : Wednesdays at 10 a.m.

Engineering III

IIIA (1). Strength of Materials

(Engineering Lecture Theatre)

First, Second and Third Terms: Thursdays, at 10 a.m.

Compound stresses and strains; Principal stresses in beams; Unsymmetrical bending; Slope and deflection of beams; Propped beams; Built-in and continuous beams; Shear stress and deflection in beams; Advanced theory of struts and torsion; Helical springs; Thick cylinders and spheres; Rotation of rings and discs; Hooks; Flat plates; Transverse vibrations; Stress analysis and fatigue; Developments in testing.

IIIA (2). Theory of Structures

(Engineering Lecture Theatre)

First, Second and Third Terms: Wednesdays and Fridays, at 9 a.m.

Statically Determinate Structures; Plate girders and braced girders under moving loads; Curved girders; Arches; Suspension bridges; Dams, Earth Pressure and Retaining Walls; Statically Indeterminate Structures; Masonry and Reinforced Concrete Structures; Structural Welding and Design of Welded Structures.

IIIB. Theory of Heat Engines

(Engineering Lecture Theatre)

First, Second and Third Terms: Mondays at 9 a.m. and Thursdays at 11 a.m.

Advanced theory of steam engines; Steam turbines; Internal combustion engines; Transmission of power by compressed air; Mechanical production of cold.

IIIC. Theory of Machines

(Engineering Lecture Theatre)

First, Second and Third Terms: Mondays at 11 a.m.

Dynamics of the steam engine; Connecting rods and coupling rods; Balancing; Flywheels; Governors; Velocity and acceleration diagrams; Theory of film

lubrication; Vibration and vibrographs; Whirling of shafts; Torsional oscillations of crank shafts; Gyroscopes.

IIID. Hydraulics

(Engineering Lecture Theatre)

First, Second and Third Terms: Thursdays at 12 noon.

Advanced theory of discharge from orifices, weirs and notches; Viscous resistance of fluids; Non-uniform flow in channels; Jet propulsion of ships; Hydraulic machinery; Turbines; Surge tank; Centrifugal pumps; Reciprocating pumps; Tidal power; Advanced theory of water hammer; Applications of the principle of dynamical similarity.

IIIE. Surveying

(Electrical Lecture Theatre first and second terms).
(Engineering Lecture Theatre third term).

First, Second and Third Terms: Fridays at 10 a.m.

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; Application of astronomy to surveying; Photographic surveying.

IIIF. Theory of Electrical Machines

(Electrical Engineering Drawing Office)

Part. I—*First, Second and Third Terms:* Mondays at 12 noon.

Theory of direct and alternating current generators and motors, transformers and converters.

Part II.—*First, Second and Third Terms:* Tuesday afternoons and Wednesdays at 10 a.m.

Advanced theory and design calculations for the types of electrical machinery which form the subject of Part I.

IIIG. Public Works Engineering

(Engineering Lecture Theatre)

First, Second and Third Terms: Thursdays, at 9 a.m.

Railways.—Location of Railways, and design in regard to gradients and curves; Embankments, cuttings,

earthwork calculations, tunnels and river crossings. Trackwork and theory of points and crossings. Signalling and safety devices.

Water Supply.—Rainfall and sources of supply from streams, wells and boreholes. Reservoirs, and compensation water ; pipelines ; aqueducts, syphons and valves.

Water analysis and purification, distribution and waste prevention.

Sanitation.—Drainage and buildings ; Sewerage of Rural and Urban districts. Quantity and analysis of sewage ; Purification and disposal of sewage.

Refuse collection and disposal and Public Cleansing.

Roads.—Construction and maintenance of modern road surfaces, including macadamised, paved, bituminous, asphalt and concrete roads.

Heating and Ventilation.—Systems of heating and ventilation, with calculations and principles of design.

Visits.—During the Session visits will be arranged to a number of Public Works in the vicinity and students will be required to present satisfactory reports of the works visited.

IIIK i. Electrical Communications I
(Electrical Engineering Theatre)

First, Second and Third Terms: Wednesdays at 11 a.m.

Theory of networks and lines ; Reflection phenomena and impedance matching ; Filters ; A.C. Bridges ; Repeaters and other valve circuits ; Carrier systems ; Electro-acoustic apparatus.

IIIK ii. Electrical Communications II
(Electrical Engineering Theatre)

First and Second Terms: Fridays, at 10 a.m.

Third Term: Fridays, at 11 a.m.

Resonant circuits ; Amplifiers and oscillators ; High-frequency feeders and aerials ; Electromagnetic radiation ; Modulation and demodulation ; Radio transmitters and receivers ; Television.

IIIL. Electric Power Engineering
(Electrical Engineering Theatre)

First Second and Third Terms: Mondays at 10 a.m.

Transmission calculations and theory; Applications of switchgear and rectifiers and control apparatus; Theory of insulation and high-voltage problems.

IIIX. Drawing, Design and Graphics (Mechanical)

First, Second and Third Terms: Tuesdays, 9 a.m. to 12 noon and 2 p.m. to 5 p.m.

Design of spur and helical, straight and spiral bevel, and worm gears, and the determination of the bearing loads. Selection and mounting of ball and roller bearings; preloading. Limits, fits and tolerances. Selection of materials and working stresses. Welded joints. Special problems in mechanical design. Detailed analysis of manufacturers designs.

First, Second and Third Terms: Thursdays, 2 p.m. to 5 p.m.

Velocity and acceleration diagrams for complex mechanisms, balancing of engines, whirling speeds of turbine rotors, critical speeds of crankshafts, general vibration problems, analysis of vibrograph and torsiograph records.

IIIV. Drawing and Design (Civil)

First, Second and Third Terms: Tuesday and Thursday afternoons.

Graphical determination of maximum and minimum forces in structures subject to moving loads; Design of braced girders, roof trusses and other steel and reinforced concrete structures; Design of welded structures.

Graphical treatment of arches; Suspension bridges; Retaining walls; dams, etc.

Engineering Laboratories

Experimental work in connection with the various classes will be conducted in the Engineering Laboratories throughout the course.

Engineering II: Tuesday and Thursday afternoons

Engineering III: Monday and Friday afternoons.

Post-Graduate Courses in Engineering

Facilities are available for advanced study and research in the departments of Civil, Mechanical and Electrical Engineering. The equipment in all the main laboratories affords opportunity for research work, while a number of smaller laboratories have been equipped with extensive research appliances suitable for individual work in many of the branches of Engineering.

TIME TABLES

First Year

	9 to 10	10 to 11.	11 to 12.	12 to 1.	2 to 5.
Mon. ..	Maths. J.	Gen. Engrg. I.	Gen. Engrg. I.	Chemistry.	—
Tues. ..	Maths. J.	Physics.	Physics Laboratory.		Chemistry Laboratory.
Wed. ..	Maths. J.	Chemistry Laboratory.		Chemistry.	—
Thurs. ..	—	Physics.	Physics Laboratory.		Drawing Office.
Fri. ..	Maths. J.	Gen. Engrg. I.	—	Chemistry.	Drawing Office.
Sat. ..	—	Physics.	—	—	—

Second Year

	9 to 10.	10 to 11.	11 to 12.	12 to 1.	2 to 5.
Mon. ..	—	Maths.	—	Maths.	Drawing.
Tues. ..	—	IID (1, 2)	IIB (1, 2, 3).	IIF (1, 3). IIA 2 (2).	Laboratory.
Wed. ..	—	Maths.	IIA 1 (1,2,3).	Maths.	—
Thurs. ..	—	IIF (1, 2, 3)	—	IIA 2 (1). IIE (2).	Laboratory.
Fri. ..	—	Maths.	IIC (1, 2). IIB (3).	Maths.	Drawing.

Third Year

	9 to 10	10 to 11.	11 to 12.	12 to 1.	2 to 5.
Mon. ..	IIIB.	IIIL.	IIIC. Geol. I.	IIIF (1).	Laboratory.
Tues. ..	Laboratory or Drawing.			Fuel.	Calculation or Drawing.
Wed. ..	IIIA (2).	IIIF (2).	IIIK i. Geol. I.	Econ.	—
Thurs. ..	IIIG.	IIIA (1).	IIIB.	IIID.	Laboratory or Drawing.
Fri. ..	IIIA (2).	IIIE. IIIK ii (1, 2)	IIIK ii (3). Geol. I.	Met.	Laboratory. Geol. Lab.

DEPARTMENT OF COAL GAS AND FUEL INDUSTRIES
WITH
METALLURGY

This department of the University was established in 1907 under the name of Department of Fuel and Metallurgy, 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 additional laboratory and experimental gas plant which forms a permanent memorial to the late Sir Corbet Woodall.

Courses of Study

The courses of study in this Department have been arranged to equip students with a broad and practical training for responsible positions in industry. After providing a grounding in Mathematics, Physics, Chemistry and Engineering, they are arranged specially to meet the requirements for entry into the fuel, metallurgical refractory materials and allied industries. The main lecture courses provide an exposition of the principles underlying the industrial processes concerned, importance being also attached to the acquisition of a general knowledge of the design and construction of plant, and of the chemical engineering methods appropriate to these industries. Actual practice is dealt with more particularly by outside lecturers.

The courses in Gas Engineering and Fuel Technology 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, as well as the properties and uses of solid and liquid fuels generally.

The Metallurgical courses deal with general methods for the treatment of ores, the extraction of metals, the construction and control of furnaces, with the production of cast irons, wrought iron and steel, non-ferrous metals, and with the micro-structure, physical properties, and heat treatment of steel and other alloys.

The courses in Refractory Materials deal with the properties of raw materials, their conversion into and the testing of finished products. They are designed to meet the needs of students entering the fuel-using industries as well as those interested in the manufacture of refractory and allied products such as glazed and enamelled wares.

Research Work.—The Department co-operates with the Gas Research Board in research supported by the Board and guided by a Joint Research Committee of the Board and the University. A group of research chemists is working under this scheme on *ad hoc* problems of the gas industry at present dealing with (*a*) the high pressure gasification of coal and (*b*) some catalytic syntheses complementary thereto.

A group of research metallurgists is engaged upon an investigation for the Alloy Steels Research Committee of the Iron and Steel Institute into the influence of furnace atmospheres on the scaling of metals.

The general equipment of the various sections of the Department also affords post-graduate students and others special facilities for original research in (*a*) the carbonisation of coal, (*b*) metallurgy, (*c*) refractory materials, (*d*) high pressure gas reactions and (*e*) combustion problems generally, etc.

Private Industrial Research.—Arrangements may be made whereby individuals or industrial concerns may use the laboratories of the Department for their own investigations and if necessary by their own employees. Application for the requisite conditions for such work may be obtained on application to the Head of 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 examination for Matriculation, conducted by the Joint Matriculation Board of the Universities of Manchester, Liverpool, Leeds, Sheffield and Birmingham. A special examination will be held to meet the cases of those who have been engaged in Commerce and Industry for at least three years and have reached the age of nineteen years. (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 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 devote his attention mainly to his special subject (*i.e.*, Gas Engineering, Fuel and Metallurgy, and Refractory Materials), but may also attend courses in Organic Chemistry, Colour Chemistry, Civil Engineering, Applied Economics, Coal Cleaning, 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 (which includes instruction in Civil, Mechanical and Electrical Engineering)

and Mechanical Drawing in addition to the study of the special branch of Applied Science (Gas Engineering, Fuel and Metallurgy, and Refractory Materials). The student will qualify for the B.Sc. degree by attending the courses detailed below and passing the corresponding examinations.

Students are expected to spend two months of the long vacation in approved works in order to acquire an insight into works practice. They are recommended to spend the vacation at the end of the first session in Engineering shops, and at the end of later sessions at Gas works, Coke ovens, Metallurgical, Refractory brick or other plants.

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	9½
*Engineering I (3 hrs. lectures, 3 hrs. drawing)	6
Fuel I	1

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) IIs ...	4
Fuel II	1
Fuel IIa	1
Chemistry Laboratory, or / Fuel and Metallurgical Laboratory	15
Engineering Laboratory	3
Engineering Drawing	3

Metallurgical students will also attend in addition to the above :—

Metallurgy VIII (General)	1
Metallurgy IX	1

*Details of these courses which are given in the Engineering Department are summarised in an Appendix.

Third Year Course

Gas Engineering students must attend :—

Fuel III	1
Fuel IIIa...	1
Refractory Materials VII	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, Colloid Chemistry, Civil Engineering, Applied Economics, German, Metallurgy General and Coal Cleaning.

Metallurgical students must attend :—

	Hours per week.
Fuel III	1
Metallurgy X	2
Metallurgy XI	1
Metallurgy XII	1
Metallurgy XIII	1
Refractory Materials VII	1
Fuel and Metallurgical Laboratory	22
Fuel and Metallurgical Colloquium	1

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
	Manufacture of Coal Gas
	Principles of Gas Distribution and Utilisation

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

* 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.

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.

IV. Diplomas and Degree Courses for Post-Graduate Students

(*a*) A Diploma in (i) Gas Engineering, (ii) Fuel and Metallurgy, (iii) Fuel and Refractory Materials will be awarded to graduates of this or some approved University who have graduated with Physics, Chemistry, Engineering, or Metallurgy as a principal subject, or to persons whose qualifications have been accepted by the Senate in lieu of a degree, and who 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 Degrees of B.Sc. 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, Fuel and Metallurgy, or Fuel and Refractory Materials; 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.

Fuel and Metallurgy as "Introductory Subject"

Students offering Fuel and Metallurgy as an Introductory subject for the Ordinary Degree of B Sc. in Pure Science will be required to take courses Fuel I (General) and Metallurgy VIII (General), together with work in the laboratories for three hours per week during the session.

Fuel and Metallurgy as "Additional Subject" for Honours in Pure Science

Students attending Fuel and Metallurgy as an additional subject for the Honours Degree of B.Sc. in Pure Science will be required to take lecture courses Fuel I and Metallurgy VIII throughout the session.

Degree Course in Mining and Metallurgy

Students preparing for the Degree of B.Sc. in Mining and Metallurgy are required to attend courses in the Department, viz.: Metallurgy VIII, Metallurgy IX and Metallurgy X.

Details of the Degree in Mining and Metallurgy will be found in the Prospectus of the Mining Department.

Diploma of the Institution of Gas Engineers

A graduate of the University of Leeds in Gas Engineering who wishes to take the Diploma of the Institution of Gas Engineers will not be required to take the written examination for that Diploma. He will, however, be required (*a*) to produce evidence of satisfactory professional experience, (*b*) to present either a thesis according to the Regulations of the Institution or a recently published work of his own, and (*c*) to submit to an oral examination. For further details, applications should be made to the Secretary of the Institution of Gas Engineers, 1, Grosvenor Place, London, S.W. 1.

Institution of Civil Engineers

A graduate of the University of Leeds in Gas Engineering or Fuel and Metallurgy with Honours wishing to become a member of the Institution of Civil Engineers will be exempted from Sections A and B of the Associateship Examination. Graduates with Ordinary Degrees in Gas Engineering or Fuel and Metallurgy will be exempted from Section B only of the same examination In all cases exemption from Section B includes exemption from "Engineering Drawing." For further details application should be made to the Secretary, The Institution of Civil Engineers, Great George Street, Westminster, S.W. 1.

SYLLABUS OF LECTURE COURSES

I. Fuel—General

One hour a week throughout the session.

This course is 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.

The formation, composition, properties and testing of natural fuels. The carbonisation process and its products. Gas works and coke-oven plant. Blue and carburetted water-gas, producer gas, blast-furnace gas, natural gas and oil gas. The measurement of temperature in works practice. Steam raising. Recuperation and regeneration in furnaces. Furnace types. Refractory materials. Liquid fuels. Synthetic fuels.

II. Fuel

One hour a week.

Calorimetry of solid, liquid and gaseous fuels. Thermoelectric, electrical resistance, radiation and optical pyrometry. Photometry and illumination. The measurement of gas flow under industrial conditions. The thermal and chemical balances of fuel processes.

IIa. Fuel. The Physical Properties of Gases

One hour a week.

The properties of gases at normal and at high temperatures and pressures. Vaporisation, liquefaction. The washing of gases by solvents and solid absorbents. Specific heats of gases. Combustion calculations. Viscosity of gases and liquids. Newtonian and anomalous fluidity of liquids. The flow of gases through pipes. Thermal conductivity of gases. Transfer of heat by radiation, conduction and by natural and forced convection.

III. Fuel. Carbonisation and Gaseous Fuels

One hour a week.

Methods and results of investigation of the constitution of coal. The carbonisation process as studied in the laboratory and on the large scale. The properties of coke and their bearing on practice. The complete gasification of coal and coke in air steam and oxygen. The Lurgi process. The properties of different fuels for use in furnaces. The characteristics and effects of furnace atmospheres. Thermo-chemistry. Spontaneous ignition phenomena. Structure of flames. Radiation from flames. Flame temperatures. Flame spectra.

IIIa. Fuel. The Chemical Properties of Gases

One hour a week.

The course will deal with reaction velocity and reaction equilibrium in gaseous systems with reference to fuel and industrial processes. Reaction of carbon with oxygen, carbon dioxide, steam. The ignition of solid fuels. The water gas reaction. The behaviour at high temperatures of steam, carbon dioxide, ammonia, hydrogen sulphide, oxides of nitrogen, hydrocarbons. Gas purification reactions.

The following three Courses (IV to VI inclusive) will be given by specially appointed lecturers. A special prospectus is issued at the end of the first term and is obtainable on application to the Registrar.*

IV. The Manufacture of Coal Gas

A special course of 16 lectures on Tuesdays during the *second* term in *alternate* sessions.

A. Carbonisation Practice.

Four lectures.

Gas-making coals and their behaviour when carbonised. Construction (including ironwork) of: horizontal and continuous vertical retorts, intermittent chamber ovens. Refractories. Heating of retorts, external and internal producers. Recovery of waste heat. Comparison of nature and yields of solid, liquid and gaseous products from the various types of gas-making plants. Thermal and economic efficiencies. Factors affecting design of plant, processes and composition of crude gas. Mechanical handling of coal and coke. Testing coals in the laboratory, and on the large scale. High and low temperature carbonisation in relation to production of solid smokeless fuel.

B. Water Gas Practice.

Two lectures.

General description of plant and recent developments of water gas technique. Theoretical consideration of the

*These courses are open to persons not registered as day students. As a war measure they are given at 2 and 3.30 p.m.

water gas reactions. Carburetting. Factors determining the operation of the plant. Control of plant. Recent developments in complete gasification.

C. Gas Purification Practice.

Six lectures.

Nature of the impurities in crude coal gas and the factors affecting their formation. General outline of purification processes. The principles of cooling and condensation. The function, design, and operation of air and water cooled condensers, tar fog extractors, etc. The electrical precipitation of tar. The principles of ammonia extraction. The constitution of ammoniacal liquor, with particular reference to still effluents. The design and operation of washers and scrubbers. The simultaneous removal of ammonia and hydrogen sulphide. The removal of cyanogen. The removal of hydrogen sulphide. The design and operation of oxide of iron purifiers. The selection and preparation of oxides of iron. The removal of naphthalene. The recovery of benzole. The removal of organic sulphur compounds. The dehydration of gas. The contamination of gas on storage. The occurrence of gum in gas.

V. The Distribution and Utilisation of Gas

Special courses of lectures during the *second* term in *alternate* sessions.

Two lectures.

Gas and coke in the national fuel economy; comparative costs; the application of scientific principles to design and installation of gas appliances.

Two lectures.

The general principles of gas distribution and utilisation. Flow; load factor; governing; mains and services; meters; carcassing; installation of gas appliances; flue equipment, etc.

Two lectures.

The industrial utilisation of gas.

VI. By-Product Coking Processes

A special course of 8 lectures during the *second* term in *alternate* sessions.

Preparation and examination of coals for the coking process. Description of the development of by-product coking with its accessory processes. Manufacture of sulphate of ammonia, concentrated ammonia liquor, the recovery of benzene and toluene, removal of sulphuretted hydrogen, tar distillation. The utilisation of coke oven gas for the public supply. Technical discussion of the various types of modern coking installations. The control of such plants.

VII. Refractory Materials—General

One hour a week throughout the Session.

The course deals with the raw materials available, their manufacture into the commercial products employed in the fuel, metallurgical, cement, glass and chemical industries, and the chemical and physical testing of these products to meet the demands of the various industrial processes. The course also includes the manufacture and use of high temperature insulating materials, and is of value to those intending to enter allied ceramic industries such as the manufacture of glazed or enamelled ware.

VIII. Metallurgy—General

One hour a week throughout the Session.

This course is designed to meet the requirements of engineering students and includes a study of the structure and properties of metals and alloys in general and particularly wrought iron, simple and alloy cast iron and plain carbon and alloy steels. The forging and rolling of steel. Carburising, nitriding and cyaniding operations. The iron-carbon equilibrium diagram. The general heat treatment of steel. Macro- and micro-examination of metals and alloys. The welding of metals. The properties and uses of bearing metals, brasses and light alloys. Atmospheric corrosion and its prevention.

IX. Metallurgy for Mining Students

One hour a week throughout the Session.

This course is intended primarily for mining students and deals with the natural concentration of metalliferous

deposits in the earth's crust and their economic value. Preliminary treatment of metalliferous ores including crushing; gravity, magnetic and flotation processes of concentration. Roasting and preliminary smelting of non-ferrous ores.

This course is supplemented by practical work in assaying and general analysis of ores.

X. Metallurgy—Non-Ferrous

One hour a week throughout the Session.

This course is a continuation of Metallurgy IX, and will treat in more detail the smelting and refining operations of non-ferrous metallurgy.

XI. Metallurgy—Iron and Steel

Two hours a week throughout the Session.

(*a*) *The Blast Furnace*—The design of hot blast stoves and of the blast furnace. Interaction between ore and gases in the blast furnace. The effect of composition and temperature of slag on the properties of the pig iron produced. Modern development in blast furnace practice. The sintering of iron ores.

(*b*) *The Manufacture of Steel.*—The construction and working of modern open-hearth and Bessemer steel plant. The physical chemistry of acid and basic steel manufacture. Thermal and metallurgical factors which govern the efficiency of steel production.

(*c*) *Electric Steel Manufacture.*—Design and construction of modern arc and induction furnaces. The manufacture of steel in electric furnaces. The advantages of the electric process.

(*d*) *The manufacture of ferro alloys.*

XII. Physical Metallurgy

One hour a week throughout the Session.

Thermal equilibria in metallic systems (metastable and labile states). Application of the phase rule to equilibrium diagrams. X-ray crystal analysis of metals and alloys. The Hume-Rothery Rule. Theories of

hardening. Real and imposed allotropy. Inverse segregation. Heterogeneity in cast metals. Brittleness in metals. Precipitation hardening. Modification of alloys. Theories of oxidation and protective film formation on metals. The structure and heat treatment of alloys including alloy cast irons and special steels. Detailed study of the more important metallic systems. Principles of powder metallurgy.

XIII. Electrometallurgy

One hour a week throughout the Session.

The electrolytic refining of copper, lead, gold, silver. Production of super-purity aluminium by the electrolytic process. The manufacture of electrolytic zinc. Electro plating.

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, metallurgy and refractory materials, and for the review of the current literature of those subjects.

Fuel and Metallurgical Laboratories

The accommodation of the department is arranged to provide for both teaching and research. There are general laboratories for both chemical and physical work with special provision for calorimetry and photometry. Rooms are provided for furnaces and high temperature work, and also a laboratory for the study of the application and flow of heat. A separate installation exists for the study of the heating and ventilating efficiency of gas appliances. There is a departmental workshop with skilled mechanics in charge. A departmental museum and library is provided, and facilities for reading, writing and drawing. The Corbet Woodall laboratory is specially equipped for experimental work on a large scale. It houses a horizontal retort setting, machinery by the Bryan Donkin

Co. Ltd., Chesterfield, meter by Parkinson and Cowan Ltd., condensing, purifying plant and two 1,000 cubic feet gas-holders by Clayton, Son & Co. Ltd., Leeds, and gas-fired steam boiler by Spencer-Bonecourt, Ltd.

The metallurgical laboratories are equipped for the assaying of ores and general metallurgical analysis, and contain up-to-date apparatus for the metallographic and thermal examination of alloys, for tests of tensile strength, hardness and fatigue. A small rolling mill is provided.

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 covers the following subjects :

(*a*) Analysis and testing of solid and liquid fuels.
(*b*) Analysis of gases. Combustion characteristics of gaseous fuels.
(*c*) Preparation, compression and liquefaction of gases. Use of high pressure gas.
(*d*) Chemical and physical examination of tars.
(*e*) Examination of raw materials and by-products of the manufacture of coal gas, coke and producer gas.
(*f*) Examination of water for steam-raising and other industrial uses.
(*g*) Pyrometry: thermoelectric, resistance, radiation and optical.
(*h*) Calorimetry, photometry, radiometry, and the testing of gas heating and lighting appliances.
(*i*) Measurement of the flow of gases and the transmission of heat.
(*j*) Analysis of ores, slags, mattes, alloys, and other metallurgical products.
(*k*) Macro- and micro-examination of metals and alloys.
(*l*) Heat treatment of steel and certain non-ferrous alloys.
(*m*) Tensile, fatigue and hardness measurements of metals and alloys.
(*n*) Rolling and drawing of metals and alloys.
(*o*) Metallographic and thermal examination of metals and alloys, the effects of hot and cold work, and heat treatment on the microstructure and physical properties of metals and alloys. Photomicrography.

(*p*) Foundry work.

(*q*) Chemical analysis and physical testing of refractory materials including determination of refractoriness, reversible and permanent thermal expansion, thermal conductivity, mechanical strength at high temperatures. The macro- and micro-structure of refractory products, and properties of heat insulating materials.

Special courses for outside students in any of the above subjects may be provided by arrangement with the Professor.

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. 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.

APPENDIX

Courses given in the Department of Engineering

General Engineering I

(First Year)

Materials ; Boilers ; Steam Engines ; Steam Turbines; Internal Combustion Engines ; Air Compressors and Motors ; Refrigerators ; Hydraulic Machinery ; Transmission of Power.

Manufacture, physical and mechancial properties of building materials, including stone, bricks, cement, concrete and timber. Methods of construction in masonry, brickwork, concrete, steelwork and timber. Foundations ; Timbering of excavations ; Floors and roofs ; Piles and piling ; Retaining walls, dams and arches. General principles of road-works, railways, water supply works, drainage and sewerage. Elementary principles of surveying. Surveying instruments.

Fundamental principles; Ohm's law and Kirchoff's laws applied; Elementary principles of electric machinery, measuring instruments; Secondary batteries.

(Drawing Office)

First, Second and Third Terms: Thursdays 2 to 5 p.m., and Fridays 2 to 4 p.m.

Geometrical and machine drawing.

General Engineering IIs

(Second Year)

Strength of Materials

Stress, strain and elasticity; Mechanical properties and tests; Suddenly-applied loads; Bending moments and shearing forces; Theory of bending and stress distribution in beams; Slope and deflection of beams; Built-in beams; Columns and struts; Torsion and combined stresses in shafts and helical springs; Thin cylinders; Failure and fatigue of metals. Reinforced concrete beams.

Heat Engines

Thermodynamics; Theory of the steam engine; Theory of the internal combustion engine; Steam turbines and condensers; Air compressors; Refrigerations.

Hydraulics

Hydrostatic pressure; Floating bodies.

Principles of hydraulics; Discharge from orifices, notches and weirs; Flow in pipes and channels; Measurement of stream discharge; Fluid friction; Transmission of power by fluids; Water hammer; Impact of water; Theory and operating characteristics of turbines and pumps. Application of the principles of dynamical similarity.

Electrical Engineering

Direct current generators and motors with their control gear. Alternating-current circuits. Theory and application of transformers and induction motors. Power transmission. Methods of measurement in alternating-current circuits.

SCHOLARSHIPS

Particulars of Scholarships and Fellowships awarded by the University are given in a special prospectus which may be obtained on application to the Registrar of the University. In addition, some local education authorities offer scholarships for persons already engaged in industry. Particulars of these should be obtained by application to the appropriate local education authority.

Certain Scholarships and Fellowships are specially associated with this department, and the conditions of award are given below.

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 1st May 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 Livesey Professor of Coal Gas and Fuel Industries 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 tc the Senate of the University, on or before 1st May of each year, together with copies of anv papers published in connection with the research

ARTHUR SMITHELLS SCHOLARSHIP

This scholarship was founded in 1926 from the balance, amounting to £2,079, of a fund raised to commemorate the services rendered to the University by Emeritus-Professor Smithells, Professor of Chemistry, 1885-1924. Its object is the elucidation by scientific research, in any department of the University, of the phenomena of combustion in the widest sense.

The scholarship, of the approximate annual value of £100, is tenable in the first instance for one year, and may be renewed for a similar period or periods. The appointment is made at the close of the third term.

The scholarship is open to graduates of the University. All candidates are required, when sending in their applications, to specify the subject in which they propose to undertake research.

The scholar is required to pursue research in a department of the University of Leeds, under the direction of the Head of the department, and to present a report of his work, such a report to be sent to the Clerk to the Senate before 1st June.

Applications should be in the hands of the Clerk to the Senate by 1st June.

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.

WILLIAM CARTWRIGHT HOLMES SCHOLARSHIP IN GAS ENGINEERING

This Scholarship was endowed in 1929 by Mr. P. F. Holmes and Mr. D. M. Henshaw as a memorial to William Cartwright Holmes of Huddersfield.

The Scholarship is held at the University of Leeds. The normal value of the Scholarship is £120 per annum, and it is tenable for one, two or three years, with power of extension for a fourth year on the recommendation of the Senate to the William Cartwright Holmes Scholarship Committee, appointed by the Institution of Gas Engineers.

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 by the Senate as satisfactory.

The Scholarship is intended to enable a student to take a course of study at the University in preparation for a responsible position in Gas Engineering.

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 Engineering.

As each vacancy occurs the award of the Scholarship will ordinarily be made during the month of June, after advertisement in the Technical Press.

The Scholarship will be awarded by the Senate after consultation with the William Cartwright Holmes 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 or other organisation in which he received his previous education ; (*b*) if he has been already engaged in a gas engineering works, from the Engineer or Manager of the works.

The Senate, in conjunction with the William Cartwright Holmes Scholarship Committee, will determine what examination, if any, is necessary in order to guide them in the award of the Scholarship.

COBB MEMORIAL FUND

On the retirement of Professor J. W. Cobb, C.B.E. (Livesey Professor of Coal Gas and Fuel Industries 1912-1938) a fund was raised to commemorate his services to the University and to industry. Contributions were received from friends within and without the University and from the industries—notably the Gas Industry—with which Professor Cobb's work had been

connected. In accordance with his wish, the balance of the fund amounting to £769 was presented to the University in order that the income from it should be used to assist students in the Department of Coal Gas and Fuel Industries with Metallurgy to meet the cost of maintenance while at the University, or to cover other expenditure necessary for their studies or researches.

Grants from the Fund are made by the Senate on the recommendation of the Head of the Department of Coal Gas and Fuel Industries with Metallurgy.

Applications should be in the hands of the Clerk to the Senate not later than 1st May in each year.

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 Department of Mining at the University of Leeds affords excellent facilities for the training of young men who intend to practise the art of coal or metalliferous mining, petroleum engineering, or of the salesmanship and distribution of coal. Situated in the heart of a mining district where the most up-to-date mining methods are practised and where are found some of the deepest and best equipped modern British collieries, the Department has the cordial support of those actively engaged directing the collieries and metal mines of the district.

All students have an opportunity of gaining a wide knowledge of the practical application of the principles of mining, so that eventually they will be equipped to take an active part in the direction of mining concerns whether as company directors, mine agents, salesmen managers or surveyors or mining metallurgists, or alternatively, to act as inspectors of mines under H.M. Government. There are many opportunities for the mining engineer to follow an attractive career in the oil industry, particularly in the work of exploration and exploitation of oilfields. Foreign students are welcomed and every endeavour is made to meet their various requirements.

The well equipped laboratories in the many departments of the University, in particular, the Physical, Chemical, Geological, Metallurgical, Engineering and Mining Laboratories are open to the mining students, who therein gain a scientific foundation upon which is built their knowledge of the art of Mining.

The Staff of the Department is greatly assisted by the Mining Advisory Committee composed of eminent mining and petroleum engineers, coal owners and scientists. This Committee helps to maintain active contact between the Mining Department and Industry,

which contact is of great assistance to students of the University.

The courses have been arranged to meet the requirements of those who intend to become :—

1. Colliery Directors, Agents and Managers.
2. H.M. Inspectors of Mines.
3. Metal Mine Managers and Engineers.
4. Colliery Salesmen and Distributors.
5. Mine Surveyors.
6. Colliery, Mechanical and Electrical Engineers.
7. Mining Metallurgists.
8. Petroleum Engineers.

The degree courses 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.

Students are expected to supplement the University course by attending at a mine or works to obtain practical experience and arrangements are made where necessary to enable this to be done.

Special facilities are provided for postgraduate research work both in the laboratories of the Department and in mines and works outside, and every help is 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 is also 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

The courses of study are arranged as follows :—

1. B.Sc. Honours in Mining, four years' course.
2. B.Sc. Honours in Mining, three years' course and one year of approved research work.
3. B.Sc. in Mining, three years' course.
4. B.Sc. in Mining and Metallurgy, three years' course.

5. Diploma in Mining, three years' course.
6. Diploma in Mining and Metallurgy, three years' course.
7. Course on Mine Surveying.
8. Course on Colliery, Mechanical and Electrical Engineering.
9. Course on Preparation, Analysis, Sale and Distribution of Coal.

Students entering for the degree course are required to have passed (or obtained exemption from) the examination for Matriculation conducted by the Joint Board of the Universities of Manchester, Liverpool, Leeds, Sheffield and Birmingham.*

Colliery Managers' Certificates of Competency under the Coal Mines Act, 1911

Graduation as B.Sc. in Mining Engineering, or Mining and Metallurgy, or the possession of the Diploma in Mining Engineering or Mining and Metallurgy of the University of Leeds, has been recognised by the Board of Trade 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 Board of Trade in respect of its Degree of B.Sc. in Mining, Diploma in Mining, B.Sc. in Mining and Metallurgy and Diploma in Mining and Metallurgy.

Surveyors' Certificates under the Coal Mines Act, 1911

The University of Leeds is one of the Institutions approved by the Board of Trade for the purpose of training students for Surveyors' Certificates under the Coal Mines Order, and students who pass satisfactorily this course are admitted as candidates for the Mines Department Surveyor's Certificate, with two years' experience in Surveying.

*All inquiries regarding the examination for Matriculation, 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.

The following courses at the University have been approved and enable candidates to obtain exemption from two of the four years practical experience ordinarily required :—

1. Ordinary B.Sc. Degree Course in General Mining.
2. Diploma Course in Mining.
3. The Course in Mine Surveying.

Union of South Africa.

The B.Sc. Honours degree in Mining is recognised as an approved degree under Regulations 297 and 301 (2) (*a*) of the Mines, Works and Machinery Regulations.

Special Lectures

Lectures are given from time to time by specialists in particular branches of Science, Art and Medicine outside the ordinary mining courses but which are of particular interest to students of the Mining Department. These lectures are not included in the syllabus of each course as shown hereafter.

1. Honours B.Sc. Degree Course in General Mining (Four 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.

During the first year of the degree course the student will normally attend classes and take examinations in Mathematics, Physics, Chemistry and Engineering.

During the second year he will take courses in Engineering (Mechanical and Electrical), Mining and Mathematics.

*Graduation as B.Sc. in Mining has been recognised by the Board of Trade as equivalent to two years' experience at a mine for the purposes of the Colliery Manager's Certificate.

During the third year he will attend courses in Geology, Fuel and Metallurgy, Surveying and Mining.

In the fourth year he will devote his attention mainly to Mining and Geology.

The four year's course will thus include a systematic training in the Science and Applied Science Subjects which are essential to the study of Mining.

The student will qualify for the degree by attendance upon the courses detailed below, and by passing the corresponding examinations; he will also be required to translate satisfactorily a passage from a modern language.

Syllabus

	Hours per Week.	
First Year.	Lectures.	Laboratory.
Mathematics J.	4 ..	–
Chemistry Intro. ..	3 (and 1 tutorial)	5
Physics Intro.	3 ..	4
General Engineering I ..	3 ..	3
Mining	1 ..	–
Second Year.		
Mathematics F3, F4 ..	6 ..	–
Engineering II	7 ..	12
Mining	1 ..	–
Third Year		
Geology Intro.	3 ..	4
Mining and Surveying ..	3 ..	12
Fuel and Metallurgy ..	2 ..	3
Engineering IIIG ..	1 ..	–
Fourth Year.		
Mining and Surveying ..	8 ..	6
Geology F1	3 ..	6
Economic Geology ..	1 ..	–
Industrial Economics ..	1 ..	–

2. An alternative Four Years' Course for the Honours Degree

(The fourth year being devoted to approved research.)

This course is designed to meet the needs of students, who, having entered for the Ordinary Degree Course (see III. below), satisfy the Head of the Department of their capacity to read for Honours in Mining, and are allowed,

after completing the Ordinary Degree Course, to spend a fourth year in approved research with a view to qualifying for the Honours Degree.

3. Ordinary Degree Course

During the first year of the degree course the student will normally attend classes and take examinations in Mathematics, Physics, Chemistry and Engineering.

During the second year he will take courses in Engineering (Mechanical and Electrical), Geology, Mine Surveying, Fuel and Mining Metallurgy and Mining.

During this third year he will mainly devote his attention to Mining, including ore dressing and laboratory work, Mine Surveying and Assaying.

The student is also required to devote the vacations to obtaining practical experience in mines.

The three years course will thus include systematic training in Mathematics, Physics, Chemistry, Engineering and Geology in addition to the study of the special branch of Applied Science, namely Mining.

The student will qualify for the B.Sc. degree by attendance upon the courses detailed below and by passing the corresponding examinations: he will also be required to translate satisfactorily a passage from a modern language.

Syllabus

	Hours per Week.	
	Lectures.	Laboratory.
First Year.		
Mathematics J	4	–
Chemistry Intro.	3 (and 1 tutorial)	5
Physics Intro	3	4
General Engineering	3	3
Mining	1	–
Second Year.		
Engineering IIs	4	9
Geology Intro.	3	3
Fuel and Metallurgy	2	3
Surveying	1	3
Mining	1	–
Third Year.		
Economic Geology	1	–
Industrial Economics	1	–
Mining and Surveying	11	14
Engineering IIIG	1	–

4. Degree Course in Mining and Metallurgy

This course of instruction is arranged for students who desire to specialise in the preparation of minerals for the market and the extraction of metals from their ores.

It is so arranged that the First and Second Years are similar to the First and Second Years of the Mining B.Sc. course, while the third year consists of a careful blending of Assaying, Geology, Metallurgy—in particular the extraction of metals—and Mining.

The course will include systematic training in Mathematics, Physics, Chemistry, Engineering and Geology, in addition to the study of the special branches of Applied Science, namely Assaying, Metallurgy and Mining.

The student will qualify for the B.Sc. degree by attendance upon the courses detailed below, and by passing the corresponding examinations: he will also be required to translate satisfactorily a passage from a modern language.

Syllabus

	Hours per Week. Lectures.	Laboratory.
First Year.		
Mathematics J	4 ..	–
Chemistry Intro... ..	3 (and 1 tutorial)	5
Physics Intro.	3 ..	4
General Engineering I...	3 ..	3
Mining	1 ..	–
Second Year.		
Engineering IIs	4 ..	9
Geology Intro.	3 ..	3
Surveying	2 ..	3
Fuel	1 ..	3
Non-ferrous Metallurgy XIII.	1 ..	–
Industrial Economics ..	1 ..	–
Mining	1 ..	–
Third Year.		
Mining F1, F2, F4 ..	5 ..	14
Ferrous Metallurgy VIII	1 ..	–
Non-ferrous Metallurgy IX	1 ..	–
Economic Geology ..	1 ..	3
Engineering IIIG ..	1 ..	–

5. 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.

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 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 adequate 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 a Diploma student takes for his Final examination the same Final Principal Mining 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.

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*The possession of the Leeds University Diploma in Mining Engineering has been recognised by the Board of Trade as equivalent to two years' experience at a mine for the purposes of the Colliery Manager's Certificate.

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.

A diploma with distinction may be awarded to a student when work is adjudged to be of outstanding merit.

6. Diploma Course in Mining and Metallurgy

Candidates for this diploma will attend the course set out above and must satisfy the requirements *mutatis mutandis* for the Diploma in Mining as given above.

A diploma with distinction may be awarded to a student when work is adjudged to be of outstanding merit.

7. Course on Mine Surveying

This course of one day per week for two years includes lectures on 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 are given on Monday (First Year) and Thursday (Second Year).

To meet the case of external students whose knowledge of Mathematics is below degree standard, a special preliminary course consisting of one lecture per week, together with office work, will be given on Mondays.

Fee, £8 8s. od. each year.

8. Course on Colliery, Mechanical and Electrical Engineering

This course is designed to meet the requirements of those who intend to become Colliery, Mechanical and Electrical Engineers. It includes the study of the latest developments of the application of machinery to mining operations both at the surface and underground.

9. Course on the Preparation, Analysis, Sale and Distribution of Coal

This course is arranged for those who are at present engaged or intend to be engaged in the preparation of coal for the market and the sale of the finished product. It consists of lectures dealing with the analysis of coal and the various methods employed in the cleaning and disposal of coal. The lecture course will be supplemented by a laboratory course, which will include practical analyses of coal, the preparation of washability curves and tests with coal cleaning appliances.

Degree of Doctor of Philosophy (Ph.D.)

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.

LECTURE COURSES

Mining F1, F2, F3 and F8

F1
Preliminary Geology
Prospecting and Boring
Ownership of Minerals
Breaking Ground and Blasting
Sinking
Supports
Methods of Working

F2
Winding
Ventilation
Haulage
Pumping
Lighting

F3
Transmission of Power
Coal Cutters and Conveyors
Explosions and Coal Dust
Spontaneous Combustion
Rescue Apparatus
Outbursts of Gas, Construction of Dams

F8
Efficiency of Mining Machinery
Housing Schemes
Leases
Hot and Deep Mines
Health and Hygiene

Preparation of Minerals and Coal F4

A course of one lecture a week will be given during the session on Fridays.

The syllabus will include:—

(*a*) *Ore Dressing.*—General principles, hand-dressing, comminution systems, sizing, water classification, water concentration, flotation concentration, magnetic, electrostatic, pneumatic and centrifugal separation. Ore dressing plants, flow-sheets, control of operations.

(*b*) *Coal Cleaning.*—Screening and sizing. Principles of coal washing, modern methods.

(*i*) Appliances using horizontal continuous water currents.
(*ii*) Appliances using vertical continuous water currents.
(*iii*) Combinations of (*i*) & (*ii*).
(*iv*) Jigging appliances.
(*v*) Appliances using mechanical impulses.
(*vi*) Flotation processes.

Dry cleaning methods. Extraction of dust. Control of operations. Selection of a cleaning plant. Washability curves.

Lectures will be supplemented by practical laboratory work in both ore dressing and coal cleaning.

Mine Surveying F5, F6 and F7

During the session a course of lectures will be given on Monday and Thursday.

Course F5

Introduction and general remarks on the aims and objects of surveying and mine surveying.

Principles underlying the methods of linear and angular measurements used by the mine surveyor.

Accessories, devices, parts and attachments common to many surveying instruments. Consideration of their uses, objects, causes of failure, design, improvement, testing, and adjustment.

Instruments used for the direct measurement of length; accuracy attainable, use, testing, and adjustment.

Instruments used for the measurement of angles; use, testing, and adjustment.

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.

Levelling instruments and instruments used for determining the relative position of points vertically with regard to one another or to a given datum.

Mine surveying methods, work and problems.

Care of instruments.

Course F6

Errors in observed data, their amount, influence, and elimination.

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.

Determination of the direction of the astronomical and magnetic meridians.

Connection of surface and underground surveys by various methods, their relative accuracy and suitability in various cases.

Tacheometry, plane table work.

Setting out railway connections, railway sidings, curves, gradients, roadways, levels, drifts, headgears, engine-foundations, cuttings, embankments, pipe-lines, and engineering work generally.

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.

Course F7

Plotting of triangulation surveys and solution of surveying problems.

Equipment

The equipment of the Department has been designed and installed 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 provide appliances for the detailed study and practical application of methods of ore dressing.

The equipment therefore embraces the following:

For Investigations and Tests at Mines

Apparatus necessary for

Air compressor and compressed air transmission tests.
Complete boiler trials.
Complete ventilation tests.
Pump efficiency tests.
Steam engine tests.
Sampling and analysis of mine gases, fuels, &c.

For Laboratory Work.

The following apparatus is provided:

Air compressor and metering devices.
Apparatus for analysis of mine air.
Apparatus for analysis of coal and mine dusts.
Apparatus for coal washing tests, including froth flotation.
Balances for assay work.
Bomb and other calorimeters.
Centrifugal pump.
Experimental fans and gallery, with various modern forms of manometers and air meters.
Furnaces for assay work.
Hygrometers.
Kata thermometers.
Microscopes.
Ore dressing plant, including large Blake Marsden crusher, rolls, 3-head Californian stamp battery, ball mill, screens, jigs, classifiers, sand tables, slime table, magnetic separator, flotation units, &c.
Photometric bench and photometers.
Mine rescue apparatus.
Rock drills.
Safety lamps and gas testing chambers.
Westphal balance, &c.

For Surveying.

The apparatus includes:

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.
Mining Theodolites, with removable targets.
Plane Table.
Levels, including precise level. 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, $4\frac{1}{2}$ 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.

Laboratory Work

The laboratory course extending over the last two years includes the following:

Analysis of mine atmospheres, flue gases, etc.

Assaying of ore and metallurgical products.

Calorimetry.

Coal washing tests.

Commercial analysis of fuel.

Examination of mine dusts.

Fan efficiency tests running (1) singly, (2) in series, and (3) in parallel.

Measurement of air flow.

Photometry.

Practical methods of mine gas detection.

Practical work in ore dressing, including tests on the efficiency of the various appliances used.

Practice in use of various forms of rescue apparatus.

Pyrometry.

Testing of air compressors: transmission of compressed air; air consumption of rock drills.

The laboratory instruction is supplemented by testing the efficiencies of boilers, fans, air-compressors, etc., at collieries.

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.

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.

University Mining Society

The membership of this Society includes both present and past students. It forms one of the most attractive features of the department, its principal function being to arrange for the reading of papers on mining subjects by acknowledged experts. All papers read during the season are published in the Society's own journal.

Colloquium

During their final year students are given valuable training in presenting papers on mining subjects for discussion among themselves.

Departmental Library

Apart from the main University Library where every authoritative book on all technical subjects is obtainable, there is now a Departmental Library, which is always kept up to date in mining literature. All the principal mining journals and periodicals published in this country, America, South Africa, France and Germany are also accessible to students.

Scholarships and Grants

Valuable scholarships are awarded by the various educational authorities which enable students to attend

the courses given in the Mining Department. Particulars of these may be obtained from the authorities concerned or from the Head of the Department. Research grants are made from time to time to enable post-graduate students to carry out research work.

Scholarships have been funded by the West Yorkshire Coal Owners Association, the Asiatic Petroleum Company, T. Campbell Futers, Esq., and the New Consolidated Goldfields of South Africa, Limited. These are awarded from time to time, after interview and are available to candidates who have satisfied the matriculation requirements. For further details see Scholarships Prospectus.

Meetings of the Midland Institution of Mining Engineers and the Yorkshire Branch of the National Association of Colliery Managers are held from time to time in the Department.

Students are recommended to apply for admission to the Institution of Mining Engineers as student members.

TEXTILE INDUSTRIES

Endowed by the Worshipful Company of Clothworkers of the City of London

The Department comprises the following sections:

(*a*) Woollen Yarn Manufacture.
(*b*) Worsted Yarn Manufacture (English and Continental systems).
(*c*) Designing, Weaving, and Textile Manufacturing
(*d*) Finishing of Textile Fabrics.
(*e*) Textile Testing.
(*f*) Research.

Each technical section is equipped with the necessary machinery for demonstrating the various processes of manufacture. These sectional plants, besides being used for teaching purposes, are employed in connection with the research work which is undertaken by the staff and advanced students. To promote post-graduate research work Fellowships and Scholarships are offered by the University and other bodies.

Courses of Study

The courses of instruction are designed to meet the equirements of

(*a*) Controllers of industry
(*b*) Inside Managers (Combing, Spinning, Weaving and Finishing)
(*c*) Textile Designers
(*d*) Merchants
(*e*) Research Workers.

Although students are admitted for shorter periods, the normal courses of study extend over three years, and in some cases, over four years. Students who have matriculated 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) Ordinary and Honours Degrees of B.Sc. in Textiles.

(B) Ordinary Degree of B.Com., with Textiles as a principal subject.

(C) Diploma in Textiles, awarded after one year's post-graduate work following the course of B.Com. with Textiles as a principal subject.

(D) Diploma in Textile Industries, awarded principally for technological work.

A

(1) Ordinary Degree of B.Sc. in Textiles

First Year

Mathematics J.
Physics Intro.
Chemistry Intro.
General Engineering I
Textile Industries (Preliminary)
Materials Study I

Second Year

Two of the following:—
(1) Mathematics F3, F4
(2) Physics F1
(3) Organic Chemistry F3
or
Physical Chemistry F2
(4)*Engineering IIs
Woollen Yarn Production I
Worsted Yarn Production I
Cloth Structure I
Loom Study I
Textile Calculations
Colour Study I
Cloth Analysis I

Third Year

Materials Study II
Woollen Yarn Production II
Woollen Yarn Production III
Worsted Yarn Production II
Worsted Yarn Production III
Cloth Structure II
Complex Textiles
Loom Study II
Colour Study II
Cloth Finishing I
Cloth Analysis II
Textile Testing
Mill Design and Management
Experimental Dyeing
Textile Chemistry II
Textile Physics II

(2) Honours Degree of B.Sc. in Textiles

Fourth Year

Following graduation in the Ordinary Degree of B.Sc. (Textiles) candidates may obtain Honours in Textiles by presenting a thesis embodying the results of original research. In addition, they shall attend ancillary lectures and pass an appropriate examination.

*Owing to time-table difficulties this option cannot at present be taken.

B.—Ordinary Degree of B.Com. with Textiles as a Principal Subject

First Year	*Second Year*
Mathematics J.	Economics
Physics Intro. or	Commercial Law
Chemistry Intro.	Statistics
Economics	Woollen (or Worsted) Yarn Production I
Commercial Law	Cloth Analysis I
Textile Industries (Preliminary)	

Third Year

Economics	Cloth Analysis II
Accountancy	Textile Testing

Woollen (or Worsted) Yarn Production II and III

C.—Diploma in Textiles, following the course of B.Com. with Textiles as a Principal Subject

Specialising in Spinning.	*Specialising in Manufacturing or Commerce.*
Materials Study I	Materials Study I
Worsted (or Woollen) Yarn Production I	Cloth Structure II
Worsted (or Woollen) Yarn Production II	Complex Textiles
Worsted (or Woollen) Yarn Production III	Loom Study II
Cloth Structure II	Textile Calculations
Loom Study II	Colour Study II
Textile Calculations	Cloth Finishing I
Cloth Finishing I	Cloth Finishing II
Mill Design and Management	Mill Design and Management

N.B.—Each course *may* necessitate two years' work.

In addition candidates for the Diploma in Textiles must present twelve selected work-sheets and a Thesis dealing with some approved Textile research.

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.Com. with Textiles as a Principal Subject, may be awarded the Diploma, provided that they have pursued the courses of study and passed the examinations (*a*) in the technological subjects prescribed for the Ordinary Degree of B.Com. with Textiles as Principal Subject, and (*b*) in the subjects (including the thesis) above prescribed for the Diploma.

D.—Diploma in Textile Industries

First Year

Textile Industries (Preliminary)
Materials Study I
Woollen Yarn Production I
Worsted Yarn Production I
Cloth Structure I
Loom Study I
Textile Calculations
Colour Study I
Cloth Analysis I
Textile Chemistry I
Textile Mathematics and Textile Physics I

Second Year

Materials Study II
Woollen Yarn Production II
Worsted Yarn Production II
Cloth Structure II
Loom Study II
Colour Study II
Cloth Finishing I
Cloth Analysis II
Textile Testing
Textile Chemistry II
Textile Physics II

Third Year

Woollen Yarn Production III
Worsted Yarn Production III
Cloth Structure III
Complex Textiles
Cloth Finishing II
Mill Design and Management
Experimental Dyeing

Students are required to combine the above courses of study with at least *one* of the following *groups* of subjects :—

(*a*) Mathematics Introductory
Physics Introductory.
Chemistry Introductory.

(*b*) General Economics.
Textile Economics.

(*c*) Two courses selected from the following :—
French I
German I
Russian IA
Spanish I

(*d*) Principles of Pattern Design (by arrangement with the City of Leeds College of Art)

and to reach a satisfactory standard in the appropriate examinations*. By selecting Group (*a*) or Group (*b*), students obtain Diplomas which fulfil the educational

*In Textile subjects not less than a Second Class in the June examinations will normally be required.

requirements of the Textile Institute for the Associateship (A.T.I.). Those students selecting Group (*b*) are strongly recommended to take Group (*d*) as well, and suitable provision has been made in the time tables.

During the third year, candidates for the Diploma in Textile Industries must present eighteen selected worksheets and a thesis based on some approved textile research. Two copies of the thesis, bound in the standard form prescribed by the University, should be submitted by the 1st June, one copy being retained for the University Library.

A Diploma with distinction may be awarded to a student whose work is adjudged to be of outstanding merit.

Vacation Work in Mills

Subject to the possibility of making suitable arrangements, advanced students may be accorded the privilege of spending part of the Long Vacation in the mills of the district, thus gaining experience under industrial conditions. This concession, kindly granted by many firms in Yorkshire, is highly appreciated by the University.

Lecture Courses, Experimental Work and Research Work

Textile Industries (Preliminary)

FIRST YEAR: Lectures on Thursdays from 9 to 10 a.m. throughout the session.

SUBJECTS.—The various textile fibres, their distribution and growth; their chemical, physical and processing properties; the basic principles of manipulation.

Historical development of the Industry; its branches and their distribution; textile inventors and their machines.

Physical bases of yarn structures; twist; strains; mechanical principles involved.

Weaving ; principles of interlacing ; weights of cloths ; elements of hosiery, feltmaking, embroidery, lacemaking and braiding.

TEXT BOOKS

An Introduction to the Study of Spinning by W. E. Morton (Longmans, Green & Co.).
Elementary Textile Design by W. Watson (Longmans, Green & Co.).
The Mechanism of Weaving by T. W. Fox (Macmillan & Co.).

Materials Study I

FIRST YEAR : Lectures and Practice on Thursdays from 11 a.m. to 1 p.m. throughout the session.

SUBJECTS.—Wool, cotton, silk, flax, the synthetic fibres, etc. ; qualities, properties and uses ; samples illustrating the various manufacturing processes ; compilation of Materials Books.

Materials Study II

SECOND YEAR : Lectures on Thursdays from 2 to 3 p.m. throughout the session.

SUBJECTS.—History of sheep and goat development. British breeds ; crossbreds and merinos. Sheep-shearing, wool classing and baling ; wool sales and marketing methods. Wool sorting and meaning of quality numbers. Impurities in wool. Defective wools ; the incidence of kemp and dark fibres. Skin wools. Objects of blending, blending methods and blending calculations. Tops and top qualities. Rags, laps, burrs and garnetted wastes. Rag sorting. Rarer wools and hairs. Non-wool fibres. Characteristics of yarns made from the foregoing fibres in relation to weaving, knitting, etc.

TEXT BOOKS

Textiles by A. F. Barker *et al* (Constable & Co.)

Woollen Yarn Production I

FIRST YEAR : Lectures on Mondays from 2 to 3 p.m. throughout the session.

SUBJECTS.—General survey of all processes used in the manufacture of woollen yarns. Characteristics of

fibres and their influence on yarn production. Wool sales, sorting, dusting, scouring, removal of vegetable matter.

Woollen Yarn Production II

SECOND YEAR: Lectures on Wednesdays from 9 to 10 a.m. throughout the session.

SUBJECTS.—Detailed study of drying, fibre recovery from wastes, blending, oiling, and carding processes.

Woollen Yarn Production III

THIRD YEAR: Lectures on Tuesdays from 2 to 3 p.m. throughout the session.

SUBJECTS.—Detailed study of woollen spinning on mule and ring frames. Twisting of ordinary and fancy yarns. Composition of plants suitable for manufacture of various types of woollen yarns. Modern developments. Detection and prevention of faults. Application of research to practical yarn production problems.

TEXT BOOKS

An Introduction to the Study of Spinning by W. E. Morton (Longmans, Green & Co.)

Wool Carding by J. Bradley (Emmott & Co.)

Principles of Woollen Spinning by H. Priestman (Longmans, Green & Co.)

Worsted Yarn Production I

(English and Continental Systems).

FIRST YEAR: Lectures on Thursdays from 2 to 3 p.m. throughout the session.

SUBJECTS.—General survey of all processes used in the manufacture of worsted yarns. Characteristics of fibres and their influence on the method of yarn production. Detailed study of preparing, carding and backwashing principles and processes. Wool combing principles, the Noble comb, top finishing.

Worsted Yarn Production II

SECOND YEAR: Lectures on Fridays from 9 to 10 a.m. throughout the session.

SUBJECTS.—Detailed study of Lister, Square Motion and Rectilinear combs. Tops. Open drawing principles and processes.

Worsted Yarn Production III

THIRD YEAR: Lectures on Fridays from 2 to 3 p.m. throughout the session.

SUBJECTS.—Principles and processes of cone, continental and Anglo-continental drawing. Worsted spinning—flyer, ring, cap and mule—principles and processes. Yarn twisting, reeling and winding. Modern developments. Detection and prevention of faults. Application of research to practical yarn production problems.

TEXT BOOKS

An Introduction to the Study of Spinning by W. E. Morton (Longmans, Green & Co.)

Worsted Preparing and Spinning, Vols. I, II, and III by F. Bradbury (King & Co.)

Experimental Work

(Woollen and Worsted Yarn Production)

Woollen Section.—Experiments in scouring, blending, rag-pulling, carding, spinning and twisting.

Worsted Section.—Experiments in carding, gilling, combing, drawing, spinning and twisting.

Besides studying the building, setting, construction and manipulation of the various machines in both sections, students will have practical demonstrations of the output and adaptability of the machines for the production of different types of yarn.

Cloth Structure I

FIRST YEAR: Lectures on Tuesdays from 2 to 3 p.m. throughout the session.

SUBJECTS.—*Structures:* plain, twill and sateen weaves; their derivatives; drafted styles; stripe and check patterns; diagonals; transposition twills; drafting and loom mounting.

Cloth Structure II

SECOND YEAR: Lectures on Thursdays from 9 to 10 a.m. throughout the session.

SUBJECTS:—*Structures:* backed cloths, double cloths and cut double cloths; double plain cloths; treble cloths; drafting and loom mounting; imitation backed and double cloths.

Cloth Structure III

THIRD YEAR: Lectures on Tuesdays from 10 to 11 a.m. throughout the session.

SUBJECTS.—Designing of compound fabrics for fancy woollens and worsteds; figured designs obtained by drafting; colour and weave effects applied to compound cloths; pattern range making.

Complex Textiles

THIRD YEAR: Lectures on Fridays from 11 a.m. to 1 p.m. throughout the session.

SUBJECTS.—Cloth structures including tapestry, gauze and plush styles.

TEXT BOOKS

Elementary Textile Design by W. Watson (Longmans, Green & Co.)

Advanced Textile Design by W. Watson (Longmans, Green & Co.)

Experimental Work

(Handloom Weaving)

FIRST YEAR: Standard cloths in colour and for dyeing.

SECOND YEAR: More advanced work, including preparatory processes. The weaving of rugs, gauzes and jacquard fabrics.

THIRD YEAR: Preparing and entering students' own warps in loom. Patterns from these warps should have original features with commercial application.

Loom Study I

FIRST YEAR: Lectures on Mondays from 9 to 10 a.m. throughout the session.

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; letting-off and taking-up mechanisms; picking mechanisms.

Loom Study II

SECOND YEAR: Lectures on Tuesdays from 9 to 10 a.m. throughout the session.

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; automatic weaving—bobbin and shuttle changing mechanisms.

Shed design and organisation.

TEXT BOOKS

The Mechanism of Weaving by T. W. Fox (Macmillan & Co.)
Tappet and Dobby Looms by T. Roberts (Emmott & Co.)
Jacquard Mechanism and Harness Mounting by F. Bradbury (F. King & Sons)

Experimental Work

(Powerloom Weaving)

FIRST YEAR: Practical weaving and simple adjustments of tappet and dobby looms. Graduated work on processes preliminary to weaving.

SECOND YEAR: Instruction on jacquard looms and modern types of automatic loom.

THIRD YEAR: Preparing and entering warps in power looms. Students encouraged to develop and carry out original ideas in cloth construction.

Textile Calculations

FIRST YEAR: Lectures on Wednesdays from 12 noon to 1 p.m., and on Fridays from 2 to 3 p.m. throughout the session.

SUBJECTS.—Wool yields; conditioning and regains; 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 ; the weights of cloths ; setting methods relating to cloth construction.

TEXT BOOKS

Calculations in Yarns and Fabrics by F. Bradbury (F. King & Sons)

Analysis of Woven Fabrics by A. F. Barker and E. Midgley (Ernest Benn, Ltd.)

Colour Study I

FIRST YEAR : Lectures on Saturdays from 11 a.m. to 12 noon throughout the session.

SUBJECTS.—Colour theories and the attributes of colours ; contrast and analogy ; colour blending ; application of colour to woven design ; special colour and weave effects.

Colour Study II

SECOND YEAR : Lectures on Fridays from 3 to 4 p.m. throughout the session.

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.

TEXT BOOK

Colour in Woven Design by R. Beaumont (Pitman & Sons, Ltd.)

Cloth Finishing I

SECOND YEAR : Lectures on Mondays from 9 to 10 a.m. throughout the session.

SUBJECTS.—The objects of finishing ; scouring, crabbing, blowing, milling, carbonising, drying and tentering, brushing and steaming, raising, cutting, and pressing ; shrinking, chlorinating, bleaching, and proofing; changes in physical properties of fabrics from the loom to the finished state ; sequence of operations in finishing standard wool fabrics ; finishing costs.

Cloth Finishing II

THIRD YEAR: Lectures on Saturdays from 9 to 10 a.m., throughout the session.

SUBJECTS.—Advanced studies in woollen and worsted finishing; the finishing of cotton, rayon, and union fabrics; bleaching, mercerising, schreinering, calendering and felting; special finishes, e.g. anti-crease; defects.

TEXT BOOKS

The Finishing of Wool Goods by J. & J. C. Schofield (J. & J. C. Schofield)
The Finishing of Woven Fabrics by E. Midgley (Arnold)
The Bleaching and Finishing of Cotton by E. R. Trotman and E. L. Thorp (Griffin)
The Chemistry and Practice of Finishing by P. Bean and W. McCleary (Hutton, Hartley & Co.)

Experimental Work

(Cloth Finishing)

SECOND YEAR: Mondays from 10 a.m. to 12 noon—manipulation of the various machines employed in the finishing of woollen and worsted cloths.

THIRD YEAR: Saturdays 10 a.m. to 12 noon—students will be required to finish typical woollen and worsted cloths.

During each course the finishing of various special cloths will be demonstrated, and students will be provided with patterns of the material at the different stages of finishing.

Cloth Analysis I

FIRST YEAR: Lectures on Wednesdays from 9 to 10 a.m. throughout the session.

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.

Cloth Analysis II

SECOND YEAR: Lectures on Mondays from 2 to 3 p.m. throughout the session.

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 by A. F. Barker and E. Midgley (Ernest Benn, Ltd.)

Textile Testing

SECOND YEAR : Lectures on Tuesdays from 3 to 4 p.m. throughout the session. Practical Textile Testing on Thursdays from 3 to 5 p.m.

SUBJECTS.—Microscopical examination of textile fibres ; yarn tests for count, twist, strength and extensibility ; tests for wear and serviceability of cloths ; analysis of tops and yarns for quality of material ; analysis of cloths for comparison with standard specifications. Tests for moisture content in wools, tops, and yarns ; standard regains ; effects of humidity on strength and extensibility of yarn and cloth ; chemical determination of component materials in yarns and cloths. Defects in raw materials, yarns, and cloths and their causes ; study of mounted defective specimens. The study and use of testing instruments and machinery.

TEXT BOOK

Textile Testing by J. Lomax (Longmans, Green & Co.)

Mill Design and Management

THIRD YEAR : *Section A*. Lectures on Mondays from 3 to 4 p.m. throughout the session, and on Wednesdays from 12 noon to 1 p.m. throughout the session.

SUBJECTS.—Efficient operation of steam-raising plant, steam engines and other prime movers. Transmission of power by belts and ropes. Electric driving. Factory lighting, heating, ventilation and humidification.

Section B. Lectures on Tuesdays from 11 a.m. to 12 noon throughout the session.

SUBJECTS.—Site selection, buildings, and internal transport. Lay-out of machinery. Principles of yarn and cloth costing. Systems of wages payment. Efficiency methods; aids to management. Legislative control of the textile industry.

TEXT BOOKS

The Chemical Technology of Steam-Raising Plant by H. N. Bassett (Edward Arnold)

Mechanical Power Transmission by W. Staniar (McGraw Hill Book Co., Inc.)

Heat Engines by A. C. Walshaw (Longmans, Green & Co.)

Textile Factory Organisation and Management by D. R. H. Williams (Emmott & Co.).

Management of a Textile Business by C. C. Balderston and V. S. Karabasz (The Textile Foundation, Washington)

Experimental Dyeing

THIRD YEAR: Lectures on Thursdays from 10 to 11 a.m. throughout the session, and laboratory work on Thursdays from 11 a.m. to 1 p.m. during the first and second terms.

Textile Chemistry I

FIRST YEAR: Lectures on Mondays from 12 noon to 1 p.m. throughout the session.

SUBJECTS.—This course serves as an introduction to Textile Chemistry II and is taken by all Diploma students, unless specially exempted.

Textile Chemistry II

SECOND YEAR: Lectures on Mondays from 12 noon to 1 p.m. and on Saturdays from 10 to 11 a.m. throughout the session.

Subjects.—The chemical interpretation of the molecular structure and properties of animal fibres, and its application to the processes of scouring; carbonising; yarn production; humidification; conditioning; milling; chlorination; bleaching; crabbing and blowing; dyeing.

The chemistry of oils, fats and waxes ; the principles of wool oiling, including a general study of lubrication ; and the testing of wool oils and creams.

The chemistry of soap making ; analysis of soaps ; emulsions and emulsification ; recovery of by-products from effluents ; the hardness of water ; water softening processes ; composition and properties of the newer auxiliary products, including wetting agents and detergents.

Sizing, waterproofing and fireproofing. Chemical methods for estimating fibre damage and their use in controlling finishing and other processes.

Experimental Work
(Textile Chemistry)

Analysis and Testing of Wool Oils and Soaps

A practical course of analysis of wool oils, soaps, etc., occupying a minimum of six hours per week, has been arranged to meet the requirements of students and firms particularly interested in the subject of wool oils and the oiling of wool.

Textile Mathematics and Textile Physics I

FIRST YEAR : Lectures on Tuesdays and Fridays from 9 to 10 a.m. throughout the session.

SUBJECTS.—This course serves as an introduction to Textile Physics II, and is taken by all Diploma students, unless specially exempted.

Textile Physics II

SECOND YEAR : Lectures on Saturdays from 11 a.m. to 12 noon throughout the session.

SUBJECTS.—The X-ray interpretation of the molecular structure and properties of fibres.

TEXT BOOK

Fundamentals of Fibre Structure by W. T. Astbury (Oxford University Press)

Principles of Pattern Design

FIRST YEAR : Classes on Fridays from 10 a.m. to 12 noon throughout the session (at the Leeds College of Art).

SECOND YEAR: Classes on Thursdays from 10 a.m. to 12 noon throughout the session (at the Leeds College of Art).

THIRD YEAR: Classes on Mondays from 9 a.m. to 12 noon throughout the session (at the Leeds College of Art).

SUBJECTS.—Pattern as an enrichment of a plain surface; a development from texture weave. Foundation of design in harmonious relations between forms, lines and colours. The approach via geometry, as providing the simplest relationship. The naturalisation of geometric form. Rhythm in line and form. The formalising of Nature. Traditional and modern treatment of the designer's subject matter; flowers, trees, birds, animals. Composition. Colour relationships of tone, hue, intensity, texture. Rhythm in colour. The historic developments of pattern design in textiles. The formative factors in such developments and in such crafts as have influenced textile design.

TEXT BOOKS

Textiles section of Studio Year Book
An Encyclopædia of Textiles (Ernest Benn, Ltd.)
Fischbach
Decorative Textiles by G. L. Hunter (Lippincott)
Ornament by H. Th. Bossert (Ernest Benn, Ltd.)
Modern Decorative Art in England by P. Townend (Batsford)
English Textiles by W. G. Hunter (Tiranti)
History of Textile Fabrics by Glazier (Batsford)

Mathematics, Physics, Chemistry and Engineering

Students are referred to the prospectuses of the several Departments for details of the various courses.

Economics, Statistics, Commercial Law and Accountancy

For these subjects students are referred to the prospectus of the Department of Economics and Law.

French I, German I, Russian IA and Spanish I

These courses are intended for students who wish to acquire a greater proficiency in languages. Details are to be found in the departmental prospectuses.

Museum Study: Use of Reference Library

The Textile Department Museum contains an extensive collection of specimens covering the complete range of textile processes, as well as a collection of old and modern textile fabrics, which are of particular interest and value to students who specialise in textile design. Within the Museum is the Departmental Library, which houses text-books and reference books on textile subjects.

Research Work

Besides the opportunity which is afforded by the general equipment of the Department for research in Textile Technology, there are well-equipped laboratories for research in Textile Chemistry and Textile Physics. Valuable Scholarships and Fellowships are available to assist graduates in Science as well as in Textiles, to conduct research work for higher degrees.

Scheme of Co-operation between the University of Leeds and the Wool Industries Research Association

1. Duly qualified graduates in Science or Technology may, in accordance with the Ordinances and Regulations laid down in the University Calendar, proceed to the degrees of Doctor of Philosophy or Master of Science of the University of Leeds after the prosecution of research work at the Wool Industries Research Association under the Director of that Association.

2. Graduates of other Universities than Leeds, and Leeds graduates without satisfactory previous training in Textile Industries, wishing to come under this scheme will be required to attend approved courses in the Textile Industries Department of the University for not less than one year. This prescribed attendance in the University will normally be prior to their attendance at Torridon, but in exceptional circumstances and with the approval of the Senate the attendance may be concurrent with the period at Torridon.

3. All candidates for post-graduate degrees while carrying on their work at the Research Association

at Torridon will be under the immediate and direct control of the Director of the Research Association at Torridon, who must be approved by the University for this purpose, but periodical discussion of the work will take place between the Director and the Head of the Department of Textile Industries.

4. All students proceeding to degrees through research work at Torridon must be duly registered students of the University of Leeds, and, as such, shall be under the discipline of the University. They will be required to pay such tuition fees as may be determined by the University Council, and shall be entitled to all the privileges of the University Union, Library, &c., on payment of the appropriate fees.

5. For the purposes of this scheme, the Director of the Research Association at Torridon has been appointed an Honorary member of the staff of the Textile Industries Department of the University of Leeds, with the title of " Director of Torridon Research Students."

First Year Time Table for B.Sc. Course

	9–10	10–11	11–12	12–1	2–3	3–4	4–5
MON.	Maths. J.	General Engineering I	—	Chemistry Intro.	Laboratory		
TU.	Maths. J.	Physics Intro.	Laboratory		Laboratory		
WED.	Maths. J.	Laboratory		Chemistry Intro.	—	—	—
THU.	Textile Industries (Prelim.)	Physics Intro.	Materials Study I		Engineering Drawing		
FRI.	Maths. J.	General Engineering I	—	Chemistry Intro.	Laboratory		
SAT.	—	Physics Intro.	Laboratory		—	—	—

N.B.—The Physics and Chemistry courses each require at least 6 hours' laboratory work, for which provision has been made in the above time table.

Second Year Time Table for B.Sc. Course

	9–10	10–11	11–12	12–1	2–3	3–4	4–5
MON.	Loom Study I	*Maths F3*	*Physics F1*	*Maths. F4*	Woollen Spinning I	Laboratory	
TU.	Handloom Weaving	*Physical Chem. F2*	Power-loom Weaving	*Organic Chem. F3*	Cloth Structure I	Laboratory	
WED.	Cloth Analysis I	*Maths F3*	*Physics F1*	Textile Calculations	—	—	—
THU.	Handloom Weaving	*Physical Chem. F2*	Power-loom Weaving	*Organic Chem. F3*	Worsted Spinning I	Laboratory	
FRI.	Handloom Weaving	*Maths. F1*	*Physics F1*	*Maths. F4*	Textile Calculations	Laboratory	
SAT.	Powerloom Weaving	*Physical Chem. F2*	Colour Study I	*Organic Chem. F3*	—	—	—

Students are required to select two of the Science subjects shown in italics in the time table. N.B.—The Physics and Chemistry Courses require 6 and 9 hours' additional laboratory work, respectively.

Third Year Time Table for B.Sc. Course

	9–10	10–11	11–12	12–1	2–3	3–4	4–5
Mon.	Cloth Finishing I	Cloth Finishing Practical		Textile Chemistry II	Cloth Analysis II	Mill Design & Management (A)	Power-loom Weaving
Tu.	Loom Study II	Cloth Structure III	Mill Design & Management (B)	—	Woollen Spinning III	Textile Testing	Woollen Spinning Practical
Wed.	Woollen Spinning II	Woollen Spinning Practical		Mill Design & Management (A)	—	—	—
Thu.	Cloth Structure II	Dyeing Lecture	Experimental Dyeing		Materials Study II	Textile Testing Practical	
Fri.	Worsted Spinning II	Worsted Spinning Practical	Complex	Textiles	Worsted Spinning III	Colour Study II	Worsted Spinning Practical
Sat.	Cloth Finishing II	Textile Chemistry II	Textile Physics II	—	—	—	—

First Year Time Table for Diploma in Textile Industries

	9–10	10–11	11–12	12–1	2–3	3–4	4–5
Mon.	Loom Study I	Powerloom Weaving		Textile Chemistry I	Woollen Spinning I	Woollen Spinning Practical.	
Tu.	Text. Maths. & Text. Physics I	General Economics	Handloom Weaving		Cloth Structure I	Powerloom Weaving	
Wed.	Cloth Analysis I	Handloom Weaving		Textile Calculations	—	—	—
Thu.	Textile Industries (Prelim.)	General Economics	Materials Study I		Worsted Spinning I	Worsted Spinning Practical	
Fri.	Text. Maths. & Text. Physics I	Pattern Design		—	Textile Calculations	Powerloom Weaving	
Sat.	Handloom Weaving		Colour Study I	—	—	—	—

Second Year Time Table for Diploma in Textile Industries

	9–10	10–11	11–12	12–1	2–3	3–4	4–5
MON.	Cloth Finishing I	Cloth Finishing Practical		Textile Chemistry II	Cloth Analysis II	Handloom Weaving	
TU.	Loom Study II	Powerloom Weaving		Textile Economics	Power-loom Weaving	Textile Testing	Hand-loom Weaving
WED.	Woollen Spinning II	Woollen Spinning Practical			—	—	—
THU.	Cloth Structure II	Pattern Design		Textile Economics	Materials Study II	Textile Testing Practical	
FRI.	Worsted Spinning II	Worsted Spinning Practical			Hand-loom Weaving	Colour Study II	Hand-loom Weaving
SAT.	Powerloom Weaving	Textile Chem. II	Textile Physics II	—	—	—	—

Third Year Time Table for Diploma in Textile Industries

	9–10	10–11	11–12	12–1	2–3	3–4	4–5
MON.	Pattern Design			—	Thesis	Mill Design & Manage-ment (A)	Thesis
TU.	—	Cloth Structure III	Mill Design & Manage-ment (B)	—	Woollen Spinning III	Woollen Spinning Practical	
WED.	- - Thesis - -			Mill Design & Manage-ment (A)	—	—	—
THU.	—	Dyeing Lecture	Experimental Dyeing		- - Thesis - -		
FRI.	Work Sheets		Complex Textiles		Worsted Spinning III	Worsted Spinning Practical	
SAT.	Cloth Fin-ishing II	Cloth Finishing Practical		—	—	—	—

Stephenson Clarke Scholarship

Tenable in the Textile Industries Department and in the Department of Colour Chemistry and Dyeing.

1. The Scholarship was founded in 1926 by Colonel Stephenson Robert Clarke, C.B., LL.D., Master 1924-25 of the Clothworkers' Company, who are the Trustees.

2. The endowment of the Scholarship consists of £1,000. The annual value of the Scholarship consists of the free income of this endowment and amounts approximately to £45 per annum.

3. The Scholarship will be awarded annually. Subject as hereinafter mentioned (para. 5) the Scholarship will be awarded in the first year to a student in the Textile Industries Department and in the following year to a student in the Colour Chemistry and Dyeing Department and will continue to be thus alternately awarded.

The object of the scholarship is to enable the successful candidate to undertake a 3rd or 4th year course of study in one of these Departments, and candidates must be completing respectively their 2nd or 3rd year attendance in either the Textile Industries or the Colour Chemistry and Dyeing Department. A preference will be given to students completing a 3rd year and desiring to enter for a 4th year course of study.

4. The Scholarship is tenable for one academic year.

5. Failing the application of a qualified candidate for the Scholarship in the Department to which the Scholarship falls in a given year, the Scholarship may be awarded to another qualified student in the other Department, but without affecting the ordinary sequence.

6. Failing the application in any year of a qualified candidate in either Department, the amount of the Scholarship for that year shall be added to capital.

7. The appointment to a Scholarship shall be made by the Founder of the Scholarship during his lifetime

out of nominations submitted by the Vice-Chancellor. Thereafter the appointment shall be made by the Court of the Clothworkers' Company in like manner.

8. Clauses 1, 2, and 3 of the General Regulations of the University of Leeds relating to Senior Scholarships shall, so far as may be applicable, apply to the Stephenson Clarke Scholarship.

9. Power is reserved to the Founder (Colonel Stephenson Robert Clarke) during his lifetime and afterwards to the Trustees (the Clothworkers' Company) in the latter case after consultation with the Senate of the University of Leeds, to alter or modify the above Regulations, including the amount of the Scholarship or Scholarships to be awarded.

10. Any dispute or difference arising in regard to the construction of any of the above rules and regulations or conditions or in regard to any award made thereunder shall be settled by the Founder during his lifetime and afterwards by the Trustees, any such decision to be final and conclusive.

Applications to be sent to the Clerk to the Senate *not later than 1st June* of each year.

Clothworkers' Scholarships

These Scholarships were founded in 1875 by the Worshipful Company of Clothworkers of the City of London, who offer the sum of £60 annually to provide one or more scholarships for students in the Department of Textile Industries. The scholarships are open to students completing their first or second year of attendance in the Department and are tenable for one year.

The Scholarships are awarded on the results of the third term examinations.

Applications from candidates for these Scholarships must be sent to the Clerk to the Senate *not later than 1st June* of each year.

Woolmen's Company Scholarship

1. This Scholarship was founded in 1927 by the Worshipful Company of Woolmen with the object of encouraging study in connexion with the Wool Trade.

2. The Scholarship is of the annual value of £30, and is normally tenable for three academic years in the Department of Textile Industries.

3. The Scholarship is open to students entering upon the first year of a course of study leading to a degree or a diploma of the University in the Department of Textile Industries.

Failing a suitable candidate entering upon the first year course of study, the Scholarship may be awarded to a student who has already completed the first or second year of his attendance in the Textile Industries Department and is desirous of completing his degree or diploma course of study in that Department.

Preference will be given to candidates whose means are otherwise insufficient to enable them to pursue their studies in the University.

4. When a vacancy occurs, the Scholarship will be advertised in the press. Applications should be sent in to the Clerk to the Senate not later than 30th June. Applicants may be required to present themselves for a special examination, which will be held in September.

Clothworkers' Research Fellowships and Scholarships in Textile Industries

These Scholarships and Fellowships were instituted in 1928 from funds provided by the Worshipful company of Clothworkers.

The Scholarships are of the annual value of £100 which may be supplemented by a maintenance grant not exceeding £40. The Fellowships are of the minimum annual value of £160.

The Scholarships are open to graduates of the University of Leeds, to holders of the Diploma in Textile Industries of the University of Leeds, and to suitably qualified graduates of other Universities.

The Fellowships will normally be awarded to holders of Scholarships who have shown special aptitude for research work during their tenure of a Scholarship; but any duly qualified applicant may be granted a Fellowship on the ground of exceptional distinction without having previously held a Scholarship.

Both Scholarships and Fellowships are tenable for one year and may be renewed for one or more years.

The number of each to be awarded in any year will depend upon the funds available and on the number of suitable applicants.

Fellows and Scholars will be required to devote the whole of their time to research in some subject or subjects connected with the Textile Industries, under the direction of the Professor of Textile Industries, and to present a report of their work to the Senate not later than 1st June in each year.

The appointments will be made at the close of the third term. Applications should be in the hands of the Clerk to the Senate not later than 1st June of each year.

Alfred Lund Scholarship

1. This fund was instituted in 1924 by the late Alfred Lund, Esq., of Pudsey, for the purpose of assisting deserving students to complete their studies in the Departments of Colour Chemistry and Dyeing and Textile Industries, or to prosecute advanced study and research in some branch of knowledge germane to the dyeing and textile industries.

2. The number of Scholarships awarded each year will depend upon the number of suitable candidates and the amount of income available. The Scholarships are of the annual value of £25, which may be supplemented by a

grant for maintenance not exceeding £100. They are awarded for one year and may be renewed.

3. Students who have attended courses of study for degrees or diplomas of the University in the Department of Colour Chemistry and Dyeing or the Department of Textile Industries, for not less than one session, are eligible for the Scholarships.

4. Holders of the Scholarships are required either to complete their courses for a degree or diploma in the Departments of Colour Chemistry and Dyeing or of Textile Industries, or, if they have completed such courses, to pursue advanced study and research in the University or in some other University or learned institution, under suitable guidance in a manner approved by the Senate.

5. The Scholarships are awarded by the Senate, on the recommendations of the Professors of Colour Chemistry and Dyeing and of Textile Industries, at the end of the summer term.

6. Scholars are required to furnish reports of the work done by them during the tenure of the Scholarship, such reports to be forwarded to the Clerk to the Senate before 1st June of the year following the award of the Scholarship, in order that they may be laid before the Senate.

The Barker Prize Fund

This prize was instituted in 1936. On his retirement Professor A. F. Barker made over to the University the sum of £250 being the amount of the testimonial fund subscribed by members of the University and others in recognition of his period of tenure of the Chair of Textile Industries. In accordance with the wishes of the donor, the interest on the fund is devoted to the provision of two prizes which are awarded annually—the first for the best thesis presented by a Diploma student in the Department of Textiles, and the second for the student placed first in the Final B.Sc. (Textiles)

Examination. The prizes will be awarded under the following conditions :—

1. Two prizes will ordinarily be awarded in each year, one to the student presenting the best thesis for a diploma in the Department of Textiles and the other to the student placed first in the Final B.Sc. (Textiles) Examination.
2. Either or both of the prizes may be withheld if there are no candidates of sufficient merit on any year.
3. The prizes shall be of equal value and the whole of the annual income of the fund shall be utilised for the purpose, provided that the value of each prize shall not exceed £5.
4. Any income not expended in any year shall be added to the capital of the fund.

The fund may be added to from time to time from donations received by the University for the Department of Textiles. It is hoped by the donor that in this way it may be possible at a later date to convert the prize into a Travelling Studentship.

DEPARTMENT OF COLOUR CHEMISTRY AND DYEING

The courses of study in this Department are primarily designed to provide a fundamental and comprehensive education in the appropriate pure and applied sciences in preparation for a career in any of the branches of industry in which the chemistry of tars, intermediate products and colouring matters, and of textile fibres and the processes to which they are submitted during manufacture, play an important part. The courses qualify students for appointments on the commercial, research and technical staffs of firms engaged in the bleaching, scouring, dyeing, printing and finishing of textiles and other materials, in the manufacture of rayons and synthetic plastics, and in the manufacture of intermediate products, dyes, pigments and lakes, as well as for appointments as textile research chemists, etc.

The courses of study of which particulars are given are those normally suitable for students who have just left school. Attention is drawn, however, to the provisions of the Ordinances of the University by which undergraduates who have already studied and passed examinations in Chemistry, Mathematics, Physics, etc., at an appropriate standard may be exempted from a certain amount of attendance and from certain examinations in this University. Students holding a science degree of any University (British or foreign), the Associateship or Fellowship of the Institute of Chemistry, or otherwise bringing forward evidence of sufficient previous scientific education may be admitted to the later stages of any of the courses and may be permitted to undertake at once more specialised work in the Department.

All lecture courses are open to suitable students without entrance upon other work in the Department. Combined lecture and practical courses in Dyeing also may be arranged for students who have received a preliminary scientific training.

Graduates in science of approved Universities, or other qualified persons, may be accepted as candidates for the degree of Ph.D. or M.Sc. and are required to pursue for not less than two years a full-time course of advanced study in Colour Chemistry and/or Dyeing and research.

SYLLABUS OF COURSES

I. Four Years Course qualifying for the Honours B.Sc. Degree in Colour Chemistry

First Year	Hours. per week.
Mathematics for Applied Science Students (J)	4
Lectures on Physics (Introductory Course *b*)	3
Physics Laboratory	3
Lectures on Chemistry (Introductory Course)	4
Chemical Laboratory..	18
German	
Second Year	
Lectures on Physical and Organic Chemistry (F_2 and F_3)	6
Inorganic and Organic Chemical Laboratory	18
Lectures on General Engineering (I) ..	3
Lectures on Dyeing (Introductory Course) } Experimental Dyeing Laboratory ..	8
Textile Industries (Preliminary)	1
German	
Third Year	
Experimental Dyeing Laboratory, Calico Printing, and Practical Dyehouse .. } Colour Chemistry Laboratory	*25
Lectures on Inorganic Chemistry (F_1) ..	3
*Physical Chemical Laboratory (2nd Term)..	12
Lectures on Chemical Technology of Textile Fibres (1st Term) .. .. .. } Lectures on the Chemistry and Technology of Dyeing (2nd Term)	4
Cloth Finishing (I)	1
Practical Cloth Finishing (2nd Term) ..	2
Lectures on the Chemistry of Intermediates and Dyes (Introductory Course, 1st and 2nd Terms)	1
Leather Dyeing	

*During the 2nd Term the hours spent in Physical Chemical Laboratory are deducted from the hours allotted to Colour Chemistry.

Fourth Year	Hours per week.
Colour Chemistry Laboratory	30
Lectures on Synthetic Colouring Matters (1st and 2nd Terms), Parts 1 and 2 ..	4
Lectures on Natural Colouring Matters (1st and 2nd Terms)	1

It is desirable that all students in their fourth year should take the lectures on Organic Chemistry (H3) during the 1st and 2nd terms.

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 is suitable for students unable to satisfy the requirements for admission to a degree course.

III. Three Years Course qualifying for the Ordinary Degree of B.Sc. in Dyeing

First Year	Hours. per week.
Mathematics for Applied Science Students (J)	4
Lectures on Physics (Introductory Course *b*)	3
Physics Laboratory	3
Lectures on Chemistry (Introductory Course)	4
Chemical Laboratory..	18
German	
Second Year	
Lectures on Physical and Organic Chemistry (F_2 and F_3)	6
Inorganic and Organic Chemical Laboratory	18
Lectures on General Engineering (I) ..	3
Lectures on Dyeing (Introductory Course) } Experimental Dyeing Laboratory .. .. }	8
Textile Industries (Preliminary)	1
German	
Third Year	
Experimental Dyeing Laboratory, Calico Printing and Practical Dyehouse ..	25
Lectures on Inorganic Chemistry (F1) ..	3
Lectures on Chemical Technology of Textile Fibres (1st Term) .. .. .. } Lectures on the Chemistry and Technology of Dyeing (2nd Term) .. .. .. }	4

	Hours per week.
Cloth Finishing (1)	1
Practical Cloth Finishing (2nd Term) ..	2
Lectures on the Chemistry of Intermediates and Dyes (Introductory Course 1st and 2nd Terms)	1
Leather Dyeing	

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 for students unable to satisfy the requirements for admission to a degree course.

First Year

	Hours per week.
Lectures on Chemistry (Introductory Course)	4
Chemical Laboratory..	18
Lectures on Physics (Introductory Course *b*)	3
Physics Laboratory	3
German	

Second Year

Lectures on Inorganic and Organic Chemistry (F_1 and F_2)	6
Inorganic and Organic Chemical Laboratory	14
Lectures on Dyeing (Introductory Course) } Experimental Dyeing Laboratory .. .. }	16
Textile Industries (Preliminary)	1
German	

Third Year

Experimental Dyeing Laboratory .. .. } Practical Dyehouse and Calico Printing .. }	24
Lectures on Chemical Technology of Textile Fibres (1st Term) .. .. .. } Lectures on the Chemistry and Technology of Dyeing (2nd Term) .. .. .. }	4
Lectures on General Engineering (I) ..	3
Cloth Finishing (1)	1
Practical Cloth Finishing (2nd Term) ..	2
Lectures on the Chemistry of Intermediates and Dyes (Introductory Course, 1st and 2nd Terms)	1
Leather Dyeing	

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 1st March 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.

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, Water and Mordants

Mondays, Wednesdays, and Fridays, at 11.30 a.m., and Saturdays at 9.30 a.m., during the first term.

The lectures will deal with the following subjects :—

Isolation, purification, bleaching and finishing the various vegetable and animal fibres : cotton, linen, kapok, 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 cellulosic products, rayons, staple fibres, etc. Mercerisation of cotton. Immunisation 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 textile 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. Chemistry and application of mordants and textile auxiliaries.

II. The Chemistry and Technology of Dyeing

Mondays, Wednesdays and Fridays, at 11.30 a.m., and Saturdays at 9.30 a.m., during the second term.

This course forms a continuation of I, and covers the following subjects :—

Theories of dyeing. Relationships between chemical constitution of dyes and fibres. Classification of dyes. Methods of application in dyeing and textile printing of the various classes of dyes : basic, acid, mordant, salt, insoluble, developed, sulphur, vat, and also the special dyes for cellulose acetate rayon. The dyeing of rayons. Chemical constitution of the various types of dyes. Analysis of dyes on the fibre. Testing coloured materials for fastness. Daylight lamps. Dyeing machinery and arrangement of the dyehouse.

Choice of dyes for specific purposes. Dyeing of union materials and of mixed materials of wool, silk, cotton, rayons, &c. Machinery and processes of calico-printing.

III. Introductory Course of Dyeing

This Course is intended for second year students and will consist of about 16 lectures on Fridays at 2 p.m. The Experimental Dyehouse will be open to suit the times of the students.

A similar Course for Textile students will consist of about 16 lectures on Thursdays at 9 a.m.

The work undertaken will be similar to that under Section A (Experimental Dyeing Laboratory). See later page.

IV. The Chemistry of Intermediates and Dyes (Introductory Course)

Tuesdays, 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 dyes according to their chemical structure: chromophores, chromogens, auxochromes, leuco-compounds, quinonoid theory, nitro, nitroso, azo, stilbene, ketonimine, triphenylmethane, xanthene, acridine, anthraquinonoid, indamine, thiazine, oxazine, azine, indigoid, thiazol, and sulphur dyes.

V. Chemistry of Synthetic Colouring Matters (Part I)

Mondays at 2 p.m., and Tuesdays at 11.30 a.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, xylenes, naphthalene, acenaphthene, anthracene, phenol, cresols, pyridine, carbazole, &c. Influence of conditions of reaction on the constitution of the products. Valuation of commercial products.

Preparation of intermediate products : nitro compounds, sulphonic acids, amines and their derivatives, diamines, phenols, aminophenols, halogen compounds, aldehydes, ketones, carboxylic acids, quinones, &c. Relation between chemical constitution and colour ; quinonoid and other theories. Quinonoid addition as the mechanism of dye formation. Classification of dyes according to their chemical structure : nitroso, nitro, ketonimine, triphenylmethane, xanthene, acridine, anthraquinonoid, indamine, indophenol, azine, oxazine, thiazine, sulphur, quinoline, and indigoid groups. The manufacture, properties, constitution and uses of important typical examples of these groups. General methods and plant employed. Recent progress.

VI. Chemistry of Synthetic Colouring Matters (Part II)

Thursdays at 11.30 a.m., and Fridays at 4 p.m., during the first and second terms.

This course will present a detailed account of the derivatives of naphthalene, diazo-compounds, and the azo, pyrazolone, stilbene and thiazole dyes. Application of Werner's theory to lake formation. 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.

VII. Chemistry of Natural Colouring Matters

Thursdays at 2 p.m. during the first and second terms.

The lectures will deal with the origin, chemistry and technology of the natural dyestuffs : Madder, chay root, munjeet, morinda root, ventilago root, cochineal, kermes, lac dye, sanderswood, barwood, alkanet, butea frondosa, safflower, Indian yellow, gentian root, weld, dyer's broom, young fustic, old fustic, quercition bark, Persian berries, catechu, logwood, brazilwood, indigo, woad, Tyrian Purple, turmeric, cudbear, orchil, litmus, anthocyan pigments, carotinoid pigments, chlorophyll, tannins.

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 12.30 p.m. The laboratory is equipped with dyebaths suitable for comparative dyeing trials, drying stoves, daylight matching lamps, and other appliances.

The work undertaken will include the following subjects :—Systematic dyeing trials with the different groups of dyes upon cotton, wool, silk, and rayons. Application of various mordants and assistants. Methods of dyeing union materials. Also the dyeing of linen, ramie, furs, feathers, &c. Principles of colour mixing and matching. Scouring and bleaching of cotton and wool. Mercerisation of cotton and delustring of rayons. Quantitative dyeing of colouring matters for strength and shade. Identification and analysis of colouring matters on the fibre. Testing coloured materials 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 new commercial colouring matters. 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, and a Fadeometer permits the fastness to light to be determined more rapidly.

B. Practical Dyehouse

The Practical dyehouse is well equipped with the necessary machinery for dyeing wool, cotton and rayons in their various stages of manufacture. The machines are of modern type and include Callebaut and

De Blicquy machines for pieces, tops, loose wool and cotton, and cotton cheeses, a Simplex machine for loose wool and rags, a Hussong machine for yarn and hosiery, a steam and air circulating machine for hosiery, an experimental jigger for cotton and union piece dyeing, winches for dyeing wool and rayon pieces, and vats for cotton and rayon yarns ; also a Wash Wheel for testing the fastness of dyed materials to washing.

All students of dyeing receive training in the treatment of various classes of textile materials in machines.

C. Calico Printing

A practical course in calico printing is held during the third term, the work comprising small-scale experiments in the different styles, discharges, resists, printing with diazo-compounds, aniline black, indigo, and other vat dyes, &c.

D. Colour Chemistry Laboratories

The laboratories are spacious buildings provided with every facility for the conduct of chemical work upon intermediates and 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 dyes. Critical study of intermediates, their isolation and properties. Analyses of dyes and their intermediate products. Ultimate analyses of organic compounds. Investigation of technical problems, etc.

Textile Industries (Preliminary)

A course of lectures is given in the Textile Industries Department on Thursdays at 9 a.m. throughout the session.

The lectures include the following subjects :—

The various textile fibres, their distribution and growth, chemical, physical and processing properties, and basic principles of manipulation. Historical development of the Textile Industry, its branches and their distribution, textile inventors and their machines. Physical bases of yarn structures, and principles of spinning and weaving. Elements of hosiery, feltmaking, embroidery, lacemaking and braiding.

Cloth Finishing I

A course of lectures dealing comprehensively with the subject of cloth finishing and the machinery involved is given in the Textile Industries Department on Mondays at 9 a.m. throughout the session, in conjunction with experimental work on Mondays from 10 a.m. until 12 noon during the second term.

Leather Dyeing.

Two lectures and two laboratory demonstrations are given in the Leather Industries Department on the manufacture and dyeing of leather. Chrome, oil and vegetable tannages, the characteristics of the leathers obtained, and practical dyeings with the various classes of dyes are included.

E. Clothworkers' Research Laboratory

Special facilities are provided for the conduct of original research in the chemistry of intermediates and synthetic 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 Lecturers. Graduates of other Universities (British or foreign), and other qualified chemists, may also obtain admission as research workers for any period desired.

F. 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 and third year diploma students £2 2s., second year degree students 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.

Research students are required to pay a deposit fee of £1 11s. 6d. at the beginning of each session, £1 1s. being repayable at the end of each session after deduction of the cost of undue breakages.

Students can only start work after production of receipts for these amounts respectively.

MUSEUM

The museum contains comprehensive collections of intermediate products, natural and synthetic colouring matters, all types of textile materials, etc., at all stages of manufacture, and many valuable exhibits of historical interest.

VACATION WORK

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 laboratories or dyehouse.

APPOINTMENTS

Students who have satisfactorily completed a course 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 is consulted by firms having vacancies.

CITY AND GUILDS EXAMINATIONS

The above courses prepare for the technological examinations of the City and Guilds of London Institute in Dyeing subjects and also in Intermediate Products for Dyes. Students of the Department are recommended to present themselves for these examinations in the appropriate year of their University course.

In connexion with these examinations, certificates, money prizes, and medals are awarded to the successful candidates. The examinations are held annually at the University in April or May. Entries for the next examination will be received by the Local Secretary, The University, Leeds, not later than 1st March 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.

TEXTILE INSTITUTE

Students who have been awarded the degree of B.Sc. in Dyeing, or the Diploma in Dyeing, or the degree of B.Sc. Hons. Colour Chemistry (having also taken the Diploma course in Dyeing), and who can produce satisfactory evidence that for a period of not less than

two years they have been engaged in responsible direction and control of textile work, can apply for election to the Assoctateship of the Textile Institute with exemption from the examinations of the Textile Institute, but they will not be granted the Associateship until they reach the age of twenty-five years.

Further particulars may be obtained from the Secretary, Textile Institute, 16, St. Mary's Parsonage, Manchester, 3.

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.

FELLOWSHIPS AND SCHOLARSHIPS

Charles Brotherton Scholarships in Colour Chemistry

Two Entrance Scholarships each of the value of £100 per annum, tenable at the University by students in attendance upon the Honours degree course in the Colour Chemistry and Dyeing Department, were made available in 1940 by Mr. Charles Brotherton of Leeds.

The Entrance Scholarships are tenable for three or four academic years according to whether the scholar has or has not attained a standard that permits him to be excused the first year work of the four years' course leading to the degree of B.Sc. with Honours in Colour Chemistry. Their continuance each year will be subject to a satisfactory report on the work of the scholar in the previous year.

Candidates, who must be of British nationality, must supply information with regard to their school career, including the results of public examinations they have taken, and must be qualified to enter upon a degree course.

In making the awards not only will intellectual and scholastic attainments and ability be taken into consideration, but the greatest importance will be attached to qualities of character, personality and promise of leadership.

Candidates must give references as to character from not less than two persons who shall not be relatives of the candidate and must supply a statement from the Head of the School in which they spent the last three years of school life. They must also furnish a written personal statement concerning their general interests and activities including sports and their intended career after completing their studies.

During the period of the war preference will be given to candidates who do not exceed the age of 18.

The awards will be made after interview by the Scholarships Committee upon which there will be a representative of the Brotherton Trust. Selected candidates will be required to attend at the University for this purpose.

Any surplus funds in any particular year may be utilised by the Scholarships Committee at their discretion either as an Entrance Scholarship of the value of £100 per annum in a subsequent year, or as a Scholarship for an undergraduate already in residence at the University and studying for the Honours degree in Colour Chemistry. In the latter case, the Scholarship will be of varying amount, dependent upon the candidate's circumstances, and will normally be awarded for one year in the first instance, but may be renewed for a second year.

Applications should be sent to the Clerk to the Senate before 1st September.

Stephenson Clarke Scholarship

Tenable in the Textile Industries Department and in the Department of Colour Chemistry and Dyeing.

1. The Scholarship was founded in 1926 by Colonel Stephenson Robert Clarke, C.B., LL.D., Master 1924-25 of the Clothworkers' Company, who are the Trustees.

2. The endowment of the Scholarship consists of £1,000. The annual value of the Scholarship consists of the free income of this endowment and amounts approximately to £45 per annum.

3. The Scholarship will be awarded annually. Subject as hereinafter mentioned (para. 5) the Scholarship will be awarded in the first year to a student in the Textile Industries Department and in the following year to a student in the Colour Chemistry and Dyeing Department and will continue to be thus alternately awarded.

The object of the scholarship is to enable the successful candidate to undertake a 3rd or 4th year course of study in one of these Departments, and candidates must be completing respectively their 2nd or 3rd year attendance in either the Textile Industries or the Colour Chemistry and Dyeing Department. A preference will be given to students completing a 3rd year and desiring to enter for a 4th year course of study.

4. The Scholarship is tenable for one academic year.

5. Failing the application of a qualified candidate for the Scholarship in the Department to which the Scholarship falls in a given year, the Scholarship may be awarded to another qualified student in the other Department, but without affecting the ordinary sequence.

6. Failing the application in any year of a qualified candidate in either Department, the amount of the Scholarship for that year shall be added to capital.

7. The appointment to a Scholarship shall be made by the Founder of the Scholarship during his lifetime out of nominations submitted by the Vice-Chancellor. Thereafter the appointment shall be made by the Court of the Clothworkers' Company in like manner.

8. Clauses 1, 2, and 3 of the General Regulations of the University of Leeds relating to Scholarships shall, so far as may be applicable, apply to the Stephenson Clarke Scholarship.

9. Power is reserved to the Founder (Colonel Stephenson Robert Clarke) during his lifetime and afterwards to the Trustees (the Clothworkers' Company) in the latter case after consultation with the Senate of the University of Leeds, to alter or modify the above Regulations, including the amount of the Scholarship or Scholarships to be awarded.

10. Any dispute or difference arising in regard to the construction of any of the above rules and regulations or conditions or in regard to any award made thereunder

shall be settled by the Founder during his lifetime and afterwards by the Trustees, any such decision to be final and conclusive.

Applications to be sent to the Clerk to the Senate not later than 1st June of each year.

Alfred Lund Scholarship

1. This fund was instituted in 1924 by the late Alfred Lund, Esq., of Pudsey, for the purpose of assisting deserving students to complete their studies in the Departments of Colour Chemistry and Dyeing and Textile Industries, or to prosecute advanced study and research in some branch of knowledge germane to the dyeing and textile industries.

2. The number of Scholarships awarded each year will depend upon the number of suitable candidates and the amount of income available The Scholarships are of the annual value of £25, which may be supplemented by a grant for maintenance not exceeding £100. They are awarded for one year and may be renewed.

3. Students who have attended courses of study for degrees or diplomas of the University in the Department of Colour Chemistry and Dyeing or the Department of Textile Industries, for not less than one session, are eligible for the Scholarships.

4. Holders of the Scholarships are required either to complete their courses for a degree or diploma in the Departments of Colour Chemistry and Dyeing or of Textile Industries, or, if they have completed such courses, to pursue advanced study and research in the University or in some other University or learned institution, under suitable guidance in a manner approved by the Senate.

5. The Scholarships are awarded by the Senate, on the recommendations of the Professors of Colour Chemistry and Dyeing and of Textile Industries, at the end of the summer term.

6. Scholars are required to furnish reports of the work done by them during the term of the Scholarship, such reports to be forwarded to the Clerk to the Senate before 1st June of the year following the award of the Scholarship, in order that they may be laid before the Senate.

Clothworkers' Research Scholarship in Colour Chemistry and Dyeing

This Scholarship, of the value of £120 a year, tenable in the Department of Colour Chemistry and Dyeing, will be awarded from time to time 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 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' Research Fellowships and Scholarships in Colour Chemistry

These Scholarships and Fellowships are two in number and were instituted in 1928 from funds provided by the Worshipful Company of Clothworkers.

The Scholarships are of the maximum annual value of £140 and the Fellowships of the minimum annual value of £160.

The Scholarships are open to suitably qualified graduates of any University, but preference will be given to graduates of the University of Leeds who have graduated with Honours in Colour Chemistry or have obtained the Ordinary degree of Bachelor of Science in Dyeing.

The Fellowships will normally be awarded to holders of Scholarships who have shown special aptitude for research work during their tenure of a Scholarship;

but any duly qualified applicant may be granted a Fellowship on the ground of exceptional distinction without having previously held a Scholarship.

Both Scholarships and Fellowships are tenable for one year and may be renewed for one or more years.

The number of each to be awarded in any year will depend upon the funds available and on the number of suitable applicants.

Fellows and Scholars will be required to devote the whole of their time to research in the Department of Colour Chemistry and Dyeing, under the direction of the Head of the Department, and to present a report of their work to the Senate, such report to be sent in to the Clerk to the Senate not later than June 1st in each year.

The appointments will be made at the close of the third term. Applications should be in the hands of the Clerk to the Senate not later than 1st June of each year.

DEPARTMENT OF AGRICULTURE

Head of the Department:	Professor N. M. COMBER, D.Sc., A.R.C.S., F.I.C.
Departmental Secretary:	R. H. DRUMMOND, M.A., B.Sc.
Clive Behrens Lecturer:	Vacant.

Agriculture

Professor:	J. McGREGOR, B.Sc., N.D.A., N.D.D.
Lecturer and Director of Askham Bryan Farm:	G. C. A. ROBERTSON, M.C., M.A., B.Sc.
Lecturer:	T. L. BYWATER, B.Sc., M.S., *Wisconsin.*
Assistant Lecturer:	H. I. MOORE, M.Sc., Dip. Agric., *Cantab.*, N.D.A.
Assistant Lecturer (Agric. Engineering):	Vacant.
Assistant Lecturer in Dairy Husbandry:	J. K. LAMBERTON, B.Sc., N.D.A., N.D.D.
Crop Recorder:	H. W. SIMMONS, N.D.A.

Poultry Husbandry

Lecturer:	C. W. GOODE, N.D.A., N.D.D.
Instructors:	R. D. SCOTT, N.D.P. T. E. WHITTLE, N.D.P.

Horticulture

Lecturer:	C. E. HUDSON, N.D.H.
Instructors:	J. RHODES, N.D.H. W. S. ENGLISH, N.D.H. F. G. SMITH, N.D.H. R. F. MARTYR, B.Sc. One Vacancy.

Agricultural Botany

**Lecturer and Advisory Mycologist:*	W. A. MILLARD, D.Sc.
Lecturer:	S. BURR, M.Sc.
Assistant Lecturers:	A. POWELL JONES, M.Sc. Miss D. M. TURNER, B.Sc., Dip. Hort., *Reading.*

Agricultural Bacteriology

Lecturer:	D. A. McKENZIE, B.Sc., N.D.A., N.D.D.

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*See footnote on next page.

Agricultural Chemistry

Professor :	N. M. COMBER, D.Sc., A.R.C.S., F.I.C.
**Lecturer and Advisory Chemist :*	H. T. JONES, M.Sc., A.I.C.
Assistant Lecturers :	J. S. WILLCOX, B.Sc., A.I.C. E. G. HALLSWORTH, B.Sc. Ph.D.
Field Officer for Soil Survey	J. STRINGER, B.Sc.
**Assistants to Advisory Chemist :*	W. N. TOWNSEND, B.Sc. Miss S. M. TRAINOR, B.Sc.

Agricultural Economics

**Advisory Economist :*	W. H. LONG, M.A.
Assistant Lecturer :	J. D. NUTT, B.A., N.D.A.
**Technical Assistants :*	A. G. JEFFREY, B.Com. J. F. ROBINSON, B.Sc. One vacancy.

Agricultural Zoology

**Advisory Entomologist :*	H. W. THOMPSON, M.Sc.
Assistant Lecturers :	L. R. JOHNSON, M.Sc. R. CARRICK, B.Sc., Ph.D.

Veterinary Hygiene

Lecturer :	Vacancy.

Bee-keeping

Instructor :	W. HAMILTON.

Rural Domestic Economy

Instructress :	Miss N. C. BUTCHART, N.D.D.

District Lecturers in Agriculture

J. STRACHAN, M.A., B.Sc., N.D.A.
H. THOMPSON, B.Sc.
J. ROBB, B.Sc.
W. E. GELLING, B.Sc., N.D.A.
W. W. BALLARDIE, B.Sc., N.D.D.
T. E. MILLER, M.Sc., N.D.A.
D. S. HENDRIE, B.Sc., N.D.A., N.D.D.

Laboratory Steward :	G. E. TEASDALE.
**Laboratory Assistants (Advisory) :*	J. H. BANT. W. R. WILSON.

*Appointed under the scheme of the Ministry of Agriculture and Fisheries for the provision of technical advice to farmers and the investigation of local problems.

DEPARTMENT OF AGRICULTURE

INTRODUCTION

The Courses given in the Department are designed to meet the educational needs of those who intend to become farmers, farm managers, teachers or research workers in Agriculture or the Agricultural Sciences.

The Department is one of the places of professional education accepted by the Surveyors' Institution, the effect of this recognition being that students who have taken an approved Course in Agriculture are admitted to the examinations of the Institution in Sub-Division 1 " chiefly Land Agency " without the usual period of training in a Land Agent's or Surveyor's office. Students preparing for the examination of the Surveyors' Institution are advised to attend the Diploma Course.

The Diploma Course is for the most part a suitable preparation for those who wish to take the examination for the National Diploma in Agriculture.

Whilst practical demonstrations on the farm are an essential part of the teaching, no facilities are provided by the University for acquiring that practical acquaintance with farm operations and the business of farming which is essential for all who intend to follow an agricultural career—with the exception perhaps of those who intend to become specialists in the agricultural sciences. It is essential, if full benefit is to be derived from the University Course, that a student obtain at least part of this training before entering the University, and it is a condition of entry to the Courses for the ordinary degree of B.Sc., for the degree of B.Sc. with Honours in Agriculture, and for the University Diploma in Agriculture, that candidates shall have had a practical training for at least 12 consecutive months on an approved farm.

The Head of the Department will be glad to make appointments with prospective students and their parents in order to discuss with them the proposed

course of study, and where necessary, to advise as to a suitable farm on which practical training may be obtained.

The Department in all its activities works in close conjunction with the Yorkshire Council for Agricultural Education, a Joint Education Committee of the County Councils of the three Ridings of Yorkshire, on which the Ministry of Agriculture and the University are represented, and to which the County Councils have delegated their powers and duties in respect of the provision of technical education in agriculture and related subjects.

The County Councils of the three Ridings have jointly purchased a property at Askham Bryan near York, where, as soon as suitable educational buildings are erected, short courses of a practical nature in Agriculture, Horticulture, Dairying, and Poultry-keeping will be provided. Pending the extension of facilities at Askham Bryan a ten weeks course in Agriculture of a Farm Institute character to serve the practical educational needs of those working on the farm will be given at the University commencing in October. Particulars of these courses and of the County Extension work undertaken by the Department on behalf of the Agricultural Council can be obtained from the Departmental Secretary.

The farm at Askham Bryan is used for experimental work and for demonstrations to students attending courses at the University.

The Department is recognised by the Ministry of Agriculture, under its scheme for the provision of technical advice to farmers, as the Advisory Centre for the Yorkshire province.

ADMISSION OF STUDENTS, etc.

For conditions of admission, University Terms, Fees, etc., see separate pamphlet.

COURSES OF STUDY

The following courses are provided :—

I. *Courses for the degree of B.Sc.*

A. Course for the Ordinary degree of Bachelor of Science.

B. Courses for the degree of Bachelor of Science with Honours.

II. *Course for the University Diploma in Agriculture.**

Before beginning their respective courses students are required to consult the Head of the Department with regard to their subjects, and also to discuss with him their previous experience of farm work.

Syllabuses of the courses of lectures included in the courses of study but not provided in the Department of Agriculture will be found in the prospectuses of the appropriate Departments.

I. Courses for the Degree of B.Sc.

A. Course for the Ordinary Degree of B.Sc.

Candidates will be required to have spent at least one complete year of 12 consecutive months on an approved farm before entering upon their course of study. Exemption will only be granted in exceptional cases. Candidates must attend the following courses and pass the appropriate examinations :—

First Year.

Introductory Botany.
Introductory Chemistry.
together with *two* of the following :—
General Economics.
Introductory Geology.
Mathematics for Applied Science students.
Introductory Physics.
Introductory Zoology.

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*This course covers most of the requirements for the examination for the National Diploma in Agriculture.

Second Year.
Agriculture, F1, F3 and F4.
Agricultural Botany and Bacteriology F1.
Agricultural Chemistry F2 or F3.
Economics I. (if not taken in 1st year).
Agricultural Economics F1.
Veterinary Hygiene F1.

Third Year.
Agriculture F2, F5 and F6.
Agricultural Chemistry F3 or F2.
Agricultural Economics F2.
Agricultural Zoology F1.

B. 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 Botany and Bacteriology, (*c*) Agricultural Chemistry, (*d*) Agricultural Economics, (*e*) Agricultural Zoology.

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 will be required to have spent at least one complete year on an approved farm before entering upon their course of study. Exemption will only be granted in exceptional cases. They must attend the following courses and pass the appropriate examinations :—

First, Second and Third Years : as for the Ordinary Degree.
Fourth Year.
Agriculture H1.
Candidates will be required to carry out research work on some approved subject, and to present a report embodying the results of such work at the end of their fourth or fifth year.

(*b*) Agricultural Botany and Bacteriology

Candidates for the degree of B.Sc. with Honours in Agricultural Botany and Bacteriology must attend the following courses and pass the appropriate examinations :—

First Year.

Introductory Botany.
Introductory Chemistry.
Introductory Physics *or* Introductory Geology.
Introductory Zoology *or* Agricultural Zoology F1.

Second Year.

Agriculture F1.
Agricultural Botany and Bacteriology H1 and H2, *or* H3
Agricultural Chemistry F1(a).
Botany Fa *or* Fb.

Third Year.

Agriculture F2 and F5.
Agricultural Botany and Bacteriology H3, *or* H1 and H2
Botany Fb *or* Fa.

Fourth Year.

Agricultural Botany and Bacteriology H4.

(*c*) 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 Chemistry.
Introductory Physics.
Two of the following
Introductory Botany.
Introductory Geology
Mathematics J.
Introductory Zoology.

Second Year.

Agriculture F1.
Agricultural Chemistry F2 *or* F3.
One of the following
(1)Agricultural Botany and Bacteriology F1.
(2)Statistics S. & M.L.
Veterinary Hygiene.
Chemistry F1, F2 and F3
(to be completed in the Third Year).
(3)Economic Statistics.

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[1] Agricultural Botany can only be taken by students who have taken Introductory Botany.

[2] Statistics S. and M.L. can only be taken by students who have taken Mathematics J.

[3] Economic Statistics must be taken in the 2nd or 3rd year by students not taking Statistics S. and M.L.

Third Year.
Agriculture F2 and F5.
Agricultural Chemistry F3 *or* F2.
Chemistry (see second year).

Fourth Year.
Agricultural Chemistry H1, H2 and H3.

(*a*) Agricultural Economics

Candidates for the degree of B.Sc. with Honours in Agricultural Economics must attend the following courses and pass the appropriate examinations :—

First Year :
(*a*) Economics I. (Two hours a week and one hour tutorial).
(*b*) One of the following Introductory subjects :—
Physics.
Chemistry.
Zoology.
Botany.
Geology.
(Six hours a week).
(*c*) Mathematics J or Introductory Geography or one of the subjects under (*b*) above. (Four hours a week).
(*d*) English 1A and 1B or History 1B. (Two hours a week).
A tutorial class in Agricultural Economics will be held on one hour each week
Students must obtain a knowledge of Book-keeping during this year.

Second Year :
Agricultural Economics F1.
Economics II. (Two hours a week).
Economic History ([1]) or two of the following :—
Public Finance and Administration.
Industrial Fluctuations.
Financial Organisation.
Industrial Administration. (Two hours a week).
Agriculture F1. (Three hours a week and farm classes).
Economic Statistics. (One hour a week).
An approved Arts subject. (Two hours a week).

Third Year :
Agricultural Economics F2. (Two hours a week).
Two of the following :—
Public Finance and Administration.
Industrial Fluctuations.
Financial Organisation.
Industrial Organisation. (Two hours a week).

Or Economic History ([1]). (Two hours a week.)
Agriculture F2 and F5. (Seven hours a week and farm classes).

Fourth Year :

Agricultural Economics H. (Four hours a week).
Either Statistics ([2]) or two of the following (not already taken in third year :—
Public Finance and Administration.
Industrial Fluctuations.
Financial Organisation.
Industrial Administration. (Two hours a week).
During this year students will be required to attend an Honours tutorial class in the Economics Department. and to prepare a dissertation on a set subject in Agricultural Economics.

(*e*) 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 Chemistry.
Introductory Physics.
Introductory Zoology.
Introductory Botany.

Second Year.

Agriculture F1.
Agricultural Botany and Bacteriology F1.
Agricultural Zoology F1.
Zoology Fa or Fb.

Third Year.

Agricultural Botany and Bacteriology H3 (a) and (b).
Agricultural Zoology H1.
Physiology I. (continued in fourth year).
Veterinary Hygiene F1.
Zoology Fb or Fa.

Fourth Year.

Agriculture F2 and F5.
Agricultural Zoology H1 (continued).
Physiology I. (continued).
Agricultural Zoology H2.

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1 Economic History; this course *must* be taken in either the second or the third year

2 Candidates taking Statistics must have taken Mathematics J in the first year.

II. Course for the University Diploma in Agriculture

This Course covers most of the requirements 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.

Students preparing for the examination of the Surveyors' Institution are advised to attend the Diploma Course.

Regulations

Applicants for the Diploma Course are required to satisfy the Head of the Department :—

(1) that they have worked for at least twelve consecutive months on an approved farm and have an adequate knowledge of practical farming ;

(2) that their general educational attainments are adequate.

Candidates for the Diploma are required :—

(*a*) to give satisfactory attendance in the subjects which form part of the course of study :

(*b*) to present themselves for the Departmental examinations in the subjects forming a part of their course of study ; (The results of the Departmental examinations will be taken into account along with those of the Diploma examination.)

(*c*) to make formal entry, on the prescribed form, not later than 15th January of the last session of the course and to pay at the same time the prescribed examination fee ;

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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.

(*d*) to satisfy the Examiners in the subjects subsidiary to Agriculture, by the Departmental examinations held during and at the end of the course;

(*e*) to pass the Diploma examination in Agriculture held at the end of the course.

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.

Course of Study

	Hours per week.
First Year (*three terms*).	
Agriculture	Occasional Farm Classes.
Agricultural Botany	4 (6 in Summer Term).
Agricultural Chemistry and Physics	11 (8 in Summer Term).
Agricultural Economics ..	3 (3rd Term).
Agricultural Surveying ..	1 (1st and 2nd Terms). 3 hours field work (3rd Term only).
Agricultural Zoology	4 (2nd Term only).
Geology	5 (1st and 2nd Terms only).
Second Year (*two Winter terms*).	
Agriculture F1	6 (including 3 hours Farm class).
Agricultural Botany	5
Agricultural Chemistry ..	5
Agricultural Economics ..	5
Agricultural Engineering ..	3 (and occasional Farm classes).
Agricultural Zoology	4
Veterinary Hygiene F1 ..	4
Third Year (*two Winter terms*).	
Agriculture (including Dairy Husbandry) F2 and F5 ..	11 (including 3 hours Farm class).
Agricultural Bacteriology ..	3
Agricultural Chemistry ..	7
Agricultural Economics ..	4
Horticulture	1 (1st Term only).
Poultry Husbandry	2 (1st Term only).

Farm Classes

All students taking a full course in Agriculture will be required to attend farm classes as arranged and to pay their travelling expenses in connection with them.

Chemical, Botanical, and Zoological Laboratories

Degree and Diploma Courses

Students must pay at the beginning of each session a deposit of 20/- to cover the cost of replacing broken apparatus, damage to microscopes, etc. This deposit will be paid with the Tuition Fee and will be repaid at the end of the session after deducting cost of breakages, etc.

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.

Seton Prizes

Prizes of the approximate value of £5 each are offered annually for students in the Department completing courses for the Honours Degree, the Ordinary Degree and the University Diploma. Full particulars will be found in the Calendar.

SYLLABUSES

For Syllabuses of Courses in other Departments included in the courses of study for the degree of B.Sc., see prospectuses of the appropriate Departments.

Agriculture

F1 and Second Year Diploma Course

SOILS, MANURES, ETC.

First and Second Terms—3 Lectures a week and Demonstration Classes as arranged.

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. Composition of soils; potential and available plant food.

Characteristics, classification, and distribution of soils. Chief types of Yorkshire soils.

Farm drainage. Irrigation. Sewage farms. Warping, claying, marling, chalking, liming, paring and burning, clay-burning.

The object, execution, and results of the various tillage operations. Mechanical cultivation.

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. Changes in rotations to meet present-day conditions.

Seeds, Grasses, and Pastures.—Common grasses and clovers, their suitability for different soils and local conditions. Laying down land to permanent pasture.

"Seeds" mixtures. Treatment of new grass land. Management of old-established grass. Deterioration of grass land; its causes and remedies. Hay-making.

Silage.—Different types of silage and their production. The system of ensilage. Suitable crops.

Experiments.—The lay-out of field experiments and the interpretation of the results obtained. Results of recent experiments with farm crops.

Demonstration Classes.

Every opportunity is taken of bringing the students into close contact with the practical operations on the farm. Regular visits are paid to the University Farm at Askham Bryan where the approved methods of crop and stock management are exemplified and can be followed in detail. Arrangements are also made for the students to visit successful commercial farms in the County and other places of educational interest, *e.g.*, Bacon factory, Sugar Beet factory, etc. One afternoon each week is reserved for such visits.

F2 and Third Year Diploma Course

Dairy Husbandry.

First and Second Terms. 2 Lectures a week and demonstration classes as arranged.

Systems of Dairying.—Milk-selling, butter-making, and cheese-making farms; comparison of different types and returns from the different systems. Selection of a dairy farm.

Dairy Cattle.—Points of a good dairy cow. Breeds; Dairy and Dual-purpose types. Suitability of breed for system of dairying practised.

General management.—(*a*) Breeding: Establishment of dairy herd. Milk recording and value of milk records. Stock bull. Rearing of calves and young stock.

(*b*) Feeding: Constituents of feeding stuffs. Home-grown and purchased foods. Feeding standards: Balancing of rations. Feeding practice.

(*c*) Housing.

Milk.—Composition. Factors influencing yield and quality. Production of clean milk: Grades of milk. Processing of milk: Milk distribution and town supplies. Taints and other faults in milk and their prevention.

Cream and Butter.—Methods of separation; the mechanical separator. Marketing of cream. Ripening of cream for butter-making; use and propagation of "starters." Manufacture of butter. Preservation of butter. Butter faults and their prevention.

Cheese.—Process of cheese-making. Manufacture of rennet and annatto. The acidimeter and acidity tests. Types of cheese; hard-pressed, soft, and blue-veined cheese. Ripening of cheese. Faults in market cheese.

General.—Creamery system. Manufacture of dairy produce on large scale. Legislation affecting dairying and dairy produce. Stocking of dairy farms.

F3

Implements, Machinery and Building Construction.

First and Second Terms—Two Lectures a week and occasional demonstration classes.

For syllabus see *Agricultural Engineering* Parts II and IV.

F4

Land Surveying and Levelling

First and Second Terms—1 Lecture a week; Third Term.—Field class, 1 per week.

For Syllabus see *Agricultural Engineering* Part I.

F5 and Third Year Diploma Course

Crops, Etc.

First and Second Terms—5 Lectures a week and farm classes as arranged.

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. Costs of production of the different crops. 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.

LIVE STOCK.

Principles of Breeding.—Mendelian laws, Chromosome theory of inheritance. Linkage and Sex Linkage. Multiple Factor Hypothesis. The selection of animals for breeding. In-breeding, Line-breeding, and Cross-breeding.

An analysis of the improvement of live stock in relation to economic, climatic, and nutritional factors. Breeding of pedigree live stock. Shows and showyard standards. Origin, history, and description of British breeds of horses, cattle, sheep, and pigs.

Standards of merit: judging of live stock. The Live Stock Improvement Scheme.

Principles of Feeding.—Composition and general properties of common feeding stuffs.

Processes of digestion, assimilation, and utilisation of foods in the animal body. The comparative value of foods. Feeding standards and balanced rations for different classes of live stock. Selection, preparation, and use of feeding stuffs.

Management of Live Stock.—Horses. Breeding Mares. Foaling, weaning and rearing. Breaking and preparation of young horses for sale. Feeding and management of working horses. Cost of rearing working horses.

Beef Cattle.—Feeding and management of breeding cows under different systems of calf rearing. Rearing of store cattle.

Production of Baby Beef and fattening of mature cattle in yards during winter, and on grass during summer.

Cost of production of mature beef and of baby beef.

Sheep.—Systems of flock management with different breeds and in different districts. Fat lamb production in permanent and temporary flocks. Fattening of hoggs on roots and on grass. The properties and uses of different classes of wool.

The shepherd's calendar.

Cost of production of fat lamb and of mutton.

Pigs.—Selection of breeds for pork and for bacon production. Management of breeding sows under out-door and in-door systems. Weaning, rearing, and fattening of pork and bacon pigs.

Cost of production of pork and bacon pigs. Buying and selling of live stock.

DEMONSTRATION CLASSES.

The classes will be on the same lines as for the F1 course.

F6

Third Term only.—A special course of lectures dealing with recent research work in Agriculture.

H1

A course of Advanced Lectures specially designed for Honours students.

Agricultural Botany and Bacteriology

First Year Diploma Course

First and Second Terms—4 hours a week. Third Term.—6 hours a week.

Section 1.—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.

Section 2.—The more important Fungoid diseases of agricultural importance, preventive and remedial measures.

Section 3.—The principles of classification and systematic Botany.

Section 4.—The structure of a grass. The recognition of grasses by their vegetative, floral, and seed characters.

(Sections 3 and 4 are closely correlated with the field excursions ; see below).

Excursions.—Botanical excursions are made on one afternoon each alternate week during the Summer term.

Second Year Diploma Course

First and Second Terms.—8 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. The recognition of impurities in seed samples. Weeds in farm crops and methods for their eradication. The elements of plant breeding. An introduction to general bacteriology.

Third Year Diploma Course

First and Second Terms.—3 hours per week.

The microbiology of soils and manures. The bacteriology of milk and dairy products.

F1 Course

First and Second Terms.—3 Lectures and 5 hours laboratory work a week.

Third Term.—2 Lectures and 3 hours laboratory work 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 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 grass land and their eradication. The recognition of impurities in seed samples. Plant breeding.

A study of the more important Fungoid diseases of agricultural importance. An introduction to general bacteriology. The microbiology of soils and manures. The bacteriology of milk and dairy products.

Courses H1 and H2 and Course H3 are taken in alternate years.

H1 Course

3 hours a week.

Morphology.—This course is similar to the F1 course excepting that Plant Diseases and Bacteriology are omitted and the remaining sections are taken in fuller detail.

H2 Course

3 hours a week.

Plant Pathology.—A detailed study of the fungoid and bacterial diseases of agricultural and horticultural crops. Virus diseases. Non-parasitic diseases. The relation of climatic and soil conditions to the incidence and spread of plant disease. Immunity and resistance to disease. The control of plant diseases.

H3 Course

First and Second Terms.—6 hours a week.

(*a*) *General Bacteriology.*—The elements of bacteriological technique, including the preparation of media, staining methods, and the isolation of pure cultures. The morphological and cultural characters of bacteria. Methods of identification.

(*b*) *Soil Bacteriology.*—The soil population and variability of soil counts. Functions of bacteria in soil and manure and their relation to those of the fungi and actinomycetes. The metabolism of bacteria, enzyme action and energy relations. Specialised groups:—nitrifying, de-nitrifying, nitrogen-fixing, cellulose-decomposing, iron and sulphur bacteria, and the isolation of pure cultures from two or more of these groups. Soil reaction in relation to its flora. Partial sterilisation.

(*c*) *Dairy Bacteriology.*—Isolation and identification of micro-organisms in milk. Numbers and types; factors controlling their growth and activity. Taints and abnormal conditions in milk. Effect of pasteurization, sterilization, condensing and drying on the microflora of milk. Fermented milks. Bacteriology of butter and cheese.

Laboratory work, supplementary to that included in the H1, H2, and H3 courses should be carried out by students and will be arranged for.

H4 Course

Lectures and laboratory work dealing with recent developments and methods of research in Agricultural Botany and Bacteriology.

Agricultural Chemistry and Physics

First Year Diploma Course

First and Second Terms.—5 Lectures and 6 hours laboratory work a week.

Third Term.—4 Lectures and 4 hours laboratory work a week.

The Principles of Chemistry and Physics and their practical application with special reference to Agriculture.

Agricultural Chemistry

Second Year Diploma Course

First and Second Terms.—2 Lectures and 3 hours laboratory work a week.

The principles of organic chemistry.

F1 and Third Year Diploma Course

First and Second Terms.—4 Lectures and 3 hours laboratory work a week.

SECTION (*a*)

Syllabus similar to F2 course but lectures adapted to the requirements of Diploma students.

SECTION (*b*)

Syllabus similar to F3 course, but lectures adapted to the requirements of Diploma Students.

F2 Course

Two Lectures and 6 hours laboratory work a week.*

The Plant.—The ultimate and proximate constituents of plants. Photosynthesis. Translocation. Storage. Transpiration. Respiration.

The Soil.—The Literature of Soil Science. 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 other mineral elements of the soil. Availability of mineral plant food. Soil nitrogen. Bio-chemistry 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, lime, etc. Various by-products and waste materials. The Fertilizers and Feeding Stuffs Act. 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.

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* Students taking Honours in Agricultural Chemistry are required to do only 3 hours laboratory work per week.

F3 Course

Two Lectures and 6 hours laboratory work a week.

The Animal.—The Literature of Animal Nutrition and Dairy Science. 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.

Insecticides, Fungicides, Sheep Dips, etc.

Dairy Products.—Full chemical and physical description of milk; the variations in its composition and the factors influencing this. Preservation, and adulteration of milk. Colostrum. Cream. Chemistry of cheese-making and cheese ripening. Whey. Theory of butter manufacture. Composition and adulteration of butter. Butter milk.

H1 Course

First and Second Terms.—Lectures and laboratory work dealing with some recent developments and methods of research in Agricultural Chemistry.

Agricultural Economics

F1 Course

Two Lectures a week.

(*a*) *History.*—The land to-day and a thousand years ago. The manor and agriculture under the manorial system. Pre-manorial times. The decay of the manor. Sheep farming. The Tudor Enclosures. Improvements

in Farming. Enclosures in the 18th and 19th centuries. The passing of the yeoman farmer and the appearance of the landless labourer. The Poor Law System. The Corn Laws. Farming in the 19th century: the Napoleonic Wars, the depression that followed them, " the golden age of English farming," the depression of the 'eighties and 'nineties. The first third of the twentieth century. The history of tithe and land tax.

(*b*) *Marketing.*—Principles of marketing agricultural products; functions of producers and middlemen. Study of the marketing of typical products. Organisation of marketing; the Agricultural Marketing Acts, 1931 and 1933. Marketing Schemes. Other legislation affecting marketing. The National Mark.

Co-operation. Principles; types and development of co-operation in agriculture at home and abroad. Producers, Purchasing, Marketing and Credit Societies.

Credit requirements in agriculture; long and short term credit. Sources of credit. Agricultural Credits Acts, 1923 and 1928.

F2 Course

Two Lectures a week.

(*a*) *The Economics of Farm Management.*—The importance on profits of types of farming, size of business and efficiency factors. Factors that influence types of farming. Measurement of size of farm business. Efficiency factors. Methods of studying farm management problems. Production and profits. The balance of a farm. Specialised v. mixed farming.

Special conditions governing prices of agricultural products. Supply of, and demand for, agricultural products. The law of diminishing returns. Rent. The unit of production. Types of land tenure. The relation of the State to agriculture.

(*b*) *Agricultural Policies and Food Imports.*—Food supplies of England and Wales. Home production. Imports, countries of origin. Changes in home produc-

tion and imports. Population, consumers' habits, standards of living. Prices.

Agricultural policies at home and abroad. Agriculture in relation to the economic structure as a whole. Recent legislation and its implications. Quotas, tariffs, subsidies.

H1 Course

One Lecture a week.

Study of the organisation of Agriculture at home and abroad.

H2 Course

One Lecture a week.

A detailed study of co-operation and marketing in England and other countries.

H3 Course

Reading and research from original sources, under supervision.

Diploma Course

First Year.—2 lectures and one Tutorial class a week. (Third Term only).

Book-keeping.—General Principles of Book-keeping. Single and double entry systems. Financial accounts. Analytical Cash Book. Ledger and three column Cash Book. Journal, Purchase and Sales Book. Preparation of Profit and Loss Account, Capital Account and Balance Sheet. Partnership Accounts. Income Tax. Preparation of Income Tax Returns. Claims and allowances. (Continued in Second Year).

Second Year.—5 lectures a week.

For Syllabus see F1 and *Book-keeping* above.

Third Year.—4 lectures a week.

For Syllabus see F2.

Agricultural Engineering and Surveying

Part I. Land Surveying and Levelling

Agriculture F4 and First Year Diploma Course

First and Second Terms.—One lecture a week.

Third Term.—One field class a week.

Surveying.—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. Instruments.

The maps of the Ordnance Survey, their value to the land agent and farmer.

Levelling.—Various types of Levelling instruments and staffs. Bench marks. Booking the readings and working out the reduced levels. Checking the level book. Proving the field work. Contours. Curvature and refraction.

During this course a farm or estate survey, involving the use of all the instruments mentioned above, is made and levels are also taken; the plan and sections are plotted in the drawing office as the work in the field proceeds.

Part II. Building Construction

Agriculture F3 and Second Year Diploma Course

First and Second Terms.—One lecture a week.

Homesteads for different classes of farms. Design and arrangement of farm buildings with a view to economy of construction and farm labour. Selection of site. Foundations. Materials and details of construction. Lighting. Ventilation. Drainage. Water supply. Alterations. Temporary buildings. Repairs. Dimensions of cow-stalls, stables, etc. Approximate costs.

Part III. Engineering

Second Year Diploma Course

First and Second Terms.—One lecture a week.

Applied Mechanics.—The Principle of Work. Machines. Friction. Stress, Strain, and Elasticity. Factor of Safety. Stresses in Simple Structures.

Power Transmission.—Pulleys and belting. Strength of Belts. 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. Determination of I.H.P. and B.H.P. Mechanical efficiency. Dynamometers. Consumption of fuel and water. Concrete foundations.

Hydraulics.—Flow of water through pipes and channels. Measurement of quantity of water flowing in a stream. Power available from falling water. Water wheels, turbines, pressure motors. Pumps.

Windmills.—Construction and power.

Electricity.—The uses of electricity on the farm. Units. Lighting. Fuses. Switches. Motors. Dynamos. Power.

Costs and Working Expenses.

Part IV. Implements, Machinery.

Agriculture F3 and Second Year Diploma Course

First and Second Terms.—One lecture a week and occasional demonstration classes.

Implements for the preparation of the soil—for planting and harvesting crops. Machinery for the preparation of food—for the dairy. General principles underlying their construction and mode of action—prices.

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. Rainfall. 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.

Agricultural Zoology

First Year Diploma Course

Second Term only :—4 hours a week.

Elementary anatomy and physiology of the mammal. Embryology of the fowl.

Second Year Diploma Course

First and Second Terms :—4 hours a week.

Structure and life-history of insects. Spiders, mites, and ticks. Centipedes and millepedes. Worms. Slugs and snails. Remedial and preventive measures. Sprays and fumigants. Natural checks to the increase of insects, birds, small mammals, etc.

F1 Course

Four hours a week.

Syllabus as for Second Year Diploma Course.

H1 and H2 Course

Third and Fourth Years.—An extended course in entomology and helminthology ; protozoa of the soil ; pathogenic protozoa.

Horticulture

Third Year Diploma Course

First Term only.—1 Lecture a week.

Soils, Manures and Cultivation in relation to vegetable and fruit growing.

Vegetable Crops.—Outline cultivation of the main vegetables crops, grown for market.

Fruit Culture.—Outline cultivation of the main fruit crops, including propagation, the choice of root stocks, planting and pruning.

Plant Pests and Diseases.—Common pests and diseases of vegetables and fruit, and their control. Sprays and spraying technique.

Plant Physiology and Horticulture

(Subsidiary)

Plant Physiology and Horticulture may be taken as a subsidiary subject for the degree of B.Sc. in pure science.

A course will be given if a sufficient number of students applies.

Poultry Husbandry

Third Year Diploma Course

First Term only.—2 Lectures a week.

Poultry (Fowls, Ducks, Geese, Turkeys) production in Britain. Imports of eggs and poultry.

Origin and development of the various breeds and varieties of poultry with their classification and characteristics.

Systems of poultry-keeping.

Principles and practice of poultry breeding. Incubation and rearing by natural and artificial methods with estimates of cost.

Housing and Hygiene. Types of poultry houses. Construction and cost.

Foods and feeding practice. Egg-production. Table poultry production.

Marketing of eggs and poultry. Preservation of eggs.

Diseases of poultry, their prevention and treatment. Internal and external parasites of poultry.

Legislation and Orders affecting poultry-keepers.

Veterinary Hygiene

F1 and Second Year Diploma Course

First and Second Terms.—4 Lectures a week and occasional Demonstration classes.

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.

Demonstration Classes.

Conformation, handling, etc. ; the general application of veterinary hygiene to farm animals.

SCHOLARSHIPS AND EXHIBITIONS TENABLE IN THE DEPARTMENT OF AGRICULTURE

In addition to the general scholarships for University Courses awarded by Local Education Authorities which could normally be used for Courses in the Department of Agriculture the following special Agricultural Exhibitions and Scholarships are available, full particulars of which can be obtained from the Secretary, Department of Agriculture, the University, Leeds :—

County Agricultural Exhibitions.

The County Councils of the three Ridings of Yorkshire offer special Exhibitions tenable in the Department of Agriculture for the sons and daughters of farmers and others who can show that they are likely to profit from an Agricultural Course.

Ministry of Agriculture Scholarships for the Sons and Daughters of Agricultural Workmen and others.

These Scholarships are of three types :—

(*a*) Junior :—For short courses up to one session's duration.

(*b*) Extended Junior :—For the further training of selected candidates who have held Junior Scholarships.

(*c*) Senior :—For Degree and Diploma courses in Agriculture at Universities and Agricultural Colleges.

EXTENSION WORK IN THE COUNTY

Full particulars of the work undertaken on behalf of the Yorkshire Council for Agricultural Education may be obtained on application to the Secretary, Department of Agriculture, The University, Leeds.

The work includes :—

Evening Classes in Agriculture and other subjects.

Day classes in Agricultural Subjects specially designed for those between the ages of 14 and 18.

Courses of lectures on a variety of different subjects connected with Agriculture, and rural life.

Demonstrations and experiments at Askham Bryan Farm, and at various private farms in the County.

Technical advice to farmers and others, and the investigation of local problems.

DEPARTMENT OF LEATHER INDUSTRIES

COURSES OF INSTRUCTION

Leather Manufacture whilst still leaving great scope for skilled craftsmanship, becomes more and more a branch of applied chemistry, and its need of highly trained technologists steadily grows. It is to meet this need that the courses of study in the Department have been designed. In co-operation with other Departments of the University instruction is provided which gives the student a thorough training both in pure science and in the special technology of leather manufacture, as well as making ample provision for the practical study of manufacturing processes in the workshop and laboratories. The Department is primarily concerned with students who intend to take up careers either as technical managers or as technological chemists, and it is for such students that the Degree and Diploma courses outlined below have been drawn up. All students spend the greater portion of their first year in the study of general chemistry, physics, etc., thus laying the necessary foundation for the specialised study of leather technology which occupies an increasing proportion of the student's time as the course advances. A student wishing to become a fully qualified technological chemist competent to undertake industrial research continues his study of chemistry during the entire period of his training, whilst a student whose aims are more purely practical does not take the most advanced scientific instruction, but devotes more of his time to the detailed study of practical manufacture.

The classes in chemistry, physics, engineering, and bacteriology are held in the special Departments of the University devoted to these subjects. Students who for special reasons wish to study additional subjects such as economics or a foreign language may do so in the

appropriate Department, provided that the necessary permission is first obtained.

The Leather Industries Department provides a complete course of lectures and practical instruction in the special technology of leather manufacture. The aim in the first instance, is to familiarise students both by information in lectures and by practical handling of materials 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 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.

EQUIPMENT

The Department is adequately equipped for practical work in leather manufacture, including dyeing, and offers in its laboratories ample facilities for the study of all methods of chemical analysis, etc. used in tannery control and technical research. The ground floor comprises a machine room equipped with all the most generally used machines, small model lime-yard and tan-yard, an annex fitted with drums and paddles for light leather tanning, etc., and a small control laboratory. The first floor comprises a large students' laboratory and two smaller laboratories, whilst on the second floor are drying rooms, museum and stores.

Directly adjoining the Department are the Procter Research Laboratories, erected in honour of the late Professor H. R. Procter, F.R.S., first head of the Department. These laboratories are, by the deed of foundation, devoted to research in the fundamental chemistry and physics of leather manufacture rather than to the study of problems of immediate technical interest. The Procter Laboratories are open to all qualified persons, irrespective of nationality, who wish to carry out such research.

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 ordinary chemical apparatus must be purchased by the student, who will also be held accountable for breakage of apparatus belonging to the University.

SCHEMES OF STUDY

Courses are given below for :—

I. Ordinary Degree of B.Sc.
II. Degree of B.Sc. with Honours.
III. University Diploma in Leather Manufacture.

Special courses may also be arranged by the Head of the Department to meet the needs of students who cannot afford the time necessary for a degree or diploma course.

The higher degrees of Master of Science (M.Sc.), Doctor of Philosophy (Ph.D.), and Doctor of Science (D.Sc.), will be awarded to graduates who satisfy the conditions stated in the Calendar in respect of these degrees.

The following schemes of study 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 a complete 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.

Before beginning courses for Degrees, students must have passed the examination for Matriculation of the Joint Board of the Northern Universities, or obtained exemption therefrom ; this however is not required in the case of Diploma students.

Scheme I. 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.

First Year	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. I	3 ,,
Additional subject	3 ,,

Second Year	Per week.
Chemistry F2 (Physical)	3 hrs.
Chemistry F3 (Organic)	3 ,,
Chemical Laboratory (Inorganic and Organic)	9 ,,
Materials used in Leather Manufacture (L. II)	2 ,,
Analytical Chemistry of Leather Manufacture (L. III)	2 ,,
Leather Laboratory	12 ,,
Bacteriology IX	3 ,,

Third Year

	Per week.
Chemistry F1 (Inorganic)	3 hrs.
Principles and Methods of Leather Manufacture (L. VI)	3 ,,
Microscopy and Bacteriology of Leather Manufacture (L. V)	27 ,,
Practical Leather Manufacture (L. IV) ..	
Leather Laboratory	

Scheme II. 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 VII 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 (H2) and Physiology (V) without examination in these subjects for degree purposes.

A one year's course for Honours in Chemistry of Leather Manufacture can be arranged for students who have already graduated.

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.

Candidates for the Diploma are required :—

I. *During the Course* :—

(*a*) To give satisfactory attendance upon 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. 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 1st March 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.

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.

First Year	Per week.
Introductory Course of Chemistry	3 hrs.
Chemical Laboratory	18 ,,
General Engineering (I)	5 ,,
Leather Manufacture, Introductory Course (L. I)	3 ,,

Second Year	Per week.
Chemistry F3 (Organic)	3 hrs.
Materials used in Leather Manufacture (L. II)	2 ,,
Analytical Chemistry of Leather Manufacture (L. III)	2 ,,
Chemical Laboratory (Organic)	6 ,,
Leather Industries Laboratories and Workshops	18 ,,

Third Year	Per week.
Principles and Methods of Leather Manufacture (L. VI)	3 hrs.
Technical Microscopy and Bacteriology (L. V) ..	
Leather Industries Laboratories and Workshops (including Leather IV)	20 ,,

LECTURE COURSES

L1. Introductory Leather Manufacture

Lectures and demonstrations on Mondays, Wednesdays and Fridays, at 9 a.m., throughout the session.

An elementary general course on leather manufacture, dealing with the anatomy of hide, soaking, liming,

deliming, bating, etc., and the chief tanning processes, both vegetable and chrome. The course includes the elementary study of tanning materials, oils and fats, etc.

LII. Materials used in Leather Manufacture

Lectures on Tuesdays and Thursdays at 11 a.m., throughout the session.

Anatomical structure of skin.

General chemistry of proteins, especially those occurring in hide.

Chemistry of technical water; water softening; influence of constituents on tannery processes.

Depilatories; deliming materials; natural and artificial bating materials.

Vegetable tanning materials; chemistry of tannins; synthetic tannins.

Mineral tanning materials. Special chemistry of chromium, iron, and aluminium compounds.

Soaps, oils, fats, and waxes.

Finishing materials, including starches, gums, mucilages, resins, albumens, glues, pigments, nitrocellulose and its solvents, etc.

LIII. Analytical Chemistry of Leather Manufacture

Lectures on Mondays, Wednesdays and Fridays at 12 noon, throughout the session.

The analytical investigation of 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; etc., etc.

Methods of determination of pH.

These lectures will supplement the analytical textbooks in use in the Leather Industries Laboratories.

LIV. Leather Dyeing and Finishing

Tuesdays, 2-5 p.m. throughout the session.

A course of lectures dealing with the chemistry and modes of application of dyestuffs, and also practical work beginning with the dyeing of samples and proceeding to the colouring and finishing of whole skins.

LV. Technical Microscopy, &c.

Lectures and practical work at times to be arranged.

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 1/12th inch oil immersion objective and substage condenser is required; but for the technical microscopy a simpler microscope will suffice.

LVI. 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 and clothing 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 variety of commercial leathers made by such combination processes.

Patent leather manufacture.

Leather dyeing and finishing.

Utilisation of bye-products and disposal of tannery waste.

LVII. Physics and Chemistry of Leather Manufacture

(*Honours and M.Sc. Course*).

Lectures throughout the session on Tuesdays, Thursdays and Saturdays at 10 a.m.

Surface tension and surface energy; adsorption; theory of emulsification and properties of technical emulsifiers.

Structure and properties of jellies.

Ionic equilibria; special theory of titration curves; hydrolysis; theory and determination of hydrogen ion activity (pH); applications in leather manufacture.

Chemistry of chromium salts and chrome liquors.

General and physical chemistry of proteins, including Donnan equilibrium, theory of swelling, etc.

Chemistry of vegetable tannins.

Current theories of tanning.

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

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 must be 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.

Procter Memorial Fellowship

The Procter Memorial Fellowship was established by the International Society of Leather Trades' Chemists to commemorate the services of the late Emeritus Professor Henry Richardson Procter to the science of leather manufacture, the endowment fund being subscribed by members of the Society and of the leather and allied trades.

The value of the Fellowship is approximately £140 per annum.

The award of the Fellowship is made annually by the Senate of Leeds University in June on the recommendation of the Procter Fellowship Committee after due advertisement in the Journal of the Society. Normally, the person appointed to the Fellowship will be a graduate in leather chemistry or possess an equivalent qualification of an institution of University status.

The Fellow, who may be of any nationality, will be appointed for a period of one academic year, but the Committee has power to recommend that the holder be reappointed for a further period of not longer than one academic year instead of proceeding to make another appointment.

The University undertakes to provide free of charge all reasonable accommodation and apparatus for the prosecution of research which shall be carried out under the direction of the Professor of Leather Industries. If no election to the Fellowship be made in any year the income for that year shall be added to the capital fund.

The Fellow will be required to devote the whole of his time to research on a subject pertaining to the leather or allied industries.

The results of his work must be presented as a report to the Senate and to the Procter Fellowship Committee.

Applications should be in the hands of the Registrar of the University not later than 1st April in each year.

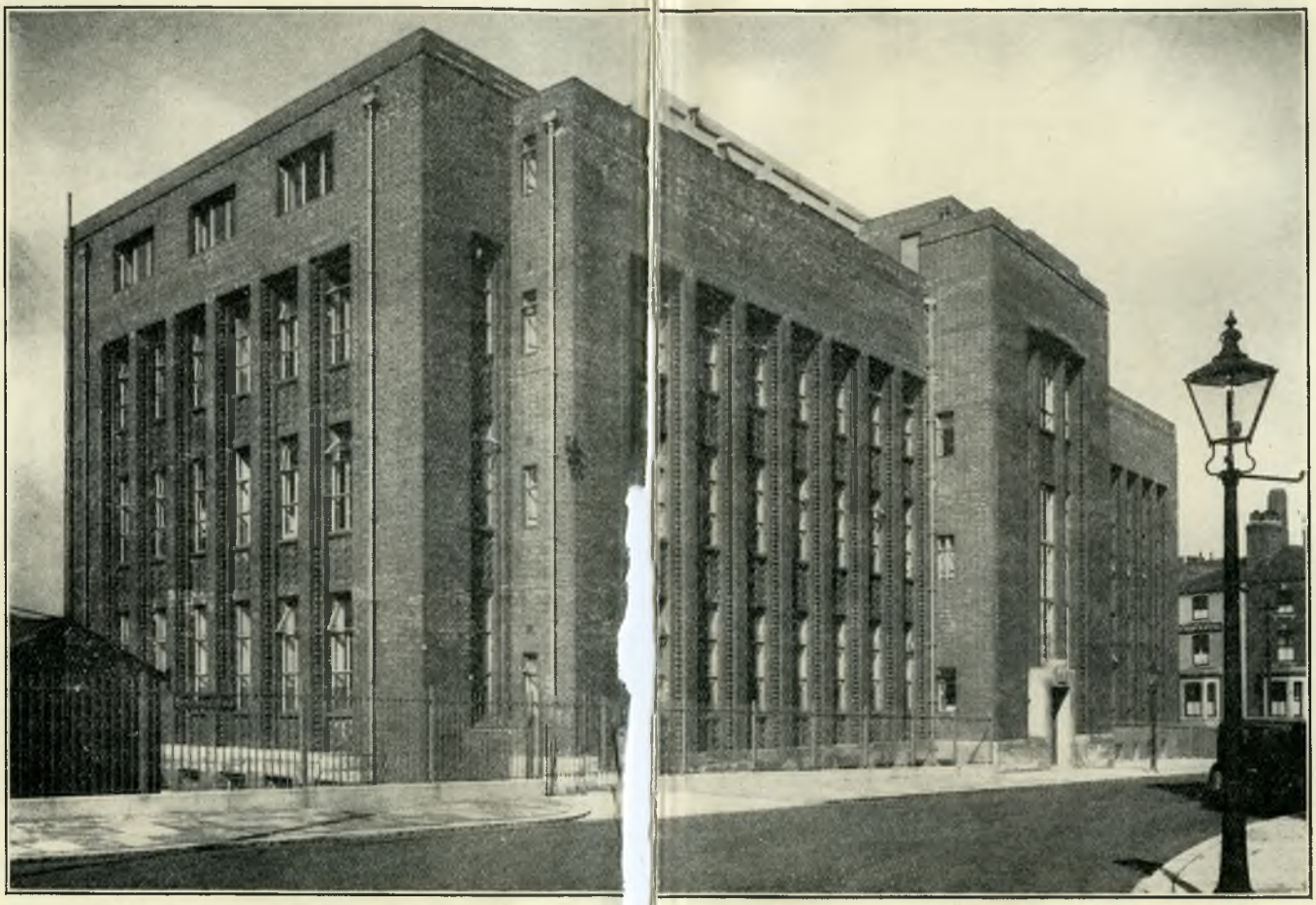
For further particulars of Scholarships tenable in the Leather Industries Department, see the Scholarships Prospectus.

THE SCHOOL OF MEDICINE.

OPPOSITE THE LEEDS GENERAL INFIRMARY.

LEEDS GENERAL INFIRMARY,
FROM S.E. CORNER.

PATHOLOGICAL INSTITUTE.



FACULTY OF MEDICINE

Dean of the Faculty : H. COLLINSON, C.B., C.M.G., D.S.O., T.D., M.S., F.R.C.S.

Academic Sub-Dean : Professor M. J. STEWART.

Clinical Sub-Dean : J. P. BIBBY, M.B., Ch.B., M.R.C.P.

School of Medicine

PROFESSORS, LECTURERS, &c.

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†*Lecturer :* G. I. BOYD, M.D., *Edinburgh,* F.R.C.S.E.

†*Lecturer in Histology :* W. E. ADAMS, M.Sc., M.B., Ch.B., B.Med.Sc., *New Zealand.*

Demonstrators :

G. A. FOWLER, M.A., M.B., B.Ch., *Camb.,* L.R.C.P., M.R.C.S.

R. B. ZACHARY, B.Pharm., *London,* M.B., Ch.B., *Leeds.*

Temporary Demonstrator :

W. K. J. WALLS, M.B., Ch.B., *Leeds.*

Honorary Demonstrators :

J. C. GILLIES, M.B., Ch.B., *Leeds,* F.R.C.S., *Edinburgh.*

G. QUAYLE, M.B., Ch.B., *Leeds.*

H. S. SHUCKSMITH, B.Sc., M.B., Ch.B., *Leeds,* F.R.C.S.

Honorary Demonstrator in Radiological Anatomy :

A. S. JOHNSTONE, M.B., Ch.B., F.R.C.S.E., D.M.R.E.

Physiology . †*Professor :* A. HEMINGWAY, M.Sc., M.B., Ch.B., *Leeds.*

Reader in Pharmacology: †W. A. BAIN, B.Sc., Ph.D., *Edinburgh,* F.R.S.E.

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† Member of the Board of the Faculty of Medicine.

Lecturers in Physiology :
†G. WINFIELD, M.A., *Cambridge.*
†H. R. NOLTIE, M.A., B.Sc., *Aberdeen.*

Lecturer in Bio-Chemistry :
†F. C. HAPPOLD, Ph.D., D.Sc., *Manchester.*

Lecturer in Pharmacy and Pharmaceutical Chemistry,:
†A. W. LUPTON, M.C., Ph.C., M.P.S.

Assistant in Pharmacy :
J. G. DARE, Ph.C.

Part-time Lecturer in Physiology and Hygiene :
Vacant.

Demonstrator in Bio-Chemistry :
W. C. EVANS, Ph.D., *Manchester,* M.Sc., *Bangor.*

Demonstrator in Physiology :
C. LUDWIG, M.B., Ch.B., *Aberdeen.*

Part-time Demonstrator :
G. B. ROYCE, B.Sc., M.B., Ch.B., *Leeds.*

Honorary Demonstrator :
*†L. N. PYRAH, M.Sc., Ch.M., *Leeds,* F.R.C.S.

Temporary Part-time Demonstrator :
W. GOLDIE, M.A., M.B., Ch.B., *Aberdeen,* M.R.C.P., *Edinburgh and London.*

Temporary Research Assistant :
Vacant.

Private Research Assistant (Pharmacology) :
SYLVIA DICKINSON, M.A., *Cambridge,* M.R.C.S., L.R.C.P.

Pathology and Bacteriology

†**Professor of Pathology and Head of Department :*
M. J. STEWART, LL.D., M.B., Ch.B., *Glasgow,* F.R.C.P., F.R.F.P.S.

†*Brotherton Professor of Bacteriology and City Bacteriologist :* J. W. McLEOD, O.B.E., M.B., Ch.B., *Glasgow,* F.R.S.

Reader in Chemical Pathology :
†F. S. FOWWEATHER, M.Sc., M.D., M.R.C.P., D.P.H., *Liverpool,* F.I.C.

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† Member of the Board of the Faculty of Medicine.
* Takes part in Clinical Teaching.

Senior Lecturer in Bacteriology:
†JOHN GORDON, M.D., *Leeds*, M.R.C.P., D.P.H.

Senior Lecturer in Pathology:
†R. CARMICHAEL, M.B., Ch.B., *Edinburgh.*

Senior Lecturer in Clinical Pathology:
†W. S. STANBURY, B.A., M.D., *Toronto.*

Lecturer in Bacteriology:
K. I. JOHNSTONE, B.Sc., Ph.D., M.B. Ch.B., *Leeds.*

Lecturer in Pathology and Pathologist to St James's Hospital.
†C. J. POLSON, M.D., *Birmingham*, M.R.C.P., Barrister-at-Law.

Lecturer in Surgical Pathology:
†H. COLLINSON, C.B., C.M.G., D.S.O., T.D., M.S., F.R.C.S.

Lecturer in Dental Pathology and Bacteriology:
D. J. CORK, L.D.S., *Leeds.*

Lecturer in Pathology of Industrial Diseases:
P. L. SUTHERLAND, M.B., Ch.B., D.Sc., *Glasgow.*

Demonstrators:
L. ELLIS, B.Sc., Ph.D., *Leeds*, A.I.C.
E. A. HORNE, M.A., B.Sc., M.B., Ch.B., *Aberdeen.*
I. STEWART, M.B., Ch.B., *Leeds.*
D. E. DOLBY, B.Sc., Ph.D.

Part-time Demonstrator:
Miss BERTHA WHEATLEY, M.B., Ch.B., *Leeds.*

Honorary Fellow in Pathology:
R. CATTLEY, M.B., C.M., *Edinburgh*, B.Sc., D.P.H., *Cambridge.*

Hon. Demonstrator in Medical Pathology:
*†H. G. GARLAND, M.D., *Leeds*, F.R.C.P.

Hon. Demonstrator in Surgical Pathology:
*†H. W. SYMONS, M.B., Ch.B., *Leeds*, F.R.C.S.

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† Member of the Board of the Faculty of Medicine.
*Takes part in Clinical Teaching.

Hon. Demonstrators in Pathology :
Mrs. CLARA STEWART, M.B., B.S., *London.*
N. LISSIMORE, M.D., *Leeds.*

Research Fellow in Rheumatism :
D. H. COLLINS, M.D., *Liverpool,* L.R.C.P., M.R.C.S.

Part-time Research Fellow in Rheumatism :
W. GOLDIE, M.A., M.B., Ch.B., *Aberdeen,* M.R.C.P.E.

Research Assistant in Bacteriology :
K. S. ZINNEMAN, M.D., *Frankfort.*

Experimental Pathology and Cancer Research

†*Professor of Experimental Pathology and Director of Cancer Research :* R. D. PASSEY, M.C., M.D., B.S., D.P.H., *London.*

Reader in Experimental Pathology and Assistant Director of Cancer Research :
†J. W. ORR, B.Sc., M.D., B.A.O., D.P.H., *Belfast,* M.R.C.P.

†*Lecturer in Experimental Bio-Chemistry :*
L. H. STICKLAND, M.A., Ph.D., *Cambridge.*

Part-time Research Assistant :
Miss L. M. WAINMAN, M.B., Ch.B., *Leeds.*

Part-time Demonstrator in Pathology and Research Assistant in Cancer :
Vacant.

Cancer Research Fellows :

Brotherton Fellowship :
Mrs. G. M. BONSER, M.D , *Manchester.*

Riley Smith Fellowship :
D. E. PRICE, M.B., B.S., *London,* M.R.C.S., L.R.C.P.

Bertram Parkinson Fellowship :
Vacant.

William Aykroyd Fellowship :
Vacant.

Henry Oxley Fellowship :
L. HOYLE, M.B., Ch.B., *Leeds.*

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† Member of the Board of the Faculty of Medicine.

Medicine . .

Professor of Medicine :
*†W. MacADAM, M.A., B.Sc., M.D., *Glasgow*, F.R.C.P.

Professor of Clinical Medicine :
*†J. le F. C. BURROW, M.D., *Edinburgh*, F.R.C.P.

Professor of Therapeutics and Applied Pharmacology : *†S. J. HARTFALL, B.Sc., M.D., *Leeds*, M.R.C.P.

Professor of Diseases of Children :
*†C. W. VINING, M.D., *London*, F.R.C.P., D.P.H.

Lecturer in Diseases of the Skin :
*†J. T. INGRAM, M.D., *London*, F.R.C.P.

Lecturer in Tuberculosis :
N. TATTERSALL, M.D., *London*.

Lecturer in Dietetics and Metabolic Medicine :
The lectures in this subject are at present given by the Professor of Medicine.

Lecturer in Medical Hydrology :
G. HOLMES, M.B., B.Ch., *Cambridge*.

Honorary Demonstrators in Medicine :
*†J. R. H. TOWERS, M.A., M.D., B.Chir., *Cambridge*, M.R.C.P.
J. A. PRICE, M.D., *Belfast*, M.R.C.P.

Research Fellow in Medicine :
A. LEESE, M.A., Ph.D., M.B., B.Ch. *Camb.*, M.R.C.P.

Medical Tutor and Registrar :
I. MACPHERSON, M.D., *Leeds*, M.R.C.P.

Fellow : Vacant.

Surgery . .

Professor of Surgery :
*†P. J. MOIR, M.C., M.B., Ch.B., *Glasgow*, F.R.C.S.

Professor of Clinical Surgery :
*†H. W. SYMONS, M.B., Ch.B., *Leeds*, F.R.C.S.

Director of Surgical Research :
*†L. N. PYRAH, M.Sc., Ch.M., *Leeds*, F.R.C.S.

Lecturer in Orthopædic Surgery :
*†R. BROOMHEAD, M.B., Ch.B., *Leeds*, F.R.C.S.

Reader in Surgery : Vacant.

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† Member of the Board of the Faculty of Medicine.
* Takes part in Clinical Teaching.

Surgical Tutors :
A. J. C. LATCHMORE, M.B, M.S., *London*, F.R.C.S.
H. S. SHUCKSMITH, B.Sc., M.B., Ch.B., *Leeds*, F.R.C.S.

Fellow : Vacant.

Obstetrics and Gynæcology . *†*Professor of Obstetrics and Gynæcology :*
A. M. CLAYE, M.D., *Leeds*, F.R.C.S., F.C.O.G.

*†*Lecturer in Obstetrics :* Mrs. RHODA ADAMSON, M.D., B.S., *London*, F.C.O.G.

*†*Lecturer in Gynæcology :* B. L. JEAFFRESON, M.D., *London*, F.R.C.S., M.C.O.G.

Tutor in Obstetrics and Gynæcology :
H. AGAR, B.Sc., M.B., Ch.B., F.R.C.S.

Temporary Tutor :
CONSTANCE E. PEAKER, M.B., B.Ch. (*Cantab*), L.R.C.P., M.R.C.S.

Public Health *†Professor :* J. J. JERVIS, M.D., *Edinburgh*, D.P.H., *London*.

Hon. Demonstrator :

Forensic Medicine . *†Professor :* P. L. SUTHERLAND, M.B., Ch.B., D.Sc., *Glasgow*.

Hon. Demonstrator in Toxicology :
H. G. GARLAND, M.D., *Leeds*, F.R.C.P.

Thorp Fellowship in Forensic Medicine and Public Health :
Vacant.

Ophthalmology *Lecturers :*
*†J. FOSTER, M.A., M.B., B.Ch., *Cambridge*, F.R.C.S.
*†G. W. BLACK, M.B., B.S., *London*, F.R.C.S.

Otology . *†*Lecturer :* W. MAXWELL MUNBY, M.A., Ch.M., *Edinburgh*, F.R.C.S.

Mental Diseases . *†*Lecturer :* M. J. McGRATH, M.B., B.Ch., B.A.O., *R.U.I.*, D.P.M., *Leeds*.

Infectious Diseases *†*Lecturer :* E. C. BENN, M.B., Ch.B., *Liverpool*, D.P.H.

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* Takes part in Clinical Teaching.
† Member of the Board of the Faculty of Medicine.

Radiology and Radio-Therapy †*Lecturer in Diagnostic Radiology:* A. S. JOHNSTONE, M.B., Ch.B., F.R.C.S.E., D.M.R.E., *Cambridge.*

†*Lecturers in Radio-Therapy:*
J. M. LEES, M.A., B.M., B.Ch., *Oxford,* D.M.R.
A. A. DIGGES LA TOUCHE, M.A., M.B., B.Ch., *Cambridge,* F.R.C.S., D.M.R.

Anaesthetics . †*Lecturer:* F. WHALLEY, D.S.O., M.B., Ch.B., *Leeds,* D.A.

Vaccination . *Instructor:* J. E. MIDDLEMISS, M.R.C.S., L.R.C.P., *London,* F.R.F.P.S., *Glasgow.*

Medical Ethics and Conditions of General Practice . . *Lecturer:* W. S. MACDONALD, M.B., Ch.B., D.P.H., *Edinburgh, J.P.*

Honorary Librarian

Professor M. J. STEWART.

Clinical Lecturers

In addition to such of the above Professors, Lecturers and Honorary Demonstrators whose names are marked with an asterisk to denote that they take part in the Clinical teaching.

Medicine . . †H. H. MOLL, M.D., *Rome.* M.B., Ch.B., *Leeds,* M.R C P.

Dermatology: †F. F. HELLIER, M.D., *London,* M.R.C.P.

Surgery . . †D. CHAMBERLAIN, Ch.M., *Leeds,* F.R.C.S.
†G. ARMITAGE, M.C., M.D., Ch.M., *Leeds,* F.R.C.S.
†P. R. ALLISON, B.Sc., M.B., Ch.M., *Leeds,* F.R.C.S.
†M. W. C. OLDFIELD, M.A., B.M., M.Ch., *Oxford,* F.R.C.S.

Orthopædic Surgery . †A. B. PAIN, Ch.M., *Leeds,* F.R.C.S.

Neurological Surgery . †W. R. HENDERSON, M.B., Ch.B., *Edinburgh,* F.R.C.S.

Obstetrics and Gynæcology †D. W. CURRIE, M.D., Ch.M., *Leeds,* F.R.C.S., M.C.O.G.

Otology . . †G. S. SEED, M.B., Ch.B., *Leeds,* F.R.C.S.

Venereal Diseases †J. P. BIBBY, M.B., Ch.B., *Leeds,* M.R.C.P

† Member of the Board of the Faculty of Medicine.
* Takes part in Clinical Teaching.

THE UNIVERSITY OF LEEDS

FACULTY OF MEDICINE

1940-41

The Academic year in the School of Medicine consists of the following terms in 1940-41 :—

First Term: September 24th to December 4th, 1940.
Second Term: January 7th to March 14th, 1941.
Third Term: April 17th to June 30th, 1941.

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.

Forms of application may be obtained from the Registrar.

Except in cases approved by the Vice-Chancellor, students must have reached the age of 17 years and 3 months before coming to the University.

All candidates for admission to the University 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 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. All others are required to have their application endorsed by some responsible person of whom enquiry may be made.

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, and power is retained to refuse admission on grounds of immaturity even in the case of those who have passed the entrance examinations.

Fees may be paid either in the Dean's Office, Medical School, or in the Students' Section, University Road. Cheques should be made payable to "THE UNIVERSITY OF LEEDS." The composition fees for lecture and laboratory courses may be paid either sessionally in advance, or (with certain exceptions) terminally by instalments. Fees paid by instalments are at a slightly higher rate than when paid in advance. The terminal instalment scales of fees are not applicable to students ordinarily resident outside the British Isles; such students must pay fees sessionally in advance.

All applicants for admission must attend for interview by the Academic Sub-Dean, either before or after submitting their applications. It is desirable that interviews should be arranged by appointment.

COURSES FOR THE DEGREES OF M.B. AND Ch.B.

UNIVERSITY OF LEEDS.

A.—PRE-REGISTRATION COURSE. Students must commence their studies in October.

	LECTURES AND LABORATORY COURSES.	EXAMINATIONS.
PRE-REGISTRATION COURSE. 1st, 2nd and 3rd Terms	Inorganic Chemistry. Physics.	PRE-REGISTRATION EXAMINATION. (June and September) Inorganic Chemistry and Physics.

B.—PRE-CLINICAL PERIOD (old regulations).

PRE-CLINICAL PERIOD 2nd YEAR. 1st and 2nd Terms	Zoology. Anatomy and Physiology.	FIRST EXAMINATION. PART IV.—(March and June). Zoology.
3rd Term.	Anatomy and Physiology. Materia Medica and Pharmacy.	SECOND EXAMINATION. PART I.—(September and March). Materia Medica and Pharmacy.
3rd Year. 1st Term.	Anatomy and Physiology.	PART II.—(March and September). Anatomy and Physiology.
2nd Term.	Anatomy and Physiology.	

Period of Clinical Study begins on the completion of the Second Examination.

C.—PRE-CLINICAL PERIOD (new regulations).

(OCTOBER ENTRY).	LECTURES AND LABORATORY COURSES.	EXAMINATIONS.
PRE-CLINICAL PERIOD 1st YEAR. 1st and 2nd Terms.	Organic and Physical Chemistry, Botany and Zoology.	First Examination, Parts I. and II. (March and June).
3rd Term.	Introductory Anatomy, Bio-chemistry.	
2nd YEAR. 1st, 2nd and 3rd Terms.	Anatomy and Physiology.	
3rd YEAR. 1st Term.	Anatomy and Physiology.	
2nd Term.	Anatomy Physiology and Pharmacology.	Second Examination, Part I. (March and September).
3rd Term.	Pharmacology, Pharmacy, Introductory Bacteriology, Introductory General Pathology.	Second Examination, Part II. (June and September).

COURSE FOR CLINICAL PERIOD (Old Regulations until March, 1943)

This is the same for all categories of students and may be commenced in either April or October. In special cases students may be permitted to commence hospital work in July.

	LECTURES AND LABORATORY COURSES.	CLINICAL WORK.	EXAMINATIONS.
1st CLINICAL YEAR. 3rd Term.	Practical Pharmacology. Bacteriology and Immunology. Medicine and Introductory Surgery.	NOTE. Three years of Hospital practice are required. The appointments shown below must be taken in the order given on page 104. Mental diseases may be taken in either the second or third clinical year and vaccination and infectious diseases at such times as shall not interfere with other clinical work :— 1. Preliminary Medical and Junior P.M. Clerkship. 2. In-patient Medical Clerkship. 3. Preliminary Surgical Clerkship and O.P. and Casualty Dressership. 4. In-patient Surgical Dressership. 5. Gynæcological Dressership. 6. Obstetric Clerkship (Internal and External). 7. { Clerk in the Children's Department. Clerk in the V.D. Department. 8. { Orthopædic Dressership. Clerk in the Skin Department 9. Out-patient Medical and Senior P.M. Clerkship. 10. Ophthalmic and Aural Dressership (held concurrently). 11. Mental Diseases. 12. Vaccination. 13. Infectious Diseases.	
1st Term.	Pharmacology, General Pathology and Medicine.		
2nd Term.	Pharmacology, General Pathology, Medicine and Surgery.		
2nd CLINICAL YEAR. 3rd Term.	Pharmacology, Medicine (Special Courses), Surgery, Gynæcology, and Mental Diseases.		THIRD EXAMINATION. PART I.—(March and September) Pharmacology, Pathology and Bacteriology. (May be taken at the end of second clinical year).
1st Term.	Pharmacology, Special Pathology, Medicine, Obstetrics and Diseases of Children.		
2nd Term.	Pharmacology, Special Pathology, Medicine, Surgery, Orthopædic Surgery and Radiology.		
3rd CLINICAL YEAR. 3rd Term.	Clinical Pathology, Medicine (Special Courses), Surgery, Mental Diseases (if not already taken), Applied Anatomy, and Medical Ethics.		FINAL EXAMINATION. PART I.—(December and June). Forensic Medicine and Public Health. (May be taken nine months after the Third Examination has been passed). PART II.—(March and September). Medicine, Surgery, Obstetrics and Gynæcology, and Therapeutics. (May be taken at the end of the third clinical year. Part II may be taken before Part I).
1st Term.	Forensic Medicine, Therapeutics, Public Health and Radio-Therapy.		
2nd Term.	Medicine, Ophthalmology and Otology, and Applied Anatomy.		

HONOURS.—At the Final Examination, First or Second Class Honours are awarded on the results of the Second, Third and Final Examinations taken collectively.

DEGREES IN MEDICINE AND SURGERY

ORDINANCE VI

1. The degrees in Medicine and Surgery shall be : Ordinance

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.)

2. 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-two 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 and nine months, two of such years at least having been passed in the University.

3. 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 examination for Matriculation, 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 Pre-registration examination
The First examination.
The Second examination.
The Final examination.

Except in cases specially approved by the Senate, candidates for a degree in the Faculty of Medicine (M.B., Ch.B. or B.Ch.D.) are required to present evidence of possessing a knowledge of Mathematics at least equivalent to that of the " Pass " standard at a School Certificate Examination. Regulations

*Full information is contained in the pamphlet " Qualifications for entry upon a Degree Course," which may be obtained on application to the Secretary to the Board, 315, Oxford Road, Manchester, 13.

General Attendance

During the first five 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 sixth 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 Inorganic Chemistry or Physics or the additional subject at the Pre-registration examination or (*b*) in Botany or Zoology of Part II of the First examination or (*c*) in Anatomy or Physiology at the Second examination Part I or (*d*) in any subject of Part II or Part III of the Final examination may be exempted from re-examination in such part of the examination as the respective Examination Committees may determine.

Pre-registration Examination

The Pre-registration examination shall consist of Physics and Inorganic Chemistry.

One additional approved subject.

The courses of instruction shall be as follows :—

1. Inorganic Chemistry : lectures and laboratory work at least three terms.
2. Physics : lectures and laboratory work : at least three terms.
3. An additional approved subject : at least three terms.

The examination will normally be held in June. Candidates who have failed at the examination in June may be granted permission by the Senate to present themselves for a supplementary examination in September.

Candidates who have studied Inorganic Chemistry and Physics at school may take the Pre-registration examination in June or September.

Students who attain a Pass at Principal Standard in Chemistry and Physics in the Higher School Certificate Examination and who attain a pass at subsidiary standard (or its equivalent) in an approved additional subject are exempted from the Pre-registration examination. The three subjects may be passed at separate examinations.

First Examination

4. The First Examination shall consist of *two* Parts : Ordinance
   Part I. Organic and Physical Chemistry.
   Part II. Zoology, Botany.

5. 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 examination for Matriculation or to have obtained exemption therefrom.

6. The names of candidates who have satisfied the Examiners in *either* Part of the First examination shall be published in alphabetical order.

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. Regulations

The courses of instruction shall be as follows :—

During the first two terms :—

1. Organic and Physical Chemistry : lectures and laboratory work : at least two terms.
2. Zoology : lectures and laboratory work : at least two terms.
3. Botany : lectures and laboratory work : at least two terms.
4. Medical Physics : 10 lectures.

The examination (Parts I and II) will normally be held in March.

All examinations will include laboratory work.

Candidates who have failed at either Part of the examination in March may be granted permission by the Senate to present themselves for a supplementary examination in June. They must produce evidence of having pursued such further study as may have been required by the Examination Committee and they may be excused such part of the supplementary examination (Part II) as the Examination Committe may determine.

Candidates will not be allowed to proceed with the courses in Anatomy and Physiology of the second year until they have passed in Parts I and II of the First examination.

Second Examination

Ordinances

7. The Second examination shall consist of two Parts:

Part I. Anatomy.
Physiology.
Part II. Pharmacology and Pharmacy.

8. 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.

9. The names of candidates who have satisfied the Examiners in either Part of the Second examination shall be published in alphabetical order.

Second Examination

Regulations

Candidates for the Second examination (Part I) are required to have attended courses of instruction approved by the University in Anatomy and Physiology (six terms); and for Part II in Pharmacology and Pharmacy (two terms). 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 Physiolcgy and in Pharmacology and Pharmacy.

Subjects of examination.

PART I.

Anatomy, including the gross and minute structure of the body, Embryology, Neurology, Living Anatomy and Radiological Anatomy, and Histology.

Physiology, including laboratory work in Bio-chemistry, Experimental and Human Physiology.

PART II.

Pharmacology and Pharmacy. Candidates will be required to recognise drugs, and to compound medicines.

Candidates may pass in either Part separately.

Candidates who fail to satisfy the Examiners in any subject of the examination must, before being readmitted to examination, produce evidence of having pursued such further study as may have been required by the Examination Committee.

Final Examination

10. The Final Examination shall consist of three Parts: Ordinance

Part I. Pathology and Bacteriology.
Part II. Public Health.
Forensic Medicine.
Part III. Medicine.
Surgery.
Obstetrics and Gynæcology.
Therapeutics.

Part I will normally be taken one year and nine months after the commencement of the clinical period. Regulations

Part II will normally be taken nine months after passing Part I, and may not be taken before Part I.

Part III may not be taken before the end of the third clinical year nor before the completion of five years and nine months of medical study. Parts II and III may be taken together.

11. Candidates, before presenting themselves for any Part of the Final examination, must furnish certificates of having attended courses of instruction, in accordance with the Regulations of the University.

12. The names of candidates who have satisfied the Examiners in Parts II or III of the Final examination shall be published in alphabetical order.

13. 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.

Final Examination

Regulations

Candidates must furnish certificates of having attended courses of instruction approved by the University and taken in the University or in a Medical School recognised for this purpose in the subjects in which they offer themselves for examination.

Candidates are required to furnish certificates as follows :—

A. In respect of lectures and laboratory work.

1. Pathology and Bacteriology, six terms.

   The certificates in Pathology and Bacteriology must in all cases testify that the candidate has attended courses of laboratory instruction in these subjects, approved by the University.

2. Medicine, four terms.

   Mental Diseases, one term.
   Infectious Diseases, one term.
   Children's Diseases, one term.

3. Surgery, four terms.

   Ophthalmology, Otology and Laryngology, one term.
   Orthopædic Surgery, one term.

4. 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.

5. Clinical Pathology, one term.
6. Forensic Medicine, one term.
7. Public Health, one term.
8. Therapeutics, one term.
9. Radiology and Radio-therapy, one term.

B. In respect of hospital work.

1. In Medicine and Surgery, of having attended subsequent to the date of passing the second examination, the medical and surgical practice of a hospital or hospitals, approved by the University, during at least three years.

2. In Pathology and Morbid Anatomy, of having attended during at least two terms demonstrations in the post-mortem room of a hospital, including practical instruction.

3. In Obstetrics, (*a*) of having attended during not less than three months the indoor and outdoor 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 medical 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 the diseases of children.

6. Of having received clinical instruction in Orthopædic Surgery.

7. Of having received clinical instruction in diseases of the eye, ear, throat and skin and in venereal disease.
8. Of having received instruction in the administration of anæsthetics.
9. Of having acquired proficiency in vaccination.
10. Of having acted as a surgical dresser for six months, as a clinical medical clerk for six months, and as a clerk for three months in the post-mortem room of a hospital recognised by the University.

Subjects of Examination.

1. PATHOLOGY AND BACTERIOLOGY.
   Candidates will be examined practically on Bacteriology, Pathological Anatomy, Histology and Chemistry.
2. MEDICINE: SYSTEMATIC AND CLINICAL, INCLUDING MENTAL DISEASES AND DISEASES OF CHILDREN AND SKIN DISEASES.
   Candidates, in order to pass, must satisfy the Examiners in the clinical part of the examination.
3. SURGERY: SYSTEMATIC, CLINICAL AND PRACTICAL, INCLUDING ORTHOPÆDIC SURGERY, OPHTHALMOLOGY, OTOLOGY, RHINOLOGY AND LARYNGOLOGY.
   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.
4. 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.
5. FORENSIC MEDICINE AND TOXICOLOGY.
   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.
6. PUBLIC HEALTH.
7. THERAPEUTICS.

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 Examination Committee.

Degree of Doctor of Medicine

17. The degree of Doctor of Medicine may be conferred, on payment of the proper fee, upon Bachelors of Medicine and Bachelors of Surgery of the University, subject to the conditions contained in the following Articles. Ordinance

18. Candidates are required to have completed, subsequently to taking the degrees of Bachelor of Medicine and Bachelor of Surgery, either (*a*) two years of approved hospital practice or approved special study, or (*b*) four years in the practice of their profession in one or other of its branches. It shall be permitted to a candidate to combine successive periods of work under (*a*) and (*b*) always provided that six months of approved hospital work or approved special study shall be regarded as equivalent to one year of professional practice.

19. Candidates having satisfied the requirements under Article 18, may proceed to the degree either (*a*) by examination only, or (*b*) by presenting a thesis or published work on a subject or subjects approved by the Board of the Faculty of Medicine and submitting themselves in addition to such examination as may be deemed necessary. The examination under (*b*) may be waived in terms of the Regulations laid down by the Senate.

I. *Award of the degree by examination alone.*

1. Candidates desiring to proceed to the degree by examination must submit themselves to an examination in one subject selected from the following list, viz. :— Regulations

General Medicine.
Psychological Medicine.
State Medicine.
Pædiatrics.
Dermatology.

Obstetrics and Gynæcology.
Pharmacology and Therapeutics.
Radiology and Radio-therapy.
Forensic Medicine.
Pathology.
Bacteriology.
Pathology and Bacteriology.
Physiology.
Anatomy.

2. The examination in each subject shall include :—
(*a*) Two written papers (3 hours each).
(*b*) One of the following :—
(i) An essay on some general or special subject (3 hours).
(ii) A written commentary on a case or cases (3 hours).
(*c*) (i) A clinical examination and/or a practical examination.
(ii) A *viva voce* examination.

3. Candidates must state on their application forms the subject in which they propose to present themselves for examination.

II. *Award of the degree upon thesis or published work.*

1. Candidates desiring to proceed to the degree by thesis or published work must submit the title of the thesis or published work for the approval of the Board of the Faculty of Medicine, and, such approval having been obtained, must furnish three copies (printed or typewritten) together with any drawings or specimens which are deemed necessary for illustrating them. They must also state the subject in which they desire to be examined, such subject being selected from the list prescribed in Article 1 of these Regulations.

2. In the case of work submitted under joint authorship, the applicant shall be required to indicate to the satisfaction of the Senate his own share in the joint production. A copy of the thesis submitted in support of the application will be retained in the University Library.

3. If the thesis or published work presented by the candidate is considered by the examiners to be of exceptional merit, the degree may be awarded to him without further examination.

4. If the thesis or published work presented by the candidate does not, in the opinion of the examiners, justify awarding the degree without further examination, the candidate must undergo an examination in the subject selected by him from the list prescribed in Section I Article 1 of these Regulations. The examiners may, at their discretion, exempt such candidate from the essay or written commentary.

III. 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 on the recommendation of the Examiners.

IV. All candidates for the degree of Doctor of Medicine must send in applications, accompanied by three copies of their thesis, which will be retained, to the Clerk to the Senate not later than 1st February or 1st August in any year, on a special form to be obtained at the Dean's Office, School of Medicine.

Degree of Master of Surgery

20. The Degree of Master of Surgery is conferred in the following branches: Surgery (Branch I), Ophthalmology (Branch II), Laryngology, Otology and Rhinology (Branch III). Ordinance

21. No candidate will be admitted to the examination for the degree of Master of Surgery unless he has previously received the degrees of Bachelor of Medicine and Bachelor of Surgery of the University and at least two years have elapsed since he completed the examinations for these degrees.

22. 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.

Regulations

1. Candidates, before admission to the examination for the degree, are required to furnish certificates which shall be deemed satisfactory by the University, that they have completed, subsequently to taking the degrees of Bachelor of Medicine and Bachelor of Surgery, two years of approved hospital practice or approved special study. Candidates wishing to take the degree in Branches II or III must present evidence of having held a General Surgical appointment for not less than six months and an approved hospital appointment in the Branch selected for examination for not less than twelve months.

2. Candidates proposing to present themselves for this examination are required to give notice , in writing, to the Clerk to the Senate before 1st February or 1st August.

DETAILS OF EXAMINATION.

BRANCH I. SURGERY.

1. Two papers in Surgery.*
2. Essay in one of two subjects in Surgery fixed by the Examiners, or commentary on case or cases.
3. Paper in Surgical Anatomy.
4. Paper in Pathology and Bacteriology.
5. Clinical, oral and practical examination.

BRANCH II. OPHTHALMOLOGY.

1. Paper on the Principles of Surgery.
2. Paper in Ophthalmology.
3. Essay in one of two subjects in Ophthalmology fixed by the Examiners, or commentary on case or cases.
4. Paper in the Anatomy, Physiology and Pathology of the Eye and other parts concerned in Ophthalmology (including Physiological Optics).
5. Clinical, Oral and Practical Examination.

BRANCH III. LARYNGOLOGY, OTOLOGY, AND RHINOLOGY.

1. Paper on the Principles of Surgery.
2. Paper in Laryngology, Otology, and Rhinology.
3. Essay in one of two subject in Laryngology. Otology, and Rhinology fixed by the Examiners, or commentary on case or cases.
4. Paper in the Anatomy, Physiology† and Pathology of the ear, nose and throat, and of other parts concerned in Laryngology, Otology and Rhinology.
5. Clinical, practical and oral examination.

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* These may include a question on Physiology in its bearing on Surgery.
† This may include a question on the recording and reproduction of sound.

Degree of Doctor of Philosophy (Ph.D.)

24. The Degree of Doctor of Philosophy (Ph.D.) is conferred, on payment of the proper fee :— Ordinance

(*a*) On persons who are registered graduates of the University of Leeds or graduates of an approved University :

(*b*) On the holder of a Diploma awarded by an approved institution of university rank not empowered to confer degrees, provided that the course of study in the subject for which the Diploma has been awarded has extended over not less than three years of full-time study.

(*c*) In exceptional cases on the holder of a Diploma of the University of Leeds, provided that the Senate is satisfied regarding the course of study towards such Diploma and the standard attained by the candidate in the examination for the Diploma :

provided always that the conditions laid down in Article 2 have been satisfied by candidates for the degree of Doctor of Philosophy.

25. 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 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, subject to candidates in all cases spending in the University not less than one academic year or its equivalent as determined by the Senate.

1. Before entering on the course of advanced study and research, candidates are required Regulations

(*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.

2. 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.

3. 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.

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 he proposes to study.

4. 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.

5. 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.

6. 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.

7. 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. A copy of the thesis will be retained in the University Library.

DIPLOMA IN PUBLIC HEALTH

Regulations

1. A period of not less than two years shall elapse between the attainment by a candidate of a registrable qualification in Medicine, Surgery and Midwifery and the granting of the Diploma.

2. The curriculum for the Diploma shall extend over a period of not less than (*a*) twelve calendar months of which not less than three consecutive calendar months shall be devoted to the whole-time study of the subjects comprised in Part I. of the Examination or (*b*) an academic year of whole-time study covering a period of not less than nine calendar months, subsequent to the attainment of a medical qualification.

3. The examination shall be in two Parts. Part I. will be held in March and September, Part II. in June and December in each year.

PART I.

4. 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 in relation to Public Health.

(*c*) Physiology and Biochemistry in their application to Nutrition and Hygiene.

Candidates must pass in the whole of Part I at one time and must do so before being admitted to Part II.

PART II.

5. The examination shall include the following :—

(*d*) The Principles of Hygiene, Sanitation, and Public Health ;

(*e*) Epidemiology and Vital Statistics (including statistical methods) ;

(*f*) Public Health Law and Administration (including social insurance, public medical services, and hospital administration) ;

(*g*) Industrial Hygiene and the welfare of industrial workers ;

(*h*) House Planning and Sanitary Construction ;

(*i*) The Principles of Genetics ;

(*j*) Mental Hygiene.

The examination shall be written and oral, and shall include clinical examinations in Infectious Diseases, and practical examinations in Food Inspection and Inspection of Premises, including dwellings, factories, workshops and schools.

Candidates must pass in the whole of Part II at one time.

6. 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 120 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) Physiology and Biochemistry in their application to Nutrition and Hygiene, fifteen lectures.

7. 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 160 hours in :—

(*a*) The principles of Public Health and Sanitation including Industrial Hygiene (50).

(*b*) Epidemiology and Vital Statistics (35)
(*c*) Sanitary Law and Administration, including Public Medical Services (40).
(*d*) Sanitary Construction and Planning (20).
(*e*) Principles of Genetics (5).
(*f*) Mental Hygiene (10).

II. Of having attended for three months the clinical practice of a recognised hospital for Infectious Diseases and of having received therein instruction in the methods of administration. At least 24 daily attendances of not less than 2 hours each are required. 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 Infant Welfare Service.
(*b*) Health Service for Young Children and Children of School Age.
(*c*) Venereal Diseases Service.
(*d*) Tuberculosis Service.
(*e*) Industrial Hygiene.
(*f*) Hospital Services.
(*g*) Mental Health Services.
(*h*) Inspection and Control of Food, including meat and milk.

Instruction in the matters specified under III (*a*) to (*h*) above shall include attendance at the centres, clinics, institutions and premises concerned.

Certificates under III must be given by a Medical Officer of Health who devotes his whole

time to Public Health work of an area approved by the University.

8. 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.

9. Every candidate who has passed both parts of the examination shall receive a Diploma in Public Health.

10. A diploma with distinction may be awarded to a candidate whose work is adjudged to be of outstanding merit.

Summary of Courses for Diploma in Public Health

Period.	Monday.	Tuesday.	Wednesday	Thursday.	Friday.	Saturday.
1st Term (October to December)	Bacteriology 2—5 Sanitary Law, Administration, &c. 5.30—7.30	Lecture on Public Health 9—10.30 Sanitary Chemistry 2—5	Sanitary Construction and Planning 10—11.30 (1st half term) Bacteriology 2—5 (2nd half term) Bacteriology 2—4 Physiology 4—5	Lecture on Public Health 9—10.30 Sanitary Chemistry 2—5	Parasitology 10—12 Bacteriology 2—5 Sanitary Administration, &c. 5.30—7.30	Lecture on Public Health 9—10.30
2nd Term (January to March).	Bacteriology 2—5 Epidemiology and Vital Statistics 5.30—7.30	Parasitology 10—12.30 (1st half term) Sanitary Chemistry 2—5 (2nd half term) Genetics 2—3	Bacteriology 2—4 Physiology 4—5	(1st half term) Sanitary Chemistry 2—5	Bacteriology 2—5 Epidemiology and Vital Statistics 5.30—7.30	
3rd Term (April to June)			Mental Hygiene (W.R. Mental Hospital, Wakefield) 2.30—4.30			

Arrangements of six months practical training in administration under the supervision of a Medical Officer of Health; and for a special course at a Hospital for Infectious Diseases are made with individual Teachers.

DIPLOMA IN PSYCHOLOGICAL MEDICINE

Regulations

1. The examination is in three 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, after graduation, approved courses of instruction in the subjects of examination.

3. Of having acted as resident Clinical Clerk or Assistant Medical Officer in a Mental Hospital, 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 a Mental Hospital of not less than 500 beds for a period of at least two years.

2. Of having, during or after this period, attended approved courses of instruction in the subjects of examination.

3. 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.)

4. In addition to the laboratory work under (3), 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 and Anatomy (Human and Comparative) of the Nervous System.

(ii) The Physiology of the Nervous System and of the Organs of Special Sense.

(iii) General Psychology.

PART II.

(iv) The Pathology of the Nervous System.

PART III.

(v) Clinical Psychiatry.

(vi) Experimental and Morbid Psychology.

(vii) (*a*) Clinical Neurology.

(*b*) Mental Hospital Administration.

(*c*) Medico-Legal aspects of Insanity.

Candidates in order to pass, must satisfy the examiners in the practical and clinical parts of the examination in Parts II and III respectively.

Candidates may present themselves for the three Parts of the examination separately or at the same time, provided that no candidate shall be allowed to pass in Part II unless he has already passed in Part I, or in Part III unless he has already passed in Parts I and II. No candidate's name will be published until he has satisfied the Examiners in all three Parts of the examination.

Every candidate who has passed in all three Parts of the examination and is legally qualified and registered, shall receive a Diploma in Psychological Medicine.

Summary of Courses for Diploma in Psychological Medicine

Period.	Tuesdays.	Wednesdays.	Thursdays.	Fridays.
1st Term October to December			Physiology 2 p.m. General Psychology 4.30 p.m.	Clinical Neurology 2 p.m. Anatomy 3 p.m.
2nd Term January to March			Anatomy 2 p.m. Physiology 3 p.m. Experimental Psychology 4.30 p.m.	Physiology 2 p.m.
3rd Term April to June	Mental Diseases Lectures 4 p.m.	West Riding Mental Hospital, Wakefield. 2.30 p.m.		Neuropathology 2 p.m. Mental Diseases Lecture 4 p.m.

Subject to Alteration.

The foregoing summary does not include the Course in Clinical Psychiatry, which must be arranged with the Lecturer 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 the examination for the Diploma in Nursing, candidates, whose names shall be on the general part of the Register of Nurses :

(*a*) must have completed four years training in a general hospital recognised by the University for the purpose ;

or (*b*) must have completed a three years' training in an approved general Hospital and (after obtaining the State Certificate) have gained further two years experience of a character approved by the University.

3. Candidates shall furnish evidence of having attained an adequate standard in general education satisfactory to the University.

4. Candidates must attend a course of instruction in Elementary Social Economics in the University of Leeds. Fee £4 10s. 0d.

5. Candidates must pay a Registration Fee of £1 1s.

6. The examination may be taken at any time after the conditions defined in paragraphs 2, 3, 4 and 5 have been satisfied, upon payment of the examination fee of 2½ guineas for each part of the examination (total 5 guineas for the whole examination).

7. The examination shall be held in September and in March, but the latter examination will not be held unless there are three or more candidates.

The examination shall be by written papers, *viva voce* and/or practical work.

Parts I and II may be taken separately, but candidates are then required to pass in Part I before proceeding to Part II.

Part I—Paper and *Viva Voce* in all subjects :—

(*a*) Anatomy and Physiology.

(*b*) General Hygiene.

(*c*) Elementary Social Economics.

Part II—Paper and *Viva Voce* and/or practical examinations in each of the following subjects :—

(*a*) Hospital Administration.

(*b*) General Medical and Surgical Nursing and one of the following :—

(1) Infant Hygiene and the nursing of sick children

(2) Obstetric and Gynæcological Nursing.

(3) Fever Nursing and Epidemiology.

(4) Hygiene in relation to the duties of Public Health Nurses.

(5) Mental Nursing, including Psychology.

(6) Orthopædic Nursing.

(7) Surgical Nursing.

(8) Medical Nursing.

(9) Methods of Teaching and Elements of Educational Psychology.

Fees.

The fee for re-admission to each part of the examination is 2½ guineas.

Candidates who have obtained the Diploma may on a subsequent occasion enter for one or more of the optional subjects of Part II of the Examination on payment of a fee of £2 2s. per subject.

Enquiries should be directed to the Dean of the Faculty of Medicine from whom a form of application may be obtained.

DATES OF EXAMINATIONS

1. The Pre-registration examination will be held in June and September.

2. The First examination (Parts I and II) will be held in March and June.

3. The Second examination, the Third examination the Final examination Part II and the examinations for M.D.,* Ch.M. and the Diploma in Psychological Medicine will be held in March and September.

4. The Final examination (Part I) will be held in June and December.

5. The examination for Part I of the Diploma in Public Health will be held in March and September, and for Part II in June and December. The examination for the Diploma in Nursing will be held in September and March.

The exact dates are published on the notice boards some weeks in advance.

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* The M.D. examinations in State Medicine will be held in June and December.

COURSES OF STUDY IN PHARMACY

Chemist and Druggist Qualifying Examination

One Session (3 terms) commencing in October each year.

Pharmaceutical Chemist Qualifying Examination

Two Sessions (6 terms) commencing in October each year.

Students entering upon these courses must have completed their "Articles of Pupilage" and have passed the Preliminary Scientific Examination or have been referred in ONE subject only.

A copy of the Regulations governing these examinations may be obtained from the Registrar, Pharmaceutical Society, 17, Bloomsbury Square, London, W.C.1.

Text-books Recommended

British Pharmacopoeia, 1932, *and Addendum.*
Trease's *Pharmacognosy.*
Bentley's *Pharmaceutics.*
Bentley & Driver's *Pharmaceutical Chemistry.*
Bennett's *Pharmaceutical Latin.*
Lupton's *Mathematics of Pharmacy* } obtainable from the
Lupton's *Forensic Pharmacy* } Department.
Stiles or Winton and Bayliss' *Human Physiology.*

Preliminary Scientific Examination

Courses in preparation for this Examination are conducted at the Leeds Technical College and other centres.

A limited number of students who have been registered as "Apprentice or Student" with the Pharmaceutical Society, will be admitted to the Science courses at the University to prepare for this examination, provided they have passed the examination for Matriculation into the University conducted by the Northern Universities Joint Matriculation Board.

FEES.

All students on first admission to the University pay a Registration Fee of £2.

Courses for—

Preliminary Scientific Examination.
Chemist and Druggist Qualifying Examination.
Pharmaceutical Chemist Qualifying Examination.

Sessional Tuition Fee:

(*a*) If paid in one sum in advance: £32 10s. 0d.

(*b*) If paid in instalments:
£20 payable at beginning of 1st Term.
£14 payable at beginning of 2nd Term.

In addition to the above, an apparatus deposit of £2, and, in the case of Ph.C. students, a library deposit of 10s. 6d. are payable at the beginning of the course. These deposits, less the cost of breakages and replacements, will be refunded at the end of the course.

If a microscope is hired, a fee of 10/– a session will be charged.

Students desiring admission to the University are advised to make early application on a form to be obtained from The Registrar, The University, Leeds.

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.

In connection with the clinical teaching in the Infirmary the Instructional Block provides ample accommodation for clinical lectures and tutorial instruction, as well as a clinical laboratory for the use of clerks and dressers.

Students are prepared for the degrees of Leeds and other Universities, and for the diplomas of all Medical Licensing Bodies in the United Kingdom.

The present buildings were opened in 1894. They contain a fine Dissecting Room; fully equipped laboratories for Physiology, Biochemistry, Pathology and Bacteriology; adequate Lecture Theatre and Class Room accommodation; a Library and Reading Room; a Pathological Museum, and a separate Museum for Anatomy. Extensive additions to the School were opened on October 1st, 1930, and a new Institute of Pathology in April, 1933.

The convenience and comfort of students are also provided for by commodious common rooms and a refectory.

Prescribed Course of Studies for Medical Students

Students who have fulfilled the entrance requirements of the Northern Universities' Joint Matriculation Board or who have passed a recognised alternative examination in general knowledge are registered with the General Medical Council on passing the pre-registration examination in inorganic chemistry and physics. Thereafter they require to spend five years and nine months on a prescribed course of studies, three of which shall be clinical years.

The full medical curriculum may be divided into three periods, the pre-registration, the pre-clinical and the clinical. The pre-registration period, if spent in the University, extends from October to June, and is devoted to the study of inorganic chemistry and physics. The pre-clinical period, approximately two years and nine months in length, is spent in the study of organic and physical chemistry, botany, zoology, anatomy, physiology pharmacology and pharmacy. This is followed by an interpolated term during which the subjects of study are pharmacology and pharmacy, introductory bacteriology and introductory general pathology. The final period of three years is devoted to pathology and bacteriology, and the various clinical subjects, including hospital practice.

The regulations of the School of Medicine of the University of Leeds require that in general 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.

Candidates, however, who are exempted in chemistry and botany but not in physics will be permitted to take a two term course in physics during the first year of professional study and to take an examination in this subject in March or June with the examination in organic and physical chemistry and zoology. Students who fail in either part of the First examination in March may be permitted by the Board of Medicine to commence the study of anatomy and bio-chemistry in the third term of the first pre-clinical year but, should they fail at the subsequent examination in June, will be required to repeat such parts of the first year work as may be necessary and will not be allowed to continue with the study of anatomy and physiology.

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 no part of the course is to be looked upon merely as a formality necessary for "signing up."

Students should not attend classes in vaccination and infectious diseases until they have attended some lectures in medicine and pathology.

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 practise 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, these may be obtained in the Dean's office.

GENERAL REGULATIONS FOR STUDENTS

1. All students are required to enrol their names at the Dean's office on or before the opening day of each session. Students who from any unavoidable cause are prevented from personally attending at that time must communicate with the Academic Sub-Dean by letter.

2. 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 for approval the address of such lodgings. Students who have taken registered lodgings are required to inform the Supervisor of Lodgings beforehand if they desire to move into other registered lodgings.

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 students performing their duty in the Receiving Room, or in 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 not allowed in the Lecture Theatres, Class Rooms, or Laboratories, except on occasions when considered advisable by the Professor or Lecturer in charge of the students.

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

The Library contains 18,728 books and pamphlets, of which the early volumes of periodicals and out-of-date text books and monographs are temporarily housed in the Brotherton Library. The valuable collection of the Leeds and West Riding Medico-Chirurgical Society, which had been long housed in the School of Medicine, was presented to the University in 1926. The Society continues to contribute £100 a year for its maintenance.

The early section is rich in medical classics which came mainly from the Library of the Old Infirmary, presented to the School of Medicine in 1865. But the most prominent feature of the Library is the extensive collection of periodicals, no effort having been spared to make this as complete as means allow.

A considerable selection of text books and monographs is also maintained, more ephemeral requirements being largely met by a subscription to a circulating library which allows twenty volumes to be borrowed at a time.

Recommendations for the purchase of new books should be entered in the suggestions book.

General Regulations.

1. Members of the Academic Staff, members of the Leeds and West Riding Medico-Chirurgical Society, and students of the School of Medicine are entitled to the use of the library. Full members of the Medico-Chirurgical Society are subject to the same regulations as members of the Staff

(for temporary members, see Regulation 11). Non-medical students may only use the Library on production of a written recommendation from the Head of their Department and with the permission of the Librarian.

2. The Library is open daily between the hours of 9 a.m. and 5 p.m., except on Saturdays when it is closed at 1 p.m. It is also open from 5 p.m. until 8 p.m. on the days of meeting of the Leeds and West Riding Medico-Chirurgical Society.
3. No book shall be removed from the Library unless the borrower shall have first filled in the form provided.
4. No mark of any kind shall 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 necessary to make good the loss or injury. Should it be impossible to make good the loss or injury, such fine shall be imposed as the Library Committee may determine.
5. Books placed in the reference sections of the Library, volumes on the recent accessions shelves and unbound numbers of periodicals, other than the current number, may, subject to the permission of the Librarian, be taken out of the Library, but only after 4 p.m. (12 noon on Saturday). They must be returned before 10 a.m. on the next day on which the Library is open. Failing return, a fine of twopence a day shall be imposed. The four most recent bound volumes of the *British Medical Journal* and the *Lancet* are regarded as books of reference.
6. All books must be returned to the Library for the annual inspection, ordinarily held during the period of the written examinations in March. A fine of twopence per book shall be imposed, up to the limit of the price of the book, for every day that it is detained beyond the time for its return for the inspection. The same shall apply to books lost, unless the loss has been notified to the Librarian before the days of inspection.
7. No person shall borrow a book from 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.

Regulations affecting Members of the Academic Staff.

8. No member of the staff shall be entitled to have at one time more than twenty-five books borrowed from the Library.
9. Any member of the staff shall be entitled to take out such books as he requires up to the prescribed number and to retain them until such time as he may receive a notice that any of them 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.

10. Professors and Readers may obtain Library keys, *for personal use only*, on application to the Library Committee.

REGULATIONS AFFECTING TEMPORARY MEMBERS OF THE LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

11. Temporary members of the Medico-Chirurgical Society may not retain books for longer than four weeks.

REGULATIONS AFFECTING STUDENTS.

12. Every student of the School of Medicine shall pay a deposit of half-a-guinea; this sum, which is paid at the same time as the second instalment of the composition fee, or the balance of it remaining, shall be refunded to the depositor on his completion of the course.

13. 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. Three books only may be borrowed at a time, except that students in the final year of an honours science school may borrow up to ten books at a time. If a book is not returned on the day on which it is due the borrower shall be fined twopence if the book is returned within seven days following the day on which it is due, and fourpence a week for each week, or portion of a week, after that period.

Museums

A MUSEUM OF ANATOMY was fitted up under the direction of the first Professor of Anatomy (Dr. T. Wardrop Griffith). The Anatomical Museum will shortly be transferred to more commodious quarters, which will allow of considerable extension and development.

The MATERIA MEDICA Museum, which contains a complete type collection of specimens, is also available for the convenience of students.

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.

Lockers

These are provided for the safe keeping of coats, books, &c. The rent is 3s. 6d. per annum, due on the first day of each session, with a deposit of 1/6, which will be returned if the locker is undamaged when the key is given up.

Refectory

The Refectory is open daily, excepting Saturday. It is managed by a committee representing 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

All students of the University paying a composition fee become *ipso facto* members of the University Union: the composition fee includes the Union subscription of £4 per annum.* Membership of the Union covers membership also of the debating societies, admission to athletics and the gymnasium and the use of the common rooms. The affairs of the Union are managed by the Union Committee, which is a student body, representative of all faculties in the University.

Students' Representative Council

This is the medical students' council: its members, composed solely of medical students, are elected annually. It is responsible for organising the social and athletic life of medical students, and amongst other things, organises the annual medical dinner and the annual medical ball. It represents the medical students upon the Union Committee and the Refectory Committee. The common room in the Medical School has been recently refurnished and is provided with periodicals. There is a second smaller common room for the use of students in the Infirmary.

1940-41.

President: C. H. Merry. *Hon. Sec.:* J. A. Knowles.

Medical Women's Representative Council

This council is similar in its functions to the Students' Representative Council but concerns itself with the social life of the women medical students, who have their own comfortably furnished common room.

1940-41.

President: Miss L. J. McLeod.
Hon. Sec.: Miss I. H. M. Blyth.

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* From Session 1939-40, the composition fees have been increased by £1 a session in respect of an increase in the subscription to the Students' Union.

Athletics

In addition to the usual University Clubs there are several athletic clubs which cater specially for medical students, who, owing partly to different dates of examinations, may be unable to give the time to the university games which is desirable.

THE RUGGER CLUB. Founded in 1931, this is by far the largest club, running four teams. The standard of play is high, and it has a fixture list which is one of the very best among the junior clubs in the county. A feature is a London tour to play the large London hospitals.

1940-41.

Captain : J. C. Cooper. *Vice-Captain :* J. A. Knowles.
Hon. Sec. : G. N. Shone.

CRICKET CLUB. This was founded in 1935 and is an enterprising organisation, playing Saturday and mid-week games throughout the season.

1940.

Captain : L. B. Wilson. *Vice-Captain :* W. E. Brigg.
Hon. Sec. : J. A. Judson.

TENNIS CLUB. Founded in 1933, the tennis club plays a number of matches during the summer. The " Lady Moynihan " doubles cup and the " Walter Thompson " singles cup are competed for annually.

GOLF. Whilst there is no specific Medical School Golf club, there are annual scratch and handicap competitions and matches against the Staff. Golf has always attained a very high standard in the Medical School.

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 1940-41 are—

Presidents : Professor E. R. Flint, C. H. Merry, Mary Eglington.
Hon. Treasurer : F. F. Hellier, M.A., M.D., M.R.C.P., G. N. Shone.
Hon. Secretaries : G. R. T. Birtwhistle, D. T. Milnthorpe.
Editor of Transactions : Lilias J. G. McLeod.

A copy of the Constitution of the Medical Society can be obtained from the Dean's Office.

The Medical Magazine

is published three times a year under the title of *The University of Leeds Medical Magazine.* It presents original articles on medical subjects of special and general interest and reports of Medical School and Hospital affairs.

The magazine officers for 1939 are :—

President : R. Broomhead, F.R.C.S.
Editor : R. E. Tunbridge, M.Sc., M.D., M.R.C.P.
Assistant Editors : W. A. Bain, B.Sc., Ph.D., F.R.S.E., R. B. Zachary, B.Pharm.
Treasurer : F. F. Hellier, M.A., M.D., M.R.C.P.
Business Manager : C. H. Merry.

The annual subscription is 10/6. All communications should be addressed to the Editor.

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.

SENIOR SCHOLARSHIPS

The MEDICAL SCHOLARSHIP (founded 1888), consists of a free ticket to the lectures and laboratory courses in the Faculty of Medicine of the University, and is at present of the value of £130. It is awarded, after a report from the examiners, on the results of the *First* M.B. examination of the University of Leeds.

The INFIRMARY SCHOLARSHIP—this scholarship is of the value of £75, and consists of a free ticket to the Clinical teaching in the Leeds General Infirmary.

The scholarship is awarded, after a report from the Examiners, on the results of the *Second* M.B. Examination of the University of Leeds.

Present Scholarship Holders

MEDICAL SCHOLARSHIP.

1936	R. I. T. Lloyd and G. H. Templeman
1937	G. Hipps and Mary Eglington
1938	A. C. Knight
1939	Marjorie M. Neil
1940	Mary A. Hewett

LEEDS INFIRMARY SCHOLARSHIP.

1938	D. L. Richardson
1939	H. Gray and G. M. Williamson
1940	J. Davies

For full particulars of all University Scholarships and for the general regulations under which Scholarships are held, see the Scholarships Prospectus. For particulars of Scholarships awarded by the Leeds City Council, apply to the Director of Education, Higher Education Department, Leeds.

FELLOWSHIPS

Thorp Fellowship in Forensic Medicine and Public Health

The annual income of the Thorp Fund, instituted by the late Dr. Disney L. Thorp, one of the founders of the Leeds School of Medicine is applied to provide in every alternate year a Fellowship of the value of approximately £150 to a student or graduate of the University who proposes to undertake an approved investigation of some subject bearing upon Forensic Medicine or Public Health.

Candidates must be graduates of this University, or qualified medical men or women who have been students of the University for not less than three years.

Each applicant must submit a detailed statement of the investigation which he proposes to undertake and must state also the Department of the University in which he desires to work.

Holders of the Fellowship will be required to devote the whole of their time to research unless with the express permission of the Professor under whom they are working. On completion of their tenure of the Fellowship they will be required to submit a report on their work to the Clerk to the Senate.

The award will be made by the Senate on the recommendation of the Board of the Faculty of Medicine. Applications should be in the hands of the Clerk to the Senate by 1st May in each year.

Centenary and Hardwick Fellowship

This Fellowship is endowed by means of the Fund collected on the occasion of the Centenary of the School of Medicine and by the accumulations of the Hardwick and McGill Prize Funds.

A Fellowship of the approximate value of £150 is awarded every alternate year to a student or graduate of the University who proposes to undertake some approved clinical investigation.

Candidates must be medically qualified and must have been students of this University for not less than three years.

Each applicant must submit a detailed statement of the investigation which he proposes to undertake and must state also the Department of the University in which he desires to work.

Holders of the Fellowship will be required to devote the whole of their time to their research unless with the express permission of the Professor under whom they are working. On completion of their tenure of the Fellowship they will be required to submit a report on their work to the Clerk to the Senate.

The award will be made by the Senate on the recommendation of the Board of the Faculty of Medicine. Applications should be in the hands of the Clerk to the Senate by 1st May in each year.

AWARD

1938 C. L. Davidson.

PRIZES

The Littlewood Prize

The late Colonel Harry Littlewood, formerly Professor of Surgery in the University, bequeathed a legacy of £1,000 to be applied for providing a prize in the Anatomy Department, every year or in alternate years.

The prize will be awarded on the result of the examination in Anatomy for the Second M.B., Ch.B. in March of each year, provided that the candidates have attended the full course of Anatomy in this University, and that students for other qualifications who have attended the full course be permitted to compete for the prize.

AWARD

1935 C. Pickard. 1936 K. D. Wood. 1937 R. B. Zachary.
1938 R. I. T. Lloyd. 1939 Kathleen M. Harrison.
1940 J. Davies.

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 February. The value of the prize, which consists of books or instruments, is five pounds.

AWARD

1935 E. H. Kitching. 1936 J. C. Coates. 1937 J. A. Rhind.
1938-40 No award.

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 February. 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

1935 J. F. Goodall and E. H. Kitching.
1936 R. L. Lamming.
1937 J. A. Rhind.
1938 J. K. Drucquer and E. W. Jackson.
1939 J. M. Fitton.
1940 L. Watson.

The McGill Prize in Clinical Surgery

The McGill Prize in Clinical Surgery, value £10, is given annually on a competition which takes place in February. 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.

Candidates must be students in the School of Medicine of the University of Leeds and must 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.

AWARD

1935 F. R. R. Martin.
1936 No Award.
1937 I. D. Riley.
1938 W. M. H. Shaw.
1939 J. M. Fitton.
1940 R. B. Zachary.

Edward Ward Memorial Prize in Surgical Anatomy

The Edward Ward Memorial Prize in Surgical Anatomy of the value of approximately £3 10s. 0d. 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 March 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 sixth year) but due allowance will be made for those whose course has been extended by extra courses for the B.Sc. or Primary Fellowship, or for other reason satisfactory to the Board.

AWARD

1935	E. H. Kitching.	1938	W. M. H. Shaw.
1936	R. N. Tattersall.	1939	C. Pickard.
1937	I. D. Riley.	1940	R. B. Zachary.

William Hey Medal

The sum of £200 has been invested 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 September on:—

(*a*) The results of the Final M.B. (Part II) examinations held in March and September of the same year. Previous examinations, Second M.B., Third M.B., and Final M.B. (Part I), 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	1929	E. J. Wayne
1921	G. Armitage	1930	No award
	D. Chamberlain	1931	P. R. Allison
1922	No Award	1932	E. Gledhill
1923	G. F. Walker	1933	No award
1924	Marjorie E. Knowles	1934	H. S. Shucksmith
1925	No award	1935	E. H. Kitching
1926	No award	1936	R. L. Lamming
1927	No award	1937	J. A. Rhind
1928	D. W. Currie	1938	W. M. H. Shaw
		1939	C. Pickard and P. E. R. Tattersall.

West Riding Panel Practitioners' Prize

The prize is awarded annually on the result (in Medicine only) of the Final M.B., Ch.B. examinations 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

1934	No award.	1937	J. A. Rhind.
1935	E. H. Kitching.	1938	W. M. H. Shaw.
1936	R. L. Lamming.	1939	P. E. R. Tattersall.

The Hillman Prize in Clinical Medicine

This prize (approximately of the value of £30) will be awarded annually in March for the best clinical paper submitted by candidates who have taken the whole of their clinical course in Leeds and who are either completing their final examination at that time or who have obtained their medical qualification within the preceding twelve months.

The paper shall consist of :—

(i) The clinical history and physical examination as originally written up by the candidates in the

Infirmary records of two of the cases assigned to them during their medical clerkship, one case to be selected from each of their three months' appointments.

(ii) A commentary on each case as to diagnosis, prognosis and treatment, including post-mortem findings and "follow up" records, if any.

This paper must not exceed a total of 4,000 words and should be submitted by the 15th January in each year. The general clinical work of the candidates during their clerkship will be taken into consideration, and an examination in Clinical Medicine may be held, if deemed necessary.

AWARD

1938 I. R. Gray. 1939 J. K. Drucquer. 1940 No award.

Prize in Anatomy and Physiology

A prize of the value of £5 will be awarded in March of each year for an essay not exceeding about 5,000 words in length on some subject connected with the anatomy or physiology of the female reproductive system. The subject shall normally be announced in March of each year and essays must be sent to the Dean of the Faculty of Medicine not later than 1st March in the following year.

Candidates may be required to submit themselves to a *viva voce* examination.

Students in the clinical years and in the last pre-clinical year will be eligible to compete for the prize. No student may compete more than once.

The subject of the essay for the first award of the prize, which will be in March 1941, will be :—

"The evolutionary origin and the functional anatomy of the various muscular mechanisms associated with the pelvic outlet."

AWARD

1938 I. B. Gartside. 1939 C. Pickard. 1940 No award.

The Butterworth Prize

The prize, which has been presented by Messrs. Butterworth and Co., consists of a complete set of the British Encyclopædia of Medical Practice (in twelve volumes).

The Prize is awarded in March of each year to the candidate who at the March examinations or at the previous September examinations has obtained the highest marks in the clinical part of the Final M.B., Ch.B. Examination Part II in the subjects Medicine, Surgery and Obstetrics and Gynæcology.

AWARD

1939 J. M. Fitton. 1940 R. B. Zachary.

APPOINTMENTS FOR SENIOR STUDENTS IN THE SCHOOL OF MEDICINE

Prosectors

Senior students will, from time to time, be appointed 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

Five Resident Medical appointments tenable for six months but subject to re-appointment, comprising

Senior Resident Medical Officer, salary £200 : Casualty Officer and Surgeon, £150 : and three House Physicians, £150. In each case board, residence and laundry are provided.

Clinical Assistants in the Out-patient Department are appointed by the Board on the recommendation of the Medical Faculty, for one year, subject to re-appointment.

At the Leeds Maternity Hospital

Resident Surgical Officer, salary £200 a year, and four House Surgeons, honorarium £75 a year each. Board, apartments and washing are provided for these officers.

At the Leeds City Fever Hospitals

Three resident appointments, a senior at £400 a year, and two junior appointments, tenable for 6 months, at £250 a year, in each case with board, apartments and washing. Applications to the Medical Superintendent

At the Hospital for Women 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 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 the Medical Superintendent at the Hospital.

Temporary or permanent members of the Medical Staff of the Institution have facilities for the systematic training required for the Diploma in Psychological Medicine.

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*Students are eligible for appointment only after they have attended the course in Mental Diseases.

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, orthopædic, 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 offered to students, will be found in the Infirmary Section of the Medical Prospectus.[1]

Leeds Public Dispensary and Hospital

The attendances in the Out-patient Department of this Institution in the past year were 104,251. Accidents treated averaged 51 per day, and operations 3,355 per year. Visits were also made to patients in their own homes.

There are four Wards, including a Children's Ward, with accommodation for 40 beds.

The Institution is fully equipped and has departments for medical and surgical cases, and for the treatment of Eye, Ear, Nose and Throat 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, Dr. E. C. Benn) on having obtained sanction from the Dean of the Faculty of Medicine

[1]Enquiries relating to attendance at the Infirmary should be made (through the Dean's Office) to the Clinical Sub-Dean (Dr. Bibby), 24, Park Square.

of the University of Leeds, subject to such regulations as may be made from time to time by the Leeds City Council.

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.

Courses lasting two months are held in each term on two afternoons in each week.

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 hospital practice *must be completed during the term for which they enter.*

Special courses are held for post-graduate (D.P.H.) students.

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 at Leeds

The wards contain 95 beds for the treatment of gynæcological and obstetric diseases, 54 of which are available for student teaching, and 6 beds at the Ida Convalescent Hospital. Students attend the practice of the hospital in accordance with the University regulations. Three 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. Three Anæsthetists, who must be legally qualified, are appointed annually. Each receives an honorarium of £50 per annum. Honorary Clinical Assistants may be appointed by the Honorary Staff. These appointments are specially valuable to those wishing to do post-graduate work in gynæcology.

Leeds Maternity Hospital

The Maternity Hospital is attached to the University of Leeds for the purposes of clinical training in Obstetrics.

There are 140 beds for cases of labour and the treatment of morbid pregnancy in the main building and 60 in the annexe at Cookridge. There are also an out-patient department and large extern districts.

During last year 4,107 in-patients were treated and 352 attended in the districts.

Every student is required to take an Obstetric clerkship for three months including attendance in the intern department of the Lying-in-Hospital, and extern attendance on cases in the district. During this period personal conduct of not less than twenty cases of labour is required. Residence in the Maternity Hostel is compulsory throughout this appointment.

Students when attending the Fever Hospital are not allowed to act as maternity clerks.

Students work under the immediate supervision of the University Tutor in Obstetrics, Resident Surgical Officer and subject to the control of the Honorary Medical Staff.

West Riding Mental Hospital, Wakefield

This Hospital, which accommodates 2,400 patients, offers unusual advantages to those who desire to make themselves conversant with the treatment and management of the insane. A separate building, containing 400 beds, has been provided for the treatment of acute insanity. Clinical lectures and demonstrations are given at the hospital 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 Superintendent. 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 Hospital have facilities for the systematic training required for the Diploma in Psychological Medicine.

LECTURES AND CLASSES

HELD IN THE UNIVERSITY ROAD BUILDINGS OF THE UNIVERSITY

Physics

It is very desirable that students taking this course 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 course will consist of lectures on Monday, Wednesday and Friday, 10 to 11 a.m. Laboratory work is on Wednesday and Friday, 11 a.m. to 1 p.m. and on Wednesday or Thursday, 9 a.m. to 10 a.m.

A course in Medical Physics will be held on Monday from 3 p.m. to 4 p.m. in the first term of the first year of the medical course.

Chemistry

Inorganic Chemistry

This course will consist of lectures on Monday, Tuesday and Thursday, at 2 p.m.

Laboratory work during the first term is on Monday and Tuesday, 11 a.m. to 1 p.m. and Thursday, 3 to 5 p.m.

Tutorial classes are from 10 a.m. to 11 a.m. on Tuesday.

Organic and Physical Chemistry

Organic Chemistry lectures are given on Monday at 2 p.m. and Thursday at 9 a.m. during the first two terms.

Laboratory classes in Organic Chemistry are held from 2 to 5 p.m. on Thursday and Friday during the first two terms.

Lectures on Physical Chemistry are given in the first two terms at 9 a.m. on Tuesday and Friday.

Laboratory classes in Physical Chemistry are held on Tuesday, from 10 a.m. to 1 p.m. and from 2 to 5 p.m., during the first two terms.

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 first, and part of the second 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.

Botany and Zoology

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 and laboratory work on Botany take place on Mondays and Wednesdays during the first and second terms, commencing at 10 a.m.

Lectures and laboratory work on Zoology take place on Thursday and Friday during the first and second terms, commencing at 10 a.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. The microscope used must be approved by the Head of the Department.

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.

Course in Sanitary Construction and Planning, &c. (D.P.H.)

First term, Wednesdays 10 to 11.30 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 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. Visits to typical works will be arranged when time permits.

TEXT BOOKS.

Drainage and Sanitation, E. H. Blake (B. T. Batsford, Ltd).
Architectural Hygiene, B. & H. P. Fletcher (Pitman).
Modern Methods of Water Purification, J. Don & J. Chisholm (Arnold & Co.).
Building Construction (2 Vols.), C. A. Mitchell (B. T. Batsford, Ltd.).

Courses in Psychology for the Diploma in Psychological Medicine

A course in General Psychology is given in the Department of Education, University Road, on one day per week during the first term.

A course in Experimental Psychology is given in the same Department on one day a week during the second term.

HELD IN THE BUILDINGS OF THE SCHOOL OF MEDICINE OF THE UNIVERSITY IN THORESBY PLACE

Pharmacy

Lectures on Saturdays at 9.15 a.m. during the 3rd Term, and Practicals during July, commencing at 9.30 a.m., on days to be arranged.

Materia Medica.—Sources, preparation, physical characters, pharmacopœial 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 pharmacopœial preparations and chemicals.

The first half-hour is given to demonstration and tutorial teaching in materia medica, the remaining time being devoted to practical pharmacy.

Anatomy

Including Embryology, Histology and Neurology

The course for medical students extends over five terms. Shorter courses are arranged for other groups of students.

Lecture Courses

These include courses of instruction in Embryology, Histology, Neurology and topographical anatomy. The key-note of all teaching to medical students is the

application of anatomy to the clinical subjects. Demonstrations in Clinical Anatomy are given from time to time.

Living Anatomy and X-Ray Anatomy

Throughout the course the students' attention is constantly directed to the study of living anatomy and its appearance as revealed by X-rays. Regular classes are held to deal with these aspects of the subject; the students themselves act as models for such classes.

Practical Classes

Anatomy.—Students dissect the human body under supervision throughout the five terms. Lectures are correlated with the practical work. The dissecting room is closed during vacations.

NOTE.—Each student must possess a half skeleton and it is essential that he should have access to a disarticulated skull. Groups of students may combine in purchasing the latter. The laboratory attendant in Anatomy will supply bones to students by arrangement.

Histology and Embryology.—Practical instruction in these subjects is given throughout the five terms. *It is essential that each student be provided with a microscope of approved type at the commencement of the course in Histology.* Details as to suitable types of microscopes and the mode of securing them may be had on enquiry from the Department of Zoology.

Neurology.—A practical course in neuro-anatomy is held in the students' fourth term. This is correlated with the lecture course in the same subject.

Special courses on the anatomy of the sense organs are given during the students' fifth term.

Each student will be required to pay a deposit for use of apparatus and microscopic preparations.

Applied Anatomy.—A special class is arranged during the second and third terms for senior students preparing for the final examination.

Psychological Medicine.—Students reading for the Diploma in Psychological Medicine attend a special course of lectures on the Anatomy and Development of

the nervous system. Classes are held on Fridays at 3 p.m. during the first term and on Thursdays at 2 p.m. during the second term.

NOTE.—Any student unable to attend the classes in Anatomy for any reason whatsoever will communicate with the Professor.

B.Sc. in Anatomy

Special courses are arranged for students desirous of taking the B.Sc. degree in Anatomy. Intending students should consult the Professor of Anatomy.

TEXT BOOKS FOR STUDENTS IN ANATOMY.

Buchanan's Manual of Anatomy, by J. E. Frazer. 6th Ed.
Practical Anatomy, by Frazer and Robbins. 2 vols.
Principles of Anatomy, by F. Wood Jones.
Anatomy of the Nervous System, by S. W. Ranson.
Bailey's Textbook of Histology, by Elwyn and Strong.
Essays on Evolution, Sir G. Elliot Smith.

NOTE.—Students should purchase only from above list and *only most recent editions.* Other books will not be used in the Department. Further advice may be obtained from the Professor of Anatomy.

Physiology

The courses in Physiology form part of the courses for the degrees of B.Sc., M.B., B.Ch.D., and L.D.S., and for Pharmaceutical qualifications.

I. Elementary Course in Physiology

The elementary course in Physiology is specially devoted to the needs of L.D.S. students.

Lectures.

First Term: Monday, Tuesday and Thursday, 12 noon.

Second and Third Terms: Monday, Wednesday and Thursday, 12 noon.

Practicals.

First Term: Biochemistry, Wednesday 9.30 a.m.
Second Term: Biochemistry, Wednesday, 10 a.m.
Second Term: Histology, Friday, 3 p.m.
Third Term: Experimental, Tuesday, 10 a.m.
Human Physiology, Wednesday, 10 a.m.

II. General and Senior Course

The complete course designed for M.B., Ch.B., and B.Ch.D. students occupies five terms.

(*b*) General Lectures :—

First, Second and Third Terms, Second Year : Tuesday and Thursday, 9.15 a.m. Wednesday, 12 noon.

(*c*) Senior Lectures :—

First and Second Terms, Third Year : Monday, Wednesday and Friday, 9.15 a.m.

(*d*) General Practical Course :—

First Term, Second Year : Biochemistry, Tuesday, 10 a.m. or 2 p.m. Experimental, Tuesday, 10 a.m. or 2 p.m.

Second Term, Second Year : Experimental, Monday, 10 a.m. and 2 p.m., Tuesday, 10 a.m. or 2 p.m. ; Biochemistry, Tuesday, 10 a.m. or 2 p.m.

Third Term : Experimental, Thursday, 10 a.m. or 2 p.m. ; Human Experimental Physiology, Friday, 10 a.m. or 2 p.m. ; Biochemistry, Tuesday, 10 a.m. or 2 p.m.

(*e*) Senior Practical Course :—

First Term, Third Year : Human Experimental Physiology, Monday or Tuesday, 10 a.m. ; Biochemistry, Monday, 10 a.m., alternate weeks ; Histology, Thursday, 10 a.m. or 2 p.m.

Second Term : Human Experimental Physiology, Thursday, 10 a.m. or 2 p.m. ; Experimental, Friday, 10 a.m. or 2 p.m. ; Biochemistry, Monday, 10 a.m. or 2 p.m. ; Histology, Thursday, 10 a.m. or 2 p.m.

During the third term of the second year and the first and second terms of the third year students will be required to attend a tutorial class for one hour per week.

The courses for Science students (Subsidiary or Principal) will be arranged after consultation with the Professor.

III. Revision Classes

Revision classes are held at times to be arranged.

IV. Applied Physiology

A course of lectures and practical work on Human Physiology and its application forms part of the general and senior courses in Physiology.

V. Honours Course

A course of advanced lectures and practical work for students taking the Honours degree of B.Sc. is held throughout the year; for details consult Calendar.

VI. Course for the Diploma in Public Health

A course in physiology and biochemistry in relation to nutrition is given during the first and second terms.

VII. Course for the Diploma in Psychological Medicine

A course in the physiology of the nervous system is given on one afternoon a week during the first term; and two afternoons a week during the second term.

VIII. Courses for Pharmacy Students

Courses of lectures and demonstrations designed to meet the requirements of pharmacy students will be held throughout the session.

IX Research in Physiology

Students or others desiring to pursue, or to assist in, original investigations in Physiology will be admitted to the laboratories throughout the year by arrangement with the Professor. They will be personally responsible that the apparatus they employ is not broken or misused.

Apparatus

Students are required to provide themselves with :—

(*a*) A good microscope, 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 an approved instrument.

(*b*) Instruments required for laboratory work.

No apparatus may be removed from the Laboratory without the permission of the Professor, and then only on furnishing a written receipt.

The workshop is private and not to be used without permission.

Pharmacology

The principal courses in Pharmacology form part of the curriculum for the degrees of M.B., Ch.B. and B.Ch.D. Separate courses are given to meet the requirements of candidates for the L.D.S. diploma, and for the Chemist and Druggists and the Pharmaceutical Chemist qualifications respectively.

I. Experimental Pharmacology for M.B., Ch.B. and B.Ch.D.

A laboratory course of one term in which, because of the shortness of the time available and the fact that observations of a pharmacological nature have already been made on animals and on animal tissues in the class of Experimental Physiology, attention is devoted exclusively to a practical study of the actions of drugs on man.

The class is held in two sections in the third term on Mondays and Tuesdays from 2-4 p.m.: Section A on Mondays, and Section B on Tuesdays.

Leeds M.B. candidates attend in their first clinical term, *i.e.* immediately after completing the degree examinations in Anatomy and Physiology. Students referred for six months in Anatomy and Physiology also take the class at this time, but those referred for twelve months are excluded.

B.Ch.D. candidates attend in the third term of their fourth year.

Candidates for the London M.B., B.S. degrees, or for the Conjoint Qualification, should attend the Experimental Course in the Summer term of their third year, i.e. in the term commencing April, 1941 *for those who entered the School in October* 1939.

II. General Lecture Course for M.B., Ch.B. and B.Ch.D.

A course in General and Systematic Pharmacology, on Mondays and Tuesdays at 12 noon, dealing with the nature, standardisation, action, mode of action, absorption, fate and excretion of drugs, with special reference to man and to the drugs used in medicine.

Leeds M.B. and B.Ch.D. candidates start attendance on this course in the first term of the fourth year and continue attendance on one day per week for four further terms: for days and times see time-table.

Students reading for the London M.B., B.S., or for the Conjoint Qualification, who require to complete their courses in Pharmacology at a much earlier stage than the Leeds M.B. candidates, should start attendance at Pharmacology lectures in the Summer term of their second year, i.e. in the first Summer term after entering the School (April 1941 for those who entered the School in October 1940). In this term they would take one lecture per week (Mondays at 12) and, in the succeeding two terms, two lectures per week, thus completing the lecture course in three terms instead of five. Attendance on the experimental course (see above) is obligatory and, for such students, follows completion of the lecture course.

III. Course for Pharmaceutical Chemist Qualifying Examination

A course of lectures covering the syllabus in Pharmacology for the Ph.C. qualifying examination: at times to be arranged

IV. Experimental Pharmacology for Ph.C. Candidates

A practical course in General Experimental Pharmacology, including the biological assay of drugs, in the second and third terms of the second year at times to be arranged.

V. Course for the Chemist and Druggist Qualifying Examination

A course of ten lectures and demonstrations on general pharmacology and autopharmacology : at times to be arranged.

VI. Revision Classes

No time is available for special revision classes at present. All students referred in their degree examinations are expected to attend the available medical classes in Pharmacology during the period of their reference.

VII. Research in Pharmacology

Graduates or senior students who wish to assist with, or to undertake, original investigations in Pharmacology should consult the Reader, who is in charge of the Research Laboratory.

Pathology and Bacteriology

The principal courses for medical students (I, II and III) extend over the first and second clinical years, and in addition there is a short course in clinical pathology (IV) in the third clinical year. Each course comprises both lectures and practical work. For Courses I, II, III, IV, VI, and VII students must be provided with a good microscope, having an oil immersion lens and substage condenser.

I. General Pathology

First term of first clinical year : Tuesday, Wednesday and Friday from 12 noon to 1 p.m.

Second term of first clinical year : Monday and Thursday, from 12 noon to 1 p.m.

The subjects dealt with are the vascular disturbances, the retrogressive tissue changes, inflammation and repair, atrophy, hypertrophy and new growth, and the pathology of animal parasitism.

Each student is supplied with a series of illustrative microscopic preparations for which a small charge, sufficient to cover the cost of materials, is made. Students must provide their own slide boxes, which should be large enough to take a gross of slides. This box will take also the preparations made in the course in Bacteriology.

II. Bacteriology and Immunology

Third term of first clinical year : Tuesday, Wednesday and Friday, from 12 noon to 1 p.m., and Thursday, from 2 to 5 p.m.

This course starts with a general survey of the morphology, classification, nutrition, multiplication and death of bacteria ; and of their rôle in nature. After this the phenomena of immunity are discussed and the different groups of bacteria important in the causation of disease. The pathogenic protozoa and fungi, the rôle of insect vectors of disease, and finally the present state of knowledge with regard to the production of disease by filter-passing viruses are considered

The practical part of the course includes the observation of bacteria by means of cultivation and the microscope and the demonstration of the phenomena of immunity, on which the various diagnostic, prophylactic and curative applications of bacteriology are based.

Students who commence their clinical work in April take Course II. first : those who start in July or October Course I.

III. Special Pathology

First term of second clinical year : Monday and Thursday from 12 noon to 1 p.m.

Second term of second clinical year : Tuesday, Wednesday and Friday from 12 noon to 1 p.m.

The subject-matter of this course includes the pathology of the principal infective diseases and the special pathology of the various systems of the body.

A loan collection of slides is supplied to each student at the beginning of this course on payment of a deposit of £1. All boxes of slides must be returned in good order not later than the 15th September following the date of issue, when the deposit money, less any charges for breakages, will be refunded.

IV. Clinical Pathology

Third term of third clinical year: Monday and Thursday from 12 noon to 1 p.m.

In this course the clinical applications of pathology (including chemical pathology and bacteriology) to the diagnosis of disease are considered in greater detail.

V. Tutorial Classes in Medical, Surgical, Gynæcological and General Pathology

will be held by Dr. Garland, Mr. Collinson, the Tutor in Obstetrics and Gynæcology and Demonstrators as may be arranged from time to time.

VI. Pathology and Bacteriology for Dental Students

This course, comprising both lectures and practical work, is held on Mondays and Thursdays during the first term and on Tuesdays and Thursdays during the second term, from 2 to 3.30 p.m. The first term is devoted to general pathology, the second to general bacteriology.

A course in special dental pathology is held in the third term during Tuesday mornings and Wednesday afternoons in the Dental School and Monday afternoons in the Pathological Institute.

VII. 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 10 a.m. to 12 noon on Fridays, and in the second term on Tuesdays from 10 a.m. to 12.30 p.m., in the Department of Zoology at University Road. The remainder of the course is held in the Medical School in the first and second terms.

SYLLABUS.

A Course in Department of Zoology.

1. Helminthology.

General morphology and bionomics of tremotodes, cestodes and nematodes. Distribution and control.

Diagnosis, prophylaxis and treatment of helminthic infections: the schistosomiases, 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 trypanosomiases, 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) First 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) Second 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.

VIII. Neuropathology for the Diploma in Psychological Medicine

A course in the pathology of the nervous system is given on one afternoon per week during the third term. 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.

IX. Bacteriology for Science Students

A. Elementary course.

This course is held during the first 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.

In addition to serving as an introduction for those who wish to study bacteriology for the purposes of a degree in pure science, this course is intended for students of chemistry and technology. It should give the latter a grasp of bacteriological technique and sufficient knowledge of bacterial activities to encourage them in applying bacteriological methods to their special problems when occasion arises.

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.

X. 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

Instruction is given as follows :—

1. Lecture courses, general and special.
   - (*a*) General Medicine : Mondays and Wednesdays, First, Second and Third Terms, 9 a.m.
   - (*b*) Special Subjects : Thursdays, Second and Third Terms, 9 a.m.
   - (*c*) Elementary Principles of Medicine : Third term, Mondays and Wednesdays, 9 a.m.

   (*For time-table details see later pages*).

2. Instruction by Medical Tutor.
   - (*a*) Special tutorial classes with instruction in laboratory tests and examinations.
   - (*b*) Training in physical diagnosis in the Wards.
   - (*c*) Revision classes.

3. Ward and out-patient teaching by the Honorary Staff in :—
   - (*a*) General Medicine.
   - (*b*) Diseases of Infancy and Childhood.
   - (*c*) Dermatology and Venereal Diseases.

4. Diagnostic Radiology and Radio-therapy.
   - (*a*) Lecture courses on Fridays during the first term and Wednesdays during the second term, 4 p.m.
   - (*b*) Practical demonstrations by the Departmental Officers.

   (*For time-table details see later pages*).

Clinical Neurology for the Diploma in Psychological Medicine

This course is given on one day per week during the first term.

Diseases of Infancy and Childhood

During the first term of the second clinical year students will attend a course of lectures in this subject, held on Mondays and Thursdays, at 4.0 p.m. They should attend the lectures before holding the clerkship in the Children's Department :—

The principles of infant feeding and the care and welfare of young children.

The diseases of the new born.

The digestive and nutritional diseases of children.

The common diseases in connection with the respiratory, urinary and muscular systems.

The nervous child and the diseases of the nervous system.

The common diseases of the skin as seen during childhood.

The infective diseases especially in connection with syphilis, tuberculosis, rheumatism and pneumococcal infections.

The common infectious diseases—whooping cough, measles, etc.

The anæmias and blood disorders of childhood.

Therapeutics

Mondays, Wednesdays and Fridays at 9 a.m., during the First term of the third clinical year.

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.

Surgery and Clinical and Practical Surgery

The demonstrations in surgical subjects will be given by the Assistant Surgeons of the Infirmary on Tuesdays and Fridays in the second and third terms at 9 to 10 a.m.

These lectures are supplemented by :

(*a*) Preliminary instruction and recapitulatory classes by the surgical tutors.

(*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*) Instruction in operative surgery is given to Dressers in the Operating Theatres during their nine months appointments. In addition special demonstrations of operations are given from time to time.

Orthopædic Surgery

Lectures and demonstrations in Orthopædic Surgery and the treatment of Fractures will be given on Mondays and Thursdays, during the second term at 4 p.m.

Obstetrics

Tuesdays, Thursdays and Fridays, during the First Term at 9 a.m.

The female pelvis and organs of reproduction. Menstruation, Ovulation, Fertilization, Implantation.

Pregnancy, normal and abnormal. Diseases of pregnancy. Abortion.

The fœtus, membranes and placenta. Their diseases. Ante-natal work.

Labour—normal and abnormal. Mechanism and management.

Pelvic deformity.

Obstetric instruments and obstetric operations.

The puerperal state and its pathology.

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 obstetric 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

Thursdays and Saturdays 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 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

Tuesday, Thursday and Saturday, at 9 a.m. during the First Term.

Meteorology and Climatology.
Building Construction and Housing.
Water and Water Supplies.
Drainage, Sewage Disposal and Removal of Refuse.
Air, Ventilation, Heating and Lighting.
Food and Dietetics, including Milk supply.
Infectious diseases, including Tuberculosis and Venereal Disease.
Disinfection and Disinfestation.
Maternity and Child Welfare.
Medical Inspection of School Children.
Social and Welfare Services.
Industrial Hygiene.
Vital Statistics.
The Law relating to Public Health.

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. As these visits represent the practical side of the course, it is expected that every student will make an endeavour to attend.

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, Wednesday and Thursday, at 4 p.m. during the First Term.

The General Medical Council statutory certificates.

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

Tuesday and Thursday at 4 p.m. during half of the Second 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

Tuesday and Thursday at 4 p.m. during half of the second term.

Instruction is given 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 Tuesday and Friday at 4 p.m., and clinical lectures and demonstrations at the West Riding Mental Hospital on Wednesday at 2.30 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 hospital museum.

Courses for the Diploma in Psychological Medicine

Candidates for this diploma are required to attend the above course of systematic lectures and clinical instruction, and in addition a special course of five lectures on morbid psychology.

Radiology and Radio-therapy

A short course of lectures in Diagnostic Radiology is given during the second term of the second clinical year on Wednesdays at 4 p.m., and in Radio-therapy during the first term of the third clinical year, on Fridays, at the same time.

COURSES HELD UNDER ARRANGEMENT WITH THE CITY OF LEEDS HEALTH AND OTHER AUTHORITIES

Vaccination

This instruction is given under the control of the Ministry of Health at the General Infirmary at Leeds by Dr. J. E Middlemiss, Instructor in Vaccination. Classes are held on Thursdays at 1.30 p.m. throughout the year, each consisting of seven meetings, of which six must be attended, and four consecutively. 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 Sanitary Law and Administration, Epidemiology, and Vital Statistics, will be given in the office of the Medical Officer of Health, 12, Market Buildings, on the evenings of Monday and Friday, from 5.30 to 7.30 p.m. during the first and second terms. 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

(*a*) Maternity and Infant Welfare Service
(*b*) Health Service for Young Children and Children of School Age
(*c*) Venereal Diseases Service
(*d*) Tuberculosis Services
(*e*) Industrial Hygiene
(*f*) Hospital Services
(*g*) Mental Health Services
(*h*) Inspection and Control of Foods, including meat and milk

TIME TABLES

(*Subject to any necessary alteration*).

For Students entering in October, 1940, and after.

Lectures and Practical Classes.	Hours.					
	M.	Tu.	W.	Th.	F.	S.
PRE-REGISTRATION COURSE.						
1st, 2nd and 3rd Terms						
Inorganic Chemistry—						
Lectures	2–3	2–3	..	2–3	..	..
Laboratory	11–1	11–1	..	10–12	..	..
	..	..	..	3–5	..	..
Tutorial	..	10–11	..	..	..	..
Physics—Lectures	10–11	..	10–11	9–10	10–11	..
,, —Laboratory ..	..	..	11–1	..	11–1	..

Pre-Registration Examination, June (and September).

TIME TABLES—continued

(*Subject to any necessary alterations*).

FOR STUDENTS ENTERING IN OCTOBER, 1940, AND AFTER.

Lectures and Practical Classes.	Hours.					
	M.	Tu.	W.	Th.	F.	S.
FIRST YEAR.						
1st and 2nd TERMS.						
Organic Chemistry ..	2–5	..	..	9–10 2–5	2–5	..
Physical Chemistry ..	..	9–5	..	..	9–10	..
Botany	10–1	..	10–1	..	..	..
Zoology	..	..	..	10–1	10–1	..
First M.B., Ch.B., Parts I. and II. Examination, March (and June).						
3rd TERM.						
Intro. Anatomy	Times to be arranged.					
Bio-Chemistry						
FOR STUDENTS ENTERING BEFORE OCTOBER, 1940.						
SECOND YEAR.						
1st TERM.						
Zoology	..	..	..	10–1	10–1	..
Anatomy—Embryology ..	9–10	..	9–10	..	9–10	..
" —Descriptive Anatomy ..	2–3	..	..	..	..	9–10
" —Practical ..	2–5	..	2–5	2–5	2–5	9–12
" —Histology ..	10–1	..	10–12	..	..	..
" —Radiological and Living Anatomy	..	4–5	..	..	..	..
Physiology—Lectures ..	..	9–10	12–1	9–10	..	..
" Biochemistry }	..	10–12	..	..	..	..
" —Experimental }		or 2–4				
2nd TERM.						
Zoology	..	..	..	10–1	10–1	..
Anatomy—Neurology ..	9–10	..	9–10	..	9–10	..
" —Descriptive Anatomy ..	4–5	4–5	..	..	..	..
" —Practical ..	..	..	10–12 2–5	2–5	2–5	..
" —Histology ..	..	..	..	..	..	9–12
" —Radiological and Living Anatomy	..	..	..	4–5	..	..
Physiology—Lecture ..	..	9–10	12–1	9–10	..	..
" —Experimental ..	10–12 2–4	10–12 or 2–4	..	..	..	..
" —Biochemistry ..	..	10–12 or 2–4	..	..	..	..
First M.B., Ch.B., Part IV. Examination, March (and June).						

TIME TABLES—continued

FOR STUDENTS DURING PRE-CLINICAL PERIOD.

Lectures and Practical Classes.	Hours.					
	M.	Tu.	W.	Th.	F.	S.
SECOND YEAR—*contd.*						
3rd TERM.						
Anatomy—Descriptive Anatomy ..	9–10	..	9–10	..	9–10	..
,, —Embryology ..	..	..	..	4–5	4–5	..
,, —Practical ..	10–1 and 2–5	10–1 or 2–5	 2–5	10–1 or 2–4	10–12 or 2–4	.. ..
,, —Practical Histology	..	..	10–12	..	..	10–12
Physiology—Lectures ..	..	9–10	12	9–10	..	..
,, —Experimental	..	..	..	10–12 or 2–4	..	..
,, —Human ..	..	..	..	..	10–12 or 2–4	..
,, —Biochemistry	..	10–12 or 2–4	..	..	..	..
,, —Tutorial ..	Hour to be arranged.					
Materia Medica and Pharmacy..	..	..	..	..	..	9.15
Practical Pharmacy in July. Second M.B., Ch.B., Part I. Examination, September (and March).						
THIRD YEAR.						
1st TERM.						
Anatomy—Lectures ..	..	9–10	12–1	9–10	..	..
,, —Practical ..	10–4 or	10–4	10–1 and 2–5	2–5	10–1 and 2–5	..
Neurology—Practical ..	..	..	..	10–1	..	9–12
,, —Lectures ..	4–5	4–5	..	..	..	..
Physiology—Lectures ..	9–10	..	9–10	..	9–10	..
,, —Human ..	10–4 or	10–4	..	..	..	..
,, —Histology ..	..	..	..	10–12* or 2–4	..	..
,, —Biochemistry..	10–4	..	..	..	..	..
,, —Tutorial ..	Hours to be arranged.					
2nd TERM.						
Anatomy—Lectures ..	12–1	9–10	..	9–10	..	..
,, —Practical ..	10–12 or 2–5	10–1 and 2–5	 2–5	10–12 or 2–4	10–1 or 2–5	.. ..

* Only for part of term.

TIME TABLES—continued

FOR STUDENTS DURING PRE-CLINICAL PERIOD.

Lectures and Practical Classes.	Hours.					
	M.	Tu.	W.	Th.	F.	S.
THIRD YEAR—*contd.*						
2nd TERM—*Contd.*						
Anatomy—Special Senses	4–5	4–5	..	..	..	..
,, —Radiological and Living Anatomy	..	..	..	..	4–5	..
,, —Histology ..	..	..	10—1	..	..	..
,, —Seminar ..	..	..	..	..	..	9–12
Physiology—Lectures ..	9–10	..	9–10	..	9–10	..
,, —Experimental	..	..	..	..	10–12 or 2–4	..
,, —Human ..	..	..	..	10–12 or 2–4	..	..
,, —Histology ..	..	..	..	10–12 or 2–4	..	..
,, —Biochemistry ..	10–12 or 2–4					
,, —Tutorial ..	..	Times to be arranged.				
Second M.B., Ch.B., Examination, Part II, March (and September).						
FOR STUDENTS DURING CLINICAL PERIOD, IN ADDITION TO INFIRMARY WORK.						
3rd TERM						
Pharmacology Practical ..	2–4	or 2–4	..	..	..	..
Bacteriology and Immunology ..	..	12–1	12–1	2–5	12–1	..
Medicine—Introductory ..	9–10	..	9–10	..	..	..
Surgery—Introductory ..	..	9–10	..	..	9–10	..
FOURTH YEAR.						
1st TERM.						
Pharmacology	12–1	..	..	..	..	..
General Pathology ..	..	12–1	12–1	..	12–1	..
Medicine	9–10	..	9–10	..	..	..
2nd TERM.						
Pharmacology	..	12–1	..	..	..	..
General Pathology ..	12–1	..	..	12–1	..	..
Medicine	9–10	..	9–10	..	..	..
Surgery	..	9–10	..	..	9–10	..
3rd TERM.						
Pharmacology	12–1	..	..	..	..	..
Medicine	9–10	..	9–10	..	..	..
Surgery	..	9–10	..	..	9–10	..
Gynæcology	..	..	..	9–10	..	9–10
Mental Diseases .. .	..	4–5	*2.30–5	..	4–5	..

*At Wakefield.

TIME TABLES—continued

For Students during Clinical Period, in addition to Infirmary Work

Lectures and Practical Classes.	Hours.					
	M.	Tu.	W.	Th.	F.	S.
FIFTH YEAR.						
1st Term.						
Pharmacology	..	12–1	..	..	..	..
Special Pathology	12–1	..	..	12–1	..	..
Medicine	9–10	..	9–10	..	..	..
Obstetrics	..	9–10	..	9–10	9–10	..
Diseases of Children	4–5	..	..	4–5	..	..
2nd Term.						
Pharmacology	12–1	..	..	..	..	..
Special Pathology	..	12–1	12–1	..	12–1	..
Medicine	9–10	..	9–10	..	..	..
Medicine—Skin	..	..	..	9–10	..	..
Surgery	..	9–10	..	..	9–10	..
Orthopædics	4–5	..	..	4–5	..	..
Radiology	..	..	4–5	..	..	..
Third M.B., Ch.B. Examination, March (and September).						
3rd Term.						
Applied Anatomy †	..	..	..	12–1	..	..
Clinical Pathology	12–1	..	..	12–1	..	..
Medicine	9–10	..	9–10	..	..	..
Medicine—Tubercle	..	..	..	9–10	..	..
Surgery	..	9–10	..	..	9–10	..
Medical Ethics	..	..	..	..	12–1	..
Mental Diseases (if not previously taken)	..	4–5	*2.30–5	..	4–5	..
* At Wakefield.						
SIXTH YEAR.						
1st Term.						
Therapeutics	9–10	..	9–10	..	9–10	..
Radio-Therapy	..	..	..	..	4–5	..
Public Health	..	9–10	..	9–10	..	9–10
Forensic Medicine	12–1	12–1	12–1	12–1	..	..
Final M.B., Ch.B., Part I Examination, December (and June).						
2nd Term.						
Applied Anatomy	..	..	..	12–1	..	..
Medicine	9–10	..	9–10	..	..	..
Ophthalmology and Otology	..	4–5	..	4–5	..	..
Medical Pathology—Tutorials	..	12–1	..	..	..	..
Gynæcological Pathology—Tutorials	..	..	..	..	12–1	..
Surgical Pathology—Tutorials	..	..	12–1	..	..	..
Final M.B., Ch.B., Part II. Examination, March (and September).						

†For Candidates taking the Final Examination (Part II) in September.

FEES

General Regulations

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.

The composition fees for lecture and laboratory courses may be paid either sessionally, in advance, or (with certain exceptions) terminally by instalments. Fees paid by instalments are at a slightly higher rate than when paid in advance. The terminal instalment scales of fees are not applicable to students ordinarily resident outside the British Isles; such students must pay fees sessionally in advance.

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.

A student ceasing, for any reason whatsoever, to attend at the University during the session has no claim to a return of fees.

A student who elects to pay composition fees by instalments and who withdraws from the University before the end of a session must pay the whole of the remaining instalments of the session's fee.

On presentation of a form signed by the Dean of the Faculty authorising attendance upon courses of study, and upon payment of the requisite fees, the Accountant will issue 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.

Students are required to pay a Registration Fee when their application for admission to the University is accepted. For overseas students, the Registration Fee is £5; for students taking the Diploma in Nursing, £1 1s.; and for other students, £2.

Fees may be paid either in the Dean's Office, School of Medicine, or in the Students' Section, University Road. Cheques should be made payable to "The University of Leeds."

I. Composition Fees

(Including Union Fees but excluding Maternity Hostel Fee—See Section II; Apparatus, K. Section III; and Library, Section IV).

The following scale of fees will be applicable to all students entering upon a course in October, 1940. *Students who have paid a Medical Course Composition fee in a previous session will continue to pay fees at the scale set out in the Calendar and Medical School Prospectus for* 1939-40.

	Fee when paid sessionally *in advance.* £	Fee when paid in terminal instalments *on the 1st day of each term* 1st Term £	2nd Term £	3rd Term £
(1) Pre-Registration (Science) Course	43	20	15	20
(2) Medical Course: (*excluding Pre-Registration (Science) Course, above*).				
Payable at beginning of 1st Session	50	25	17	10
,, ,, ,, 2nd ,,	50	25	17	10
,, ,, ,, 3rd ,,	50	25	17	10
,, ,, ,, 4th ,,	50	25	17	10
,, ,, ,, 5th ,,	50	25	17	10
,, ,, ,, 6th ,,	15	*Instalment scale not applicable.*		
	£265			

Note:

(*a*) The above fee of £265 for the Medical Course proper, *if paid in one sum* at the beginning of the Course, will be reduced to £247.

(*b*) For students who read for external qualifications and do not proceed to the Leeds M.B., Ch.B. (Final) examination, the Composition fee of £265 will be increased to £275. The additional fee of £10 will be paid at the beginning of the 6th Session, *i.e.*, the normal instalment of £15 as shown above will be increased to £25.

(3) Clinical Course:

For students excused the First and Second M.B., Ch.B. course and who only require the Clinical Course, the following fees are payable:

	Fee when paid sessionally *in advance* £	Fee when paid in terminal instalments *on the 1st day of each term* 1st Term £	2nd Term £	3rd Term £
(*a*) *Course covering* 3 *years,* 3 *months:*				
Payable at beginning of 1st Session	59	30	20	11
,, ,, ,, 2nd ,,	59	30	20	11
,, ,, ,, 3rd ,,	59	30	20	11
(*b*) *Course covering* 3 *years:*				
Payable at beginning of 1st Session	54	27	18	11
,, ,, ,, 2nd ,,	54	27	18	11
,, ,, ,, 3rd ,,	54	27	18	11

II. Maternity Hostel Fee

All students, whether taking the course for the Leeds M.B., Ch.B., or an external degree or diploma, are required to go into residence at the University Maternity Hostel for a period of 13 weeks. Students occupying a single room will pay a fee of £35 15s., and students sharing a double room a fee of £32 10s.

The fee is payable in one sum not later than the first day of residence in the Hostel—normally about the end of the second Clinical year of the Medical Course.

III. Apparatus, &c.

At the beginning of the Pre-Registration Course, students working in the Chemistry Laboratory must purchase an approved set of laboratory equipment. The approximate cost is £2 10s. In addition, students must pay a deposit of £1. This deposit, after deduction of cost of breakages, retort stand rent (1/–) etc., will be refunded at the end of the Pre-Registration course.

At the beginning of the first and second years of the Medical Course proper, students will pay a deposit of £1 in each year. At the end of the first year, the deposit, less the cost of breakages, will be refunded. The deposit paid at the beginning of the second year, less (*a*) 10/– rent of locker, etc.; and (*b*) cost of breakages, will be refunded at the termination of the Physiology Course.

The approximate cost of instruments and books which the student must purchase during his course, is as follows:

1st year, £18; 2nd year, £21; 3rd year, £14; 4th year, £5; 5th year, £2; 6th year, £2.

IV. Library

A deposit of 10/6 must be made by all students at the time the first instalment of the Medical Course Composition Fee is paid. This deposit is intended to cover the cost, or a proportion of the cost of replacing any book borrowed from the library and not returned. Where the cost of replacement exceeds 10/6, the student will be called upon to pay the balance together with a further deposit of 10/6.

The Library deposit will be refunded to the student at the end of the Medical Course.

V. Fees for Recapitulatory Courses

If additional courses are rendered necessary through failure in examination or unsatisfactory attendance, fees at the following rates will be charged.

Botany	£12 0 0
Zoology	£12 0 0

Anatomy (Six months)	£10	10	0
,, (Three months)	£5	5	0
Physiology (Six months)	£18	10	0
,, (Three months)	£9	5	0
Anatomy and Physiology (concurrently)—October to March or Jan. to June	£24	0	0
April to September	£12	0	0
Pharmacy (One term's Revision Course)	£13		
Pathology and Bacteriology (six months)	£3		
Pharmacology (six months)	£3		
Other subjects (three months)	£3		

Additional Clinical Fee.

If a student exceeds the period of three years for his clinical studies, a fee of £15 shall be charged for each extension period of six months or part of six months.

VI Separate Fees (M.B., Ch.B., etc.)

	£	s.	d.
Introductory Anatomy	3	0	0
General Course Anatomy	18	0	0
Histology	8	0	0
Use of dissecting Room, with tutorial instruction, during attendance on the Anatomical Course, covering six terms	18	0	0
Use of Dissecting Room (External Students)—			
One month	2	0	0
Three months	5	0	0
Physiology—			
1st term	3	0	0
General Course	18	0	0
Practicals—			
Comparative Physiology	3	0	0
Bio-Chemistry	10	0	0
Experimental Physiology	10	0	0
Human Physiology	8	0	0
Materia Medica and Practical Pharmacy ..	5	0	0
Pharmacology—			
Lectures	3	0	0
Practicals	5	0	0
Therapeutics	3	0	0
General Pathology and Bacteriology	7	0	0
Special Pathology	7	0	0
Clinical Pathology	3	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

	£	s.	d.
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 Maternity	3	10	0
Radiology and Radio-Therapy	3	10	0
Orthopædics	5	0	0
Diseases of Children	3	10	0

VII. (a) Post-Graduate and Miscellaneous Courses

Clinical Pathology	4	4	0
Medical Pathology	3	3	0
Surgical Pathology	3	3	0
Operative Surgery	4	14	6
Tropical Medicine	5	0	0
Intelligence Tests (for D. Psychol. Med.)	1	1	0
Anatomy, Physiology, and Pathology (for D. Psychol. Med.)	6	6	0
Clinical Neurology	3	3	0
For D.P. Health—			
Chemistry	8	8	0
A deposit fee of £2 2s. 0d. is payable in addition to cover breakages.			
Practical Bacteriology (including Entomology)	14	14	0
Practical Bacteriology (Recapitulatory)	9	9	0
Lectures in Public Health	5	5	0
Sanitary Construction and Planning	3	3	0
Special Course at Infectious Diseases Hospital	7	7	0
Special Course in Sanitation, &c. (M.O.H., Leeds)	26	5	0
Physiology and Bio-Chemistry	5	0	0
Principles of Genetics	1	1	0
Mental Hygiene	1	0	0
Agricultural and Technical Bacteriology (per term)	7	0	0

Pharmacy Courses for—

Chemist and Druggist Qualifying Examination.

Pharmaceutical Chemist.

Sessional fee, if paid in one sum in advance, £32 10s. 0d.

Fee, if paid in instalments :—

£20, payable at beginning of 1st Term.

£14, payable at beginning of 2nd Term.

In addition to the above fees an apparatus deposit of £2 and (in the case of students taking the course for the Pharmaceutical Chemists' Qualifying Examination) a library deposit of 10/6 are payable at the beginning of the course. These deposits, less the cost of breakages and replacements, will be refunded at the end of the course.

(b) Hospital Practice and Clinical Lecture Fees

(applicable to Post-graduate and External Students).

The fees include clinical lectures in the subjects taken out, and students shall be eligible for hospital appointments.

	1 month.			3 months.			6 months.			12 months.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
All subjects ..	8	0	0	16	0	0	24	0	0	32	0	0
Medicine ..	4	10	0	9	0	0	13	10	0	18	0	0
Surgery	4	10	0	9	0	0	13	10	0	18	0	0
Ophthalmology ..	3	0	0	6	0	0	9	0	0	12	0	0
Ear, Nose and Throat ..	3	0	0	6	0	0	9	0	0	12	0	0
Dermatology ..	2	10	0	5	0	0	7	10	0	10	0	0
Gynæcology ..	2	10	0	5	0	0	7	10	0	10	0	0
Diseases of Infants	2	10	0	5	0	0	7	10	0	10	0	0
Casualty ..	3	0	0	6	0	0	9	0	0	12	0	0
Radio-therapeutic Dept.	3	0	0	6	0	0	9	0	0	12	0	0

Obstetric Practice (20 cases), £3 0 0

Students of the Leeds Medical School who have taken the full clinical course and have registered as medical practitioners become *ipso facto* Perpetual Students of the Infirmary without further charge. This privilege will admit to the ordinary clinical instruction of the Infirmary, but will not cover the attendance at any special post-graduate course for which fees may be charged.

Other qualified practitioners who wish to take further hospital practice can be admitted as "perpetual students" of the Infirmary on payment of a fee of £15 15s.

Practitioners and External Students wishing to attend the Infirmary practice during short periods, and not requiring Signatures or Certificate of any kind, or to hold any hospital appointment, may do so on payment of the following Fees

	£	s.	d.
For 6 months	9	0	0
For 4 ,, ...	6	0	0
For 3 ,, ...	4	10	0
For 2 ,, and shorter periods..	3	0	0

VIII. Fees for Examinations

	For first examination. £	s.	d.	For subsequent examination. £	s.	d.
Examination for Matriculation	2	0	0	2	0	0* or
Registration of an External Matriculation Certificate	2	0	0	2	2	6
					—	
Pre-Registration	3	0	0	3	0	0
First M.B.	6	0	0	6	0	0 †
Second M.B.	6	0	0	6	0	0 †
Final M.B.	6	0	0	6	0	0 †
Degree of Ch.M.	10	0	0	10	0	0
Degree of M.D.	10	0	0	10	0	0
Diploma in Public Health—						
Part I	6	6	0	6	6	0
Part II	6	6	0	6	6	0
Diploma in Psychological Medicine	6	6	0	3 (for each part)	3	0
Diploma in Nursing	5	5	0	2 (for each part)	12	6

*A student who fails 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.

Fees in connection with Matriculation are payable to the Secretary, Joint Matriculation Board, 315, Oxford Road, Manchester, 13.

†In cases of re-examination in *one subject* only, half the fee for first examination will be charged.

A student exempt from the 1st M.B. and/or 2nd M.B. examination, having taken the equivalent of such examination elsewhere, must pay the normal examination fee in respect of these examinations before proceeding with his medical course.

The latest dates for payment of examination fees are :—

First M.B., Ch.B.—
In March on February 1st, 1941.
In June on March 1st, 1941.

Second M.B., Ch.B.—
In March on February 1st, 1941.
In September on July 15th, 1941.

Final M.B., Ch.B. (Part I), and Diploma in Public Health, Part II—
In June on March 1st, 1941.
In December on November 1st, 1940.

Third and Final (Part II) M.B., Ch.B., M.D., Ch.M., Diplomas in Public Health, Part I, Psychological Medicine and Nursing—
In March on February 1st, 1941.
In September on July 15th, 1941.

IX. Graduation, Convocation and Parliamentary Registration Fee

Every person first admitted to a degree (other than an Honorary Degree) of this University on or after June 1st, 1926, shall be required to pay, prior to graduation, a fee of £7 which shall entitle the graduate to be registered as a member of Convocation and to have his or her name inscribed on the Parliamentary Register on attaining qualifying age. On conferment of a further degree, a Graduation Fee of £6 will be payable.

Approximate Total Cost of Medical Course for the M.B., Ch.B. degree

	£	s.	d.
Examination for Matriculation and Registration Fee	4	0	0
Composition Fee* (paid by instalments)	265	0	0
Maternity Hostel Fee	35	15	0
Examination Fees	18	0	0
Books, Instruments, etc.	64	15	0
Graduation and Convocation Fee	7	0	0
	£394	10	0

* *Excluding Pre-Registration (Science) Course Fee of £43 and examination fee of £3.*

THE

GENERAL INFIRMARY

AT

LEEDS.

PROSPECTUS

OF

CLINICAL INSTRUCTION

1940-41.

THE HONORARY STAFF

Consulting Physicians .	C. M. CHADWICK, M.A., M.D., *Oxford*, F.R.C.P.
	T. WARDROP GRIFFITH, C.M.G., M.D., LL.D., *Aberdeen*, D.Sc., *Leeds*, F.R.C.P.
	R. A. VEALE, B.A., *Oxford*, M.D., *London*, F.R.C.P.
	G. W. WATSON, M.D., *London*, F.R.C.P.
Consulting Surgeons .	R. LAWFORD KNAGGS, M.A., M.D., M.Ch., *Cambridge*, F.R.C.S.
	H. COLLINSON, C.B., C.M.G., D.S.O., T.D. M.S., *London*, F.R.C.S.
	L. R. BRAITHWAITE, M.B., Ch.B., *Victoria*, F.R.C.S., J.P.
Consulting Ophthalmic Surgeon .	H. SECKER WALKER, M.Sc., *Leeds*, F.R.C.S.
Consulting Aural Surgeons.	G. CONSTABLE HAYES, F.R.C.S.
	E. W. BAIN, M.B., B.S., *London*, F.R.C.S.
Consulting Gynæcological Surgeons	CARLTON OLDFIELD, M.D., B.S., F.R.C.P., F.R.C.S., F.C.O.G.
	W. GOUGH, B.Sc., M.B., B.S., *London*, F.R.C.S., F C.O.G.
Consulting Orthopædic Surgeon	S. W. DAW, M.B., B.S., F.R.C.S.
Consulting Dental Surgeons	DAVID SAVILLE, L.D.S.
	WALTER MARSTON, M.Sc., L.D.S.
	STEPHEN D. HEY, L.D.S.
Hon. Medical Officer to the Electro and Radio-Therapeutic Department . .	G. COOPER, B.A., M.D., B.Ch., B.A.O., D.M.R.E.
Consulting Radiologist . .	H. B. SCARGILL, M.B., B.S.
Physicians . .	J. le FLEMING C. BURROW, M.D., *Edinburgh*, F.R.C.P.
	W. MACADAM, M.A., M.D., B.Sc., *Glasgow*, F.R.C.P.
	H. H. MOLL, M.D., *Rome*, M.B., Ch.B., *Leeds*, M.R.C.P.

Physician in Charge of Children's Department	C. W. VINING, M.D., *London*, F.R.C.P., D.P.H.
Physician in Charge of Dermatological Department	J. T. INGRAM, M.D., *London*, F.R.C.P.
Surgeons	E. R. FLINT, M.B., Ch.B., *Leeds*, F.R.C.S.
	P. J. MOIR, *M.C.*, M.B., Ch.B., *Glasgow*, F.R.C.S.
	H. W. SYMONS, M.B., Ch.B., *Leeds*, F.R.C.S.
	D. CHAMBERLAIN, Ch.M., *Leeds*, F.R.C.S.
Ophthalmic Surgeons	J. FOSTER, M.A., M.B., B.Chir., *Cambridge*, F.R.C.S., D.O.M.S.
	G. W. BLACK, M.B., B.S., *London*, F.R.C.S.
Gynæcological Surgeons	A. GOUGH, M.B., Ch.M., F.R.C.S., F.C.O.G.
	A. M. CLAYE, M.D., *Leeds*, F.R.C.S., F.C.O.G.
Ear, Nose and Throat Surgeons	W. MAXWELL MUNBY, M.A., Ch.M., *Edinburgh*, F.R.C.S.
	G. S. SEED, M.B., Ch.B., *Leeds*, F.R.C.S.
Orthopædic Surgeon	R. BROOMHEAD, M.B., Ch.B., *Leeds*, F.R.C.S.
Neurological Surgeon	W. R. HENDERSON, M.B., Ch.B., *Edinburgh*, F.R.C.S.
Assistant Physicians	J. R. H. TOWERS, M.A., M.D., *Cambridge*, M.R.C.P.
	S. J. HARTFALL, B.Sc., M.D., *Leeds*, M.R.C.P.
	H. G. GARLAND, M.D., *Leeds*, F.R.C.P.
Dermatology	F. F. HELLIER, M.A., M.D., *London*, M.R.C.P.
Assistant Surgeons	G. ARMITAGE, *M.C.*, *T.D.*, M.D., Ch.M., *Leeds*, F.R.C.S.
	L. N. PYRAH, M.Sc., Ch.M., *Leeds*, F.R.C.S.
	P. R. ALLISON, B.Sc., Ch.M., *Leeds*, F.R.C.S.
	M. W. C. OLDFIELD, M.A., B.M., M.Ch., *Oxford*, F.R.C.S.

Assistant Surgeon Orthopædic Department .	A. B. PAIN, M.B., Ch.M., *Leeds*, F.R.C.S.
Assistant Surgeons Gynæcological Department .	B. L. JEAFFRESON, M.D., *London*, F.R.C.S., M.C.O.G. D. W. CURRIE, M.D., Ch.M., *Leeds*, F.R.C.S., M.C.O.G.
Pathologist . .	MATTHEW J. STEWART, LL.D., M.B., Ch.B., *Glasgow*, F.R.C.P., F.R.F.P.S.
Bacteriologist .	J. WALTER McLEOD, *O.B.E.*, M.B., Ch.B., *Glasgow*, F.R.S.
Medical Officer in Charge of V.D. Department .	J. P. BIBBY, M.B., Ch.B., *Leeds*, M.R.C.P.
Academic Consulting Staff	A. DURWARD, M.D., Ch.B., Professor of Anatomy. A. HEMINGWAY, M.Sc., M.B., Ch.B., Professor of Physiology. J. JOHNSTONE JERVIS, M.D., D.P.H., Professor of Public Health. R. D. PASSEY, *M.C.*, M.D., D.P.H., Professor of Experimental Pathology. W. A. BAIN, B.Sc., Ph.D., F.R.S.E., Reader in Pharmacology. E. C. BENN, M.B., Ch.B., D.P.H., Lecturer in Infectious Diseases. N. TATTERSALL, M.D., Lecturer in Tuberculosis.
Medical Officer in Charge of the Radiological Department . .	A. S. JOHNSTONE, M.B., Ch.B. *Edinburgh*, F.R.C.S.E., D.M.R.E., *Cambridge*.
Medical Officer in Charge of the Electro and Radio - Therapeutic Department . . .	J. M. LEES, M.A., B.M., B.Ch., *Oxford*, D.M.R.
Director of Radium Department . .	A. A. DIGGES LA TOUCHE, M.A., M.B., B.Ch., *Cambridge*, F.R.C.S., D.M.R.

HOSPITAL TIME TABLE FOR STUDENTS

WARDS VISITED BY	M.	T.	W.	Th.	F.	S.
PHYSICIANS—						
Dr. Burrow	..	10. 0	..	..	10. 0	..
Dr. MacAdam	..	..	10. 0	..	..	10. 0
Dr. Moll	10.	..	..	10. 0	..	..
SURGEONS—						
Mr. Flint	..	..	10. 0	..	..	..
Mr. Moir	10. 0	..	..	..	..	..
Mr. Symons	..	10. 0	..	..	..	..
Mr. Chamberlain	..	..	..	10. 0	..	..
ORTHOPÆDICS—						
Mr. Broomhead	..	2. 0	..	..	10. 0	..
Mr. Pain	..		..	..	10 0	..
OPHTHALMIC SURGEONS—						
Mr. Foster	..	11. 0	..	..	..	..
Mr. Black	..	10. 0	..	10. 0	..	..
EAR, NOSE AND THROAT SURGEONS—						
Mr. Munby	10. 0	..	..	..	10. 0	..
Mr. Seed	..	..	..	..	..	..
GYNÆCOLOGICAL SURGEONS—						
Mr. Claye	2. 0	..	..	..	..	..
Mr. Jeaffreson	..	2. 0	..	..	..	..
Mr. Currie	..	..	..	..	2. 0	..
PHYSICIAN WITH CHARGE OF CHILDREN'S DEPT.—						
Dr. Vining	3 0	.	.	2. 0	..	..
OUT-PATIENTS—						
MEDICAL CASES—						
Dr. Towers	1.30	..	1.30	..	..	..
Dr. Hartfall	..	1.30	..	..	1.30	..
Dr. Garland	..	..	..	1.30	..	..
CHILDREN'S DEPT.—						
Dr. Vining	10. 0	..	10. 0	..	10. 0	..
SKIN CASES—						
Dr. Ingram	..	9.30	..	1.30	..	..
Dr. Hellier	..	9.30	..	1.30	..	..
SURGICAL CASES—						
Mr. Armitage	1.30	..	..	..	..	..
Mr. Pyrah	..	1.30	..	..	..	..
Mr. Allison	..	..	1.30	..	..	..
Mr. Oldfield	..	..	..	..	1.30	..
ORTHOPÆDIC CASES—						
Mr. Broomhead	..	10. 0	3. 0	10. 0	..	..
Mr. Pain	..	10. 0	3. 0	10. 0	..	..
OPHTHALMIC CASES—						
Mr. Foster	..	1.30	..	1.30	..	..
Mr. Black	1.30	..	1.30	..	..	..
EAR, NOSE AND THROAT CASES—						
Mr. Munby	..	1.30	..	1.30	..	..
Mr. Seed	1.30	..	..	..	1.30	..
GYNÆCOLOGICAL CASES—						
Mr. Claye	..	..	..	1. 0	..	..
Mr. Jeaffreson	1. 0	..	..	..	..	..
Mr. Currie	..	..	1. 0	..	..	..
VENEREAL CASES—						
Dr. Bibby { Men	..	2. 0	..	..	..	..
Dr. Bibby { Women	..	..	..	5.30	2. 0	..
Operations, In-Patients	10. 0	10. 0	10. 0	10. 0	10. 0	10. 0
	2. 0	2. 0		2. 0	2. 0	
,, Out-Patients	..	..	..	9.30	9.30	..
,, Ophthalmic	10. 0	..	..	10. 0	..	..
,, Aural	..	9. 0	9. 0	..	9. 0	9. 0
,, ,, Out-Patients	9. 0	..	..	..	..	..
,, Gynæcological	..	..	10. 0	..	..	10. 0
,, Orthopædic	9. 0	..	9. 0	..	1.30	9. 0
*Post-Mortem Examinations	10. 0	10. 0	10. 0	10. 0	10. 0	10. 0

* Professor Stewart, Dr. Moll, Dr. Towers.

Information of importance to Students about to commence the Infirmary Curriculum

1. For the Leeds degree, and for most other degrees, three years hospital practice is required, and students should apply for clinical appointments as soon as they have passed the Second examination.

2. The Clinical Sub-Dean (Dr. Bibby), at 24, Park Square, will arrange the work of the students at the Infirmary.*

3. The attention of students is directed to the necessity for carefully arranging, beforehand, the time at which they propose to attend at the Fever Hospital, as during that period they cannot act as obstetric clerks or in-patient surgical dressers.

THE GENERAL INFIRMARY

has accommodation for 673 beds, which are allotted as follows :—

Medical Cases (adults)	115
,, ,, (children)	42
Surgical (adults)	164
,, (children)	34
Ophthalmic and Aural Cases (adults)	76
,, ,, ,, (children)	16
Gynæcological Cases	–
Radium	24
Orthopædic Cases (adults) ..	51
,, ,, (children) ..	18
Dermatological (adults)	6
,, (children).. ..	4
Ida Hospital	40
Robert Arthington Hospital ..	61
Isolation Block—Adults	18
,, Children ..	4
	673

The number of in-patients admitted during 1939 was 11,753 the number of new out-patients under treatment during the same year, 60,449.

The average number of In-patients was 520.

* Dr. Bibby is prepared to see students on weekdays (Saturdays excepted) by arrangement at the Dean's Office.

114 cots are available for the treatment of children, those for medical and surgical cases being placed in separate wards. There is a separate ward (Princess Mary Ward) for cases of nutritional disorders of infancy.

In connection with the clinical teaching in the Infirmary, the Littlewood Memorial Block provides ample accommodation for clinical lectures and demonstrations and tutorial instruction, as well as a clinical laboratory for the use of clerks and dressers.

In-Patient Department

The Physicians and Surgeons visit the wards daily, Students are required, after they have passed their Second examination, to go round the wards regularly with the Honorary Staff.

Clinical Reporting

This invaluable means of instruction, encouraging as it does the student to examine and study for himself at the bedside, is insisted upon in all the departments of the hospital. There is a special course of instruction in case-taking and physical diagnosis, under the supervision of the medical tutor ; a similar surgical course is given by the Surgical Tutors. Each of these preliminary courses lasts three months and must be taken by every student before proceeding to the other clinical appointments ; and students who do not attain a satisfactory standard of proficiency will be required to repeat either or both courses. The best clinical paper is taken into consideration for the Hillman Prize in Clinical Medicine.

The hospital reports, which are in charge of the Medical and Surgical Tutors, are always open to students for reference.

Out-Patient Department

Students are strongly recommended to avail themselves of the very large experience to be gained in this department. In the out-patient rooms the methods of physical examination and other means of diagnosis are demonstrated, and examples of the commoner forms of disease constantly shown.

Ophthalmic & Ear, Nose & Throat Departments

Nearly 10,000 new ophthalmic and aural cases are seen during the year in the out-patient department, and 85 beds are occupied by patients suffering from diseases of the eye and ear. The ophthalmic department has now been separated from the ear, nose and throat department. Special attention is given by the ophthalmic and aural surgeons to the systematic instruction of students in the investigation of ophthalmic and aural diseases, and in the use of the ophthalmoscope, laryngoscope, and other special instruments of observation.

Skin Department

A special department exists for the treatment of diseases of the skin. The Physician and Assistant Physician to the Department give systematic instruction in the wards and in the out-patient department. The minor operations peculiar to skin diseases are performed and special treatments, including the use of X-rays, radium, light, galvano-cautery, electrolysis, etc., are employed. There are a number of clinics held within the department for cases of a character demanding special treatment—as lupus vulgaris, chronic ulcers of leg, etc., and instruction is given at these clinics.

Children's Department

The Children's Department deals with the medical diseases of children up to the age of 10 years and the welfare and nutritional disorders of infants. There is a Physician to the Children's Department (Dr. Vining) who is also the Professor of Children's Diseases in the University. The Physician has at his disposal some 40 cots which include 12 cots for the nutritional disorders of infants. The Department holds three out-patient clinics a week. Students are required to attend the practice of the children's department for a period of three months and during this time they act as clinical clerks and are allotted cases in the usual way of clinical teaching. The appointment is usually held during the third clinical year.

Gynæcological Department

In the gynæcological out-patient department of the Women's Hospital the diseases peculiar to women can be studied. Students are required to act as gynæcological dressers for a period of three months. This appointment is held in the later part of the clinical course and after the lectures on the subject have been attended.

Venereal Clinic

A special clinic has been established for the treatment of Venereal Disease. Students are obliged to act as Dressers for a period of three months under the supervision of the Officer in charge (Dr. Bibby) during their third clinical year.

Administration of Anæsthetics

Instruction in the administration of anæsthetics is given by the anæsthetists. The senior anæsthetist gives two courses (consisting of six lecture-demonstrations) during the year. Attendance on one series of these demonstrations is necessary for students *before appointment as surgeons' dressers* and is required by the University regulations.

Orthopædic Department

There is a separate department for the treatment of Orthopædic and Fracture cases in the charge of Mr. Broomhead, assisted by Mr. Pain. Students are required to act as orthopædic dressers during a period of three months. They attend the out-patient clinics and operating theatre and act as clerks in the Orthopædic Wards.

Pathological Department

Post-mortem examinations are conducted by the hon. pathologists (see time table) and set demonstrations on recent specimens are given from time to time. Students are required to avail themselves of the opportunities thus afforded of making themselves practically acquainted with morbid processes.

The pathological laboratory is part of the University Department of Pathology, under the Professor. Two clerks are appointed every three months to assist in the laboratory, but facilities may be afforded to students wishing to do more special work.

Demonstrations on minute morbid anatomy, clinical chemistry, &c., are given by the Departmental Staff from time to time.

Electro and Radio-Therapy Department

This department is equipped with the most modern appliances for X-ray and Electro-therapeutic treatment. A very large number of cases, both medical and surgical are referred to the Department and the Honorary Medical Officer demonstrates such cases to students on Tuesdays and Thursdays from 2 to 3 p.m. The therapeutic work of the Department includes treatment by X-rays, Ultra Violet Rays and by various forms of current electricity.

Systematic lecture-demonstrations are given by the Medical Officer in charge of the Department during the first term on Fridays at 4 p.m.

The Ida Semi-Convalescent Hospital and the Robert Arthington Hospital at Cookridge

These hospitals contain one hundred and one beds for the reception of Infirmary cases. A Resident Medical Officer is appointed every six months, an honorarium of £100 being given in addition to board, &c. This appointment is open to all students who have obtained a legal qualification.

University Clinical Appointments at the General Infirmary

NON-RESIDENT :—

Two Readers
Two Medical Tutors and Registrars
Two Surgical Tutors and Registrars
Obstetric and Gynæcological Tutor

Hospital Appointments

NON-RESIDENT :—

Senior anæsthetist ..	honorarium,	£50 per annum
Seven anæsthetists ..	,,	£25 ,,
Registrar in Orthopædic Surgery	,,	

RESIDENT :—

Resident Medical Officer ..	salary,	£200 per annum.
Resident Surgical Officer ..	,,	£200 ,,
Senior Receiving Room Officer	,,	£149 ,,
Resident Ophthalmic Officer ..	,,	£149 ,,
Resident Aural Officer	,,	£149 ,,
Resident Orthopædic Officer ..	,,	£149 ,,
Two Resident Anæsthetic Officers	,,	£149 and £100 per annum.

All these appointments are made annually, and the holders are eligible for re-election.

Two Junior Receiving Officers	salary, £60 per annum.
Resident Gynæcological Officer	—
Resident Medical Officer, Ida and Robert Arthington Hospital ..	salary, £100 per annum.
4 House Physicians.	
House Physician to Children's Department	salary, £50 per annum.
House Physician to Dermatological Department	salary, £50 per annum.
4 House Surgeons.	
2 Ophthalmic and Aural House Surgeons	salary, £50 per annum.
Orthopædic House Surgeon.	
House Surgeon, Radio-Surgical Department	salary, £100 per annum.
House Surgeon, Neuro-Surgical Department	salary, £100 per annum.

The Resident Medical Officer, the Resident Surgical Officer, the Resident Receiving Officers, the Resident Ophthalmic Officer, the Resident Aural Officer, the Resident Orthopædic Officer, and the Resident Gynæcological Officer, who are elected as vacancies occur, are responsible for the general administration of their respective departments.

The House Physicians and House Surgeons

These must hold at least one legal qualification, and be registered. The house physicians hold office for six months. They attend on the out-patient days and take charge of the cases which are not seen by the Assistant Physicians. They are responsible to their Physicians for the performance of the routine work in the medical wards. In all their duties they are under the general supervision of the Resident Medical Officer. The house

surgeons are responsible, subject to their respective Surgeons, for the treatment of cases in the surgical wards. They are required to exercise supervision over the work of the surgeons' dressers, and to assist the Assistant Surgeons in the out-patient department. They are under the general supervision of the Resident Surgical Officer.

The foregoing represents generally the work of the house physicians and house surgeons, but their actual duties are fully stated in the Rules for the Resident Staff.

Clinical Appointments

		Duration.
	Group A.	
Section 1.	1. Preliminary Medical and Junior P.M. Clerkships	3 months
	2. In-patient Medical (Junior and Senior) Clerkships	6 ,,
Section 2.	3. Preliminary Surgical Clerkship and O.P. and Casualty Dressership ..	3 ,,
	4. In-patient Surgical Dresserships ..	6 ,,
	Group B.	
Section 1.	5. Gynæcological Dressership	3 ,,
	6. Obstetric Clerkships (Internal and External)	3 ,,
Section 2.	7. Clerk in the Children's Department / Clerk in the V.D. Department ..	3 ,,
	8. Orthopædic Dressership .. .. / Clerk in the Skin Department ..	3 ,,
	Group C.	
	9. Out-patient Medical and Senior P.M. Clerkships	3 ,,
	10. Ophthalmic and Aural Dresserships (held concurrently)	3 ,,
	Optional Appointment.	
	11. Laboratory Clerk in the Department of Pathology and Bacteriology.	

These appointments are made by the Clinical Committee of the Board of the Faculty of Medicine. All applications to be made in writing to the Clinical Sub-Dean on the forms provided.

The appointments are divided into three groups: A, B, C. The appointments in each group must be completed before those in the next group can be entered

upon. Groups A and B are divided into two sections, half the available students undertaking each section in turn. The two appointments in each section of Group B are similarly alternated.

Upon the diligent performance of the duties of these appointments depends the granting of certificates and signatures for hospital practice.

Preliminary Medical and Surgical Clerkships

These, the first clinical appointments are each taken as a necessary preliminary to the corresponding in-patient appointments and are each held for three months.

During tenure of the preliminary medical clerkship the student holds in addition the appointment of junior pathological clerk, and whilst holding the preliminary surgical clerkship he acts as out-patient surgical dresser.

During the time of holding the appointment of out-patient surgical dresser, students take their turn of duty in the Receiving Room, where they are required to be in attendance from 9 a.m. to 6 p.m. They assist in the treatment of cases under the direction of the Receiving Room Officers, and receive instruction in medical and surgical emergency work.

Whilst holding these appointments students are under the direct supervision of the Medical Tutor and Surgical Tutors respectively, and will be required to attend the tutorial classes and demonstrations arranged by them.

Special attention is drawn to the fact that students will be "signed up" by the Medical and Surgical Tutors, and great importance will be attached to the way in which the duties of these appointments are performed.

In-Patient Medical Clerks

In-patient Medical Clerks are elected from those students who have passed the Second examination, and have also held the preliminary medical clerkship. They are appointed for two periods of three months, to run consecutively, during which time they are required to commence their duties in the wards at 10 a.m., to visit the cases under their observation at least once a day, to keep accurate records of the same, and to attend upon

their respective physicians during their ward visits, and to be present at the post-mortem examination of cases under their care. Their ward-work is the first charge upon their time and they are not free to attend clinical instruction elsewhere or to absent themselves during Infirmary hours until their ward-work is completed. They are assisted in case-taking and in chemical and microscopical observations by the Medical Tutor, who supervises their work generally, the Resident Medical Officer and the House Physicians.

Out-Patient Surgical Dressers

The out-patient surgical dressers are required to attend in the out-patient department on the days[1] of their respective Surgeons or Assistant Surgeons, and to remain until all the patients have been seen, unless they have lectures to attend at the School of Medicine at 4 p.m. They take alternately the duties of dresser and of out-patient clerk; the dresser being required to perform the necessary minor surgical manipulations and certain minor operations, and the clerk to take, when necessary, short reports, and to write prescriptions. They assist their respective Surgeons in the performance of operations, during which they also receive instruction in the administration of anæsthetics.

In-Patient Surgical Dressers

In-patient Surgical Dressers are elected from those students who have passed the Second examination, and have held the preliminary surgical clerkship and out-patient surgical dressership. They are appointed for six months, during which time they are required to begin their duties in the wards at 10 a.m.,[2] to visit the cases under their observation at least once a day, and to keep accurate records of them. They assist the House

1 The afternoon duties of out-patient clerks and dressers begin at 2 p.m. to permit of attendance at lectures. During vacation or absence of lectures, clerks and dressers must attend earlier if desired to do so by the member of the Honorary Staff to whom they are attached.

2 The time for the clerks and dressers to begin work in the Wards is fixed for 10 o'clock, to enable them to attend Lectures in the School of Medicine of the University from 9 to 10. When they have no such lectures to attend they are expected to begin work in the Wards at 9 a.m.

Surgeons in dressing their cases, and are assisted in case-taking by the Surgical Tutors, the Resident Surgical Officer and House Surgeons. They attend upon their respective Surgeons during their ward visits and at operations.

Two senior dresserships under the Consulting Surgeons may be held by students who have completed their surgical dressership. The post is tenable for three months.

Gynæcological Dressers

The gynæcological dressers are appointed for a period of three months, and have to keep accurate notes of the cases under their observation; to attend upon the Gynæcologist both in the wards and in the out-patient department, and to assist the Resident Gynæcological Officer in carrying out the necessary treatment.

[1]Obstetric Clerks

Students are appointed obstetric clerks, internal and external for a period of three months. They keep notes of the cases under their observation; attend upon the Obstetric Surgeons in the wards of the Leeds Maternity Hospital, and assist the Resident Medical Officer in carrying out the necessary treatment.

During this appointment the student will be required to go into residence for at least three months at the Maternity Hostel.

Clerks in Children's Department

The clerks to the Children's Department are appointed for three months. Their attendance is required on Mondays, Wednesdays and Fridays at 10 a.m., in the out-patient department. They will examine and investigate cases under the care of the children's physician. They will attend the Physician in the Wards on Mondays, at 3 p.m., and on Thursdays, at 2 p.m.

Department for Venereal Diseases

Students are required to attend the practice of this Department during a period of three months. This appointment is taken towards the end of the clinical course at the Infirmary.

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1 Students when attending at the Fever Hospital are not allowed to hold any surgical in-patient appointment or to act as maternity clerks.

Orthopædic Dressers

Every student is required to spend three months as dresser in the Orthopædic Department. His duties include attendance in the Out-patient Department, Fracture Clinics and operating theatre. He is required to take notes on cases in the orthopædic wards and to accompany the surgeons on their ward visits.

Clerks in the Skin Department

The Clerks to the Dermatological Department are appointed for three months. They will investigate and keep notes of the skin cases allotted to them in the wards. They will attend the Physician in Charge of the department in the wards on Mondays at 2 p.m. and in the out-patient department on Thursdays at 2 p.m. They will also attend such other special clinics held in the department—as the lupus clinic, clinic for chronic leg cases, out-patient clinic for chronic cases, etc.—as the Physician directs.

[1] Out-Patient Medical Clerks

The clerks attend in the out-patient medical rooms on the days of their respective physicians, or assistant physician, under whose special supervision they examine and investigate cases. They are required to take short reports, to write prescriptions and to assist generally in the work of the medical out-patient room.

The Ophthalmic and Aural Dressers

The ophthalmic and aural dressers have much the same duties to perform in the Ophthalmic and Ear, Nose and Throat Departments as the surgeons' dressers have in the Surgical Wards, and they have also to attend at the stated times in the Ophthalmic and Aural Out-patient Departments.

Post-mortem Clerks

There are two appointments in the pathological department, junior and senior, the former held concurrently with the preliminary medical clerkship, the

1 The afternoon duties of out-patient clerks and dressers begin at 2 p.m. to permit of attendance at lectures. During vacation or absence of lectures, clerks and dressers must attend earlier if desired to do so by the member of the Honorary Staff to whom they are attached.

latter with the out-patient medical clerkship. Each group attends on three mornings of the week, the seniors on Monday, Tuesday and Wednesday, the juniors on Thursday, Friday and Saturday, their duties being to assist with the actual autopsies and to take the notes of the pathologist.

The University Calendar

A copy of the Calendar may be obtained on application to the Registrar. Price 4/- (by post 4/6).

Special Prospectuses

Special Prospectuses are issued of courses of study, examinations, &c., in—

	Price.
Arts and Science.	9d.
Medicine	6d.
Dentistry	6d.
Law	3d.
Commerce	3d.
Education Department	Free
Agriculture	Free
Civil, Mechanical and Electrical Engineering	3d.
Mining	3d.
Coal Gas and Fuel Industries and Metallurgy	3d.
Textile Industries	3d.
Colour Chemistry and Dyeing	3d.
Leather Industries	3d.
Evening Courses	Free
University Extension Lectures	Free
Scholarships and Fellowships	3d.

A copy of any of these Prospectuses or of the General Prospectus of the University may be obtained from the Registrar, at the prices mentioned above.

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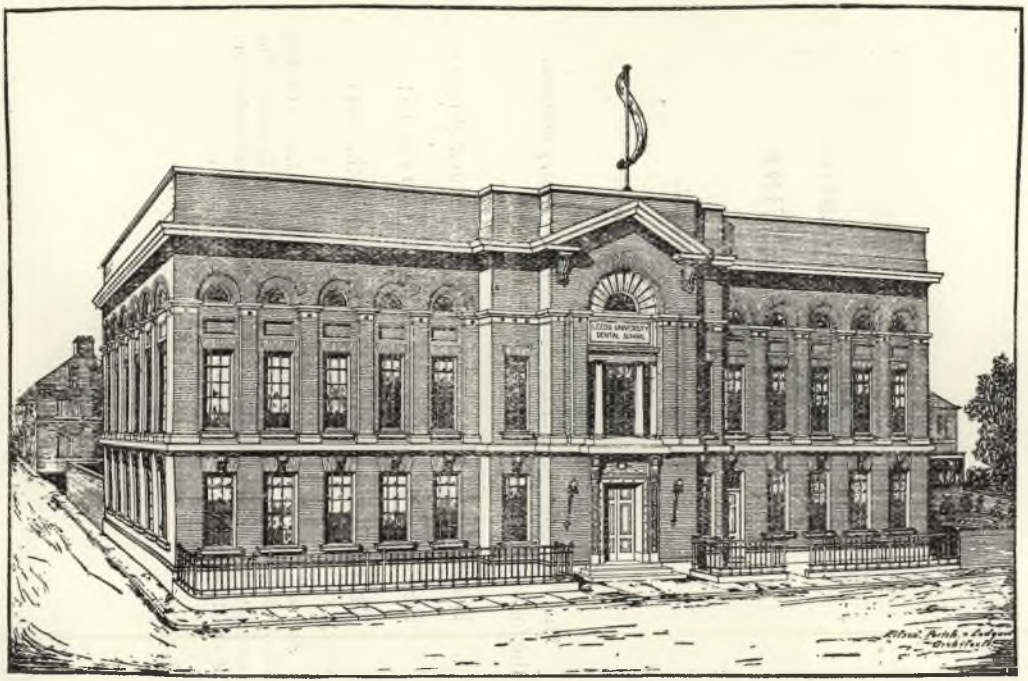

LEEDS DENTAL SCHOOL AND HOSPITAL

THE UNIVERSITY OF LEEDS

FACULTY OF MEDICINE

SCHOOL OF DENTISTRY

1940-41

The Academic year in the School of Dentistry consists of the following terms in 1940-41 :—

First Term: September 24th to December 4th, 1940.

Second Term: January 7th to March 14th, 1941.

Third Term: April 17th to June 30th, 1941.

Fees must be paid at the time of joining the School. Cheques should be made payable to "THE UNIVERSITY OF LEEDS." The composition fee or the instalment is payable at the commencement of the Session.

DENTAL SCHOOL STAFF

Professor of Clinical Dental Surgery, and Warden .	T. TALMAGE READ, F.R.F.P.S., *Glas.*, L.R.C.P., L.R.C.S., *Edin.*, L.D.S., *Glas.*
Dental Surgery.	*Lecturer :* J. P. COCKER, L.D.S., *Eng.*
Orthodontia .	*Lecturer :* G. L. WILKINSON, L.R.C.P., M.R.C.S., L.D.S., *Eng.*
Dental Anatomy and Physiology	*Lecturer :* J. G. SYKES, B.Ch.D., *Leeds.* *Honorary Demonstrator in Dental Histology :* D. C. RAMSDEN, L.D.S., *Leeds*, F.R.M.S.
Dental Mechanics	*Lecturer :* H. D. STEPHENS, L.D.S., *Eng.*
Dental Pathology and Bacteriology	*Lecturer :* D. J. CORK, L.D.S., *Leeds.*
Dental Metallurgy	*Lecturer :* vacant.
Radiology . .	*Lecturer :* A. STEWART JOHNSTONE, M.B., Ch.B., F.R.C.S., *Edin.*, B.M.R.E., *Cambridge.*
Clinical Dental Lecturers . .	W. SINTON THORBURN, M.Sc., *Leeds*, L.D.S., *Edin.* G. D. ILES, L.D.S., *Eng.* G. L. WILKINSON, L.R.C.P., M.R.C.S., L.D.S., *Eng.* J. K. CRAWFORD, L.D.S., *Eng.* J. P. COCKER, L.D.S., *Eng.* J. G. SYKES, B.Ch.D., *Leeds.* J. M. MACRAE, L.D.S., *Leeds.* S. H. BRENAN, L.D.S., *Manchester.* A. E. SUMMERS, L.D.S., *Glas.* H. D. STEPHENS, L.D.S., *Eng.* R. N. ROSS, B.Ch.D., L.D.S., *Leeds.* H. G. L. JOHNSON, L.D.S., *Eng.*
Honorary Clinical Tutors in Dental Surgery . .	D. C. RAMSDEN, L.D.S., *Leeds*, F.R.M.S. S. R. WOODCOCK, H.D.D., *Edin.*, L.D.S., *Leeds.* D. J. CORK, L.D.S., *Leeds.* W. L. SUTCLIFFE-HEY, L.D.S., *Eng.*

Honorary Demonstrators :	
Orthodontics .	T. JASON WOOD, B.Ch.D., *Leeds*, L.D.S., *Eng.*
Dental Prosthetics . .	A. G. COVELL.
Anæsthetists . .	Miss KATHLEEN WILSON, M.B., Ch.B., *Leeds.*
	Miss GWENDOLEN HARRISON, M.B., Ch.B., *Leeds.*
Lecturers in Clinical Dental Surgery .	M. R. HOLLINGS, B.Ch.D., *Leeds.*
	H. SHAW, L.D.S., *Leeds.*
Lecturer in Prosthetic Dentistry . .	S. R. FELL, L.D.S., *Leeds.*
Temporary Demonstrators in Clinical Dental Surgery . .	A. J. W. TURRELL, L.D.S., *Leeds.*
	C. WOODHEAD, L.D.S., *Leeds.*
Senior Dental House Surgeon .	F. L. SOUTHAM, L.D.S., *Leeds.*
Dental House Surgeons . .	H. W. GREEN, L.D.S., *Leeds.*
	R. L. WALKER, L.D.S., *Leeds.*
Assistant Dental House Surgeons	
Secretary . .	A. BATT, A.H.O.A.

The Warden may be seen by appointment.

Letters to be addressed
THE WARDEN,
SCHOOL OF DENTISTRY,
BLUNDELL STREET,
LEEDS, 1.

SCHOOL OF DENTISTRY

COURSES OF STUDY

Students who have satisfied the matriculation requirements (see below) are advised to take the Degree (B.Ch.D.) course. Opportunity will be given, if so desired, for degree candidates to take also the L.D.S. qualification in their normal period of professional study.

For those who have not matriculated but have obtained the requisite *credits* in the School Certificate or College of Preceptors examinations, the course of study leads to the Diploma in Dental Surgery (L.D.S.).

Candidates whose intention it is to take both a medical and a dental qualification should consult the Warden of the Dental School before admission regarding the possible combination of the courses of study.

The normal courses for the B.Ch.D. and the L.D.S. are now identical, except that an additional period of Clinical Dental Study is required for the Degree.

Every student should make himself familiar with the examination regulations and should take care that he attends all the necessary courses of lectures, demonstrations and hospital practice in order to obtain the requisite certificates of attendance for entry to the examinations.

Students taking the examinations of other Licensing bodies must make themselves acquainted with the subjects, period of attendance, etc., necessary for such examinations, as they do not, in all cases, coincide with the University curricula.

Entrance Requirements

Before admission to the University, the dental student must have passed preliminary examinations in general education as follows :—

For the B.Ch.D.

A candidate is qualified to enter upon this course if he holds (*a*) a School Certificate awarded after he has satisfied the examiners in English Language and in each of Groups I, II and III of that examination with credit in at least one subject, and (*b*) *either* a Higher School Certificate *or* a certifying letter that he has passed at one and the same Higher School Certificate Examination in *four* subsidiary subjects chosen from at least *two* of the following groups:—

Group I.	*Group II.*	*Group III.*
English Language.	Greek.	Pure Mathematics.
English Literature.	Latin.	Applied Mathematics.
History or Ancient History.	French.	Physics.
Geography.	German.	Chemistry.
Art.	Spanish.	Botany.
Music.	French-with-German (may not be taken with either French or German).	Zoology.
Scripture Knowledge	Other approved languages.	Biology (may not be taken with either Botany or Zoology).
Economics.		Elementary Physiology & Hygiene (may not be taken with either Biology or Zoology).
		Handicraft.
		Domestic Subjects.
		Geometrical and Machine Drawing.

NOTES.

(1) For candidates not able to satisfy these conditions, a Special Examination is held by the Joint Matriculation Board, the subjects being English and five other subjects at Subsidiary Standard in the Higher School Certificate Examination. Present emergency regulations enable a candidate with a prescribed number of credits in the School Certificate Examination to complete matriculation by passing in *three* subjects at Subsidiary Standard. (Further particulars may be obtained on application to the Secretary, Joint Matriculation Board, 315, Oxford Road, Manchester, 13).

(2) A Matriculation Certificate or its equivalent gained before December 1st, 1937, will admit to the degree course.

(3) Except in cases specially approved by the Senate, candidates for the B.Ch.D. are required to present evidence of possessing a knowledge of Mathematics at least equivalent to that of a " Pass " Standard at the School Certificate Examination.

For the L.D.S.:

The minimum standard of the preliminary examination for admission to the L.D.S. course is that of a University Matriculation or Entrance Examination in the Faculties of Arts or Pure Science. If in other Faculties, the certificate shall bear evidence that the candidate has passed with "*credit*" in four subjects as follows: (1) English, (2) Elementary Mathematics, (3) A Language other than English, (4) A fourth subject to be chosen from: History, Geography, Botany, Physical Science, Natural Science, Latin, Greek, French, German, or other approved language. When a School Certificate (or College of Preceptors Senior Certificate) is presented, the "credits" in the four required subjects must have been obtained at not more than two sittings.

WAR-TIME MODIFICATION OF L.D.S. ENTRANCE REQUIREMENTS

As a war-time emergency measure, candidates for the L.D.S. will be regarded as having satisfied the requirements of the Preliminary Examination if they possess a School Certificate or College of Preceptors Senior Certificate showing, at not more than two sittings, passes with "credit" in (1) English, (2) a Science subject, (3) a third subject selected from: History, Geography, Botany, Physical Science, Natural Science, Latin, Greek, French, German, or other approved language.

Registration.

Students will be Registered by the University Authorities within fifteen days of their commencing professional study (*i.e.* after passing or obtaining exemption from the Pre-Registration Examination in Physics and Chemistry), and their names will be forwarded to the General Medical Council for inclusion in the official Register. In the case of students who have served an apprenticeship of at least two years in dental mechanics before admission to the University, registration may be antedated for a period not exceeding six months.

Age of Admission.

A candidate before Registration (*i.e.* having passed or obtained exemption from the Pre-Registration Examination) is required to furnish evidence that he has attained, or will within three months attain, the age of eighteen years. Students taking the normal courses (including the Pre-Registration course) may therefore enter the University at about the age of 17.

Concessions to Higher School Certificate Holders.

Students who have passed in Chemistry and Physics (Principal Subjects) in the Higher School Certificate Examination are granted exemption from the courses and examinations in Physics and Chemistry (Pre-Registration).

DEGREES, COURSES OF STUDY, AND EXAMINATIONS IN DENTAL SURGERY

ORDINANCE VII

1. The Degrees in Dental Surgery shall be : Ordinance
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 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 subsequently to the date of passing 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.

3. Candidates for the degree of Bachelor of Dental Surgery are required to satisfy the Examiners in the several subjects of the following examinations, entitled respectively :

The examination for Matriculation, 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 Third 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

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* See page 6.

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.

Regulation Except in cases specially approved by the Senate, candidates for a degree in the Faculty of Medicine (M.B., Ch.B. or B.Ch.D.) are required to present evidence of possessing a knowledge of Mathematics at least equivalent to that of the " Pass " standard at a School Certificate Examination.

The conditions of the examination for Matriculation and of exemption therefrom are set forth in a Syllabus which is issued free, and is obtainable from the Secretary, Joint Matriculation Board, 315, Oxford Road, Manchester.

First Examination

Ordinance 6. The First Examination shall consist of two Parts :—

Part I. (Pre-registration) :—
Physics.
Chemistry.

Part II. Zoology and Botany.

7. Candidates shall be allowed to pass in each Part separately.

8. Candidates shall be required, before presenting themselves for Part I of this examination, to have passed the examination for Matriculation.

9. Candidates shall be required, before presenting themselves for Part II of this examination, to have passed the examination for Matriculation, and to have attended courses of instruction in accordance with the Regulations of the University.

Regulations The First Examination Part I may be taken by candidates who have not attended courses of instruction at the University.

Candidates for the First Examination Part II 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 at the University for the First examination Parts I and II shall be as follows:—

Physics: lectures and laboratory work: three terms.

Chemistry: lectures and laboratory work: three terms.

Zoology and Botany: lectures and laboratory work: three terms.

The examination (Parts I and II) will normally be held in June and September. Candidates who have failed at the examination in June may be granted permission by the Senate to present themselves for the supplementary examination in September and, if such permission is granted, may be excused such part of the supplementary examination as the Examination Committee may determine.

Part I of the examination may be taken either in June or September by candidates who have not attended courses of instruction at the University.

Both parts of the examination will include laboratory work.

Concessions to Higher School Certificate holders.

Students who have passed in Physics and Chemistry taken as Principal Subjects in the Higher School Certificate Examination are exempted from the courses and examinations in these subjects.

Second Examination

10. The subjects of the Second Examination shall be: Ordinance

Part I	Dental Metallurgy.
Part II	Anatomy. Physiology.
Part III	Dental Anatomy and Physiology. Dental Pharmacy and Pharmacology.
Part IV	Dental Mechanics.

11. Candidates may pass in each Part separately.

12. Candidates shall be required, before presenting themselves for the Second examination, to have attended courses of instruction in accordance with the Regulations of the University.

Regulations

Candidates for the Second examination are required to have attended complete courses of instruction approved by the University in :

Dental Metallurgy : lectures and laboratory work : two terms.

Anatomy : lectures and practical work : three terms.

Physiology : lectures and practical work : three terms.

Dental Anatomy and Physiology : lectures : two terms.

Dental Histology : practical work : one term.

Dental Pharmacy : lectures and demonstrations : one term.

Pharmacology : lectures and demonstrations : one term.

Dental Mechanics : lectures : two terms.

Candidates for Part IV of the Second Examination shall be required to have spent two years in the Department of Dental Mechanics of a recognised Dental or General Hospital, or one year in such Department in the event of their having completed not less than two years in pupilage to a registered dentist.

The Second examination shall be held twice in each calendar year.

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.

Third Examination

Ordinance

13. The subjects of the Third Examination shall be :—

Part I General Pathology and Bacteriology.

Part II Medicine.

Surgery.

14. Candidates may pass in each Part separately.

15. Candidates shall be required, before presenting themselves for the Third Examination, to have attended courses of instruction in accordance with the Regulations of the University.

Candidates for the Third Examination are required to have attended complete courses of instruction approved by the University in :— Regulations

General Pathology and Bacteriology : three terms.

Medicine : lectures : one term.

Medicine : tutorial and clinical : one term.

Surgery : lectures : one term.

Surgery : tutorial and clinical : one term.

Candidates for the Third Examination, Part II, shall also be required to present certificates of medical and surgical practice recognised by the University as follows :—Junior Post-mortem Clerkship, three months ; Surgical Out-patient Dressership, three months : Aural Out-patient Dressership, three months.

The Third Examination shall be held twice in each calendar year.

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.

Final Examination

16. The subjects of the Final Examination shall be :— Ordinance

Dental Surgery.

Clinical Dental Surgery (including Operative Dental Surgery, Oral Surgery, Orthodontia, Radiology and Prosthesis).

Special Pathology and Bacteriology.

17. Candidates shall be required before presenting themselves for the Final Examination, to have passed

the First, Second and Third Examinations, and to have attended courses of instruction in accordance with the Regulations of the University.

18. 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.

Regulation

Candidates for the Final examination shall be required to have attended courses of study, approved by the University as follows :

Special Pathology and Bacteriology : one term.
Dental Surgery: lectures : two terms.
Operative Dental Surgery : lectures : one term.
Orthodontia : lectures : one term.
Radiology : lectures : one term.
Anæsthetics : one term.
Dental Hospital Practice : two and a half years.

The Final examination shall be held twice in each calendar year.

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 Master of Dental Surgery

Ordinance

19. 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.

20. 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.

21. 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.

DIPLOMA IN DENTAL SURGERY (L.D.S.)

REGULATIONS

Candidates for the Diploma in Dental Surgery (L.D.S.) of the University of Leeds 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 at least of which must have been spent in the University after passing the First examination.

Candidates are required to satisfy the Examiners in the several subjects of the following examinations :—

A Preliminary examination in general education.
First examination.
Second examination.
Third examination.
Final examination.

Preliminary Examination

The requirements of the Preliminary examination in general education shall be fulfilled by passing an examination recognised for this purpose by the General Medical Council.*

First Examination

The First Examination shall consist of two Parts:—

Part I (Pre-registration) :—
Physics.
Chemistry.
Part II Zoology and Botany.

Candidates may pass in each Part separately.

The names of candidates who have satisfied the Examiners in either Part of the First examination shall be published in alphabetical order.

Candidates shall be required, before presenting themselves for Part I of this examination, to have passed the Preliminary examination in general education.

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* See page 7.

The First Examination Part I may be taken by candidates who have not attended courses of instruction at the University.

Candidates shall be required, before presenting themselves for Part II of this examination, 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 which shall be accepted by the University as equivalent.

The courses of instruction at the University for the First examination Parts I and II shall be as follows :—

Physics, lectures and laboratory work : three terms.

Chemistry: lectures and laboratory work : three terms.

Zoology and Botany : lectures and laboratory work : three terms.

The examination will normally be held in June and September.

The examination will include laboratory work.

Candidates who have failed at the examination in June may be granted permission by the Senate to present themselves for the supplementary examination in September, and, if such permission be granted, may be excused such part of the supplementary examination as the Examination Committee may determine.

Part I of the examination may be taken either in June or September by candidates who have not attended courses of instruction at the University.

Concessions to Higher School Certificate Holders.

Students who have passed in Chemistry and Physics taken as principal subjects in the Higher School Certificate examination are exempted from the courses and examinations in these subjects.

Second Examination

The Second Examination shall consist of four Parts :—

Part I Dental Metallurgy.
Part II Anatomy.
Physiology.
Part III Dental Anatomy and Physiology.
Dental Pharmacy and Pharmacology.
Part IV Dental Mechanics.

Candidates may pass in each Part separately.

Candidates, before presenting themselves for the Second examination, are required to have attended courses of instruction recognised by the University, as follows :—

Dental Metallurgy : lectures and laboratory work : two terms.
Anatomy : lectures and practical work : three terms.
Physiology : lectures and practical work : three terms.
Dental Anatomy and Physiology : lectures : two terms.
Dental Histology : practical work : one term.
Dental Pharmacy : lectures and demonstrations : one term.
Pharmacology : lectures and demonstrations : one term.
Dental Mechanics : lectures : two terms.

Candidates for Part IV of the Second examination shall be required to have spent two years in the Department of Dental Mechanics of a recognised Dental or General Hospital, or one year in such Department in the event of their having completed not less than two years in pupilage to a registered dentist. The examinations will be held twice in each calendar year.

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.

Third Examination

The Third examination shall consist of two Parts :—
Part I General Pathology and Bacteriology.
Part II Medicine.
Surgery.

Candidates may pass in each Part separately.

Candidates, before presenting themselves for the Third examination, are required to have attended courses of instruction recognised by the University, as follows :—

General Pathology and Bacteriology : three terms.
Medicine : lectures : one term.
Medicine : tutorial and clinical : one term.
Surgery : lectures : one term.
Surgery : tutorial and clinical : one term.

Candidates for the Third examination, Part II, shall also be required to present certificates of Medical and Surgical practice recognised by the University, as follows :—

Junior Postmortem Clerkship : three months.
Surgical Out-patient Dressership : three months.
Aural Out-patient Dressership : three months.

The Third examination will be held twice in each calendar year.

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.

Final Examination

The Final Examination shall consist of :—

Dental Surgery
Clinical Dental Surgery (including Operative Dental Surgery, Oral Surgery, Orthodontia, Radiology and Prosthesis).
Special Pathology and Bacteriology.

Candidates must have passed the First, Second and Third examinations before being examined in the Final examination, and must have attended courses of instruction recognised by the University as follows :—

Special Pathology and Bacteriology : one term.

Dental Surgery : lectures : two terms.

Operative Dental Surgery : lectures : one term.

Orthodontia : lectures : one term.

Radiology : lectures : one term.

Anaesthetics : one term.

Dental Hospital practice : two years.

The Final examination shall be held twice in each calendar year.

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.

NORMAL DENTAL COURSE
B.Ch.D. and L.D.S.

FIRST TERM.	SECOND TERM.	THIRD TERM.
First Year. Physics. Chemistry. Botany and Zoology.	Physics. Chemistry. Botany and Zoology.	Physics. Chemistry. Botany and Zoology. *First Examination:* *Part I.:—* Physics and Chemistry. *Part II.:—* Botany and Zoology. (June and September).
Second Year. Anatomy. Physiology. Dental Metallurgy. Dental Laboratory.	Anatomy. Physiology. Dental Metallurgy. Dental Laboratory. *Second Examination:* *Part I.:—* Dental Metallurgy. (March and June).	Anatomy. Physiology. Dental Laboratory. *Second Examination:* *Part II.:—* Anatomy and Physiology. (June and September).
Third Year. Dental Mechanics Lectures. Dental Anatomy and Physiology. Dental Laboratory.	Dental Mechanics Lectures. Dental Anatomy and Physiology. Dental Histology. Pharmacology. Dental Pharmacy. Dental Laboratory. *Second Examination:* *Part III.:—* Dental Anatomy and Physiology. Dental Pharmacy and Pharmacology. (March and September).	Dental Laboratory. *Second Examination:* *Part IV.:—* Dental Mechanics. (September and March).
Fourth Year. Pathology and Bacteriology. P.M. Clerkship. General Hospital Practice. Dental Hospital Practice.	Pathology and Bacteriology. Medicine Lectures. Surgery Lectures. Clinical Medicine (Tutorial). Clinical Surgery (Tutorial). General Hospital Practice. Dental Hospital Practice.	Pathology and Bacteriology. Clinical Medicine (Tutorial). Clinical Surgery (Tutorial). Radiology Lectures. Anæsthetics. General Hospital Practice. Dental Hospital Practice. *Third Examination:* *Part I.:—* General Pathology and Bacteriology. *Part II.:—* Medicine and Surgery. (June and December).

N.B.—Attendance at Dental Laboratory and Dental Hospital Practice is required during vacations.

FIRST TERM.	SECOND TERM.	THIRD TERM.
Fifth Year. Dental Surgery Lectures. Special Pathology and Bacteriology. Dental Hospital Practice.	Dental Surgery Lectures. Operative Dental Surgery Lectures. Orthodontia Lectures. Dental Hospital Practice.	Dental Hospital Practice. *Final L.D.S. Examination:* Clinical Dental Surgery. Dental Surgery. Special Pathology and Bacteriology. (September and March).
Sixth Year. Dental Hospital Practice.	Dental Hospital Practice. *Final B.Ch.D. Examination:* Clinical Dental Surgery Dental Surgery, Special Pathology and Bacteriology. (March and September).	

POST GRADUATE COURSES

Dental practitioners desirous of taking post graduate courses of instruction should apply for particulars to the Warden.

SCHOLARSHIPS

The Dental Board of the United Kingdom awards Bursaries to suitable students to assist them to pursue a course of study with a view to obtaining a registrable dental qualification. Particulars of these Bursaries and forms of application may be obtained from the Registrar, Dental Board of the United Kingdom, 44, Hallam Street London, W.1.

The Dental Board also has a Fund from which loans may be made to students who, having reached a certain stage in the dental curriculum, are unable to continue their studies through the occurrence of some unexpected change in their financial circumstances. Particulars may be obtained on application to the Secretary of the Dental School.

Particulars of University Entrance Scholarships are contained in the Scholarships Prospectus which may be obtained (price 3d.) from the Registrar of the University.

PRIZES AND CERTIFICATES OF MERIT

Examinations for Prizes and Certificates of Merit are held annually as follows :—

Charles Rippon Medal

Mr. Charles Rippon, Ph.D., L.D.S., on his retirement from the Lectureship in Dental Mechanics, presented to the University the sum of £100 to provide a Silver Medal, to be awarded annually to the most distinguished student of the year in the School of Dentistry.

1. Candidates for the Medal must be students who are in the final year* of a normal full curriculum for a

*In determining the final year due consideration will be given to the case of students who may have combined B.Sc. and M.B., Ch.B., courses with the dental curriculum.

qualification in Dental Surgery (B.Ch.D. or L.D.S.) and who have pursued the full qualifying course at Leeds University after registration.

2. The award will be made in October by the Board of the Faculty of Medicine on the nomination of the Clinical Dental Committee. Only candidates who have attained a high standard of proficiency shall be eligible. In determining the award of the medal, account will be taken of the marks obtained in the Senior Operating Prize Examination as well as the reports of the tutors in the various clinical departments of the School.
3. No Student will be allowed to compete for the medal more than once.
4. If two candidates show equal distinction two medals may be awarded, should there be sufficient funds for the purpose.

The Percy Leigh Medal

Mr. Percy T. Leigh, L.D.S., R.C.S., (Eng.), L.D.S. (Glasgow) presented to the University, with a view to the encouragement of the Science and Art of Dental Mechanics, the sum of £105 to provide a Gold Medal to be awarded annually to the most skilled senior pupil of the year in the Dental Mechanics Laboratory of the Dental School.

The conditions of award are as follows :—

1. A Gold Medal is available for award each year to the most skilled senior pupil in the Dental Mechanics Laboratory of the University of Leeds School of Dentistry, who has taken the full pupilage in the University.
2. The award will be made by the Board of the Faculty of Medicine on the nomination of the Clinical Dental Committee.
3. The Medal will be awarded on (*a*) the result of an examination in Dental Mechanics to be held annually ; (*b*) a consideration of the candidate's general record. A high standard of skill must be shown.

4. No student will be permitted to compete for the Medal more than once.
5. If two candidates are equally deserving of the award, two Gold Medals may be awarded.

Percy Leigh Prize in Clinical Dental Surgery

Mr. Percy T. Leigh, L.D.S., R.C.S. (Eng.), L.D.S. (Glas.), to mark his year of office (1935-36) as the Lord Mayor of Leeds, presented to the University the sum of £100 to provide annually a Prize of the value of three guineas in the subject of Clinical Dental Surgery.

The award will be made by the Board of the Faculty of Medicine on the recommendation of the Clinical Dental Committee.

The Prize will be awarded on the result of an examination in Clinical Diagnosis, including Clinical Pathology and Bacteriology and the interpretation of radiographs. A high standard of proficiency must be attained by the successful candidate.

Candidates must be students of the University of Leeds who are in the final year of a normal curriculum for a qualification in Dental Surgery (B.Ch.D. or L.D.S.), and no candidate may compete more than once for the Prize.

Operative Dental Surgery: Third Year Students

Prize value two guineas. The examination will be partly written, practical and oral—the practical part involving the treatment of teeth by filling and extraction.

Operative Dental Surgery: Final Year Students

Prize value five guineas.

Orthodontics: Final Year Students

Prize value five guineas. Candidates will be required to submit for examination models of cases (not less than two in number) which they have completed in the Orthodontic clinic, together with written descriptions of the treatment followed, and to take a written examination.

Extractions

Prize value two guineas. Open to final year students for proficiency in the extraction of teeth.

Dental Mechanics: First Year Students

Prize value two guineas.

Dental Mechanics: Second Year Students

Prize value five guineas.

Students may compete only for Prizes and Certificates in their respective years, and may not enter twice for the same examination.

LEEDS UNIVERSITY DENTAL STUDENTS' SOCIETY

All dental students are urged to join this Society. Meetings are held during the session, at which members of the medical and dental professions read scientific papers of interest to the dental student. The society also caters for the social side of the school life, and holds annually a dance and a dinner.

FEES

General Regulations

The composition fees for lecture and laboratory courses may be paid either sessionally, in advance, or (with certain exceptions) terminally by instalments. Fees paid by instalments are at a slightly higher rate than when paid in advance. The terminal instalment scales of fees are not applicable to students ordinarily resident outside the British Isles; such students must pay fees sessionally in advance.

A student ceasing, for any reason whatsoever, to attend at the University during the session has no claim to a return of fees.

A student who elects to pay composition fees by instalments and who withdraws from the University before the end of a session must pay the whole of the remaining instalments of the session's fee.

On presentation of a form signed by the Dean of the Faculty authorising attendance upon courses of study, and upon payment of the requisite 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.

Students are required to pay a Registration Fee of £2* when their application for admission to the University is accepted.

Fees may be paid either in the Secretary's Office, Dental School, or in the Students' Section, University Road. Cheques should be made payable to "The University of Leeds."

I. Composition Fees

The following scale of fees will be applicable to all students entering upon a course in October, 1940. *Students who have paid a Dental Course Composition fee in a previous session will continue to pay fees at the scale set out in the Calendar and Dental School Prospectus for* 1939-40.

Complete course (including Pre-Registration course, Pupilage, Dental and General Hospital practice and Union Fees) :—

1. For the Degree of B.Ch.D. :—

	When paid sessionally in advance.	When paid in terminal instalments on the 1st day of each term. 1st term.	2nd term.	3rd term.
	£	£	£	£
1st Session	60	30	20	12
2nd Session	60	30	20	12
3rd Session	60	30	20	12
4th Session	60	30	20	12
5th Session	25	‡	‡	‡
6th Session	20	‡	‡	‡
Total	†£285			

* The Registration Fee payable by overseas students is £5.

† Reduced by £15 if paid in one sum at commencement of first year.

‡ Instalment scale not applicable.

2. For the Diploma in Dental Surgery :—

1st Session	60	30	20	12
2nd Session	60	30	20	12
3rd Session	60	30	20	12
4th Session	60	30	20	12
5th Session	25	*	*	*
Total	‡£265			

II. Pupilage Fees

	£	s.	d.
For six months additional pupilage in dental mechanics	20	0	0
For three months additional pupilage	10	0	0

III. Dental Practice Fees

For six months additional	20	0	0
For three months additional	10	0	0
For Post-Graduate work (per half day)	1	0	0

IV. Recapitulation Fees

Anatomy	5	0	0
Physiology	5	0	0
Anatomy and Physiology (concurrently)	8	0	0
Dental Anatomy and Physiology (3 months)	3	0	0

V. Examination Fees, etc.

Matriculation	2	0	0
Registration of an External Matriculation Certificate	2	0	0
Pre-Registration Examination (External Candidates)	3	0	0
B.Ch.D. and L.D.S. — First Examination	6	0	0
B.Ch.D. and L.D.S. — Second ,,	5	0	0
B.Ch.D. and L.D.S. — Third ,,	5	0	0
B.Ch.D. and L.D.S. — Final ,,	5	0	0
Conferment of Diploma	6	0	0
,, ,, Degree.	†7	0	0

‡ Reduced by £14 if paid in one sum at commencement of first year

† Including £1 Parliamentary Registration and Convocation Fee.

* Instalment scale not applicable.

The latest dates for the payment of examination fees are :—

First B.Ch.D. and L.D.S.

In June, on 1st March.
In September, on 13th July.

Second, Third and Final B.Ch.D. and L.D.S.

In March, on 1st February.
In June, on 1st March.
In September, on 13th July.

The fees are the same for re-examination as for original examination, except that in cases where one subject only is taken the fee is £3.

VI. Locker Fee and Breakages Deposit

A deposit of £2 is payable on commencement of the Dental course. Half of this amount will be retained as locker rent, the balance being returnable at the end of the course less the cost of replacing keys, apparatus, etc., lost or broken by the student. If at any time during the course the total cost of replacements exceeds £1, a further deposit of £1 will be payable.

VII. Rental for Dental Engine

A rental of £2 is payable by students commencing Dental Hospital Practice, for the loan of a dental foot engine or electric unit.

VIII. Cost of Dental Education, shewing incidence of charges

On the following pages are set forth 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 will enter on the course in October.

Composition fees cover a normal Dental course as set out in the *Calendar* or *Prospectus*. Supplementary

fees are payable where the course taken exceeds the normal period of instruction.

(*a*) Degree in Dentistry (B.Ch.D.)

The total cost will be reduced by £15 if those fees marked * are paid in one sum instead of by instalments.

	£	s.	d.	£	s.	d.
(Before entry)						
Matriculation Examination	2	0	0			
Registration Fee (on acceptance) ..	2	0	0			
				4	0	0
First Year.						
Composition Fee—First Instalment ..	*60	0	0			
Locker and breakages deposit ..	2	0	0			
Microscope and Books	27	0	0			
Chemical Apparatus	7	0	0			
First Examination Fee	6	0	0			
				102	0	0
Second Year.						
Composition Fee—Second Instalment	*60	0	0			
Books	5	0	0			
Anatomy Charges	5	0	0			
Laboratory Tools	9	0	0			
Second Examination Fee	5	0	0			
				84	0	0
Third Year.						
Composition Fee—Third Instalment	*60	0	0			
				60	0	0
Fourth Year.						
Composition Fee—Fourth Instalment	60	0	0			
Operating Instruments	35	0	0			
Books	3	0	0			
Unit and Engine Rent	2	0	0			
Third Examination Fee	5	0	0			
				105	0	0
Fifth Year.						
Composition Fee—Fifth Instalment	*25	0	0			
				25	0	0
Sixth Year.						
Composition Fee—Sixth Instalment	*20	0	0			
Final Examination Fee	5	0	0			
Graduation, Parliamentary Registration and Convocation	7	0	0			
				32	0	0
Approximate Total Cost				£412	0	0

(*b*) Diploma in Dentistry (L.D.S.)

The total cost will be reduced by £14 if the fees marked † are paid in one sum instead of by instalments.

(Before entry).	£	s.	d.	£	s.	d.
Matriculation or some other recognised Preliminary Examination, say	2	0	0			
Registration Fee (on acceptance) ..	2	0	0			
				4	0	0
First Year.						
Composition Fee—First Instalment	†60	0	0			
Locker and breakages deposit ..	2	0	0			
Microscope and Books	27	0	0			
Chemical Apparatus	7	0	0			
First Examination Fee	6	0	0			
				102	0	0
Second Year.						
Composition Fee—Second Instalment	†60	0	0			
Books	5	0	0			
Anatomy Charges	5	0	0			
Laboratory Tools	9	0	0			
Second Examination Fee	5	0	0			
				84	0	0
Third Year.						
Composition Fee—Third Instalment..	†60	0	0			
				60	0	0
Fourth Year.						
Composition Fee—Fourth Instalment	†60	0	0			
Operating Instruments	35	0	0			
Books	3	0	0			
Unit and Engine Rent	2	0	0			
Third Examination Fee	5	0	0			
				105	0	0
Fifth Year.						
Composition Fee—Fifth Instalment	†25	0	0			
Final Examination Fee	5	0	0			
Conferment of Diploma	6	0	0			
				36	0	0
Approximate Total Cost				£391	0	0

SCHOLARSHIPS & FELLOWSHIPS

GENERAL REGULATIONS

1. No election to a Scholarship or Fellowship 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 and Fellowships are held subject to the good behaviour of the Scholar. The University reserves the power to determine the tenure of a Scholarship or Fellowship for 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 and Fellows are required to devote the whole of their time to their studies, except so far as stated below. The undertaking by a Scholar or Fellow of outside work, such as teaching, or the acceptance of any post of profit outside the University will involve surrender of the Scholarship, or Fellowship, 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 Fellowship vacant or to reduce its value on the ground that the Scholar has previously or subsequent to his election acquired another Scholarship.

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.

Frank Parkinson Fund for Fellowships, Scholarships and Exhibitions

In 1936, Mr. Frank Parkinson, a former student and Baines Scholar of the University, made over the sum of £50,000 to the University to endow a Scholarship Fund. In announcing his gift, he stated that he had "long cherished the ambition to do something to ensure that the kind of assistance which was extended to me as a student should be available to a larger number of Yorkshire students, and especially those who might otherwise be unable to contemplate a University career, or who, in spite of proved ability, might be unable to carry on post-graduate research work through lack of means."

The income from the Fund amounts to approximately £1,700 per annum, and is intended to assist (*a*) persons of proved ability and in need of financial help to enter or to continue their studies at the University; (*b*) distinguished graduates of the University desiring and unable without financial help to pursue after graduation, for a period of one or two years, research, further study or a course of post-graduate training.

The Fund is under the management of a Committee set up by the Senate and containing representatives nominated by the Council. The procedure of the Committee is governed by regulations made by the Senate and approved by the Council and the donor.

The amounts and number of the Fellowships, Scholarships, Exhibitions or Grants awarded to individual candidates will vary according to circumstances.

I.

The following Regulations apply to all candidates :—

1. Beneficiaries under the Fund must be born of British parents who have been domiciled in Yorkshire for a period of not less than ten years. The years of domicile need not be successive, but must amount to ten in the aggregate.

2. All candidates must supply proof of eligibility in respect of the British nationality and Yorkshire domicile of parents.

   Parents or guardians of candidates will be required to furnish a confidential statement of their financial position with such evidence in support as the Committee may deem desirable.

3. Candidates must give references as to character from not less than two persons who shall not be relatives of the candidate. They must furnish a written personal statement concerning their general interests and activities including sports, their proposed course of study, and their intended career after completing their studies.

4. Candidates are informed that in making the awards the Committee will not only take into consideration intellectual and scholastic attainments and ability, but will also attach the greatest importance to qualities of character, personality and promise of leadership.

5. The amount of the Fellowships, Scholarships or Grants would normally be determined with due regard to the needs and means of the successful candidates. The scope of the Fund would not be limited to the payment of fees and the provision of books and other necessary equipment, but would, in appropriate cases, be extended to include the maintenance or part maintenance of the successful candidate.

6. The awards will be made after interview of a selected number of candidates, who shall be required to attend at the University for this purpose.

II.

The following additional Regulations apply to candidates entering the University for the first time and to undergraduates already in residence at the University :—

1. Successful candidates will normally be expected to pursue a course as whole-time students proceeding to a degree or diploma.
2. Candidates of proved ability and promise who do not desire to take a degree or diploma but wish to attend the University as whole-time students for one or two years, may apply for assistance if otherwise eligible.
3. Candidates desiring to enter the University must supply evidence of intellectual qualifications including the results of any public examinations they have taken. In the case of undergraduates, the results of any University examinations will be taken into account.
4. All candidates included in Section II must supply information regarding their school career together with a statement from the Head of the School in which they spent the last three years of school life. Candidates engaged in a profession, business or industry should also supply evidence of their experience, supported by a letter of recommendation from the employer.
5. Scholarships and exhibition of varying amounts will be awarded each year.
6. Entrance Scholarships will normally be awarded for three years. The continuation of the Scholarship each year after the first will be subject to a satisfactory report on the work of the Scholar in the previous year.

   In the case of undergraduates already in residence at the University, scholarships will normally be awarded for one year in the first instance, but may be renewed for a second year.

III.

The following additional Regulations apply to candidates who are graduates of the University and who wish to undertake a course of postgraduate study or research or training :—

1. Fellowships, Scholarships or Grants will normally be made for a period of two years, subject to a satisfactory report at the end of the first year.

2. The research, or further study, may be carried out either in the University or in other approved Universities or Institutions.

3. Grants will normally be made to enable candidates to undertake research, but they may also be awarded to candidates who wish to prepare themselves by a course of training for an administrative or professional career.

4. In selecting candidates the Committee will have regard to the performance of candidates at the degree examinations and the reports of heads of departments.

Applications under Section II from candidates entering the University for the first time must be submitted to the Clerk to the Senate not later than 1st September, on a form to be obtained from him.

Applications under Section II from undergraduates already in residence at the University must be submitted to the Clerk to the Senate not later than 1st May, on a form to be obtained from him.

Applications under Section III must be submitted to the Clerk to the Senate not later than 1st May, on a form to be obtained from him.

ENTRANCE SCHOLARSHIPS

Frank Parkinson Fund

Conditions of award of Entrance Scholarships and Exhibitions under this Fund are set out in previous pages.

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. 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 next award will normally be made in 1943 or 1944.

William Cartwright Holmes Scholarship in Gas Engineering*

This Scholarship was endowed in 1929 by Mr. P. F. Holmes and Mr. D. M. Henshaw as a memorial to William Cartwright Holmes of Huddersfield.

The Scholarship is held at the University of Leeds. The normal value of the Scholarship is £120 per annum, and it is tenable for one, two or three years, with power of extension for a fourth year on the recommendation of the Senate to the William Cartwright Holmes Scholarship Committee, appointed by the Institution of Gas Engineers.

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 by the Senate as satisfactory.

The Scholarship is intended to enable a student to take a course of study at the University in preparation for a responsible position in Gas Engineering.

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 Engineering.

As each vacancy occurs the award of the Scholarship will ordinarily be made during the month of June, after advertisement in the Technical Press.

The Scholarship will be awarded by the Senate after consultation with the William Cartwright Holmes 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 or other organisation in which he received his previous education; (*b*) if he has been already engaged in a gas engineering works, from the Engineer or Manager of the works.

*The next award will normally be made in 1942.

The Senate, in conjunction with the William Cartwright Holmes Scholarship Committee, will determine what examination, if any, is necessary in order to guide them in the award of the Scholarship.

Blanche L. Leigh Scholarship in Music*

Mrs. Percy Leigh presented to the University in 1931 a sum of money for the establishment of a scholarship or scholarships in Music.

The Scholarship is of the annual value of £30 and is tenable for three years. It may be augmented by a maintenance grant not exceeding £60 per annum, at the discretion of the Senate.

The award will ordinarily be made every three years, but the Senate reserves the right not to make an award in any year when there is no candidate of sufficient merit. An additional scholarship or scholarships may be offered in any year if the funds permit.

The Scholarship will be awarded on the result of an examination in Music including (1) Harmony in not more than four parts, (2) the History of Music and (3) Ear Tests.

The Scholar will be required throughout the term of his scholarship to attend courses of instruction in the University of Leeds either (*a*) as required for the Ordinary degree of B.A. of the University of Leeds, a three years course in Music being included, or (*b*) in subjects required for the Mus.Bac. degree of an approved University, together with such courses in Arts as the Senate on the recommendation of the Board of Arts may prescribe.

The examination will normally be held in September. When a vacancy occurs particulars of the examination will be advertised in the public press.

*The next award will normally be made in 1941.

William Briggs Scholarship Fund

In 1932 Dr. William Briggs endowed this scholarship with the sum of £2,100.

The purpose of the fund is to assist students whose means are otherwise insufficient to enter upon or to continue a course of study at the University.

The award of the Scholarship or Scholarships will be made by the Senate on the recommendation of the Scholarships Committee in September.

Candidates desiring to apply for these Scholarships should make application on the appropriate form, which can be obtained from the Clerk to the Senate, The University, Leeds, not later than 1st September.

John Gilbert Vause Memorial Scholarship*

The late Mr. F. W. Vause, of Roundhay, Leeds, bequeathed the sum of £1,000 to the University to found a Scholarship in memory of his son, Lieutenant John Gilbert Vause of the 15th West Yorkshire Regiment, who died in the first Battle of the Somme.

The Scholarship, of the approximate annual value of £35, is tenable in the first instance for one year, and may be renewed for one year or two years. It is open to matriculated students of the University of Leeds and graduates in Arts or Science of a British University, preference being given, *ceteris paribus*, to candidates who are or have been pupils of the Leeds Grammar School.

The Scholar is required to pursue the courses prescribed for the degrees of Bachelor of Medicine and of Surgery (M.B., Ch.B.) of this University.

The Scholarship is awarded by the Senate on the recommendation of a special committee after interview of candidates and consideration of their records.

Applications must be sent in to the Clerk to the Senate not later than the 1st September in each year.

*The next award will normally be made in 1941.

James Graham Memorial Entrance Scholarship*

1. This Scholarship was endowed with the sum of £1,200 in 1933 by Mrs. James Graham of Headingley, Leeds, in memory of her husband, Dr. James Graham, who was for 25 years Director of Education in the City of Leeds.

2. The Scholarship is of the annual value of £40, or such annual income as the investment of the above sum

may produce, and is open to students intending to read for a degree in the Faculty of Arts, the Faculty of Commerce or the Faculty of Science. It may be held for one, two or three years at the discretion of the Senate.

3. The Scholarship is open to candidates whose parents live or have lived in Leeds, and who have attended an elementary or secondary school in Leeds for at least three years, provided that they have passed either the Matriculation or the Higher School Certificate examination prior to enrolment at the University.

4. The award of the Scholarship shall be made by the Senate after such examination of the candidates as the Senate may from time to time impose. In the event of equality amongst the candidates preference will be given to a candidate desiring to proceed to a degree in Commerce.

5. Any vacancy in the Scholarship will be duly announced in the public press and to schools in Leeds six months before such vacancy occurs.

*The next award will normally be made in 1942.

The Benjamin Bland Entrance Scholarship*

1. This Scholarship was endowed in 1933 by the late Miss Ann Bland, of Idle, Bradford, in memory of her father, the late Benjamin Bland of Idle. The donor bequeathed the sum of £1,500 to institute a Scholarship to be known as "The Benjamin Bland Scholarship" for the purpose of assisting students from the township of Idle to proceed to the University.

2. The Scholarship is normally of the annual value of £50 and tenable for three academic years.

3. Candidates must have been born in the township of Idle and resident therein for the two years immediately preceding the award of the Scholarship.

4. The award of the Scholarship shall be made by the Senate after such examination or test of the candidates as the Senate may from time to time impose. The award of the Scholarship is conditional on presentation of a satisfactory medical certificate from an officer appointed for the purpose by the University.

5. Any surplus funds in any particular year may be utilised by the Senate at their discretion in awarding a second scholarship to the next most deserving candidate as evidenced by the aforesaid examination or test.

6. The Scholar or Scholars elected will be required to pursue such courses in any of the Faculties of the University as may be considered most advisable by the Senate, having regard to the particular aptitude of the boy or girl in question, and the desire of his or her parents or guardian.

7. Any vacancy in the Scholarship will be duly announced in the public press, and application should be sent to the Clerk to the Senate not later than September 1st.

*The next award will normally be made in 1943.

William Cooke & Company Scholarship

(*This Scholarship is in abeyance for the present*)

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 articled 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.

Scholarship in Mining or Petroleum Engineering

Three scholarships in mining or petroleum engineering each of £60 per annum in addition to fees (approximate total value £110 per annum) have been made available, tenable at the University by a student in attendance upon the Honours degree course in the Mining Department.

The scholarships are tenable for four sessions. Their continuance each year will be subject to a satisfactory report on the work of the scholar in the previous year.

In making the awards the University will not only take into consideration intellectual and scholastic attainments and ability, but will also attach importance to qualities of character, and personality.

Candidates must give references as to character from not less than two persons who shall not be relatives of the candidate. Candidates must furnish a written personal statement concerning their general interests and activities, including sports.

Candidates must supply information regarding their school career together with a statement from the Head of the School in which they spent the last three years of school life. Candidates engaged in business or industry should also supply evidence of their experience, supported by a letter of recommendation from their employer.

Candidates must supply evidence of intellectual qualifications, including the results of any public examinations they have taken and must be qualified to enter upon a degree course.

The awards will be made after interview. Selected candidates shall be required to attend at the University for this purpose.

One scholarship will be available for award in the Session 1940-41. Applications should be sent to the Clerk to the Senate.

Campbell Futers Scholarship in Mining*

Mr. T. Campbell Futers of the Yorkshire Electric Detonator Co. Ltd. has made available a scholarship of £60 per annum, tenable at the University by a student in attendance upon the degree course in the Mining Department.

The scholarship will be awarded for the first time in September, 1938 and is tenable for three or four years. The continuation of the scholarship each year will be subject to a satisfactory report on the work of the scholar in the previous year.

In making the award the University will not only take into consideration intellectual and scholastic attainments and ability, but will also attach importance to qualities of character, personality and promise of leadership.

Candidates must give references as to character from not less than two persons who shall not be relatives of the candidate. They must furnish a written personal statement concerning their general interests and activities including sports, their proposed course of study and their intended career after completing their studies.

Candidates must supply information regarding their school career together with a statement from the Head of the School in which they spent the last three years of school life. Candidates engaged in a profession, business or industry should also supply evidence of their training and experience, supported by a letter of recommendation from their employer.

Candidates must supply evidence of intellectual qualifications, including the results of any public

examinations they have taken and must be qualified to enter upon a degree course.

The award will be made after interview. Selected candidates will be required to attend at the University for this purpose.

Applications must be sent to the Clerk to the Senate not later than 1st September.

*The next award will normally be made in 1941.

West Yorkshire Coalowners' Scholarship*

The West Yorkshire Coal Owners have made available a scholarship of £60 per annum, tenable at the University by a student in attendance upon the Degree course in the Mining Department.

The scholarship is tenable for three sessions. Its continuation each year is subject to a satisfactory report on the work of the scholar in the previous year.

In making the award the University will not only take into consideration intellectual and scholastic attainments and ability, but will also attach importance to qualities of character, personality and promise of leadership.

Candidates must give references as to character from not less than two persons who shall not be relatives of the candidate. They must furnish a written personal statement concerning their general interests and activities including sports, their proposed course of study and their intended career after completing their studies.

Candidates must supply information regarding their school career together with a statement from the Head of the School in which they spent the last three years of school life. Candidates engaged in profession, business or industry should also supply evidence of their experience, supported by a letter of recommendation from their employer.

Candidates must supply evidence of intellectual qualifications, including the results of any public examinations they have taken and must be qualified, through matriculation, to enter upon a degree course.

The award will be made after interview of a selected number of candidates who shall be required to attend at the University for this purpose.

*The next award will normally be made in 1943.

Charles Brotherton Scholarships in Colour Chemistry

Two Entrance Scholarships each of the value of £100 per annum, tenable at the University by students in attendance upon the Honours degree course in the Colour Chemistry and Dyeing Department, were made available in 1940 by Mr. Charles Brotherton of Leeds.

The Entrance Scholarships are tenable for three or four academic years according to whether or not the scholar has attained a standard that permits him to be excused the first year work of the four years' course leading to the degree of B.Sc. with Honours in Colour Chemistry. Their continuance each year will be subject to a satisfactory report on the work of the scholar in the previous year.

Candidates, who must be of British nationality, must supply information with regard to their school career, including the results of public examinations they have taken, and must be qualified to enter upon a degree course.

In making the awards not only will intellectual and scholastic attainments and ability be taken into consideration, but the greatest importance will be attached to qualities of character, personality and promise of leadership.

Candidates must give references as to character from not less than two persons who shall not be relatives of the candidate and must supply a statement from the

Head of the School in which they spent the last three years of school life. They must also furnish a written personal statement concerning their general interests and activities including sports and their intended career after completing their studies.

During the period of the war preference will be given to candidates who do not exceed the age of 18.

The awards will be made after interview by the Scholarships Committee upon which there will be a representative of the Brotherton Trust. Selected candidates will be required to attend at the University for this purpose.

Any surplus funds in any particular year may be utilised by the Scholarships Committee at their discretion either as an Entrance Scholarship of the value of £100 per annum in a subsequent year, or as a Scholarship for an undergraduate already in residence at the University and studying for the Honours degree in Colour Chemistry. In the latter case, the Scholarship will be of varying amount, dependent upon the candidate's circumstances, and will normally be awarded for one year in the first instance, but may be renewed for a second year.

Applications should be sent to the Clerk to the Senate before 1st September.

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, and may not be held by the holder of any other Scholarship or Exhibition.

Woolmen's Company Scholarship

1. This Scholarship was founded in 1927 by the Worshipful Company of Woolmen with the object of encouraging study in connexion with the Wool Trade.

2. The Scholarship is of the annual value of £30, and is normally tenable for three academic years in the Department of Textile industries.

3. The Scholarship is open to students entering upon the first year of a course of study leading to a degree or a diploma of the University in the Department of Textile Industries.

Failing a suitable candidate entering upon the first year course of study, the Scholarship may be awarded to a student who has already completed the first or second year of his attendance in the Textile Industries Department and is desirous of completing his degree or diploma course of study in that Department.

Preference will be given to candidates whose means are otherwise insufficient to enable them to pursue their studies in the University.

4. When a vacancy occurs, the Scholarship will be advertised in the press. Applications should be sent in to the Clerk to the Senate not later than 1st September. Applicants may be required to present themselves for a special examination, which will be held in September.

Edward Baines Scholarship

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. Two Scholarships were established, one of which is awarded as a Senior Scholarship; the other Scholarship is an Entrance Scholarship, which until 1933 was awarded by the Yorkshire Union of Institutes (originally "The

Yorkshire Union of Mechanics' Institutes," of which organisation Edward Baines was the first President and occupied that position for a period of 50 years.)

This Scholarship is intended for students of either sex who have done satisfactory work at Evening Technical Schools or other evening classes. Candidates should in general have had at least two years' practical experience in workshops or other equivalent industrial experience. Candidates must have reached a good standard of general education.

Candidates must not be under 18 or over 30 years of age.

The Scholarship will be of the value of £50 per year. This amount will cover the tuition fees, and leave a margin available for books, travelling expenses, etc. The Scholarship will be awarded for one year in the first instance, and may be renewable for a second and a third year in the event of satisfactory progress. The Scholar will be required to pursue in the University a course of study approved by the Senate.

Applications must be made on forms which may be obtained from the Clerk to the Senate, The University, Leeds; applications should be sent in not later than 1st September. Candidates will be required to produce a nomination or recommendation from the Managers of the School endorsed by their employers.

The award will be made by the Senate in September. An examination, oral or written or both, may be held at the discretion of the Senate.

GRANTS-IN-AID

A limited number of pecuniary grants are available to enable deserving candidates to proceed to the University. Applications should be sent in to the Clerk to the Senate, on the appropriate form, not later than 1st September.

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 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.

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. A. C. Clifford, Secondary School, Whitehaven.

Dental Board Bursaries

The Dental Board of the United Kingdom awards Bursaries to suitable students to enable them to pursue a course of study with a view to obtaining a registrable dental qualification. Particulars of these Bursaries and forms of application may be obtained from the Registrar, Dental Board of the United Kingdom, 44, Hallam Street, London, W.1.

SENIOR SCHOLARSHIPS

Frank Parkinson Fund

Conditions of award of Scholarships under this Fund are set out in previous pages.

Several of the Scholarships mentioned below were formerly awarded as Entrance Scholarships but are now offered for competition as Senior Scholarships and are normally open only to students who are actually in attendance at the University.

GENERAL REGULATIONS

1. Senior Scholarships are open to registered students of the University who have completed one or more sessions in the University; but the Senate may at their discretion utilise Senior Scholarship Funds for making grants to students who have not completed one year's attendance in the University.

2. Senior Scholarships, unless otherwise specified, are awarded in the first instance for one year and are renewable.

3. Senior Scholars are in general required to pursue courses of study for degrees or post-graduate diplomas of the University.

4. In awarding the Scholarships consideration will be given to the financial circumstances of the candidates, and the Senate reserves the power of reducing the value of any Scholarship at any time.

5. Applications for Senior Scholarships must be sent to the Clerk to the Senate *not later than 1st May* of each year.

6. Senior Scholarships will be awarded on the results of the June degree and departmental examinations; and the awards will be announced in July.

7. The following Senior Scholarships are offered for competition :—

Emsley.	Salt.
Edward Baines.	Medical.
Charles Wheatley.	Infirmary.
William Summers.	Stephenson Clarke.
Akroyd.	Alfred Lund.
Brown.	Clothworkers'
Craven.	

DETAILED REGULATIONS

Emsley Scholarship

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.

The Scholarship is tenable in the Faculties of Arts, Science, or Technology (except Textile Industries).

Annual income, approximately £42.

Edward Baines Scholarship

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 Senior 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 an Entrance Scholarship.

The Scholarship is tenable in the Faculties of Arts, Science, or Technology (except Textile Industries).

Annual income, approximately £40.

Charles Wheatley Scholarship

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 tenable in the Faculty of Arts, and the Scholar elected will be required to pursue a course for the B.A. or LL.B. degree of the University.

Annual income, approximately £50.

William Summers Scholarship

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, or must have attended a public school in the said Borough for the same period.

The Scholarship is tenable in the Faculty of Arts and the Scholar elected will be required to pursue a course for the B.A. Honours degree.

Annual income, approximately £45.

Akroyd Scholarships

These Scholarships are maintained by funds accruing from the Akroyd Trust, and are intended for the encouragement of the study of Natural Science. These Scholarships are tenable for three years.

Women are not eligible for the Akroyd Scholarships.

The Scholarships are tenable in the Faculties of Science or Technology.

Annual income, approximately £320.

Brown Scholarship

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.

A preference will be given, *ceteris 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 Scholarships are tenable in the Faculties of Science or Technology.

Annual income, approximately £213.

Craven Scholarship

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.

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.

The Scholarship is tenable in the Faculty of Technology.

Annual income, £25.

Salt Scholarship

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 tenable in the Faculty of Arts, and the Scholar elected will be required to continue 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 post-graduate study satisfactory to the Senate.

Medical Scholarship

This Scholarship was instituted by the Leeds School of Medicine in 1888. It now consists of a free ticket to the lectures and laboratory courses in the Faculty of Medicine of the University.

This Scholarship is tenable in the Faculty of Medicine and is awarded, after a report from the examiners, on the results of the *First* M.B., Ch.B. examination of the University of Leeds.

Infirmary Scholarship

This Scholarship was founded in 1888 by the Faculty of the Leeds General Infirmary. It is of the value of £75 and consists of a free ticket to the clinical teaching of the Leeds Infirmary.

This Scholarship is now awarded, after a report from the examiners, on the results of the *Second* M.B., Ch.B. examination of the University of Leeds.

Stephenson Clarke Scholarship

(Tenable in the Textile Industries Department and in the Department of Colour Chemistry and Dyeing).

1. The Scholarship was founded in 1926 by Colonel Stephenson Robert Clarke, C.B., LL.D., Master 1924-25 of the Clothworkers' Company who are the Trustees.

2. The endowment of the Scholarship consists of £1,000. The annual value of the Scholarship consists of the free income of this endowment and amounts approximately to £45 per annum.

3. The Scholarship will be awarded annually. Subject as hereinafter mentioned (para. 5) the Scholarship will be awarded in the first year to a student in the Textile Industries Department and in the following year to a student in the Colour Chemistry and Dyeing Department and will continue to be thus alternately awarded.

The object of the Scholarship is to enable the successful candidate to undertake a 3rd or 4th year course of study in one of these Departments, and candidates must be completing respectively their 2nd or 3rd year attendance in either the Textile Industries or the Colour Chemistry and Dyeing Department. A preference will be given to students completing a 3rd year and desiring to enter for a 4th year course of study.

4. The Scholarship is tenable for one academic year.

5. Failing the application of a qualified candidate for the Scholarship in the Department to which the Scholarship falls in a given year, the Scholarship may be awarded to another qualified student in the other Department, but without affecting the ordinary sequence.

6. Failing the application in any year of a qualified candidate in either Department, the amount of the Scholarship for that year shall be added to capital.

7. The appointment to a Scholarship shall be made by the Founder of the Scholarship during his lifetime out of nominations submitted by the Vice-Chancellor. Thereafter the appointment shall be made by the Court of the Clothworkers' Company in like manner.

8. Clauses 1, 2 and 3 of the General Regulations of the University of Leeds relating to Scholarships shall, so far as may be applicable, apply to the Stephenson Clarke Scholarship.

9. Power is reserved to the Founder (Colonel Stephenson Robert Clarke) during his lifetime and afterwards to the Trustees (the Clothworkers' Company), in the latter case after consultation with the Senate of the University of Leeds, to alter or modify the above Regulations, including the amount of the Scholarship or Scholarships to be awarded.

10. Any dispute or difference arising in regard to the construction of any of the above rules and regulations or conditions or in regard to any award made thereunder shall be settled by the Founder during his lifetime and afterwards by the Trustees, any such decision to be final and conclusive.

Applications to be sent to the Clerk to the Senate *not later than 1st June* of each year.

Alfred Lund Scholarship

1 This fund was instituted in 1924 by the late Alfred Lund, Esq., of Pudsey, for the purpose of assisting deserving students to complete their studies in the Departments of Colour Chemistry and Dyeing and Textile Industries, or to prosecute advanced study and research in some branch of knowledge germane to the dyeing and textile industries.

2. The number of Scholarships awarded each year will depend upon the number of suitable candidates and the amount of income available. The Scholarships are of the annual value of £25, which may be supplemented by a grant for maintenance not exceeding £100. They are awarded for one year and may be renewed.

3. Students who have attended courses of study for degrees or diplomas of the University in the Department of Colour Chemistry and Dyeing or the Department of Textile Industries, for not less than one session, are eligible for the Scholarships.

4. Holders of the Scholarships are required either to complete their courses for a degree or diploma in the Departments of Colour Chemistry and Dyeing or of Textile Industries, or, if they have completed such courses, to pursue advanced study and research in the University or in some other University or learned institution, under suitable guidance in a manner approved by the Senate

5. The Scholarships are awarded by the Senate, on the recommendations of the Professors of Colour Chemistry and Dyeing and of Textile Industries, at the end of the summer term.

6. Scholars are required to furnish reports of the work done by them during the tenure of the Scholarship, such reports to be forwarded to the Clerk to the Senate before 1st June of the year following the award of the Scholarship, in order that they may be laid before the Senate.

Clothworkers' Scholarships

These Scholarships were founded in 1875 by the Worshipful Company of Clothworkers of the City of London, who offer the sum of £60 annually to provide one or more Scholarships for students in the Department of Textile Industries. The Scholarships are open to students completing their first or second year of attendance in the Department and are tenable for one year.

The Scholarships are awarded on the results of the third term examinations.

Applications from candidates for these Scholarships must be sent to the Clerk to the Senate *not later than 1st June* of each year.

GRADUATE SCHOLARSHIPS

In Arts, Science, Technology or Medicine

Frank Parkinson Fund

Conditions of award of Scholarships under this Fund are set out in previous pages.

University Scholarships

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 1st May.

Loans to Graduates.

The University has instituted a Loan Fund to enable graduates to prepare for careers other than teaching. Applications for loans from this fund should be made *not later than 1st May.*

West Riding Research Grants

A sum of £500 has been earmarked by the West Riding Education Committee for the purpose of awarding Research Grants to West Riding students, on the recommendation of the University Authorities.

The recommendations are decided upon by the Senate on the results of Honours Degree Examinations.

IN THE FACULTY OF ARTS

John Rutson Scholarship

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 1st May.

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 annual income available for award 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 1st May* of 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.

Harold Tetley Post-Graduate Studentship in the History of Art in Yorkshire

This studentship, designed for the promotion of the study of the History of Art in Yorkshire, was founded by Colonel C. H. Tetley (Pro-Chancellor of the University) in 1938, and will be available for ten years.

It is of the value of £200 per annum and is tenable for two academic years, subject to a favourable report on the student's work in the first year. In special circumstances the tenure of the studentship may be extended for a third year.

The successful candidate shall work under conditions approved by the Senate. He would be expected to submit a report upon the progress of his work at the close of the first year and ultimately to publish the results of his investigations.

Applications should be sent to the Clerk to the Senate not later than 1st June in each year.

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* The Scholarship is in abeyance during the war. The next recommendation will be made by Leeds University.

IN THE FACULTIES OF SCIENCE OR TECHNOLOGY

Brotherton Research Scholarship

The late Baron Brotherton of Wakefield bequeathed a sum of £20,000 to be devoted to charitable and educational purposes in the City of Leeds, and of this sum the Executors in consultation with the Lord Mayor of Leeds have allocated £2,500 for the foundation of a Research Scholarship in some branch of Industrial Science, preferably Industrial Chemistry.

The Scholarship will be known as "The Brotherton Research Scholarship," and will in general be of the value of not more than £100. It will be awarded for a period of one year for an approved course of research at a British University and be open to men and women who have attended a Leeds school for a period of at least three years immediately prior to entering a University. Candidates must have graduated in Honours and have shown special capacity to profit by a period of research. Students who have not already graduated but who are taking their final honours degree examination in the year of award may submit applications.

The Scholarship will be awarded by a Committee to be known as the Brotherton Research Scholarship Committee, consisting of the Lord Mayor of Leeds, the Vice-Chancellor and two other representatives of the University of Leeds, the Chairman and Vice-Chairman of the Leeds Education Committee, the Director of Education for Leeds, and Mr. C. F. R. Brotherton.

The Committee will take into account the University records of the candidates and the course of research proposed to be followed, and the award shall be subject to the Committee's approval of the proposed course and of the University at which it is to be undertaken.

The Committee will have the right to terminate the tenure of the Scholarship at any time if, in the opinion of the Committee, the conduct of the scholar is not satisfactory, and thereafter to withhold further payments to the scholar.

The emoluments of the Scholarship will be payable in instalments at the beginning of each University term.

In exceptional circumstances the tenure of the Scholarship may be extended to a second year.

If in any year the Committee shall be of opinion that none of the candidates has attained an adequate standard it may refrain from making an award in that year.

Any income remaining unspent at the end of any year may at the Committee's discretion be either added to the capital sum or reserved for use in making additional payments to scholars.

If at any time the sum at the disposal of the Committee is greater than that required for the emolument of a single scholar it may award a second scholarship of such value as it may think fit.

Applications may be sent, not later than the 31st May in any year, to the Registrar of the University of Leeds or to the Director of Education, Education Department, Calverley Street, Leeds.

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 a short period, obtain an industrial post to be approved by them.

(*b*) That he is in need of pecuniary assistance to enable him to hold 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 1st May* in each year.

The Arthur Smithells Scholarship

This Scholarship was founded in 1926 from the balance, amounting to £2,079, of a fund raised to commemorate the services rendered to the University by Emeritus Professor Smithells, Professor of Chemistry 1885-1924. Its object is the elucidation by scientific research, in any Department of the University, of the phenomena of combustion, in the widest sense.

The Scholarship, of the approximate annual value of £100, is tenable in the first instance for one year, and may be renewed for a similar period or periods. The appointment is made at the close of the third term.

The Scholarship is open to graduates of the University. All candidates are required, when sending in their applications, to specify the subject in which they propose to undertake research.

The Scholar is required to pursue research in a Department of the University of Leeds, under the direction of the Head of the Department, and to present a report of his work, such report to be sent to the Clerk to the Senate before June 1st.

Applications should be in the hands of the Clerk to the Senate *not later than 1st June* in each year.

The Richard Reynolds Scholarship

This Scholarship was endowed in 1928 by the late Alderman F. C. Clayton, of Birmingham, who served his apprenticeship with the firm of Harvey and Reynolds, manufacturing chemists, Leeds, during the years 1859-1864. The donor bequeathed £2,000 for the purpose of founding a scholarship to be called "The Richard Reynolds Scholarship" in recognition of the valuable training received by him from Richard Reynolds during his apprenticeship.

The Scholarship, of the annual value of approximately £100, is tenable for one year and may be renewed for a second or third year.

The Scholarship is open to graduates of the University who have graduated in the Faculty of Science or the Faculty of Medicine or to Pharmaceutical Chemists who have taken their courses for the Qualifying Examination within the University.

The Scholar is required to pursue research in some branch of Chemistry or Pharmacy in the University of Leeds, under the direction of the Head of the Department, and to present a report of his work, such report to be sent in to the Clerk to the Senate before June 1st.

The appointment will be made at the close of the third term. Applications should be in the hands of the Clerk to the Senate not later than 1st June 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' Research Fellowships and Scholarships in Textile Industries

These Scholarships and Fellowships were instituted in 1928 from funds provided by the Worshipful Company of Clothworkers.

The Scholarships are of the annual value of £100 which may be supplemented by a maintenance grant not exceeding £40. The Fellowships are of the minimum annual value of £160.

The Scholarships are open to graduates of the University of Leeds, to holders of the Diploma in Textile Industries of the University of Leeds, and to suitably qualified graduates of other Universities.

The Fellowships will normally be awarded to holders of Scholarships who have shown special aptitude for research work during their tenure of a Scholarship; but any duly qualified applicant may be granted a Fellowship on the ground of exceptional distinction without having previously held a Scholarship.

Both Scholarships and Fellowships are tenable for one year and may be renewed for one or more years.

The number of each to be awarded in any year will depend upon the funds available and on the number of suitable applicants.

Fellows and Scholars will be required to devote the whole of their time to research in some subject or subjects connected with the Textile Industries, under the direction of the Professor of Textile Industries, and to present a report of their work to the Senate not later than June 1st in each year.

The appointments will be made at the close of the third term. Applications should be in the hands of the Clerk to the Senate not later than 1st June in each year.

Clothworkers' Research Fellowships and Scholarships in Colour Chemistry

These Scholarships and Fellowships were instituted in 1928 from funds provided by the Worshipful Company of Clothworkers.

The Scholarships are of the annual value of £100 which may be supplemented by a maintenance grant not exceeding £40. The Fellowships are of the minimum annual value of £160.

The Scholarships are open to suitably qualified graduates of any University, but preference will be given to graduates of the University of Leeds who have graduated with Honours in Colour Chemistry or have obtained the Ordinary degree of Bachelor of Science in Dyeing.

The Fellowships will normally be awarded to holders of Scholarships who have shown special aptitude for research work during their tenure of a Scholarship; but any duly qualified applicant may be granted a Fellowship on the ground of exceptional distinction without having previously held a Scholarship.

Both Scholarships and Fellowships are tenable for one year and may be renewed for one or more years.

The number of each to be awarded in any year will depend upon the funds available and on the number of suitable applicants.

Fellows and Scholars will be required to devote the whole of their time to research in the Department of Colour Chemistry and Dyeing, under the direction of the Head of the Department, and to present a report of their work to the Senate, such report to be sent in to the Clerk to the Senate not later than 1st June in each year.

The appointments will be made at the close of the third term. Applications should be in the hands of the Clerk to the Senate not later than June 1st in each year.

IN THE FACULTY OF MEDICINE

Thorp Fellowship in Forensic Medicine and Public Health Centenary and Hardwick Fellowship

These Fellowships, each of the value of approximately £150, are awarded every alternate year to students or graduates of the University who propose to undertake an approved investigation.

For particulars, application should be made to the Dean of the Faculty of Medicine.

FELLOWSHIPS

Frank Parkinson Fund

Conditions of award of Fellowships under this Fund are set out in previous pages.

University Fellowship

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 candidate 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 1st May of each year.

Gas Research Fellowship

The Fellowship, of the value of £200 per annum provided by the Institution of Gas Engineers, 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.

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 Livesey Professor of Coal Gas and Fuel Industries 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 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.

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.

Textile Chemistry Research Fellowship

This Fellowship has been given by an anonymous donor for the purpose of promoting the study of the chemistry of animal fibres in the Textile Chemistry Laboratory of the University.

The value of the Fellowship is £200, tenable for two years or more, per annum and the Fellow will be required to devote the whole of his time to the pursuit of the research in question.

Applications for the Fellowship should be made to the Clerk to the Senate on or before June 1st.

Ackroyd Memorial 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 (*cæteris 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 1st May.*

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.

Procter Memorial Fellowship

The Procter Memorial Fellowship was established by the International Society of Leather Trades' Chemists to commemorate the services of the late Emeritus

Professor Henry Richardson Procter to the science of leather manufacture, the endowment fund being subscribed by members of the Society and of the leather and allied trades.

The value of the Fellowship is approximately £140 per annum.

The award of the Fellowship is made annually by the Senate of Leeds University in June on the recommendation of the Procter Fellowship Committee after due advertisement in the Journal of the Society. Normally, the person appointed to the Fellowship will be a graduate in leather chemistry or possess an equivalent qualification of an institution of University status.

The Fellow, who may be of any nationality, will be appointed for a period of one academic year, but the Committee has power to recommend that the holder be reappointed for a further period of not longer than one academic year instead of proceeding to make another appointment.

The University undertakes to provide free of charge all reasonable accommodation and apparatus for the prosecution of research which shall be carried out under the direction of the Professor of Leather Industries. If no election to the Fellowship be made in any year the income for that year shall be added to the capital fund.

The Fellow will be required to devote the whole of his time to research on a subject pertaining to the leather or allied industries.

The results of his work must be presented as a report to the Senate and to the Procter Fellowship Committee.

Applications should be in the hands of the Registrar of the University not later than 1st April in each year.

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 1st June 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.

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.

Cancer Research Fellowships

These Fellowships, four in number, have been given through the Yorkshire Council of the British Empire Cancer Campaign by Sir William H. Aykroyd, Bart., Lord Brotherton of Wakefield, Capt. W. Riley Smith and Mr. Bertram Parkinson, respectively for the prosecution of cancer research within the University. They will be awarded to duly qualified candidates by the Senate on the recommendation of the Board of the Faculty of Medicine after consultation with the Cancer Research Advisory Committee of the University of Leeds. They will be tenable for 1, 2, or 3 years, and may be renewed thereafter for such periods as the Senate may determine. The annual value of each Fellowship shall not exceed £500.

The holders of the Fellowships shall work under the direction of the Professor of Experimental Pathology (Director of Cancer Research) at such problems in the field of cancer research as he shall determine.

The Fellows will be required to devote the whole of their time to the prosecution of their researches and to present reports of their work to the Senate, unless the results are otherwise published in the form of communications to recognised scientific journals.

Fellows appointed for one year must submit a report on their work to the Clerk to the Senate at the end of that period. Fellows appointed for two years must send in an interim report at the end of the first year, and a further report at the end of the second year. Fellows appointed for three years must send in interim reports at the end of the first and second years, and a further report at the end of the third year. Similar reports will be required in the event of the renewal of the Fellowship. The tenure of the Fellowship will be conditional on such reports being satisfactory to the Professor of Experimental Pathology.

Appointment to vacant Fellowships may be made at any time; renewal will be made in January or June. Vacancies will be announced as they occur and applications should be lodged with the Clerk to the Senate.

PRIZES

Gladstone Memorial Prize

The Trustees of the Gladstone Liberal Memorial Fund have established Gladstone Memorial Prizes to be given 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 £10 has been offered to and accepted by the Council of the University. The prize will be given either wholly in books, or half in books and half in money, at the option of the prize-winner. The prize 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 1st May* in each year.

The Connal Prize

Emeritus Professor B. M. Connal, on his retirement from the Chair of Latin, presented to the University the sum of £125 with the object of establishing a Prize in connexion with the Departments of Latin and Greek. A Prize of approximately £4 10s. will accordingly be awarded under the following conditions:—

1. The Prize will be awarded by the Senate on the joint recommendation of the Professors of Latin and Greek in June of each year to the most meritorious student placed in the First Class in one of the following Honours Schools :—
   Classics.
   Latin.
   Greek.
2. In making the award, preference will be given to students who have graduated with First Class Honours in Classics. In the event of no suitable candidate being available in this school, the Prize will be given to the most deserving student with First Class Honours in the Honours School of Latin, and, failing such a candidate, to the most deserving student with First Class Honours in the Honours School of Greek.
3. If in any year no candidate is placed in the First Class in any of the above-mentioned Honours Schools, no award will be made, and the unexpended sum, together with any accumulated surpluses of dividends, shall form a fund to be utilised by the Senate to give financial assistance to deserving students in any of these three Honours Schools.

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 1st May* in each year.

Subject of Essay for 1940-41
The novels of Joseph Conrad.

The Montague Burton Prize

Sir Montague Burton has offered to the University an annual Prize of the value of £20 for an Essay in connexion with the work of the League of Nations.

The prize will be awarded under the following conditions :—

1. The Prize shall be called " The Montague Burton Prize."
2. The Prize will be awarded in June of each year, provided that an Essay of sufficient merit is submitted.
3. It will be open both to undergraduates, and also to graduates of the University of not more than three years' standing.
4. The Essay should consist of not more than 8,000 words.
5. No Essay on account of which a University Fellowship or Scholarship has been awarded shall be admissible for the Prize.
6. All Essays must be submitted to the Clerk to the Senate *not later than 1st May 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 1st May* in each year.

The 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 approximately £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.

The Dorothy Wharton Memorial Prize

A fund of £206 was subscribed by scholars and friends of the late Miss Dorothy Wharton, for many years Geography Mistress at Leeds Thoresby High School, for the purpose of encouraging the study of geography in this University. The annual income from the fund is approximately £8, and a prize of this amount, or its equivalent in books, will ordinarily be awarded each year, upon the recommendation of the Head of the Department, to the most meritorious woman student of those who have taken—

(i) *Either* Part I. *or* Part II. of the Final Examination in the Honours School of Geography ;

or (ii) The Final Examination in Geography as a subject for B.Sc. General Honours ;

or (iii) The Final Examination in Geography as a principal subject for the Ordinary degree of B.A. or B.Sc.

The Prize will not be awarded unless a sufficient standard of merit has been attained.

If in any given year no recommendation is made, the interest on the money shall be allowed to accumulate and used to supplement the income in a subsequent year or years.

The J. B. Cohen Prize

This Prize was instituted in 1926 for the encouragement of chemical research, from the proceeds of a fund raised to commemorate the services of Julius Berend Cohen in the Department of Organic Chemistry as Lecturer, 1891-1904, and Professor, 1904-1925.

It is awarded annually by the Senate, on report from the Professors of Chemistry, Organic Chemistry and Physical Chemistry, to that successful candidate for the degree of Ph.D. or M.Sc. whose thesis or dissertation shall have been adjudged to contain the most valuable contribution to knowledge in the subject of Chemistry.

The Senate reserves the right to withhold the award of the Prize in any year if no thesis or dissertation of sufficient merit has been presented.

The value of the Prize is approximately £8.

The Foyle Prize

This prize, which was instituted in 1927 by Messrs. W. G. Foyle, Booksellers, London, is awarded every alternate year and is of the value of £10, which must be expended in books. The conditions of award are as follows :—

1. The prize will be awarded in December for an Essay on some subject connected with the Scientific Method and the general Development of Science, and the subjects of the Essays will be announced in the preceding June.
2. It is open to competition among all undergraduate students of Day Classes in the Science Faculty of the University who are in attendance upon University lectures for not less than four hours per week.
3. No student who has obtained the prize may compete a second time.
4. No Essay, in consideration of which, either wholly or in part, a University Scholarship or Prize shall have been awarded, shall be admissible for other than honorary recognition.
5. The Essay must be sent in to the Clerk of the Senate *not later than 1st December.*

Subjects of Essay for December 1940

Science in War
or General Science as a school subject
or Teleological interpretations of natural phenomena.

Imperial Chemical Industries Ltd., Prizes in Mining

Two prizes are awarded annually by Imperial Chemical Industries Ltd., to students of the Mining Department under the following conditions :—

(1) The annual sum of £7 10s., shall be allotted annually at the discretion of the Head of the Mining Department.

(2) The sum shall be allotted as follows :—
£5 to the student who does best in the Final Mining Examination.

£2 10s., to the student who does best in Surveying, including Field Work, Drawing Office and Theory.

(3) No student shall be awarded both prizes at any time.

(4) No student shall be eligible unless he has had at least six months' practical experience in a mine.

The Barker Prize Fund

This prize was instituted in 1936. On his retirement Professor A. F. Barker made over to the University the sum of £250 being the amount of the testimonial fund subscribed by members of the University and others in recognition of his period of tenure of the Chair of Textile Industries. In accordance with the wishes of the donor, the interest on the fund is devoted to the provision of two prizes which are awarded annually—the first for the best thesis presented by a Diploma student in the Department of Textiles, and the second for the student placed first in the Final B.Sc. (Textiles) Examination. The prizes will be awarded under the following conditions :—

1. Two prizes will ordinarily be awarded in each year, one to the student presenting the best thesis for a Diploma in the Department of Textiles and the other to the student placed first in the Final B.Sc. (Textiles) Examination.

2. Either or both of the prizes may be withheld if there are no candidates of sufficient merit in any year.

3. The prizes shall be of equal value and the whole of the annual income of the fund shall be utilised for the purpose, provided that the value of each prize shall not exceed £5.
4. Any income not expended in any year shall be added to the capital of the fund.

The fund may be added to from time to time from donations received by the University for the Department of Textiles. It is hoped by the donor that in this way it may be possible at a later date to convert the prize into a Travelling Studentship.

The Seton Prize Fund

The Local Royal Show Committee, under the Chairmanship of Sir Harold Mackintosh, appointed to raise and administer the local fund in connection with the Annual Show of the Royal Agricultural Society held at Harrogate in 1929, on winding up the fund decided to present to the University of Leeds, in recognition of the work of the Department of Agriculture, a sum of £338 19s. 10d. being one-quarter of their surplus. This sum has been supplemented by various donors including Emeritus Professor and Mrs. Seton who made a joint gift of £100 to the University which was added by the Council to the Prize Fund which now bears the name of these donors. This money is used for a Prize Fund for students in the Department of Agriculture. The Prizes will be awarded under the following conditions :—

1. Three prizes will be ordinarily awarded in each year, one to a student completing the course for a diploma in Agriculture, one to a student completing the course for an Ordinary Degree in Agriculture, one to a student completing the course for an Honours degree within the Department of Agriculture.
2. The prizes will be awarded on the results of the Final Degree and Diploma Examinations.

Previous examinations and the class record of the students will also be taken into consideration.

3. In the event of there being no candidate of sufficient merit in any year, any of the prizes may be withheld.

4. The prizes shall be of equal value, and the whole of the annual income of the fund shall be utilised for the purpose, provided that the value of each prize shall not exceed £6.

5. Any income not expended in any year shall be added to the capital of the fund.

6. The fund may be added to from time to time from donations received by the University for the Department of Agriculture, on the recommendation of the Agricultural Council and with the approval of the donors. The list of donors shall be published annually in the annual report of the Department.

Littlewood Prize in Anatomy

The late Colonel Harry Littlewood, formerly Professor of Surgery in the University, bequeathed a legacy of £1,000 to be applied for providing a Prize in the Anatomy Department, every year or in alternate years.

This prize will be awarded on the result of the examination in Anatomy for the Second M.B., Ch.B. in March of each year, provided that the candidates have attended the full course of Anatomy in this University, and that students for other qualifications who have attended the full course be permitted to compete for the prize.

Hardwick Prize in Clinical Medicine

This prize, of the value of ten pounds, is given annually on a competition which is held in February. 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 General Infirmary; and they must have held or be then holding the office of clinical clerk in that Institution.

Prize in Anatomy and Physiology.

A prize of the value of £5 will be awarded in March of each year for an essay not exceeding about 5,000 words in length on some subject connected with the anatomy or physiology of the female reproductive system. The subject shall normally be announced in March of each year and essays must be sent to the Dean of the Faculty of Medicine not later than 1st March in the following year.

Candidates may be required to submit themselves to a *viva voce* examination.

Students in the clinical years and in the last pre-clinical year will be eligible to compete for the prize. No student may compete more than once.

The subject of the essay for 1941, will be :—

> "Discuss the evolutionary origin and the functional anatomy of the various muscular mechanisms associated with the pelvic outlet."

McGill Prize in Clinical Surgery

This prize, of the value of ten pounds, is given annually on a competition which takes place in February. 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 gynæcological dresser.

Hillman Prize in Clinical Medicine

Under the will of the late Dr. G. B. Hillman the University has received a legacy of £1,000 for the

establishment of a prize to be known as "The Hillman Prize in Clinical Medicine."

This prize (approximately of the value of £30) will be awarded annually in March for the best clinical paper submitted by candidates who have taken the whole of their clinical course in Leeds and who have obtained their medical qualification within the preceding twelve months.

The paper shall consist of :—

(i) The clinical history and physical examination as originally written up by the candidates in the Infirmary records of two of the cases assigned to them during their medical clerkship, one case to be selected from each of their three months' appointments.

(ii) A commentary on each case as to diagnosis, prognosis and treatment, including post-mortem findings and "follow up" records, if any.

This paper must not exceed a total of 4,000 words and should be submitted by the 15th January in each year. The general clinical work of the candidates during their clerkship will be taken into consideration, and an examination in Clinical Medicine may be held, if deemed necessary.

Scattergood Prize in Obstetrics and Gynæcology

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 February.

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 approximately £3 10s. 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 of Medicine.

The examinations will be held in March 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.

West Riding Panel Practitioner's Prize

This prize of the value of £25 is awarded annually on the result (in Medicine only), of the Final M.B., Ch.B. examinations in March and September 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.

Butterworth Prize

This prize, which has been presented by Messrs. Butterworth and Co., consists of a complete set of the British Encyclopædia of Medical Practice (in twelve volumes).

The Prize is awarded in March of each year to the candidate who at the March examinations or at the

previous September examinations has obtained the highest marks in the clinical part of the Final M.B., Ch.B. Examination Part II in the subjects Medicine, Surgery and Obstetrics and Gynæcology.

Percy Leigh Prize in Clinical Dental Surgery

Mr. Percy T. Leigh, L.D.S., R.C.S. (Eng.), L.D.S. (Glasgow), to mark his year of office (1935-36) as the Lord Mayor of Leeds, presented to the University the sum of £100 to provide annually a Prize of the value of three guineas in the subject of Clinical Dental Surgery.

The award will be made by the Board of the Faculty of Medicine on the recommendation of the Clinical Dental Committee.

The prize will be awarded on the result of an examination in Clinical Diagnosis, including Clinical Pathology and Bacteriology and the interpretation of radiographs. A high standard of proficiency must be attained by the successful candidate.

Candidates must be students of the University of Leeds who are in the final year of a normal curriculum for a qualification in Dental Surgery (B.Ch.D. or L.D.S.), and no candidate may compete more than once for the Prize.

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 September on —

(*a*) The results of the Final M.B. (Part III) examinations held in March and September 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.

Charles Rippon Medal

Mr. Charles Rippon, Ph.D., L.D.S., on his retirement from the Lecturship in Dental Mechanics, presented to the University the sum of £100 to provide a Silver Medal, to be awarded annually to the most distinguished student of the year in the School of Dentistry.

(1) Candidates for the Medal must be students who are in the final year*of a normal full curriculum for a qualification in Dental Surgery (B.Ch.D. or L.D.S.), and who have pursued the full qualifying course at Leeds University after registration.

(2) The award will be made by the Board of the Faculty of Medicine on the nomination of the Clinical Dental Committee after the results of the two Final examinations of the year have been ascertained. Only candidates who have attained a high standard of proficiency shall be eligible. In determining the award of the medal, account will be taken of the marks obtained in the Senior Operating Prize Examination as well as the reports of the tutors in the various clinical departments of the School.

(3) No student will be allowed to compete for the medal more than once.

(4) If two candidates show equal distinction two medals may be awarded, should there be sufficient funds for the purpose.

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*In determining the final year due consideration will be given to the case of students who may have combined B.Sc. and M.B., Ch.B. courses with the dental curriculum.

Percy Leigh Medal

Mr. Percy T. Leigh, L.D.S., R.C.S., (England), L.D.S. (Glasgow) presented to the University, with a view to the encouragement of the Science and Art of Dental Mechanics, the sum of £105 to provide a Gold Medal to be awarded annually to the most skilled senior pupil of the year in the Dental Mechanics Laboratory of the Dental School.

The conditions of award are as follows :—

1. A Gold Medal is available for award each year to the most skilled senior pupil in the Dental Mechanics Laboratory of the University of Leeds School of Dentistry, who has taken the full pupilage in the University.

2. The award will be made by the Board of the Faculty of Medicine on the nomination of the Clinical Dental Committee.

3. The Medal will be awarded on (*a*) the result of an examination in Dental Mechanics to be held annually; (*b*) a consideration of the candidate's general record. A high standard of skill must be shown.

4. No student will be permitted to compete for the Medal more than once.

5. If two candidates are equally deserving of the award, two Gold Medals may be awarded.

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.

FINANCIAL GRANTS TO STUDENTS

Sadler Memorial Fund

The Committee formed to obtain for the University by subscription a portrait of Sir Michael Sadler, K.C.S.I. (Vice-Chancellor 1911-1923), presented to the University the surplus fund amounting to £730 for investment to form the nucleus of a fund for assisting necessitous students. Applications should be in the hands of the Clerk to the Senate not later than 1st May in each year.

Baillie Memorial Fund

A fund of £784 raised to commemorate the services to the University of Sir James Baillie, O.B.E. (Vice-Chancellor 1924-1938) has been set aside, at his express wish, for the assistance of necessitous students.

Applications should be in the hands of the Clerk to the Senate not later than 1st May in each year.

Cobb Memorial Fund

On the retirement of Professor J. W. Cobb, C.B.E. (Livesey Professor of Coal Gas and Fuel Industries 1912-1938) a fund was raised to commemorate his services to the University and to industry. Contributions were received from friends within and without the University and from the industries—notably the Gas Industry—with which Professor Cobb's work had been connected. In accordance with his wish, the balance of the fund amounting to £769 was presented to the University in order that the income from it should be used to assist students in the Department of Coal Gas and Fuel Industries with Metallurgy to meet the cost of maintenance while at the University, or to cover other expenditure necessary for their studies or researches.

Grants from the Fund are made by the Senate on the recommendation of the Head of the Department of Coal Gas and Fuel Industries with Metallurgy.

Applications should be in the hands of the Clerk to the Senate not later than 1st May in each year.

Students' Aid Fund

The Students' Aid Fund was established by the University Council to meet the case of students who through some unforeseen circumstance arising during their course would be unable without some financial assistance to complete their courses in the University. Advances may be made from this Fund in the form of a loan on a signed undertaking by the student to refund the amount advanced as soon as possible. *The loans are made free of interest for a period of five years after the completion of the student's course in the University and are thereafter subject to interest at the rate of five per cent per annum.*

No precise limit has been placed on the amount of loan which may be made in any particular case from this Fund; but in no case will it exceed the minimum amount which is indispensable to enable the student to complete his course. It will therefore be necessary that the applicant should give full information as to his sources of income together with an estimate of his expenses. All such information will be treated as strictly confidential by the small Committee which is charged with the administration of the Fund.

Applications should be addressed to the Registrar, from whom forms for the purpose may be obtained.

Leighton Exhibitions

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 1st May 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 Fund

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 1st May in each year.

John Goodman Testimonial Fund

The income from the invested capital contributed by old students and friends of Emeritus Professor Goodman 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.