# WELLESLEY COLLEGE BULLETIN 

CALENDAR<br>1921-1922

## WELLESLEY, MASSACHUSETTS NOVEMBER, 1921

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## WELLESLEY COLLEGE CALENDAR

1921-1922

## CORRESPONDENCE

All inquiries regarding admission should be addressed to the Secretary to the Board of Admission.

As Director of the Appointment Bureau, Associate Professor Wood is prepared to furnish full and confidential information in regard to the qualifications, character, and experience of former students of the College as candidates for teaching and other vocations. Former students of the College who wish situations have the aid of the Appointment Bureau.

Inquiries for general information should be addressed to Miss Mary Caswell, Secretary to the President.

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## CALENDAR

## Academic Year 1921-1922

Examinations . . . . . . . . September 19-22, 1921. Academic year begins . . . . . . Monday, September 26. Holiday, Thanksgiving Day, November 24.

Recess from 12.30 p.m. Wednesday, December 14, 1921, until 12.30 p.m. Wednesday, January 4, 1922.

Registration closes for all students at 12.30 P.m. . Wednesday, January 4. Second Semester begins . . . . . . Monday, February 13.

Recess from 12.30 p.m. Friday, March 24, until 12.30 p.m. Tuesday, April 4.
Registration closes for all students at 12.30 p.m. . Tuesday, April 4.
Commencement . . . . . . . Tuesday, June 20.
Alumnet Day . . . . . . . . Wednesday, June 21.

## Academic Year 1922-1923

Examinations . . . . . . . . September 18-21, 1922.
Registration closes for new students at 10 p.m. Monday, September 18.
Registration closes for all other students at 10 p.m. Friday, September 22.
Halls of Residence open for new students at 9 a.m. Monday, September 18.
Halls of Residence open for all other students at 2 p.m. Thursday, September 21.
Academic year begins . . . . . . Monday, September 25.
Holiday, Thanksgiving Day, November 30.
Recess from 12.30 p.m. Wednesday, December 20, 1922, until 12.30 p.m. Wednesday, January 10, 1923.

Registration closes for all students at 12.30 p.m. . Wednesday, January 10. Second Semester begins . . . . . Monday, February 12.

Recess from 12.30 p.m. Friday, March 23 , until 12.30 p.m. Tuesday April 3.
Registration closes for all students at 12.30 p.m. . Tuesday, April 3.
Commencement . . . . . . . Tuesday, June 19.
Alumnte Day . . . . . . . . Wednesday, June 20.

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${ }^{3}$ Absent on Sabbatical leave for the first semester.
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FREDERICK DUTTON WOODS, B.S., Superintendent of Grounds.

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Library Committee.-Miss Roberts (Chairman ex officio), Misses Bragg, Bushee, Jackson, Merrill; Mrs. Hodder; the President and Librarians ex officio.

Committee on Instruction.-Dean Waite (Chairman ex officio), Misses Hart, Moody, Shackford, Clara Smith; Messrs. Hamilton, Pulling.

Committee on Academic Requests.-Dean Waite (Chairman ex officio), Misses Copeland, Grace Davis, Fletcher, French, Kelly, Newell.

Committee on Constitutions.-Misses Conant (Chairman), Donnan; Mr. Sheffield.

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# WELLESLEY COLLEGE 

Wellesley, Massachusetts

## FOUNDATION AND PURPOSE

Wellesley College was established for the purpose of furnishing to young women who desire to obtain a liberal education such advantages and facilities as are enjoyed in institutions of the highest grade. The first building of the College, erected and equipped under the supervision and through the personal means of the founder, was opened to students in 1875, with the announced purpose "of giving to young women opportunities for education equivalent to those usually provided in colleges for young men." Throughout his work the founder aimed to put into visible form his ideal of the higher education for women, "the supreme development and unfolding of every power and faculty."

By the charter, granted by the Commonwealth of Massachusetts, "the corporation of Wellesley College is authorized to grant such honorary testimonials, and confer such honors, degrees, and diplomas, as are granted or conferred by any University, College, or Seminary of learning in this Commonwealth; and the diplomas so granted shall entitle the possessors to the immunities and privileges allowed by usage or statute to the possessors of like diplomas from any University, College, or Seminary of learning in this Commonwealth."

In accordance with the spirit of the founder, the College is undenominational, but distinctively Christian in its influence, discipline, and instruction.

The members of the College meet daily for morning prayers in the beautiful chapel presented in 1899 by Miss

Elizabeth G. Houghton and Mr. Clement S. Houghton as a memorial to their father. Services on Sunday are conducted in this chapel by preachers of different denominations. At all these services and at vespers on Sunday, the singing is led by a trained choir of students under the direction of the professor of music.

The Wellesley College Christian Association, organized to foster religious life and interest in social reforms and in home and foreign missions, meets weekly for prayer and religious instruction.
The department of Biblical History affords the systematic study of the Bible required of all students.

## ADMISSION

In order to qualify for admission to Wellesley College an applicant must be at least sixteen years of age and must present satisfactory evidence of her ability to make good use of the opportunities offered by the College. This evidence must include satisfactory testimonials concerning character, health, and scholarship.
Applications for admission should be made upon forms which will be furnished on request. An application fee of $\$ 10$ is required of all applicants and no registration is recorded until this fee is received. (See page 165.) The date of application is used as a basis in assigning rooms in college houses. Since the number of students to be admitted is limited by the capacity of class rooms, it is necessary to close the application list several years in advance. After the regular list for a given year is closed, promising students may be registered on a waiting list. The waiting list is on a competitive basis, that is, the date of application will not be considered in admitting from this list; the Board of Admission will select the candidates who, from the evidence submitted, seem to be the best qualified to profit by a course of study at Wellesley College.

## ADMISSION TO THE FRESHMAN CLASS

The normal college preparatory course of four years with four units each year, allows for sixteen units. For admission to the freshman class, a candidate must fulfill the requirements in fifteen units in subjects chosen from the list which follows. The subjects prescribed for all students are indicated by the word "required" after the subject. A unit represents a year's study in any subject constituting approximately a quarter of the full year's work or 120 sixty-minute hours of classroom work, two hours of laboratory work being equivalent to one hour of classroom work.

## SUBJECTS ACCEPTED FOR ADMISSION

| English | 3 units Required 3 units |
| :---: | :---: |
| Latin | 4 units Required 4 units |
| Additional foreign Language | .2-4 units Required 2 units |
| Greek | .2-3 units |
| French | .2-4 units |
| German | .2-4 units |
| Spanish | .2-3 units |
| Italian . | .2-3 units |
| Mathematics | .3-4 units |
| Algebra | - 2 units $\}$ Required 3 units |
| Plane Geometry . | . 1 unit $\int$ Required 3 units |
| *Solid Geometry . | . $1 / 2$ unit |
| *Trigonometry | - $1 / 2$ unit |
| History | . 1-3 units $\uparrow$ Required 1 unit |
| Ancient | . 1 unit |
| American . | . 1 unit |
| English | . 1 unit |
| Mediæval and Modern | 1 unit |
| Modern European | 1 unit |
| Science | . 1-2 units |
| Biology | . 1 unit |
| Botany | - 1 unit |
| Chemistry | . 1 unit |
| Physics | . 1 unit |
| Physical Geography | . 1 unit |
| Zoology | . 1 unit |
| Harmony | . 1 unit |
| Biblical History . | . 1 unit |

Good students who are candidates for admission by the new plan may be allowed a choice of one of the two elective units from subjects not listed above, with the consent of the Board of Admission, provided the course offered is of nontechnical character.

With the consent of the Board of Admission, the privilege of some substitution within the regularly prescribed course of study may be extended to candidates whose preparation is made under exceptional conditions, so that the ordinary requirements cannot be met.
The two methods of admission are by examination in all subjects (see pages $46-48$ ) and by the New Plan (see pages 49-51).

[^4]A place on the list of candidates for admission will not be reserved for an applicant whose credentials filed in July do not satisfactorily cover twelve of the fifteen units required for admission. The Board of Admission require examination in September in all units not satisfactorily covered, and reserve the right to exclude any candidate whose preparation is, in their judgment, so defective as to debar her from carrying successfully the work of the freshman year.
A statement from the applicant's physician to the effect that she is organically sound and in good health, together with a certificate of vaccination must be filed with the Secretary to the Board of Admission before June 1 of the year in which admission is sought. Blank forms for these health reports will be sent to each registered applicant in the spring previous to her proposed entrance. Before a candidate is formally accepted she is given a thorough physical examination. The College reserves the right to reject any candidate if the results of this examination in the opinion of the medical staff justify such action or to accept the candidate only on the understanding that she will take five years to complete the course.

The student who has met all entrance requirements is qualified for immediate matriculation for the Baccalaureate degree in Arts.

All communications concerning admission should be addressed to the Secretary to the Board of Admission, Wellesley College, Wellesley, Mass.

## DEFINITION OF REQUIREMENTS

The number enclosed in parentheses following the subject indicates the number of units assigned to that subject; that is, the number of years with five recitations a week which will normally be required in the secondary school for adequate preparation in the subject.

## ENGLISH (3)

The study of English in school has two main objects: (1) command of correct and clear English, spoken and written; (2) ability to read with accuracy, intelligence, and appreciation, and the development of the habit of reading good literature with enjoyment.

## Grammar and Composition.

The first object requires instruction in grammar and composition. English grammar should ordinarily be reviewed in the secondary school; and correct spelling and grammatical accuracy should be rigorously exacted in connection with all written work during the four years. The principles of English composition governing punctuation, the use of words, sentences, and paragraphs should be thoroughly mastered; and practice in composition, oral as well as written, should extend throughout the secondary school period. Written exercises may well comprise letter-writing, narration, description, and easy exposition and argument. It is advisable that subjects for this work be taken from the student's personal experience, general knowledge, and studies other than English, as well as from her reading in literature. Finally, special instruction in language and composition should be accompanied by concerted effort of teachers in all branches to cultivate in the student the habit of using good English in her recitations and various exercises, whether oral or written.

To meet the requirement in Composition, there should be practice in writing equivalent to weekly themes the first two years, and fortnightly themes the last two years of the preparatory course. Themes should be accompanied by simple outlines. The following books are suggested: Scott and Denney's Composition-Rhetoric; Neal's Thought Building in Composition; Robins and Perkins' Introduction to the Study of Rhetoric supplemented by Herrick and Damon's Composition and Rhetoric; Shackford and Judson's Composition-Rhetoric-Literature; Manly and Rickert's The Writing of English.

## Literature.

The second object is sought by means of the reading and study of a number of books, from which may be framed a progressive course in literature covering four years. The student should be trained in reading aloud and be encouraged to commit to memory notable passages both in verse and in prose. As an aid to literary appreciation, she is further advised to acquaint herself with the most important facts in the lives of the authors whose works she reads and with their place in literary history. A few of these books should be read with special care, greater stress being laid upon form
and style, the exact meaning of words and phrases, and the understanding of allusions.
A. Reading.

The aim of this course is to foster in the student the habit of intelligent reading and to develop a taste for good literature, by giving her a firsthand knowledge of some of its best specimens. She should read the books carefully, but her attention should not be so fixed upon details that she fails to appreciate the main purpose and charm of what she reads.

Suggestions for books to be read by students who intend to take the comprehensive examination include the following list with some additions. Knowledge of the subject-matter of particular books is not necessary for this type of examination, but the requisite ability cannot be gained without a systematic and progressive study of good literature.

With a view to some freedom of choice, the books provided for reading are arranged in the following groups, from each of which at least two selections are to be made, except that for any book in Group I a book from any other may be substituted.

Group I. Classics in Translation. The Old Testament, at least the chief narrative episodes in Genesis, Exodus, Joshua, Judges, Samuel, Kings, and Daniel, together with the books of Ruth and Esther; the Odyssey, with the omission, if desired, of Books I-V, XV, and XVI; the Aeneid; the Odyssey and the Aeneid should be read in English translations of recognized literary excellence.

Group II. Drama. Shakespeare: Merchant of Venice, As You Like It, Julius Caesar.

Group III. Prose Fiction. Dickens: A Tale of Two Cities; George Eliot: Silas Marner; Scott: Quentin Durward; Hawthorne: The House of the Seven Gables.

Group IV. Essays, Biography, etc. Addison and Steele: The Sir Roger de Coverley Papers; Irving: The Sketch Book-selections covering about 175 pages; Macaulay: Lord Clive; Parkman: The Oregon Trail.
Group V. Poetry. Tennyson: The Coming of Arthur, Gareth and Lynette, Lancelot and Elaine, The Passing of Arthur; Browning: Cavalier Tunes, The Lost Leader, How they Brought the Good News from Ghent to Aix, Home Thoughts from Abroad, Home Thoughts from the Sea, Incident of the French Camp, Hervé Riel, Pheidippides, My Last Duchess, Up at a Villa—Down in the City, The Italian in England, The Patriot, The Pied Piper, "De Gustibus"-, Instans Tyrannus; Scott: The Lady of the Lake; Coleridge: The Ancient Mariner; Arnold: Sohrab and Rustum.

## B. Study.

This part of the requirement is intended as a natural and logical continuation of the student's earlier reading, with greater stress laid upon form and style, the exact meaning of words and phrases, and the understanding
of allusions. The books provided for study are arranged in four groups, from each of which one selection is to be made.
Group I. Drama. Shakespeare: Macbeth, or Hamlet.
Group II. Poetry. Milton: L'Allegro, Il Penseroso, Comus; Book IV of Palgrave's Golden Treasury (First Series), with special attention to Wordsworth, Keats, and Shelley.

Group III. Oratory. Burke: Speech on Conciliation with America; Washington's Farewell Address; Webster's First Bunker Hill Oration; Lincoln's Gettysburg Address.

Group IV. Essays. Macaulay: Life of Johnson; Carlyle: Essay on Burns, with a brief selection from Burns's Poems.

## HISTORY (1, 2 or 3 ) <br> Prescribed Unit

A full year course in one of the following subjects:-
(1) Ancient History, including a brief introductory study of the earlier nations, but with special emphasis on Greek History to the death of Alexander, and on Roman History to the death of Charlemagne.
(2) English History, with due regard to social and political development.
(3) American History, with the elements of Civil Government.
(4) Mediæval and Modern History.
(5) Modern European History.

Candidates are advised to offer the course in Ancient History as a part of their preparation.

In the subject chosen, the student should acquire accurate knowledge of the history as presented in a standard text-book of not less than 300 pages, and should read such fuller authorities as may be available, in amount not less than 500 pages. Some practice in drawing maps to illustrate territorial changes, in making digests of lectures and reading, and in preparing verbal or written reports on subjects assigned for individual investigation is essential to successful work. For further suggestions about preparation students are referred to Document 101 of the College Entrance Examination Board.

## Elective Units

A candidate may offer one or two of the five subjects mentioned above as additional units in History, provided that one of the units offered is Ancient History.

## MATHEMATICS (3 or 4)

Algebra.-Factors, Common Divisors and Multiples, Ratio and Proportion, Theory of Exponents including Imaginaries, Radicals and Equations involving Radicals, Inequalities, Quadratic Equations (including the theory), Binomial Theorem, Arithmetic and Geometric Progressions, Graphical Methods.

Plane Geometry.-As found in Chauvenet, or its equivalent.

Deficiency in preparation usually results from one or more of the following causes: the use of text-books which are too elementary, insufficient time spent in preparation, neglect of exercises in original demonstration in Geometry, and of reviews in both Algebra and Geometry. It is strongly urged that there be constant exercise in original demonstration in Geometry, with frequent written examinations in both Algebra and Geometry, the problems proposed being drawn from other sources than the text-books.

Solid Geometry and Trigonometry.-The requirement is met by the courses outlined in the report of the College Entrance Examination Board, Document 101. A half unit of either subject without the other may not be counted for admission.

## LATIN (4)

Candidates should be familiar with the forms and syntax of the language and possess a vocabulary sufficient to translate Latin into idiomatic English and English into correct Latin. They should also be able to translate at sight Latin prose and poetry of moderate difficulty and to read Latin prose and verse according to the Roman method of pronunciation with strict attention to vowel quantities. To attain such proficiency not less than five forty-minute periods a week for four years should be given to the study of Latin. The amount of prepared reading should not be less than four books of Cæesar's Gallic War, seven Orations of Cicero (counting the Manilian Law as two) and six books of Vergil's Æneid. The reading may be selected from other works of the authors named above or from other suitable authors, but must include the pro Archia and two other Orations of Cicero and two books of the Æneid.

It is of special importance that practice in writing easy

Latin at sight should be continued throughout the entire period of preparation in connection with the reading of the Latin authors. In the last year special attention should be given to translating continuous English into Latin both in the prepared and sight work.

## Suggestions Concerning Preparation

Exercises in translation at sight should begin in school with the first lessons in which Latin sentences of any length occur, and should continue throughout the course with sufficient frequency to insure correct methods of work on the part of the student. From the outset particular attention should be given to developing the ability to take in the meaning of each word-and so, gradually, of the whole sentence-just as it stands; the sentence should be read and understood in the order of the original, with full appreciation of the force of each word as it comes, so far as this can be known or inferred from that which has preceded, and from the form and the position of the word itself. The habit of reading in this way should be encouraged and cultivated as the best preparation for all the translating that the student has to do. No translation, however, should be a mechanical metaphrase. Nor should it be a mere loose paraphrase. The full meaning of the passage to be translated, gathered in the way described above, should finally be expressed in clear and natural English.

A written examination cannot test the ear or tongue, but proper instruction in any language will necessarily include the training of both. The school work in Latin, therefore, should include much reading aloud, writing from dictation, and translation from the teacher's reading. Learning suitable passages by heart is also very useful, and should be more practiced.
The work in composition should give the student a better understanding of the Latin she is reading at the time, and greater facility in reading.
For a list of the texts on which the ordinary examinations of the College Examination Board will be based in 1922-1923, students are referred to Document 101 of the College Entrance Examination Board.

The teachers of Latin in the preparatory schools are urged to insist upon the use of good English in translation.

The study of Greek is strongly recommended to candidates who plan to elect courses in Latin in college.

Ability to read at sight easy French or German prose is of great advantage to all classical students.

GREEK (2 or 3)
2 Unit Requirement
During the two years the student should acquire a knowledge of the language sufficient to enable her
(1) To translate at sight simple passages of Attic prose, and to answer questions on ordinary forms and constructions.
(2) To translate into Greek a passage of connected English narrative, based on Xenophon.
(3) To read Greek aloud with correct pronunciation and with full expression of the sense of the passage.

## PRESCRIBED STUDY

(1) Grammar: Inflections; simpler rules for composition and derivation of words; use of cases; construction of sentences, with particular regard to the use and meanings of the moods.
(2) Prose Composition: Regular practice in writing or speaking Greek, with at least twenty written exercises, including some connected passages.
(3) Three books of Xenophon's Anabasis, or its equivalent.

## Suggestions Concerning Preparation

The acquiring of a good working vocabulary should begin with the first lesson, and constant practice in the use of the more common words should be kept up throughout the course. The students should learn to recognize the words by hearing as well as by sight, and should be able to use them in speech as well as in writing.
Writing Greek from dictation, learning short passages by heart, and putting simple English sentences into Greek orally, or answering in Greek simple questions asked in Greek serve not only to fix vocabulary and forms in the students' mind, but also to give them a feeling for the natural Greek form of expression.

## 3 Unit Requirement

In addition to the preparation for the 2 unit requirement stated above, the student must be able to translate at sight a passage from Homer, to read it with a correct expression of the rhythm, and to answer a few questions on the Homeric forms and on the subject-matter.

## PRESCRIBED STUDY

Three books of Homer's Iliad.
Prose Composition: Continued practice in translation into Attic prose of connected passages of English.

## FRENCH (2, 3 or 4)

The requirements follow the recommendation of the Modern Language Association embodied in Document 101 of the College Entrance Examination Board.
See page 36 for suggestions concerning preparation in the case of students expecting to enter Wellesley College.

## 2 Unit Requirement

(Termed " $A$, Elementary," by the College Entrance Examination Board.)

## THE AIM OF THE INSTRUCTION

At the end of the elementary course the pupil should be able to pronounce French accurately, to read at sight easy French prose, to put into French simple English sentences taken from the language of everyday life or based upon a portion of the French text read, and to answer questions on the rudiments of the grammar as defined below.

## THE WORK TO BE DONE

During the first year the work should comprise:-
(1) Careful drill in pronunciation.
(2) The rudiments of grammar, including the inflection of the regular and the more common irregular verbs, the plural nouns, the inflection of adjectives, participles, and pronouns; the use of personal pronouns, common adverbs, prepositions, and conjunctions; the order of words in the sentence, and the elementary rules of syntax.
(3) Abundant easy exercises, designed not only to fix in the memory the forms and principles of grammar, but also to cultivate readiness in the reproduction of natural forms of expression.
(4) The reading of from 100 to 175 duodecimo pages of graduated texts, with constant practice in translating into French easy variations of the sentences read (the teacher giving the English) and in reproducing from memory sentences previously read.
(5) Writing French from dictation,

During the second year the work should comprise:-
(1) The reading of from 250 to 400 pages of easy modern prose in the form of stories, plays, or historical or biographical sketches.
(2) Constant practice, as in the previous year, in translating into French easy variations upon the texts read.
(3) Frequent abstracts, sometimes oral and sometimes written, of portions of the text already read.
(4) Writing French from dictation.
(5) Continued drill upon the rudiments of grammar, with constant application in the construction of sentences.
(6) Mastery of the forms and use of pronouns, pronominal adjectives, of all but the rare irregular verb forms, and of the simpler uses of the conditional and subjunctive.

## 3 Unit Requirement

(Termed " $B$, Intermediate," by the College Entrance Examination Board.)

THE AIM OF THE INSTRUCTION
At the end of the intermediate course the pupil should be able to read at sight ordinary French prose or simple poetry, to translate into French a connected passage of English based on the text read, and to answer questions involving a more thorough knowledge of syntax than is expected in the elementary course.

## THE WORK TO BE DONE

This should comprise the reading of from 400 to 600 pages* of French of ordinary difficulty, a portion to be in the dramatic form $\ddagger$; constant practice in giving French paraphrases, abstracts or reproductions from memory of selected portions of the matter read; the study of a grammar of moderate completeness; writing from dictation. $\dagger$

## Suggestions Concerning Preparation for the 2 and 3 Unit Requirements

1. Emphasis should be laid on the correct daily use of the spoken language in the class room, on the correct and intelligent reading of French

[^5](apart from translation) and on direct composition, including the writing of short themes in French.
2. From the outset particular attention should be given to developing the ability to take in the meaning of each word-and so, gradually, of the whole sentence-just as it stands; the sentence should be read and understood in the order of the original, with full appreciation of the force of each word as it comes, so far as this can be known or inferred from that which has preceded, and from the form and the position of the word itself. The habit of reading in this way should be encouraged and cultivated as the best preparation for all the work that the student has to do.
3. It is particularly urged that the reading be chosen from nineteenth century writers of prose, verse, and drama, and if possible from more than five authors.
The texts suggested are:-
(1) For the 2 unit requirement: Laboulaye: Contes bleus; Daudet: Trois Contes Choisis; France: Abeille; Malot: Sans Famille; de la Brète: Mon Oncle et Mon Curé; Enault: Le Chien du Capitaine; Legouvé et Labiche: La Cigale chez les Fourms; Daudet: Choix d'Extraits, or Le Petit Chose; Vigny: La Canne de Jonc; Augier: Le Gendre de M. Poirier; Foncin: Le Pays de France, or Lavisse: Histoire de France, IIe anneé (Armand Colin, Paris).
(2) For the 3 unit requirement: Lamartine: Scènes de la Révolution traņ̧aise; Maupassant: Huit Contes Choisis; About: Le Roi des Montagnes; Balzac: Le Curé de Tours; Colin: Contes et Saynètes; Colin: Advanced Sight Translation; Sandeau: Mlle. de la Seiglière; Scribe et Legouvé: Bataille de Dames.

## 4 Unit Requirement

For suggestions concerning preparation for the four unit requirement, students are referred to Document 101 of the College Entrance Examination Board.

## GERMAN (2, 3 or 4)

The requirements follow the recommendations of the Modern Language Association embodied in Document 101 of the College Entrance Examination Board.

See page 39 for suggestions concerning preparation in the case of students expecting to enter Wellesley College.

## 2 Unit Requirement

(Termed " $A$, Elementary," by the College Entrance Examination Board.)

During the first year the work should comprise:-
(1) Careful drill upon pronunciation.
(2) The memorizing and frequent repetition of easy colloquial sentences.
(3) Drill upon the rudiments of grammar, that is, upon the inflection of the articles, of such nouns as belong to the language of everyday life, of adjectives, pronouns, weak verbs, and the more usual strong verbs, also upon the use of the more common prepositions, the simpler uses of the modal auxiliaries, and the elementary rules of syntax and word order.
(4) Abundant easy exercises designed not only to fix in mind the forms and principles of grammar, but also to cultivate readiness in the reproduction of natural forms of expression.
(5) The reading from 75 to 100 pages* of graduated texts from a reader, with constant practice in translating into German easy variations upon sentences selected from the reading lesson (the teacher giving the English), and in the reproduction from memory of sentences previously read.

During the second year the work should comprise:-
(1) The reading of from 150 to 200 pages* of literature in the form of easy stories and plays.
(2) Accompanying practice, as before, in the translation into German of easy variations upon the texts read and also in the off-hand reproduction, sometimes orally and sometimes in writing, of the substance of short and easy selected passages.
(3) Continued drill upon the rudiments of the grammar, directed to the ends of enabling the pupil, first, to use her knowledge with facility in the formation of sentences, and, secondly, to state her knowledge correctly in the technical language of grammar.

## 3 Unit Requirement

(Termed " $B$, Intermediate," by the College Entrance Examination Board.)

[^6]
## THE WORK TO BE DONE

The work should comprise in addition to the elementary course $\dagger$, the reading of about 400 pages* of moderately difficult prose and poetry, with constant practice in giving, sometimes orally and sometimes in writing, paraphrases, abstracts, or reproductions from memory of selected portions of the text read; also grammatical drill upon the less usual strong verbs, the use of articles, cases, auxiliaries of all kinds, tenses and modes (with special reference to the infinitive and subjunctive), and likewise upon word-order and word-formation.

## Suggestions Concerning Preparation for the 2 and 3 Unit Requirements

1. The books selected for class study should be thoroughly German in character and content. Intensive work on a comparatively small number of pages is preferred to a more superficial study of a larger number of pages.

For the 2 unit requirement the number of pages read in class should, in general, not exceed 300; but in no case should the amount be less than 225 pages. Not more than 100 of these pages should be taken from readers arranged especially for beginners.

For the 3 unit requirement not more than 600 pages in all (i. e., 300 in addition to the maximum amount for the 2 unit requirement) should, in general, be read; but never less than 500 pages. Not more than one work of the classical period of German Literature should be included. Besides this intensive reading, some rapid home reading of easier texts ( 100 pages or more) is strongly urged.
2. The results desired can not be obtained if a considerable portion of the time is spent on translation from German into English, or vice versa.
3. Features that should not be neglected are:-
a. Vocabulary.-The careful study of a goodly number of common words and expressions drawn chiefly from the texts read.
$b$. Frequent practice in the oral and written use of the language without the medium of English. This should consist partly in answering in German questions put in German, based on the texts read intensively in class, partly in reproducing in German, without the aid of questions, the contents of these texts (Freie Reproduktion).

[^7]
## 4 Unit Requirement

For suggestions concerning preparation for the four unit requirement, students are referred to Document 101 of the College Entrance Examination Board.

## ITALIAN (2)

The College Entrance Examination Board makes no recommendations regarding Italian, but the requirements are along the lines of those for French (2) and Spanish (2) as stated in Document 101.

## AIM OF THE INSTRUCTION

At the end of the first year's work, the pupil should be able to read simple Italian, translate from Italian into English; ask and answer simple questions involving the prime necessities of life; write simple notes or statements.

The second year should be a development of the first, stress to be laid on composition and conversation.

## the work to be done

During the first year the work should comprise:
(1) The rudiments of grammar including the inflection of the regular and more common irregular verbs; the inflection of nouns, adjectives, participles and pronouns; the use of pronouns, adverbs, prepositions, and conjunctions and the elementary rules of syntax.
(2) Written and oral exercises involving rules of grammar and forms of expression.
(3) Careful drill in pronunciation.
(4) Careful reading and accurate rendering of from 100150 duodecimo pages of graduated text.
(5) Memorizing from 100-150 lines of poetry with special attention to pronunciation.
(6) Writing Italian from dictation.

During the second year the work should comprise:
(1) More advanced grammar work with special stress on the irregular verb, the subjunctive mood, uses of tenses, and of the conjunctive pronouns.
(2) Reading of from $250-350$ pages of modern prosefiction, plays or historical and biographical sketches.
(3) Compositions (15-20), translations and abstracts with constant application of rules of grammar.
(4) Memorizing 150-200 lines of poetry.
(5) Writing from dictation.
(6) Verbal reports on reading or assigned subjects.

## Suggestions Regarding Preparation

1. Grammar. Besides the verb drill the following points should be emphasized: uses of tenses, of the subjunctive mood, and of conjunctive pronouns.
2. The reading should be selected with the view of giving the pupil an insight into Italian life, at the same time training in accurate pronunciation and translation.
3. The student should be accustomed to the ordinary spoken language of the class room. The subjects for composition should include biographical sketches and descriptions of views (photographs) of Italian cities.

The texts suggested are:-
Bowen's Italian Reader; Collodi, Pinocchio; Collodi, Viaggio di Giannettino; De Amicis, La vita Militare; Giacosa, La partita a scacchi; Manzoni, I promessi sposi; Pillico, Le mie prigioni; Martinengo-Cesaresco, Patriotti Italiani; Morandi, Antologia della prosa moderna; Le cento migliore liriche; Oxford Book of Italian Verse.

## SPANISH (2 or 3)

The requirements follow the recommendations of the Modern Language Association embodied in Document 101 of the College Entrance Examination Board.

See page 42 for suggestions concerning preparation in the case of students expecting to enter Wellesley College.

## THE AIM OF THE INSTRUCTION

At the end of the elementary course the pupil should be able to pronounce Spanish accurately, to read at sight easy Spanish prose, to put into Spanish simple English sentences taken from the language of everyday life or based upon a portion of the Spanish text read and to answer questions on the rudiments of the grammar, as indicated below.

## 2 Unit Requirement

## THE WORK TO BE DONE

During the first year the work should comprise:
(1) Careful drill in pronunciation.
(2) The rudiments of grammar, including the conjugation of the regular and the more common irregular verbs, the inflection of nouns, adjectives and pronouns and the elementary rules of syntax.
(3) Exercises containing illustrations of the principles of grammar.
(4) The careful reading and accurate rendering into good English of about 100 pages of easy prose and verse, with translation into Spanish of easy variations of the sentences read.
(5) Writing Spanish from dictation.

During the second year the work should comprise:
(1) The reading of about 200 pages of prose and verse.
(2) Practice in translating Spanish into English, and English variations of the text into Spanish.
(3) Continued study of the elements of grammar and syntax.
(4) Mastery of all but the rare irregular verb forms and of the simpler uses of the modes and tenses.
(5) Writing Spanish from dictation.
(6) Memorizing of easy short poems.

The emphasis should be placed on careful, thorough work with much repetition rather than upon rapid reading.

## Suggestions Concerning Preparation

1. Grammar. In addition to the verb drill, the following points should be emphasized: difference between ser and estar; use and position of pronouns; prepositions required with different verbs and adjectives; use of subjunctive and infinitive.
2. In reading, two ideas should be kept in mind: (a) accurate translation especially of idiomatic expressions: (b) a gradual development of the power to think in Spanish, by requiring the student to explain the meaning of words and phrases in Spanish and give variations of text also in Spanish.
3. From the beginning the student should gradually become accustomed to the use of the spoken language in the class room, training the ear by means of short talks on different subjects given by the teacher and the
tongue by the different methods already suggested. Original work in composition should also be required.

The texts suggested are:-
A collection of easy short stories and lyrics carefully graded; Pérez Escrich, Fortuna; Ramos Carrión y Vital Aza, Zaragièta; Tres Comedias Modernas; Pedro de Alarcón, El Capitán Veneno; Juan Valera, El pájaro verde; Palacio Valdés, José; José Selgas, La mariposa blanca; Carolina Marcial Dorado, España Pintoresca; the selected short stories of Pedro de Alarcón or Antonio de Trueba.

## 3 Unit Requirement

This work should be a continuation of the elementary work, with certain added features, such as (1) conversation and in general much expression in spoken Spanish of connected ideas and (2) the translation of connected English prose into Spanish. There should be continued review of the grammatical rules with particular attention to the verb system and to salient facts of syntax.

Books: A grammar; a composition-book; about 300 pages of intermediate texts which may be selected from the following: Pérez Galdós, Marianela or Dña Perfecta; Selgas, La mariposa blanca; Palacio Valdés, La hermana San Sulpicio; Isla's version of the Gil Blas; a collection of essays dealing with Spanish or Spanish-American life and customs; Moratín, El si de las niñas; Larra, Partir a tiempo; plays of the Alvarez Quintero brothers; plays of Benevente.

## BIOLOGY (1)

The requirement is met by the course outlined in Document 101 of the College Entrance Examination Board.

## BOTANY (1)

The requirement may be met in one of two ways.
$A$. By the course outlined in Document 101 of the College Entrance Examination Board.

The course should cover:-
(1) The general principles of plant anatomy, morphology, physiology, and ecology.
(2) A general knowledge of the great groups or phyla of plants.

In the second part of the course students should not only become familiar with the primary subdivisions of the great
groups, but should be able to trace the evolution of plant forms by means of a comparative study of representative plants in the various groups.
$B$. By covering the main features in the course as outlined in the Laboratory Guide for the Introductory Course in Wellesley College. Copies of these Guides may be secured if desired through the office of the Board of Admission of Wellesley College.

Individual laboratory work by the students is essential and should receive at least double the amount of time given to lecture and recitation. Records of the laboratory work, properly certified by the teacher, in which stress is laid upon diagrammatically accurate drawing and precise expressive description, must be presented on or before June fifteenth.

## CHEMISTRY (1)

The requirement is met by the course outlined in Document 101 of the College Entrance Examination Board.

The student should perform experiments in the laboratory to illustrate the properties of the most important elements, both metallic and non-metallic, and their compounds, and it is strongly recommended that a few of these experiments should be of a quantitative nature. Work in qualitative analysis is not recommended.
Laboratory notebooks need not be submitted to the College for examination.

## PHYSICAL GEOGRAPHY (1)

The requirement is met by the course outlined in Document 101 of the College Entrance Examination Board.

## PHYSICS (1)

The requirement is met by the course outlined in Document 101 of the College Entrance Examination Board.

Laboratory notebooks need not be submitted to the College for examination.

ZOOLOGY (1)
The requirement is met by the course outlined in Document 101 of the College Entrance Examination Board.

## MUSIC (1)

The requirement in Music (Harmony) is met by examination at Wellesley College on the following:-

F_nowledge of the following chords:
All the triads in the major key.
All the triads in the minor key.
The inversions of all triads.
The dominant seventh chord and its inversions.
The diminished seventh chord and its inversions.
Knowledge of all scales, major, minor (harmonic and melodic), and chromatic, with their proper notation.
Knowledge of the proper way of making a manscript.
(See "How to Write Music" by Harris, published by the H. W. Gray Co., New York.)

Knowledge of figured bass.
This will be demonstrated by adding Soprano, Alto, and Tenor to a given figured bass.
Note.-Students who have never studied Figured Bass will be given an Unfigured Bass to harmonize.
Knowledge of harmonizing a melody.
This will be tested by harmonizing a given melody, adding Alto, Tenor, and Bass.
Emphasis should be placed on the harmonization of melody.

## BIBLICAL HISTORY (1)

The requirement is met by Course I and either Course II or III as outlined by the Commission on Definition of Unit of Bible Study for Secondary Schools. Statements of these courses can be obtained from the Council of Church Boards of Education in the United States, 19 South LaSalle St., Chicago, Illinois.

## METHODS OF ADMISSION

Old Plan: Examinations in all Subjects
Candidates must take all examinations in June except such as by permission may be postponed until September. The admission examinations conducted at Wellesley College in June are the examinations of the College Entrance Examination Board of which Wellesley College is a member. These examinations will be held June 19-24, 1922.
The College Entrance Examination Board will furnish a list of other places at which these examinations will be held.
Students entering by the old plan may take either the ordinary or the comprehensive examinations of the College Entrance Examination Board indicated in the following list:

| Subject | $\begin{aligned} & \text { No. of } \\ & \text { Unirs } \end{aligned}$ | College Board Examinations |  |
| :---: | :---: | :---: | :---: |
|  |  | Ordinary | Comprehensive |
| English | 3 | $\begin{cases}\text { A } & \text { Grammar and } \\ \text { Composition } \\ \text { B } & \text { Literature }\end{cases}$ | Cp. English |
| History | 2-3 |  | Cp. History |
| Mathematics | 3 4 | $\begin{aligned} & \begin{cases}\text { A } & \text { Elementary Algebra } \\ \text { Complete } \\ \text { Clane Geometry }\end{cases} \\ & \begin{cases}\text { D } & \text { Solid Geometry } \\ \text { and }\end{cases} \\ & \text { F } \end{aligned} \text { Plane Trigonometry } .$ | Cp. 3 Elementary Mathematics |
| Latin | 4 | $\begin{cases}4 & \text { Cicero and Sight } \\ 5 & \text { Translation of Prose } \\ 5 & \text { Vergil and Sight } \\ & \text { Translation of Poetry } \\ 6 & \text { Advanced Prose } \\ & \text { Composition }\end{cases}$ | Cp. 4 Four-year Latin |


| Subject | No. of | College Board Examinations |  |
| :---: | :---: | :---: | :---: |
|  |  | Ordinary | Comprehensive |
| Greek | 2 3 | $\left.\left.\left.\begin{array}{l}  \begin{cases}\text { A1 } & \text { Grammar } \\ \mathrm{F} & \text { Prose } \\ \text { BG } & \text { Composition }\end{cases} \\ \text { Xe nop on and } \\ \text { Sight Translation of } \end{array}\right\} \begin{array}{ll} \text { Attic Prose } \end{array}\right\} \begin{array}{ll} \text { A1, } & \text { F, BG, and } \\ \text { CH } & \text { Homer and Sight } \\ \text { Translation of Poetry } \end{array}\right\}, ~$ | Cp. 2 Two-year Greek <br> Cp. 3 Three-year Greek |
| French | $2$ | A Elementary (First and Second years) A and B Intermediate $B C$ Intermediate and Advanced | Cp. 2 Two-year French <br> Cp. 3 Three-year French Cp. 4 Four-year French |
| German | $3$ | A Elementary (First and Second years) <br> $A$ and $B$ Intermediate <br> BC Intermediate and Advanced | Cp. 2 Two-year German <br> Cp. 3 Three-year German <br> Cp. 4 Four-year German |
| Spanish | $2$ | A Elementary (First and Second years) <br> $A$ and $B$ Intermediate | Cp. 2 Two-year Spanish <br> Cp. 3 Three-year Spanish |
| Biology | 1 | Biology |  |
| Botany | 1 | Botany |  |
| Chemistry | 1 | Chemistry | Cp. Chemistry |
| Physics | 1 | Physics | Cp. Physics |
| Physical Geography | 1 | Geography |  |
| Zoology | 1 | Zoology |  |

Examinations for students entering by the old plan of examination in all subjects may be taken in two or more successive years. Students are advised to take final examinations in subjects which they expect to continue in college.

All applications for examinations, and all other inquiries must be addressed to the Secretary of the College Entrance Examination Board, 431 West 117th St., New York, N. Y. Applications must be made upon a blank form to be obtained from the Secretary of the College Entrance Examination Board.

A list of places at which the examinations are held is published about March 1. In order that they may receive proper consideration, requests that the examinations be held at particular points should be transmitted to the Secretary of the Board not later than February 1.

Applications for examination at points in the United States east of the Mississippi River (also at Minneapolis, St. Louis, and other points on the Mississippi River), must be received by the Secretary on or before Monday, May 29, 1922; applications for admission to examination elsewhere in the United States or in Canada must be received on or before Monday, May 22, 1922; and applications for examination at points outside the United States and Canada must be received on or before Monday, May 8, 1922.

Applications received later than the dates named will be accepted when it is possible to arrange for the examination of the candidates concerned, but only upon payment of an additional fee of nine dollars. Candidates filing belated applications do so at their own risk.

The examination fee is nine dollars for all candidates examined at points in the United States and Canada, and twenty dollars for all candidates examined at points outside of the United States and Canada. The fee should be remitted by postal order, express order, or draft on New York to the order of the College Entrance Examination Board.

Full information concerning the scope and character of each of the examinations may be found in Document 101, published by the College Entrance Examination Board. This may be obtained by sending twenty cents in stamps to the College Entrance Examination Board.

## REGENTS EXAMINATIONS

Regents examinations with a rating of 75 per cent may be offered under certain conditions in place of the examinations of the College Entrance Examination Board. Credits must be presented on the card verified by the State Board of Education of New York.

## SEPTEMBER EXAMINATIONS

Admission examinations are offered at Wellesley College in September as heretofore. Mount Holyoke College, Vassar College, Smith College, and Wellesley College will jointly conduct examinations in Chicago, September 18-21, 1922. The comprehensive examinations of the College Entrance Examination Board will be used in September for all candidates. Application for September examinations should be made to the Secretary to the Board of Admission of Wellesley College by September first.

| SCHEDULE OF EXAMINATIONS SEPTEMBER, 1922 |  |
| :---: | :---: |
| Mos | September 18 |
| 9-12 A. M. | English. |
| 2-5 P.M. | French. |
| Tuesday, September 19 |  |
| 9-12 A. M. | Latin. |
| 2-5 P.M. | History. |
| Wednesday, September 20 |  |
| 9-12 A. M. | Elementary Mathematics. |
| 2-5 P.M. | German, Spanish. |
| Thursday, September 21 |  |
| $\begin{aligned} & \text { 9-12 A.M. } \\ & \text { 2- } 5 \text { P.M. } \end{aligned}$ | Physics, Chemistry. |
|  | Greek. |
|  | Botany, Music. Advanced Mathemat |

## NEW PLAN OF ADMISSION

It is believed that this new type of admission combines the best elements of the certificate system and of the examination system in that it requires the school record and estimate of character, and also demands examinations designed to test the candidate's intellectual power, not alone her memory of prescribed facts. Furthermore, the method offers the applicant the fullest opportunity to show her ability in subjects in which she believes herself best qualified.

The plan offers a uniform method of admission for the
four women's colleges which have adopted the plan, and gives the school entire freedom in the sequence of its work, making no requirements of certain subjects in the last year.

The examinations required in this plan are of the type known as comprehensive examinations offered by the College Entrance Examination Board.

The new method depends on two kinds of evidence:

1. Evidence submitted by the school, consisting of
a. A school report covering the entire record of subjects and grades for four years.
$b$. A statement from the school principal including an estimate of the applicant's scholarly interests, special ability, and character.
2. Evidence submitted by the candidate, consisting of

Four comprehensive examinations, selected from each of the following groups:
(1) English or History, selected by the applicant.
(2) A foreign language, selected by the applicant.
(3) Mathematics, or Chemistry, or Physics, selected by the applicant.
(4) A fourth subject, designated by the applicant from the subjects which may be offered for admission. This choice must be approved by the Committee on Admission of the respective colleges.
These four examinations must be taken at one time.
At least two examinations must cover more than two admission units each.

In each subject chosen the comprehensive examination covering all the units offered by her for admission must be taken by the applicant.

It is desirable that applicants furnish school records and state the subjects selected for examination before February fifteenth of the year in which the examinations are to be taken.

The Committee on Admission of the individual college must give its permission, based upon the evidence submitted by the school, before the applicant may take the examinations. The comprehensive examinations set by the College Entrance Examination Board are judged by readers appointed by this Board, and forwarded to the individual college for final decision by the college Committee on Admission.

Under the nerv plan the candidate, if admitted to college, will be admitted free from all conditions. Failure to meet completely the standard in both kinds of evidence required will not necessarily involve rejection of the applicant; the Committee may accept unusual excellence in one part of
the credentials submitted as offsetting unsatisfactory evidence or even failure in another part. If the candidate fails of admission in June she will not be debarred from taking examinations under the old system in September, but she may not take the comprehensive examinations for admission under the new plan before June of the following year.

The comprehensive examinations are conducted in June by the College Entrance Examination Board. Information concerning the character and scope of the examinations will be found in Document 101 of the College Entrance Examination Board.

## ADMISSION TO ADVANCED STANDING

Candidates for advanced standing must fulfill the requirements for admission to the freshman class, and when not entering from other colleges must pass examinations in a sufficient number of hours of work to gain full standing with the class which they wish to join. All examinations on courses offered for advanced credit must be taken at Wellesley in June or September. Special arrangements must be made for admission to these examinations, and applications must be received by May fifteenth or September first respectively.

A candidate who has covered the admission requirements for the freshman class and has completed creditably the work of at least one year at another college may, at the discretion of the Committee on Advanced Standing, be admitted without examination to the courses for which her previous training seems to qualify her. An applicant desiring to enter under this provision must make a complete written statement of the work on which she bases her application. Blank forms of application will be furnished by the College Recorder.

Much importance is attached to the quality of the work offered. The College Recorder will correspond with the college attended by the applicant and request her entire record and letter of honorable dismissal. The required credentials for all candidates are due July first.

Candidates admitted from other colleges will be required to register during the first year as Unclassified Students. At least two years of residence are required to obtain the B.A. degree, of which one must be the senior year.

The number of students to be admitted to advanced standing in any year is limited.

## Honor Group for Advanced Standing

For applicants wishing to enter on advanced standing, who may be too late to secure registration on the regular list, a small Honor Group has been formed. In order to be recognized as a candidate for the Honor Group for Advanced Standing, a student must present evidence in the previous school and college records and in letters from former instructors that she is a student of excellent ability and unusual promise. The decision as to the successful applicants for admission to the Honor Group for Advanced Standing will be made in the summer of the year of entrance, after the reports from the various colleges have been received.
All correspondence should be addressed to the College Recorder.

## admission of Candidates for the M.a. Degree

Candidates for the degree of Master of Arts must be graduates of Wellesley College or of other institutions of satisfactory standing, and must present adequate credentials as to their ability to carry on the work for the M.A. degree.

Applications for admission as graduate students in all departments (including Hygiene) should be made upon forms which will be furnished by the College Recorder on request. It is desirable that the application be sent by May first of the year in which the student proposes to enter. It should be accompanied by records of standing, and, if possible, by papers and reports of work.

A matriculation fee of five dollars is payable when a student is accepted as a candidate for the Master's degree. The amount of this fee will be deducted from the diploma fee of twenty-five dollars payable when the degree is received.

Eighteen scholarships, as described on page 169, are open to accepted candidates for the M.A. degree.

Circulars containing full information for graduate students will be sent on application to the College Recorder. For requirements for the M.A. degree see page 163.

## AdMISSION OF STUDENTS NOT CANDIDATES FOR A DEGREE

Applicants who give satisfactory evidence of ability to pursue advanced courses of study may be admitted at the
discretion of the Board of Admission, provided that they satisfy the requirements of the departments which they propose to enter. It will be noted that opportunities of prosecuting work along special lines are thus open to persons of experience and success in teaching who possess the requisite qualifications for admission to college classes.
Applicants of less maturity and acquirement are not ordinarily admitted, but if such desire admission they must expect to meet by examination the requirements prescribed for admission to the freshman class, or a full equivalent for them and to satisfy such additional requirements as are prescribed by the departments which they propose to enter. Specific statements of these requirements in Music will be found on page 142; in Hygiene on page 114.

All courses, graduate as well as undergraduate, are open to special students, subject to the conditions stated by the various departments; but every such student is expected to choose a primary subject to which she should devote the greater part of her time. A student who creditably completes a prescribed group of courses will be granted a certificate.

As the capacity of halls of residence is not sufficient for candidates for degrees, special students cannot be lodged in the college buildings. Comfortable homes may be found in the village at about the same expense as in college houses.

Correspondence should be addressed to the Secretary to the Board of Admission.

## COURSES OF INSTRUCTION

The following Courses of Instruction are offered by the several departments. The College reserves the right to withdraw the offer of any course not chosen by at least six students.
All courses are classified in grades I, II, III; grade I including elementary courses and grade III the most advanced courses. Grade I courses are numbered 101, etc.; grade II courses 201, etc.; grade III courses 301, etc.

## CLASSICAL ARCHÆOLOGY

Professor: Alice Walton, Ph.D. 201. History of Classical Sculpture (Art 202).

Open to students who have completed one full course in either Art, or Greck, or Latin. Three hours a week for a year.

Miss Walton.
The course will present the principles of Greek and Roman Sculpture, as developed from the earliest beginnings through the Great Periods into the Roman, with references to the minor arts, such as vase painting, coins, and so forth, as they are related to the main development. The work of the fifth and fourth centuries will be especially emphasized.
$301 \ddagger$. History of Greek Pottery. (Not offered in 1921-22.)
Open to students who have completed course 201 and have studied Greek for one year. Three hours a week for the first semester.

Miss Walton.
The course will include the sequence of decorative styles and the principles of design in vase painting with especial emphasis upon the great period of the fifth century. Constant reference will be made to the collection of vases in the Boston Museum of Fine Arts.
302 $\ddagger$. Greek and Roman Coins. (Not offered in 1921-22.)
Open to students who have completed course 301. Three hours a week for the second semester.

Miss Walton.
Greek coin types will be considered especially for their artistic quality, Roman coins for their historical value.
$\ddagger$ Archæology $301-302$ and Latin $302-303$ are not usually given in the same year.

## ART

| Professor : Alice Van Vechten Brown. ${ }^{2}$ |  |
| ---: | :--- |
| Associate Professor: | Myrtilla Avery, B.L.S., M.A. |
| Instructor : Celia Howard Hersey, B.A. |  |
| Lecturers : Eliza Jacobus Newkirk, M.A. |  |
|  | Alice Walton, Ph.D.. |
| Professor of Archaelogy. |  |
|  | Harriet Boyd Hawes, M.A., L.h.d. |
|  | Edith Moore Naylor, ${ }^{7}$ M.A. |
| Assistants : Agnes Anne 'Abbot. |  |
|  | Alison Mason Kingsbury, B.A. |
| Assistant in Charge : Gladys Adams Turnbach, B.A. |  |
| Museum Assistant : Alice Churchill Moore. |  |

101. Introductory Course in the History of Art to the Eighth Century a.d.
Open to freshmen, sophomores, and juniors. No prerequisites. Three hours a week for a year.

Mrs. Hawes.
This course offers a review of the general development of architecture, sculpture, and painting in the period studied, and aims to develop an appreciation of æsthetic values by means of a close study of photographs and the works themselves, through the laboratory method.
Visits to museums.
Drawing and other practical work is required.
102. Introductory Course in the History of Art to the Eighth

Century a.d.
Open to freshmen, sophomores, and juniors. No prerequisites. Three hours a week for a year.

Miss Avery, Miss Hersey.
The ground covered is in general the same as in course 101, but special reference is made to the principles, forms, and motives which persist in the Middle Ages and the Renaissance.

Visits to museums.
There will be no practical work.
103*. Studio Practice.
Open to sophomores, juniors, and seniors. No prerequisites. Three hours a week for a year. (Nine hours of studio practice.)

Miss Abbot, Miss Kingsbury.
Drawing, sketching, painting (oil and watercolor), modeling.

[^8]201. History of Architecture from the Classic Period through the Renaissance.

Open to students who have completed course 101 or 102. Three hours a week for a year.

Miss Newkirk.
The aim of this course is to give a general view of the development of styles and a thorough understanding of their essential elements, both constructive and decorative.

First semester: Introduction to the subject and history of architecture from the classic to the Gothic period.
Second semester: Architecture of the Gothic and Renaissance periods.
The first semester of course 201 is open on recommendation of one of the classical departments to any student who especially desires preparation for one of the classical schools and may be counted as a complete semester course.
Text-book: Kimball and Edgell:-A History of Architecture. Drawing required.
202. History of Classical Sculpture. (Archeology 201.)

Open to students who have completed course 101 or 102 or one full course in either Greek or Latin. Three hours a week for a year.

Miss Walton.
The course will present the principles of Greek and Roman Sculpture, as developed from the earliest beginnings through the Great Periods into the Roman, with references to the minor arts, such as vase painting, coins, and so forth, as they are related to the main development. The work of the fifth and fourth centuries will be especially emphasized. (Visits to the Boston Museum of Fine Arts.) Drawing offered but not required.
203. Outline Course in the History of Art.

Open to seniors only. No prerequisites. Three hours a week for a year.

Miss Avery.
This course furnishes an outline of the development of styles in Architecture, Sculpture, and Painting (excluding the Far East), and aims to develop observation and æsthetic appreciation as well as to relate important monuments to their contemporary civilization.

This course it not open to students who have taken or are takin!s any other history course in the Art Department.

Visits to museums.

204†. Studio Practice.
Open by permission of the department to juniors and seniors who have completed course 103. Three hours a week for the first semester. (Nine hours of studio practice.)

Miss Abbot.
Design.
301. Mediaval Sculpture and Painting.

Open to students who have completed course 201 or 202. Three hours a week for the first semester.

Miss Avery.
The purpose of this course is to make the connection between ancient and Renaissance art. It includes an outline study of Byzantine figure arts, the cathedral sculpture of France, and sculpture and painting in Italy through Cimabue and Giovanni Pisano. Visits to Boston collections. Drawing offered but not required.
302. History of Italian Painting through the Fifteenth Century. Open to students who have completed course 301. Three hours a week for the second semester.

Mrs. Naylor.
A general review of movements and schools with special emphasis upon the Florentine School from Giotto through Botticelli. A text-book required. Visits to museums. Drawing offered but not required.
303. History of Italian Painting: Special Studies. (Not offered in 192122.)
304. History of Renaissance Architecture.

Open to seniors who have completed course 201 and have completed or are taking courses 301. 302. Three hours a week for the year.

Miss Newkirk.
This course centers in a critical study of the works of representative architects of the Italian Renaissance. It follows the influence of that style upon the native architectural expression of France and England, and shows the elements that entered into the design and details of Colonial Architecture in America. Drawing required. Expeditions to study examples of Colonial Architecture.
305. Certain Periods of Northern Art. (Not offered in 1921-22.)

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\dagger See note on page 58.
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306. Theory of Decoration. (Not offered in 1921-22.)

Three hours a week for the second semester.
307. Special Studies in the Representative Art of the Medifval Period.

Open to students who have completed courses 301. 302, and to seniors who are taking courses 301. 302. Three hours a week for a year.

Miss Avery.
The purpose of this course is to introduce the student to the critical and comparative studies of mediæval art which are the foundation for serious work in this and later periods. The course includes iconography and inter-relations both historical and technical, and introduces minor arts whenever they are essential to an understanding of the subject.

1st Semester: Byzantine and Italian Romanesque.
2nd Semester: Romanesque and Gothic in France, Germany, etc.

By permission of the department either semester may be taken independently.

Note.-After one course in the History of Art has been completed, three hours of practical work as indicated in 103, 204, above, equivalent to nine hours of practice, may count toward the degree; four and one-half hours of practical work, equivalent to thirteen and one-half hours of practice, may so count, if six hours in the History of Art have been completed. This practical work is arranged solely to develop such qualities of observation and appreciation as are necessary to the critical study of Art History.

Students in Art courses are required to use laboratory methods, examining and comparing the photographs used in illustration. Written description may be substituted for laboratory drawing.

Previous preparation in drawing is not required.
The art library is open to students from 8.00 to 5.30 daily, and from 7.15 to 9.15 on certain evenings.

## ASTRONOMY

Professor: John Charles Duncan, Ph.D.<br>Instructor: Leah Brown Allen, M.A.<br>Assistant: Katharine Bullard Duncan.

101. Descriptive Astronomy.

Open to all undergraduates. Three hours a week for a year.

Mr. Duncan, Miss Allen.

A general survey of the facts of Astronomy, of the methods by which they are obtained and of the theories that account for them; facts with which every educated person should be familiar, in order to understand the astronomical allusions occurring in literature and to be alive to the beauty of the order that is about us.
102. Uranography.

Openl to seniors and graduate students. One hour a week for a year.

This course is given one evening a week at 7.30 o'clock. On clear evenings, naked eye study of the constellations and telescopic observations of the moon, planets, and other objects of interest. On cloudy evenings, lectures and study of photographs, maps, and apparatus illustrating the motions of the heavenly bodies.
201. Advanced General Astronomy. (Not given in 1921-22.)

Open to students who have completed course 101, and who have completed or are taking a course in Physics or Chemistry. Three hours a week for a year.

Mr. Duncan.
This course will take up in greater detail many of the topics which are treated in a general way in course 101, and will treat other topics as well. It is intended to meet the requirements of students who, though not specializing in Astronomy, are not satisfied with the knowledge of the subject that can be obtained from a single course.
Original memoirs will be consulted and the telescopes used.
202. Observatory Practice.

Open to students who have completed course 101. Three hours a week for a year.

Miss Allen.
Practical work in the astronomy of position. Determination of time, longitude and latitude. Use of the sextant, transit instrument and micrometer. Practical computations.
203. Observatory Practice.

Open to students who have completed course 101. One hour a week for a year. By special permission, two or three hours a week for a year.

Mr. Duncan, Miss Allen.

Use of the observatory equipment in work not covered by course 202. The specific subjects will vary from year to year with such changing conditions as the configuration of the planets, the appearance of new stars and comets, the occurrence of eclipses, etc. The course may be taken repeatedly.
301. Astrophysics. (Not offered in 1921-22.)

Open to students who have completed a course in Differential Calculus and either a course in Astronomy or one in Optics. Three hours a week for a year.

Mr. Duncan.
Astronomical spectroscopy, photography, and photometry. The laws of radiation. Solar and sidereal physics; stellar motions.
302. Determination of Orbits.

Open to students who have completed Astronomy 101 and a year of Calculus. Three hours a week for a year.

Mr. Duncan.
Determination, from three observations, of the elliptic and parabolic orbits of bodies in the solar system. Orbits of visual and spectroscopic binary stars. Theory and practice.
303. Celestial Mechanics.

Open to students who have completed Differential and Integral Calculus. Three hours a week for a year. In 1921-22 given as a first semester course.

Mr. Duncan.
The attraction of bodies of various forms under Newton's law of gravitation. The problems of two and of three bodies. Perturbations.

# BIBLICAL HISTORY, LITERATURE, AND INTERPRETATION 

Professor: Eliza Hall Kendrick, Ph.D.<br>Associate Professors : Adelaide imogene Locke, B.A.. S.T.b. Olive Dutcher, ${ }^{4}$ M.A., B.D.<br>Assistant Professors : Muriel Anne Streibert, B.A., B.D. Louise Pettibone Smith, Ph.D. Seal Thompson, M.A.<br>Lecturer: Gordon Boit Wellman, Th.D. Assistant : Anne Lilian Leathers, B.A.

101. 102. The Development of Thought in the Old Testament.

Required of sophomores. Course 101, three hours first semester. Course 102, three hours second semester. Course 101 will be offered also in the second semester, and course 102 in the first semester.

Miss Locke, Miss Streibert, Miss Smith, Miss Thompson, Miss Leathers.

It is the purpose of this course to offer studies in the development of religion and ethics in the Old Testament. There will be included such historical study of Hebrew national life and such presentation of the literary problems connected with the Old Testament writings as are necessary to make intelligible the development of thought.
201. Development of Thought in Later Jewish Literature.

Open to students who have completed courses 101 and 102. Three hours a week for the first semester.

Mr. Wellman.

The course will deal with the development of thought among the Jews during the period approximately from 300 в.c. to 100 A.d.

Particular emphasis will be laid upon such topics as the Messianic hope, angelology and demonology, life after death and the resurrection, wisdom thought, ethical ideas and sanctions, all in their relation to the history of the period. The course should therefore give to the students a valuable knowledge of the background out of which Jesus came and a clearer understanding of his categories of thought.

[^9]202. The Life of Christ.

Open to students who have completed courses 101 and 102. Three hours a week either semester.

Miss Kendrick, Miss Streibert,
Miss Thompson, Mr. Wellman.
Aim: (1) To study the environment of Christ in the government, institutions, manner of life, ideals, and literature of the Jewish people of his time.
(2) To follow the unfolding of his life from the historical point of view.
(3) To study the teachings of Christ: (a) in their historical connections as far as possible; (b) topically.
(4) To become acquainted with the leading problems regarding the person and work of Christ, with different points of view and with the best literature on the subject.
203. Elementary Hebrew.

Open to juniors and seniors. Three hours a week for a year.
Miss Smith.
The elements of Hebrew grammar, with practice in translation and the memorizing of a vocabulary. Reading of selections from the Old Testament.
At the end of the course the student should be able to read simple Hebrew and to use the language in the study of the Old Testament.

## 204. The Apostolic Age.

Open to students who have completed course 202. Three hours a week for the second semester.

Miss Kendrick, Miss Thompson, Mr. Wellman.
It is the purpose of this course to offer studies in the essential teachings of Christianity as represented by the several New Testament writers outside of the authors of the Synoptic Gospels. There will be included such historical study of New Testament times and such presentation of the questions connected with New Testament Introduction as are necessary to make intelligible the development of Christian thought.
205. Greek Testament. Text Study of the Synoptic Gospels.

Open to students who have completed courses 101 and 102, and who have met the three unit admission requirement in Greek or have taken Greek 101 in college. Three hours a week for the first semester.

Miss Kendrick.
206. Greek Testament. Text Study of Other New Testament Books. Open to students who have completed course 205. Three hours a week for the second semester.

Miss Kendrick.
301. History of Religions.

Open to students who have completed the required courses in Biblical History. Three hours a week for a year.

Miss Locke.
Introductory study of primitive religions followed by an outline comparative study of the rise and development of the leading historic faiths.

## 302. Interpretations of Christianity.

Open to seniors. Three hours a week for a year.
Miss Kendrick.
The aim of this course will be to trace in the devotional and controversial literature of certain of the most important periods of the Christian Church, from the beginning to the present day, varying conceptions of the essentials of Christianity, to consider the effect upon these conceptions of some of the most important currents of thought of the period studied and to make constant comparison with New Testament religion.
303. Second Year Hebrew.

Open to those who have completed course 203. Two hours a week for a year.

## BOTANY

Professor : Margaret Clay Ferguson, Ph.D.
Associate Professors : Laetitia Morris Snow, Ph.D. Howard Edward Pulling, Ph.D.
Assistant Professors : Mary Campeell Bliss, ${ }^{4}$ M.A. Mabel Annie Stone, ${ }^{4}$ M.A. Alice Maria Ottley, Ph.D. Helen Isabel Davis, B.A.
Instructors: Margery Claire Carlson, M.S. helen Stillwell Thomas, M.A. Jennie May Robinson, M.A.
Assistants : Ellen Armstrong, B.A. Anna Parker Fessenden, M.S.
Assistant and Secretary : Dorothy Moore, B.A.
Assistant : Ruth Elizabeth Bixby, B.A.

## 101. Plant Studies.

Open to freshmen and sophomores. Three hours a week for a year. Miss Ferguson, Miss Carlson, Miss Thomas, Miss Robinson, Miss Fessenden.

This course is designed to bring the student into sympathy with the plant world, to cultivate the power of careful observation, to give a knowledge of the fundamental principles of plant life and plant breeding, and of the general principles of floriculture. The course is developed on purely scientific lines, but, at the same time, it seeks so to relate our study of plants to all life as to give the student that familiar and intimate acquaintance with her living environment which makes for the broadest culture of to-day.

Lectures are accompanied by studies in the laboratory and in the field. As a basis for acquaintance with the nature and work of plants, the structure and development of plants are studied from seed germination to fruit formation, and the more simple physiological responses are investigated. Students are trained to know the herbaceous plants in their spring condition, to recognize the early flowers, and to know our common trees both in their winter and in their summer aspect.

## 201. Evolution of Plants.

Open to students who have completed course 101 or its equivalent and to juniors and seniors without prerequisite. Three hours a week for the first semester.

Miss Ottley.
From a comparative study of plants extending from simple one-celled organisms to the most modern and highly specialized

[^10]forms, the student constructs a probable scheme of evolution in the development of a land flora. This detailed study of forms is supplemented by discussions of general principles and theories of evolution. The course also includes the technique of collecting and preserving the material on which the study is based.

## 202. Elementary Physiology of Seed Plants.

Open to students who have completed course 101 or its equivalent and to juniors and seniors without prerequisite. Three hours a week for the first semester.

Mr. Pulling.

A study of the growth and development of seedlings and mature plants, including flowering and seed formation, from the standpoint of the principal processes concerned and the chief influences of the environment upon them. In general, the plant is considered from the biological point of view as a responsive and self-adjusting mechanism; details of the chemical and physical reactions involved receive only superficial treatment.
203. Taxonomy and Geographical Distribution of the Pteridophytes and Spermatophytes.
Open to students who have completed course 101, 201, or 202. Three hours a week for the second semester.

Miss Ottley.
A consideration of the classification and natural relationships of the Ferns and Seed-plants, based on the study of the local flora in the field and in the laboratory, with the use of manuals and practice in the construction of keys. The course will also include some consideration of the facts and problems of plant geography. There will be a considerable amount of field-work in the spring term.
204. Garden Plants.

Open to juniors and seniors who have completed course 201 or 202. Three hours a week for a semester; offered in both semesters.

Miss Davis.
A scientific study of garden plants, their classification, structure, ecology and physiology as a basis for their cultivation. The lectures and laboratory practice treat of the principles of plant propagation, nutrition, and requirements of soil, moisture, heat, light, etc., both out of doors and in the greenhouse. Some of the special problems of school gardening are considered, and also the artistic value of the various plant forms, textures, colors, and effects in landscape gardening.
205. General Bacteriology.

Open to students who have completed one three-hour course in Botany or Chemistry or Zoology. This course cannot count toward the science requirement unless followed by course 308. Three hours a week for a semester; offered in both semesters.

Miss Snow, Miss Armstrong.
A study of bacteria and some of the common moulds and yeasts in relation to daily life. The general physiological relations of bacteria, their cultural and staining reactions and their distribution in air, foods, milk, water, and soil will be considered. An application of the above principles and methods will be made to the problem of a safe milk supply.
301. Comparative Morphology and Taxonomy of the Algee, Liverworts, and Mosses. (Not given in 1921-22.)

Open to juniors and seniors who have completed course 201 or 202. Three hours a week for the first semester.

Miss Stone.
This course aims to give the student facility in the determination of Algæ, Liverworts, and Mosses, and also considers the fundamental problems underlying their development and evolution.
302. Comparative Morphology of the Ferns, Gymnosperms, and Angiosperms. (Not given in 1921-22.)

Open to juniors and seniors who have completed course 201, 202, or 301. Three hours a week for the second semester.

Miss Ferguson, Miss Stone.
This course considers the origin, development, and structure of vascular plants from the standpoint of evolution. Special attention is placed on tracing the steps in the development of vegetative and reproductive organs, and on a consideration of the homologies of sporogenous, reproductive, and embryological parts. The genetic relationships of plants, both fossil and living, are carefully considered. Students will become acquainted with the technique of plant histology and embryology by preparing a considerable proportion of the microscopic slides used in the class room.
303. Evolution of Plant Tissues. (Not offered in 1921-22.)

Open to juniors and seniors who have completed course 201, 202, or 301. Three hours a week for the second semester.

Miss Bliss.
A detailed comparative study of the tissues of the lower and higher vascular plants, both fossil and living, from the standpoint
of evolution. Special emphasis is laid on the origin and development of the elements of the fibro-vascular tissue and their distribution in root and stem. A brief consideration will be given to the origin and structure of coal, involving the special technique of hard tissues.

## 304. Pathology of the Higher Plants.

Open to juniors and seniors who have completed course 101 and 201 or 202. Three hours a week for the second semester.

Mr. Pulling.
A general course on the diseases of plants. The structure, pathological processes and effects of representative fungi on plants of either economic or ornamental value are studied. Modern methods of combating plant diseases are briefly considered from the standpoint of the principles that underlie them.

## 305. Ecolocy.

Open to students who have completed course 101 and 201 or 202. Three hours a week for the second semester.

A consideration of the natural grouping of plants on the earth and the principles underlying these plant associations. The course is divided into a study of (1) plant formations which have arisen in response to climatic conditions, and (2) local plant associations which have resulted from physiographic changes. This study includes a consideration of the various modifications of plant structure found under different environmental conditions. In the spring term an average of one appointment a week will be devoted to field work.

## 306. Plant Physiology.

Open to juniors and seniors who have completed two three-hour courses of Botany in college, and have completed or are taking a year of either Chemistry or Physics. Three hours a week for a year.

Mr. Pulling.
Experiments, lectures, discussions, and readings designed to acquaint the student with the higher plants as working organisms. The experiments embody problems in, to a greater extent than demonstrations of, the fundamental activities of the higher plants in relation to their environment. It is planned that increased precision in laboratory manipulation shall keep pace with the student's growing knowledge of physiological methods.

## 307. Cytology and Problems of Inheritance.

Open to seniors and, by permission of the department, to juniors who have completed two full years of Botany. Three hours a week for a year.

Miss Ferguson, Miss Moore.

Studies in the structure of the cell; the phenomena of cell division; the constitution of the reproductive cells with special reference to the theories of heredity and evolution. The relation between definite cell structures and visible plant characteristics will be determined by a study of their inheritance in cross breeding and in mutation. At the beginning of the year each student will be assigned a practical problem in plant breeding as a basis for the study of the behavior of pure lines in hybridization and the origin and transmission of characters.
308. Advanced Bacteriology.

Open to juniors and seniors who have completed course 205 and have completed or are taking a course in Chemistry. Three hours a week for a semester; offered in both semesters. In 1921-22 given in the second semester only.

Miss Snow.
A continuation of the study of bacteria in relation to public problems. These will include the protection and purification of water supplies, methods of sewage disposal, the diagnosis of disease in plants and animals, etc. There will be discussions of such topics as theories of immunity, infection, infant welfare work, industrial hygiene, methods used in sanitary surveys, etc. Throughout the course standard technical methods will be used.

## 309. Landscape Gardening.

Open to students who have completed course 204, and by special permission to seniors who elect 204. Three hours a week for the first semester.

Miss Davis.

The work continues the study of ornamental plants begun in course 204, emphasizing their use in landscape design. The lectures treat of the principles of design in planting; the laboratory gives training in landscape draughting, the principles of landscape construction, hand level surveying, grading, planting, and maintenance.

Open to students who have completed course 309. Three hours a week for the second semester.

Miss Davis.
This course continues the study of principles introduced in course 309. The work is conducted by lecture and laboratory practice and trips are taken as often as possible for observation and study of actual examples of the art. The lectures consider the basic principles involved and include a summary of the history of gardening from the earliest times to the present.
311. The Plants and Problems of Economic Botany. (Not offered in 1921-22.)
Open to students who have completed course 201. Three hours a week for the first semester.

Miss Snow.
This course aims to bring to the student a realization of the importance of the plant kingdom in modern civilization. Selected studies will be made from the plants of agriculture, horticulture, forestry, medicine, textile industries, etc. Plants will be considered not only from the standpoints of their production, distribution, and preservation, but also with reference to their past development and their future improvement and conservation. Adequate emphasis will be placed upon the technique involved and an opportunity will be given to visit various establishments whose work has special significance for this course.

## 321. Botanical Seminar.

Required of graduate students, and open to seniors by permission of the department. One hour a week for a year.

Miss Ferguson.
Reading and discussion of current botanical literature, reports of problems under investigation, studies in the historical development of some phase of botanical knowledge.

## 322. Plant Problems.

Open to graduate students and, by permission of the department, to seniors. Three or six hours a week for a year.

Miss Ferguson, Miss Snow, Mr. Pulling, Miss Ottley.

This is primarily a laboratory course, but a definite weekly appointment is made with each student for a report of the papers
read and of the progress of her study; and a final paper or thesis embodying the results of her investigations is required. A special problem in one of the following subjects is assigned to each student: (1) Embryology and Genetics: (2) Histology and Tissue Studies from the Standpoint of Phylogeny; (3) Physiology and Experimental Morphology; (4) Taxonomy of the Phanerogams:
(5) Taxonomy of the Cryptogams.

The amount of time for reading in Cambridge varies with the nature of the problem investigated.

## CHEMISTRY

Associate Professors: Charlotte Almira Bragg, B.S. Helen Somersby French, Ph.D. Mary amerman Griggs, Ph.D.<br>instructor: Gertrude Williams, M.S.<br>Assistants: Marion Elmira Warner, B.S.<br>Milda Wegner, b.A.<br>Alfhild Kalijarvi.

101. Elementary Chemistry. Lectures and Laboratory Work.

Open to all undergraduates. Three hours a week for a year.
Miss Bragg, Miss Williams, Miss Kalijarvi.
Course 101 is for beginners in Chemistry, and is intended to familiarize the student with the important properties of the elements and their compounds, with their modes of preparation, and with such tests as shall lead up to the study of systematic Qualitative Analysis; also to present the laws governing chemical reactions, the meaning of chemical equations, and the more recent theories adopted in the science.
102. General Chemistry.

Open to students who have completed the admission requirement or its equivalent, and whd are electing course 201. Three hours a week for the first semester.

Miss French, Miss Wegner.
This course is intended for those students who have offered Chemistry for entrance, and who plan to major in Chemistry in college. It aims to give a brief intensive review of the preparatory work in Chemistry, with such additional study, particularly of the metallic elements and the theories of solutions, as shall prepare the students for the grade II courses in the department.
201. Qualitative Analysis.

Open to students who have completed course 101 or 102. Three hours a week for a semester. Offered in both semesters.

Miss Griggs, Miss Warner.
A system of analysis for the detection of the common metals and acid radicals with the application of theoretical principles to the reactions involved. The laboratory work includes practice in the solution and analysis of substances unknown to the student.
202. Quantitative Analysis.

Open to students who have completed course 201. Three hours a a week for a semester. Offered in both semesters.

Miss Griggs, Miss Warner.
This course is designed to give training in gravimetric and volumetric analysis. The theories discussed in course 201 are applied to the work of the laboratory, and problems related to the work are included in the class discussions.
203. Qualitative Analysis. (Not given in 1921-1922.)

Open to students who have completed course 201. Three hours a week for the first semester.

Miss Griggs.
A continuation of course 201 dealing with the more difficult problems of qualitative analysis. A few of the rare elements are included in the scheme of analysis.
204. Chemistry in its Applications to Daily Life. (Not offered in 1921-22.)

Open to students who have completed course 101 or 102. Three hours a week for the first semester.

Miss French.
301. Organic Chemistry, with Laboratory Work in Organic Preparations.

Open to juniors and seniors who have completed or are taking courses 201 and 202 and, by special permission, to seniors who have completed courses 102 and 201, or 101. Three hours a week for a year.
302. Advanced Laboratory Course in Organic Chemistry.

Open to students who have completed course 301. Three hours a week for the first semester.

Miss French.

303. Quantitative Analysis.

Open to students who have completed courses 201 and 202. Three hours a week for the second semester.

Miss Griggs.
A continuation of course 202.
304. Food Analysis.

Open to students who have completed courses 101 or 102, 201, 202, and 301. Three hours a week for the first semester.

Miss Williams.
305. Theoretical and Physical Chemistry.

Open to seniors who have completed or are taking course 301 and one year of college Physics. Three hours a week for the second semester.

Miss French.
306. Laboratory Work in Physical Chemistry. (Not given in 1921-22.)

Open to seniors and graduates who have completed or are taking course 305. Three hours a week for the second semester.

Miss French.
307. Inorganic Chemistry.

Open to students who have completed courses 101 or 102, 201, 202, and 301. Three hours a week for a semester; offered in both semesters.

Miss Bragg.
This course makes use of the laboratory work of the courses taken in preceding years.

# ECONOMICS AND SOCIOLOGY 

Associate Professor : Jane Isabel Newell, Ph.D.<br>Assistant Professors : Elizabeth Donnan, B.A. Frances Fenton Bernard, ${ }^{6}$ Ph.D.<br>Instructors : leila Ruth Albright, M.A. MARION BaNCKER, M.A.<br>Elizabeth Ellis Hoyt, B.A.<br>Lecturers : Louis Levine, ${ }^{7}$ Ph.D. Henry Bass Hall. ${ }^{8}$ Ph.D.

## Economics

101. Introduction to Economics and Sociology.

Open to sophomores, juniors, and seniors. Three hours a week for a year.

Miss Newell, Miss Donnan, Mrs. Bernard, Miss Albright, Miss Bancker, Miss Hoyt, Mr. Hall.

A descriptive course setting forth the evolution of industry, the outstanding features of present industrial society, the social problems involved in the present distribution of wealth, and the programs and agencies attempting to deal with these problems.
201. Principles of Economics.

Open to students who have completed or are taking course 101, to seniors, and by special permission to juniors, whose major is in History. Three hours a week for the first semester.

Miss Donnan.
A study of current economic thought centering about the theories of value and of distribution.
203. History of Economic Theory.

Open to students who have completed course 201. Three hours a week for the second semester.

Miss Donnan.

A study of the origin and development of economic principles and policies, with special emphasis on selected controversial questions.

[^11]204. Economic History of the United States.

Open to students who have completed or are taking course 101. Three hours a week for the second semester.

Miss Donnan.
A study of our national development in its material and social aspects, with especial emphasis upon the growth of business combinations and of trade unions.
301. Socialism and Social Reform.

Open to seniors who have completed course 101. Three hours a week for the first semester.

Mr. Hall.
A critical study of certain economic and social theories-such as anarchism, syndicalism, co-operation, single tax, and socialism.
302. Economic History of England. (Not offered in 1921-22.)

Open to students who have completed course 201. Three hours a week for the second semester.

Miss Donnan.
This course will include a survey of the chief stages in English economic history, but especial attention will be devoted to the period since the industrial revolution.
305. Railroads: Rates and Regulation. (Not offered in 1921-22.)

Open to students who have completed course 201. Three hours a week for the first semester.

Miss Donnan.
A brief survey of some of the fiscal, economic, and social problems arising from our modern means of transportation. Among the topics discussed will be the following: history of American railroad construction; railway charters; powers of directors and stockholders; nature of railway securities; financing of construction and development work; inter-company relations and the construction of systems; railroad traffic and rates; history of American railway regulation; the problems and possibilities of government operation.
306. Corporate Organization and Control.

Open to seniors who have completed course 101, and to juniors who have completed course 201. Three hours a week for the second semester.

Miss Donnan.

The development of large scale production and the growth of corporate business; characteristic forms of industrial combination; state and federal regulatory legislation and judicial decisions relating thereto; alleged advantages and evils of industrial combination; proposed remedies for the latter.
307. Industrial and Social Legislation.

Open to seniors who have completed course 101. Three hours a week for the first semester.

Miss Hoyt.
A study of industrial and social conditions and their regulation by means of legislation.
308. The Modern Labor Movement.

Open to seniors who have completed course 101. Three hours a week for the second semester.

Mr. Levine.

A study of modern industrial unrest with special attention to the viewpoint of the employer and that of organized labor.
309. Money and Banking.

Open to seniors who have completed and to juniors who are taking course 201. Three hours a week for the first semester.

Miss Donnan.
The course deals mainly with the principles of money and banking, but it is also designed to give the student some acquaintance with the history and chief characteristics of typical modern systems of banking.

## 310. Public Finance.

Open to seniors who have completed course 101, and to juniors who have completed course 309; in 1921 to juniors who have completed course 201. Three hours a week for the second semester.

Mr. Levine.
This course will deal with the principles of taxation with special reference to conditions in the United States. Each student will be required to make a study of the tax system of some one state or municipality.
313. Seminar: Selected Topics in the History of American Economic and Social Movements and Theories. (Not offered in 1921-22.)

Open to seniors who have completed course 201 and either course 204 or History 301. Three hours a week for the second semester.

Miss Donnan, Miss Newell.

The aim of this course is to train students in methods of research in subjects for the understanding of which both history and economics are essential. Such topics as the following will be selected for intensive study in different years: the development of theories and methods of banking in the United States; theories of wages and the labor movement; history of philosophies of social and economic progress in the United States; the woman movement and its economic basis; theories of money and the monetary history of the United States.

## Sociology

202. An Introduction to General Sociology.

Open to juniors and seniors who have completed course 101. Three hours a week for a year.

Miss Newell.
An introduction to the study of society-its development and its present structure and functioning.
It is proposed to take up: (a) the environmental, biological, psychological, and technological factors conditioning society; (b) social relations among backward peoples; (c) facts and theories of social organization with especial reference to present conditions.
207. Immigration.

Open to students who have completed course 101. Three hours a week for the second semester.

Mr. Levine.
A study of immigration into the United States, the elements represented, and their geographical distribution; the social, political, and economic influence of our foreign populations; the history of restrictive legislation, and the arrangements thus far provided for the reception and care of aliens. As far as practicable each student will be given an opportunity to see the process of inspection of immigrants.
303. Social Economics.

Open to seniors who have completed course 101. Three hours a week for the second semester.

Miss Albright.
A study of the causes, characteristics, and social control of de.pendency and crime.

## 304. Municipal Sociology.

Open to seniors who have completed course 101. Three hours a week for the first semester.

Miss Albright.
The subject of this course is the American city of to-day; its organization and its functioning to meet normal social needs. It includes such topics as housing, city planning, sanitation, recreation, education.
311. Social and Economic Investigation. (Not offered in 1921-22.)

Open to seniors who have completed course 101 and to juniors who are taking course 201 or 202. Three hours a week for the first semester.

Miss Bancker.
A study of current methods of collecting, interpreting, and presenting statistical material relating to social and economic problems. The course seeks to acquaint the student with principles and methods of record-keeping and filing; tabulation and graphic representation of recorded facts; the making and use of social surveys. Sample case-records, reports, and surveys are critically examined and a simple investigation is conducted by the class.
312. The Family. (Not offered in 1921-22.)

Open to juniors and seniors who have completed course 202. Three hours a week for a year.

Miss Newell.
A study of the origin, evolution, and current problems of the family as a social institution, emphasizing throughout the social and legal status of women as members of the family. The course includes the study of such topics as the theories of the origin of marriage; systems of kinship; the patriarchal family of the Hebrews, Greeks, and Romans; the development of ecclesiastical control over marriage; the rise of civil marriage in the modern state; the changing scope of marital and paternal authority over the persons and property rights of members of the family; the influence of the feminist movement; the problem of divorce; marriage-rates and birth-rates and their social implications.

## EDUCATION

Professors: Arthur Orlo Norton, M.A. Anna Jane McKeag, Ph.D., LL.D.<br>Assistant : Pauline Holmes, B.A.<br>Graduate Assistant : Helen Parker Smith, B.A.

The Department of Education offers both undergraduate and graduate courses. Six hours of work may be counted toward the B.A. degree. Full work for the M.A. degree is offered.

## 201. Modern Education: Principles and Institutions.

Open to juniors who have completed or who are taking the required course in Philosophy, and to seniors. Three hours a week for a year.

Mr. Norton, Miss McKeag.
This course is organized to meet the needs not only of prospective teachers but also of all who are interested in the intelligent direction of education as a phase of civic or social service. Its purpose is to give a general survey of the practices, theories, and problems of modern education.
The work of the course is illustrated throughout the year by visits to assigned schools for the observation of children and of class-room practice, by examples of school work, and by lantern slides.

## 202. History of Education.

Open to students who have completed or are taking the required course in Philosophy. Three hours a week for a year.

## Mr. Norton.

From the point of view of this course modern education appears as the outcome of a long series of historic events, the effects of which are visible in the ideals, studies, modes of teaching, and organization of our present schools, colleges, and universities. The purpose of the year's work is to study in some detail the most important events in the history of European and American education, and their effects on the present course of educational affairs.

The lectures are constantly illustrated by original manuscripts, facsimiles, early editions of noted text-books, and similar historical documents, by translations from the sources, and by numerous lantern slides.

## 301. Secondary Education.

Open by permission to seniors who have completed a full course in Education, and to graduates. Three hours a week for a year. Miss McKeag.

The history and principles of secondary education, with special reference to the high schools of the United States. A study will be made of approved methods of teaching English, foreign languages, sciences, mathematics, and history in high schools. Opportunity will be given for observation of the work of specially successful high school teachers in the subject which the student expects to teach.

In connection with this course the department of Education requires from graduates a semester of systematic practice teaching in a high school, to be done as independent work, under the guidance of the department and with the co-operation of the principal of the high school. Practice in teaching is not open to undergraduates.
302. Principles and Problemis of Religious Education. (Not offered in 1921-22.)
Open to seniors who have completed Education 201. Three hours a week for the second semester.
The aims of religious education in the light of the fundamental characteristics and present tendencies of Christianity. The religious development of the individual. The selection and use of Biblical material for different ages. The Sunday school: its organization, curricula, and methods of teaching; its relation to the home.
303. Principles and Methods of Teaching French in Secondary Schools. (Not offered in 1921-22.)
Open to seniors who have completed or are taking French 305, and who have also completed Education 201. Three hours a week for the second semester.
The aim of this course is to teach the students how to impart to their pupils, in the shortest possible time, a speaking, understanding, reading, and writing knowledge of French. After a survey of the general difficulties arising from English habits of thought and of expression already formed, the instructor will deal with the several aspects of modern language work, such as the teaching of vocabulary, of grammar, of composition, and of translation; the selection and use of books, the correction and elimination of errors, the equipment of the teacher and of her department in the high school.
321. Problems in Education. (Not given in 1921-22.)

Open to graduates who have completed a full course in Education. Three hours a week for a year.

Miss McKeag.
The subject-matter of this course will vary from year to year in accordance with the equipment and needs of students. The topics for study will be chosen from the field of experimental or statistical investigation or from that of the general science of education.

## 322. The History, Theory, and Problems of the Kindergarten. (Not offered in 1921-22.)

Open to graduates who have completed Philosophy 101. 102, or an equivalent, and one full course in Education. (Courses 322 and 323 must ordinarily be taken together.) Four hours a week for a year.
The reconstruction of educational theories in the eighteenth and early nineteenth centuries. The relation of this reconstruction to the work of Froebel. The origins and history of the kindergarten movement in Europe and America. Exposition and criticism of the theory of kindergarten practice. Other forms of sub-primary education: the Waverley plan, the Montessori methods; their relation to kindergarten practice. The kindergarten and the primary school.
323. Kindergarten Practice: Materials, Methods, Exercises, TechniQue. (Not offered in 1921-22.) Open to graduates who have completed Philosophy 101. 102, or an equivalent, and one full course in Education (see note below). Four hours a week for a year.

Course 323 deals in general with practical applications of the theory given in course 322. It includes on the one hand a detailed study of the materials, devices, exercises, and methods of the kindergarten, and on the other, extensive observation of their use, with practice in teaching.

Note.-Courses 322 and 323 must ordinarily be taken together. They will occupy two thirds of the student's time for the year. Students who are preparing to conduct kindergartens or kindergarten training classes are required to take a third course, usually in Education, to be determined on consultation with the head of the Department of Education. Ability to play on the piano the music of kindergarten songs and games is a prerequisite of these courses.
324. Elementary Education: History, Theory, Practice, and Problems. (Not offered in 1921-22.)

Open to graduates who have completed Philosophy 101, or an equivalent, and one full course in Education. Three hours a week for a year.

Course 324 includes a brief survey of the history of elementary education in the United States, a detailed study of present elementary school practice, a critical discussion of the principles which underlie that practice, and the investigation of selected problems in elementary education.

The purpose of the course is to give to each student a knowledge of existing conditions and problems, some facility in handling the tools and methods of practical research in this field, and ability to formulate her views as to the ideas, scope, and work of the elementary schools.
325. History of Education. (Not given in 1921-1922.)

Open to graduates who have completed a full course in Education. Three hours a week for a year.

Mr. Norton.
This course covers the same periods in the history of education as course 202, but with additional reading, critical examination of the materials, and a detailed study of one or more topics from the sources. It is intended for graduate students who have had no general course in the history of education.

## ENGLISH

## I. English Literature

| Professors: | Katharine Lee Bates, M.A., Litt.D. <br> Vida Dutton Scudder, M.A. <br> Margaret Pollock Sherwood, Ph.D., L.h.D <br> alice Vinton Waite, M.A. <br> Martha hale Shackford, Ph.D. <br> Laura emma Lockwood, Рh.d. |
| :---: | :---: |
| Associate Professors : | Charles Lowell young, b.a. Martha Pike Conant, Ph.D. <br> Alice ida Perry Wood, Ph.d. <br> laura Alandis Hibbard, ${ }^{5}$ Ph.d. |
| Assistant Professors : | Elizabeth Wheeler Manwaring, B.A. Annie Kimball Tuell, M.A. |
| InSTRUCTORS : | Mary Bowen Brainferd, Ph.D. <br> Katherine Canby Balderston, M.A. |

101. Outline History of English Literature.

Open to freshmen, sophomores, and juniors. Three hours a week for a year.

Miss Hibbard, Miss Tuell, Miss Balderston.
The course traces the essential outlines of English literary history, presents the leading types of prose and poetry, and gives training in critical appreciation. The work is conducted by lectures and by studies of selected masterpieces.

## 102. The Elizabethan Lyric.

Open to freshmen who have completed in preparatory school an approved course in the history of English Literature. Three hours a week for the first semester.

Mrs. Brainerd.
The course is for students who wish to begin their work in the department with intensive study in one literary period. The material used is the non-dramatic poetry in the time of Elizabeth and the Stuarts, especially the lyrics of Sidney, Shakespeare, Ben Jonson, Donne, Herrick, Herbert, Milton, and the cavalier poets.
103. Spenser.

Open to freshmen who have completed in preparatory school an approved course in the history of English Literature. Three hours a week for the second semester.

Mrs. Brainerd.

[^12]This course should follow course 102 for freshmen beginning their work in the department without taking course 101. The greater part of the poetry of Spenser will be read. The minor poems will be studied for their varied forms and poetic content in relation to other literature. The Faerie Queene will be considered in relation to other romantic epics and for its embodiment of Renaissance ideas as well as for its poetic qualities.
201. English Masterpieces.

Open only to seniors who have completed no full course in the department, or course 101 only. Three hours a week for a year. Miss Conant.
The course is intended to develop a sympathetic appreciation of literature through the study of chosen masterpieces. The work includes readings from Wordsworth, Coleridge, Shelley, Carlyle, Ruskin, Arnold, Browning, Shakespeare, Scott, Jane Austen, and Thackeray; also, if time permits, from modern drama and recent verse.
202. American Literature.

Open to students, except freshmen, who have completed or are taking a grade I course, and to all seniors. Three hours a week for a year.

Mr. Young.
The course attempts to give a comprehensive account of American literature. It studies the Colonial and Revolutionary sources of American idealism, the rise of imaginative literature in the Middle States, the florescence of Puritan culture in New England, the achievement of democratic nationality in the mid-nineteenth century, the literature of the country at large after the Civil War, and the most recent departures in life and literature.
203. Dryden and Pope. (Not offered in 1921-22.)

Open to students who have completed or are taking course 101. Three hours a week for a year.

The course centers in the personality, work, and influence of Dryden and of Pope; it includes study of important contemporary writers, and the social, political, and historical background.
204. Milton.

Open to students, except freshmen, who have completed or are taking a grade I course. Three hours a week for a year.

Miss Lockwood.
The primary object of the course is the critical study of Milton as a master in lyric, epic, and dramatic poetry, and as a writer of
notable prose. The character and genius of the poet are considered as influenced by the political and religious conflict of the times. Special emphasis is placed on the comparison of Milton's work with that of other great writers who have used the same literary forms.
205. The British Ballad. (Not offered in 1921-22.)

Open to students, except freshmen, who have completed or are taking a grade I course. Three hours a week for the first semester.

Miss Hibbard.
The course studies the English and Scottish popular ballad and the modern literary ballad. Special attention will be given to folk lore elements in the ballad and to the significance of the recent revival of interest in folk dance and story.
206. Development of English Prose Fiction to 1830.

Open to students, except freshmen, who have completed or are taking a grade I course. Three hours a week for the second semester.

Miss Tuell.

The course outlines the progress of modern English prose fiction, from its rise in the Elizabethan Age through its eighteenth century development in Defoe, Richardson, Fielding, Goldsmith, Fanny Burney, etc., ending with Jane Austen, Scott, and the period of Scott influence. Its main emphasis is upon the novel of manners, with consideration of various other types.
207. Introduction to Arthurian Romance.

Open to students, except freshmen, who have completed or are taking a grade I course. Three hours a week for a year. In 1921-22 given as a first semester course.

Miss Hibbard.
The course studies in the first semester the Arthurian Chronicles, Marie de France and Chrétien de Troies in translation, with close reading of Malory's Morte Darthur and with general lectures. In the second semester, the work deals with the cycles of Merlin, Tristan, Gawain, Lancelot, and the Grail; the English metrical Arthurian romances and, as time permits, modern forms of the Arthurian story.
208. English Literature of the Fourteenth Century.

Open to students, except freshmen, who have completed or are
taking a grade I course; to juniors who plan a major concluding with course 308. Three hours a week for a year.

Miss Shackford.
The course centers in a study of Chaucer's development as a poet. Attention is paid to his chief Latin, French, and Italian sources, and to contemporary English literature which illustrates the life and ideals of the Middle Ages. Special study is made of a few metrical romances and of Piers Plowman.

## 209. Versification.

Open to students, except freshmen, who have completed or are taking one full course in the department of English Literature, and also to those majoring in English Composition. One hour a week for a year.

Miss Manwaring.
The course has as its object in general such study of the principles of English versification as may give to the student of literature a keener appreciation of poetic expression; and in particular, for those interested in writing verse, opportunity for experiment and criticism.
301. Social Ideals in English Letters.

Open to seniors who have completed two full courses in English Literature or Economics or History, or who have completed one full course in any of these departments and are taking another course. Three hours a week for a year.

## Miss Scudder.

The course studies the expression in English literature of social compunction, social criticism, and social ideals. It covers a swift survey from the time of Piers Plowman to that of Blake, and a closer consideration of the literature of the nineteenth and twentieth centuries in its social bearing.

## 302. Tendencies of Twentieth Century Poetry.

Open only to juniors and seniors who have already completed two full courses in the department. One hour a week for a year.

Miss Bates.
The course proposes to point out the special significance, as related to the English tradition, of the work of certain contemporary English poets, especially those who have won distinction since 1900.
303. Contemporary Drama.

Open to students who have completed or are taking a full course of grade III in the department. Two hours a week for a year.

Miss Waite.
The modern English drama is considered in relation to parallel European drama.

## 304. Development of English Drama.

Open to juniors and seniors who have completed a grade I course, and have completed or are taking a full year course, or two semester courses of grade II; also to juniors who are beginning their major with course 208, and propose to complete it with course 308. Three hours a week for a year.

Miss Wood.
The course traces the history of English drama from the beginnings in folk-plays and the liturgy of the Church, through the Miracles and Moralities, the Elizabethan dramatists, and the comedy and tragedy of the seventeenth and the eighteenth centuries, to the final development into contemporary forms.
305. Shakespeare: Selected Plays.

Open to juniors and seniors who have completed a grade I course, and have completed or are taking a full year course or two semester courses of grade II; also to juniors who are beginning their major with course 208, and propose to complete it with course 308. Three hours a week for a year.

Miss Conant.
Close study of six plays, selected to illustrate Shakespeare's earlier and later work. The course emphasizes the literary study of Shakespeare. It gives opportunity for training in imaginative, scholarly, vital study of the text. For 1921-22 the plays are Much Ado About Nothing, As You Like It, II Henry IV, Othello, Cymbeline, The Tempest.
306. Victorian Prose.

Open to juniors and seniors who have completed a grade I course, and have completed or are taking a full year course or two semester courses of grade II. Three hours a week for a year.

Miss Tuell.
The course considers, with the necessary reference to historical background, the distinctive values of Victorian prose, making a
comparatively even division of time between the essay and the novel. The stress in class is laid upon Dickens, Carlyle, Newman, Thackeray, George Eliot, Ruskin, Arnold, Meredith, with briefer study of the minor novelists, and some notice of late Victorians in their contact with the present era.
307. English Poetry of the Nineteenth Century.

Open to juniors and seniors who have completed a grade I course, and have completed or are taking a full year course or two semester courses of grade II. Three hours a week for a year.

Miss Sherwood, Miss Shackford
The course considers the work of the great Georgian and Victorian poets in their relation to one another and to contemporary thought. Extended study is given to Wordsworth and Coleridge; Shelley and Keats; Tennyson and Browning; with briefer readings from Byron, Scott, Landor, Clough, Arnold, Rossetti, Morris, and Swinburne.

## 308. Historical Development of English Literature.

Open to graduates, and required of seniors who are maioring in English Literature and have not had course 101 or its equivalent. Three hours a week for a year.

Miss Scudder.
The course proposes a study of the development of English literature from the time of Beowulf to the end of the Victorian age. It aims to focus attention upon successive phases of national thought and life as expressed in salient and representative books.
309. Shakespeare. (Not offered in 1921-22.)

Open to juniors and seniors who have completed course 101, and have completed or are taking a full year course, or two semester courses, of grade II; also to juniors who are beginning their, major with course 208. Three hours a week for a year.

This course will attempt to trace the development of Shakespeare's thought and art. All of the plays and the sonnets will be read and discussed; a few selected plays will be studied closely. Material illustrating the historical and the literary background will be considered.

## 321. Modern Authors.

Open to graduates, and to approved seniors who are taking a
twelve-hour major in the department. Of the three other courses, one must be 204 or 305 or 307. Three hours a week for a year.

Miss Shackford.
Two or more authors are chosen each year for special study. In 1921-22 the choice is Wordsworth, Keats, and Browning.
322. English Romanticism.

Open to graduates, and to approved seniors who are taking a twelve-hour major in the department. Of the three other courses, one must be 207 or 208 or 305 or 307. Three hours a week for a year.

Miss Sherwood.
A study of the Romantic Movement in England, from its beginnings in the eighteenth century, on through the work of the early nineteenth century poets. Certain phases of the relation of English to German literature and to French literature during the period of reaction are studied.
323. Critical Studies in English Drama.

Open to graduates and to approved seniors who are taking a twelve-hour major in the department. Of the three other courses, one must be 304 or 305 or 309. Three hours a week for a year. Miss Bates.

The course attempts to give graduate training in literary investigation. To each student is assigned some special problem of source, authorship, or the like, which she pursues till her conclusion is reached, reporting progress from week to week in the seminar.
324. Special Studies in American Literature. (Not given in 1921-22.) Open to graduates, and to approved seniors who are taking a twelve-hour major in the department. Of the three other courses, one must be course 202. Three hours a week for a year.

Mr. Young.
The course is designed for advanced work in American literature.
325. Beginnings of the English Renaissance from Caxton to Shakespeare. (Not offered in 1921-22.)
Open to graduates, and to approved seniors who are taking a twelve-hour major in the department. Of the three other courses, one must be from the following list: 207, 208, 304, 309, 326, or
one of the English Language courses. Three hours a week for a year.

Miss Conant.

The course aims to give graduate training, and so to present the beginnings of the English Renaissance that the student may rightly estimate the achievements of the great Elizabethans.
326. Medieval English Literature. (Not given in 1921-22.)

Open to graduates, and to approved seniors who are taking a twelve-hour major in the department. Of the three other courses, one must be 207, 208 or one of the English Language courses, unless the student can present, in addition to a nine-hour major in English Literature, a course in mediaeval history. Three hours a week for a year.

## Miss Hibbard.

The course introduces students to the types of literature growing out of the social and religious movements of the thirteenth and fourteenth centuries. Extended study is given to the works of Chaucer and to the problems in criticism and scholarship to which they give rise.

For Course in Greek Literature in English Translations see Department of Greek.

## II. English Composition

|  | Professor: | Sophie Chantal Hart, M.A. |
| :---: | :---: | :---: |
| Associate | Professors : | Agnes Frances Perkins, M.A. <br> Josephine Harding Batchelder, M.A. <br> Amy Kelly, M.A. <br> Helen Sard Hughes, Ph.D. <br> Alfred Dwight Sheffield, M.A. |
| Assistant | Professors : | Elizabeth Wheeler Manwaring, B.A. Annie Kimball Tuell, M.A. Frances Lester Warner. ${ }^{4}$ B.A. |
|  | Instructors : | helene Buhlert Bullock, M.A. Elisabeth Wilkins Thomas, M.A. Elvira Jennie Slack, M.A. |

$101 \dagger$. General Survey.
Riequired of freshmen. Three hours a week for a year.
Miss Perkins, Miss Batchelder, Miss Kelly, Miss Hughes, Mr. Sheffield, Miss Tuell, Mrs. Bullock, Miss Thomas, Miss Slack.
First semester: expository writing, with emphasis on structure.
Weekly themes. Second semester: expository writing, critical

## ${ }^{4}$ Absent on leave.

$\dagger$ If a student submits papers notably deficient in English as part of her work, in any department, she will incur a condition in English Composition, whether or not she has completed the requirement in English Composition.
and interpretative; description; simple narration. Fortnightly themes or their equivalent.
102. Intermediate Course in Expository Writing.

Required of students who have made $D$ grade in the second semester of course 101. Three hours a week for one semester.

Mr. Sheffield.
201. Oral Exposition. (Not given in 1921-22.)

Open to sophomores and juniors who have completed course 101. Three hours a week for the first semester.

Mr. Sheffield.
The analysis of contemporary subjects, and the preparation of written outlines and of speeches based upon them.
202. Special Types of Oral Exposition. (Not given in 1921-22.)

Open to sophomores and juniors who have completed course 101. Three hours a week for the second semester.

Mr. Sheffield.
This course is a continuation of course 201.
The work deals with the methods of organization and presentation in group discussion.
203. Advanced Expository Writing.

Open to sophomores and juniors who have completed course 101. Three hours a week for the first semester.

Miss Perkins, Miss Batchelder, Miss Hughes.
A critical study of the abstract, the editorial, the review, the special article, as exemplified in the newspaper and the weekly periodical. Fortnightly themes.
204. Advanced Expository Writing.

Open to sophomores and juniors who have completed course 101. Three hours a week for the second semester.

Miss Perkins, Miss Batchelder, Miss Hughes.
This course is a continuation of course 203. The essay form, biography, the critical review, the sketch, the interpretative study of prose style. Fortnightly themes or their equivalent.
205. Argumentation and Debates.

Open to sophomores and juniors who have completed course 101. Three hours a week for a year.

Miss Kelly.
Debates throughout the year.
301. Narrative Writing.

Open to juniors and seniors who have completed course 101. Two hours a weck for the first semester. Miss Manwaring.
Four narratives, approximately 1,800 words each. Study of principles and forms of narrative writing, including analysis of one novel.
302. Short Themes.

Open to juniors and seniors who have completed course 101. Two hours a week for the second semester.

Miss Manwaring.
This course is a continuation of course 301.
Practice in writing briefly on many sorts of subjects to increase suppleness and precision of style, with especial consideration of diction and sentence form and rhythm.
Short themes. Reading and class discussion of the theory and practice of various writers.
303 The Theory and History of Criticism.
Open to juniors and seniors. One hour a week for a year. Miss Hart.
Lectures on the critical theory of Plato and Aristotle and on the more important English and French critics.
304. Advanced Course in English Composition.

Open to seniors who have completed courses 201. 202, or 203. 204, or 205, or 301. 302. Three hours a week for a year.

Miss Hart.
Studies in exposition, description, and narration, with one piece of dramatization or an original play. Frequent practice in writing.

## III. English Language

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            Professor : Laura Emma Lockwood, Ph.D.
Associate Professor: Alfred Dwight Sheffield, M.A.
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301. Old English. (Not offered in 1921-22.)

Open to juniors and seniors who have completed a year of language in college. Three hours a week for a year.

Mr. Sheffield.
A study of the grammar and vocabulary of Old English. The reading of Beowulf and of selections from old English poetry and prose.
302. History of the English Language.

Open to juniors and seniors. Three hours a week for a year. Mr. Sheffield.

Origin and structure of the English Language in vocabulary, grammatical inflections, and syntax as the basis of modern usage. 303. Seminar in Old English.

Open to graduates, and to seniors by permission of the department. Three hours a week for a year.

Miss Lockwood.
A study of Old English inflections, phonology, and syntax. The reading of the best pieces of literature in Old English prose and poetry. A particular problem in either literature or language is assigned to each student for investigation.

## FRENCH

Assistant Professor: Eunice Clara, Smith-Goard, M.A.
Visiting Lecturer: Elisabeth Clévenot, Lic. ès L., Bac.D., Dipl.E.S.
Instructors: Mathilde Boutron-Damazy, b.Ès L. Dorothy Warner Dennis, B.A., Dipl.e.U. Marthe Pugny. Ruth Elvira Clark, litt.D. Marie Elisabeth Ponsolle, C.P. Jeanne Elisabeth Franconie, C.P., C.S. Assistant: Katharine halsey Dodge.
All courses beginning with course 101 are conducted in French.
$101 \ddagger$. Elementary Course. French phonetics, grammar, composition, reading, exercises in speaking, and dictation.
Open to all undergraduates. Three hours a week for a year.
Miss Dennis.
The course includes (1) a practical study of French pronunciation, phonetic drill; (2) the practical study of French grammar; (3) readings on French life and French institutions.
$102 \ddagger$. Intermediate Course. French phonetics, syntax, composition; readings from contemporary authors of note; exercises in speaking; writing from dictation.
Open to all students who have completed course 101, or the two unit admission requirement in French. Three hours a week for a year.

Miss Dennis, Miss Dodge.
$\ddagger$ First-year French may not be counted toward the B.A. degree if taken after the sophomore year, nor second-year French if taken after the junior year. French 101 and German 101 may not both be counted toward the B.A. degree.

The course includes (1) a practical study of French pronunciation with phonetic drill; (2) a systematic review of syntax introductory to theme writing and oral narrative; (3) selected read-ings-prepared and sight-from modern writers.

## 103. Third French Course.

Open to students who have met the three unit admission requirement in French, also to those who have completed course 102. Three hours a week for a year.

> Miss Smith-Goard, Miss Damazy, Miss Pugny, Miss Clark, Miss Ponsolle, Miss Franconie.

The aim of this course is the acquisition by the student of a reasonable degree of proficiency in the use of spoken and written French, both as an end in itself and as a preparation for more advanced work in language and in literature. It includes a careful study of pronunciation, with phonetic drill; grammar and free composition, with frequent written exercises and themes; varied reading with the application of lecture expliquée methods; it affords opportunity for constant practice in the written and the spoken language.
201. Practical French. Translation, themes, and oral composition.

Open to students who have completed course 103 and, on recommendation of the department, to students who have completed course 102. Three hours a week for a year.

Miss Smith-Goard, Miss Ponsolle.
This course continues the plan of course 103 with additional emphasis on fluency and flexibility in the use of the language. Together with the various kinds of work enumerated, it includes the careful study of selected passages of prose and poetry (lecture expliquée) and more extensive parallel readings.
202. Practical Phonetics with Advanced Grammar and Composition. Open to students who have completed course 103. One hour a week for a year.

Miss Clark.

The course consists of a series of lessons in practical phonetics and advanced grammar, with weekly written or oral exercises based on the lessons.
203. Outline History of Frénch Literature.

Open to students who have completed course 103, and, on recommendation of the department, to those who have completed 102. Three hours a week for a year.

Miss Clévenot, Miss Franconie.
The object of this course will be to give a bird's-eye view of French Literature from the Renaissance to the present.
301. The Classical Period of French Literature.

Open to students who have completed a grade II course, and to seniors who have completed or are taking a grade II course. Three hours a week for a year.

Miss Damazy, Miss Franconie.
As an introduction to this course, a short study will be made of the origin of French classicism in the Renaissance movement of the sixteenth century; but the main object of the course will be the study of the evolution of French classical literature during the seventeenth century, in the works of the great dramatists and prose writers: Descartes, Corneille, Racine, Molière, La Fontaine, Boileau, Mme. de Sevigné, Pascal, etc.
302. Literature of the French Revolution.

Open to juniors and seniors who have completed a grade II course. Three hours a week for the first semester.

Miss Damazy.
This course aims to give a comprehensive view of the literature of the French Revolution as exemplified in certain representative philosophers and orators: Voltaire, J. J. Rousseau, Diderot, Mirabeau, Robespierre, etc.
A special study will be made of the origin of French Romanticism as found in the work of Rousseau and his disciples in France and abroad.

## 303. The Romantic and the Realistic Periods of the Nineteenth Century.

Open to juniors and seniors who have completed a grade II course. Three hours a week for the second semester.

Miss Damazy.
This course treats of French romanticism as expressed in the works of the masters of its various forms-criticism, drama, lyric, novel. The writers studied include: Lamartine, Hugo, Vigny, Musset, G. Sand, Balzac, Flaubert, Taine, Renan, etc.

## 304. Conversation and Journal Club.

Open to juniors and seniors who have completed or are taking a grade III course. One hour a week for a year.

Miss Smith-Goard.
Oral reports, reviews, and discussion of important magazine articles, together with a short account, usually at each meeting of the class, of current events in France. The aim of the course is twofold: practice in the use of the spoken language, and a brief study of the France of to-day and of French institutions.

## 305. Intensive Reading and Advanced Composition.

Open to seniors who have completed or are taking a grade III course. Three hours a week for a year.

Miss Clévenot.
The plan of this course includes practical phonetics for continued training in pronunciation, grammar, and composition, together with the intensive reading of short passages widely varied in character. French "lecture expliquée" methods, emphasis on oral work.
307. Contemporary French Literature from the beginning of the Naturalistic Period to the Present Time.

Open to seniors who have completed either course 301 or courses 302 and 303. Three hours a week for a year.

Miss Clévenot.
The object of this course is to give to advanced students general information about contemporary French novelists, poets, dramatists, critics, and philosophers. The authors studied as representative of the contemporary French period are: E. Zola, G. de Maupassant, A. Daudet, P. Loti, P. Bourget, A. France, M. Barrès, Baudelaire, Leconte de Lisle, J. M. de Heredia, F. Coppée, Sully-Prudhomme, P. Verlaine, H. de Régnier, Madame de Noailles; M. Maeterlinck, E. Rostand; F. Brunetière, J. Lemaître; H. Poincaré, H. Bergson, and the war-writers.
308. Studies in Style. (Not offered in 1921-22.)

Open to students who have completed course 202. One hour a week for a year.

This course is related to course 307 .
321. Old French and Old French Literature. (Not offered in 192122.)

Open to graduates and to seniors by permission of the department. Three hours a week for a year.
Phonology with reading of La Vie de St. Alexis, La Chanson, de Roland, Aucassin et Nicolete, Chrétien de Troyes. Gaston Paris; Extraits des Chroniqueurs fraņais. Selections from Constans: Chrestomathie de l'ancien français. The history of the French language is traced from its origin to the present time, and illustrated by texts read. For reference, Darmesteter: Grammaire Historique; Gaston Paris: Manuel de la littérature franşaise du moyen âge; also standard works on the subject in the college library. Lectures, critical reading.
322. Old Provençal. (Not offered in 1921-22.)

Open to graduate students only.
This course is complementary to course 321 . Together these courses mark the synchronic lines of development of the langue d'oil and the langue d'oc.

The department is prepared to direct research work for graduate students in special subjects in Old French and Old French literature, also in modern French language and literature.

## GEOLOGY AND GEOGRAPHY

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    Professor: Elizabeth Florette Fisher, B.S.
Associate Professor: Mary Jean Lanier, B.S.
Assistant Professor: Margaret Terrell. Parker,}\mp@subsup{}{}{4}\mathrm{ M.A.
                        Lecturer: George Hunt Barton, B.S.
                            Assistant : Frances Vandervoort Tripp. B.A.
Laboratory Assistant : Esther Rippard Trethaway, B.A.
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## 101. General Geology.

Open to all undergraduates. Three hours a week for a year.
Miss Fisher, Miss Lanier, Mr. Barton, Miss Tripp.
First Semester-Physiography. A study of the work which wind, waves, rivers, glaciers, volcanoes, and earth movements have done and are doing to shape the earth's surface. This study explains the origin of hills and valleys, of plains, plateaus and mountains, of continents and ocean basins, and makes clear the ways in which these surface features have affected man's life on the earth.
Second Semester-Historical Geology. The origin of the earth and its history from the time of its origin until the present. The

[^13]evolution of life on the earth traced from its earliest known appearance through its recent development.

Lectures and recitations are accompanied by parallel studies in the laboratory and by field and museum excursions.

## Geology

201. Earth Evolution. (Not given in 1921-22.)

Open to juniors and seniors. Not open to students who have completed Geology 101 or 1 of 1919-20. Three hours a week for the first semester.

Miss Parker.

The origin and evolution of the earth and the life on it as revealed by a study of the rocks of past geologic ages and the fossils they contain. The study includes an explanation of the earth's present surface features, and of the processes by which they have been formed and are now being modified.

Lectures, class discussions, laboratory and field work.

## 202. Economic Mineralogy.

Open to students who have completed course 101 or 201. Three hours a week for the first semester.

Miss Fisher.
A study of the more important minerals. Those minerals are selected which are noteworthy either because they are essential constituents of rocks, or because they are of value economically. The treatment will include a study of the principles of crystallography; the sight recognition of minerals by means of their physical properties; the mode of occurrence and field associations of those minerals; the uses to which they are put industrially; the geographic location and methods of development of mineral deposits of economic importance, with especial emphasis upon the mineral resources of the United States.
203. Petrocraphy. (Not offered in 1921-22.)

Open to students who have completed course 202. Three hours a week for the second semester.
A study of the more important igneous, sedimentary, and metamorphic rocks. The work is intended to afford the student an opportunity to become thoroughly familiar with the macroscopic characteristics of the principal rock types and the methods of petrographical study, and to enable the student to gain some acquaintance with the theories of modern petrology.

Lectures, class discussions, and laboratory work.
301. Field Geology. (Not given in 1921-22.)

Open to juniors and seniors who have completed course 101 and a grade II course, or course 201. Three hours a week for the second semester.

Miss Parker.

Advanced field study of the region including the Boston Basin and areas immediately surrounding it. The course attempts to train the student to determine and to interpret independently the physiographic and structural geology of the region studied. It deals further with the relation between the physical features of the area and its economic and commercial development.

Field study is accompanied by lectures, class discussions, and laboratory work.
305. Seminar in Geology and Geography. (See Geography 305.)
306. Paleontology. (Not given in 1921-22.)

Open to juniors and seniors who have completed Zoology 101 and either Geology 101 or 201. Three hours a week for the first semester.

The course deals with the facts and problems of organic evolution, as revealed by the life of past geologic ages. By means of a study of fossils the steps in the development from simple, generalized life forms to more complex and specialized types are traced. The effects of physical environment upon life development are emphasized.

Lectures, class discussions and laboratory work.

## Geography

204. Climatology.

Open to students who have completed course 101 or 201. Three hours a week for the first semester.

Miss Lanier.
A study of the relations of climate to man. The course is designed to give an understanding of the elements and the controls of climates; the characteristics of the leading types of climate and the distribution of those types throughout the world; the ways in which climate influences the economic development of regions.

## 205. Industrial and Commercial Geography.

Open to juniors and seniors and to sophomores who have completed course 101. To count toward a major in the department,
but not to count toward the science requirement. Three hours a week for the second semester.

Miss Lanier.
A study of world production and world trade as influenced by geographic factors. The aim of the course is to give the student an understanding of the geographic conditions which favor the development of the various types of industries, as pastoral, agricultural, forest, mining, and manufacturing activities; the areas which furnish the important commercial products and the conditions of their production; the geographic basis of trade and the great continental and ocean trade routes; the location and growth of commercial centers; types of commercial nations.
206. Conservation of Our Natural Resources.

Open to juniors and seniors. To count toward a major in the department but not to count toward the science requirement. Three hours a week for the second semester.

Miss Fisher.
A study of the natural resources of the United States,-soils, forests, minerals, and waters; the complete dependence of the nation's industries upon them, and the efficient use of these resources that they may serve the greatest number of people for the longest time. The course includes the study of the need for reducing soil waste, supplying fertilizers for worn-out soil, reclaiming swamp and arid lands, increasing agricultural production and conserving mineral fuels and metals, and of the methods of attaining these results. The course further deals with problems of forest protection, water supply, control of water power, and the use of inland waterways. The course helps to establish principles of good citizenship.
302. Geographic Influences in the Development of the United States.

Open to juniors and seniors who have completed either course 101 and a grade II course in the department, or course 1 or 3 of 1919-20. Three hours a week for the first semester.

Miss Fisher.
Regional geography of the United States in its physical, economic, commercial, and historical aspects, including a study of the relation of the continent to the world as a whole, and the influence of its natural resources upon its industrial development and upon the course of American History.

## 303. Geographical Influences in the Development of Europe.

Open to juniors and seniors who have completed course 101 and a grade II course in the department, or course 1 or 3 of 1919-20. Three hours a week for the first semester.

Miss Lanier.
Regional geography of Europe in its physical, economic, commercial, and historical aspects, including a study of the relation of the continent to the world as a whole, and the influence of its natural resources upon its industrial and historical development.
304. Geographic Influences in the Development of South America. Open to juniors and seniors who have completed course 101 and a grade II course in the department, or course 1 or 3 of 1919-20. Three hours a week for the first semester.

Miss Lanier.
Regional geography of South America in its physical, economic, commercial, and historical aspects, including a study of the relation of the continent to the world as a whole, and the influence of its natural resources upon the present and probable future development of the several countries.
305. Seminar in Geology and Geography.

Open to graduate students and to seniors by permission of the department. Three hours a week for the first semester.

Miss Fisher.
The course begins with a study of the methods of individual research. Early in the course a selected topic is assigned to each student for investigation and reports of the individual work are presented weekly. In this way the work of the seminar is adapted to the needs of the individual student. The student wishing primarily a geographic problem is assigned a selected area in which she is to study the geographic factors which have influenced its development. A student desiring geologic research is assigned a problem in historical, structural, or physiographic geology.

GERMAN<br>Professor: Margarethe Muller. ${ }^{2}$<br>Associate Professor: Natalie Wipplinger. Ph.D.<br>Assistant : Elisabeth Biewend.

101 $\ddagger$ Elementary Course. Grammar, reading, oral and written EXERCISES.

Open to all students. Three hours a week for a year.
Miss Wipplinger, Mrs. Biewend.
The tests used in this course are made the basis for a study of grammatical forms and rules, for speaking exercises and composition work. Frequent written exercises are required.
$102 \ddagger$. Elementary Course. Reading, free reproduction, written and oral exercises, short themes, memorizing of poems.

Open to all students who have completed course 101 or the two unit admission requirement in German. Three hours a week for a year.

## Miss Wipplinger.

The methods are the same as in course 101. In connection with the reading special attention is given to the learning of the more common idioms. Some pages of easy reading are required outside of the regular class assignments. Several poems are memorized. Frequent written tests or short themes are required.

Course 102 is intended to fit students to enter courses 103, 104 or 201, 202, 203.
103. Grammar and Composition.

Open to students who have met the three unit admission requirement in German, or have completed course 102, and required in connection with course 104. Course 103 cannot be taken without course 104. One hour a week for a year.

Miss Wipplinger.
Review of elementary grammar and study of more advanced grammar. Bi-weekly themes; grammatical exercises based on texts read in course 104.

## 104. Outline History of German Literature.

Open to students who have met the three unit admission requirement in German, or have completed course 102 and required in
$\ddagger$ First-year German may not be counted toward the B.A. degree if taken after the sophomore year, nor second-year German if taken after the junior year. German 101 and French 101 may not both be counted toward the B.A. degree.
connection with course 103. Course 104 cannot be taken without course 103. Two hours a week for a year.

Miss Wipplinger.

The object of this course is to furnish the student with the vocabulary necessary for the reading and discussion of literature, and to give her a general historical background for the more detailed study of German literature in subsequent courses. Texts used: Stroebe and Whitney, History of German Literature, Wenckebach's Meisterwerke, Goethe's Dichtung und Wahrheit (Jagemann).
201. Grammar and Composition. (Not offered in 1921-22.)

Open to sophomores, juniors, and seniors who have completed course 102 or equivalent, and required of those taking courses 202 and 203. Course 201 cannot be taken without courses 202, 203. One hour a week for a year.

Miss Wipplinger.
The aim of this course is to give the student practice in oral and written expression. Bi-weekly themes; grammatical exercises based on the material treated in courses 202 and 203.
202. History of German Literature. (Not offered in 1921-22.)

Open to sophomores, juniors, and seniors who have completed course 102 or equivalent, and required in connection with course 201. Course 202 cannot be taken without course 201. Two hours a week for the first semester.

## Miss Wipplinger.

The course consists of discussions, reading, and occasional lectures on the history of German literature before Goethe. The aim of the course is to trace the parallel development of the language, literature, social conditions, and religious ideals of the times. Works read and discussed are: the Hildebrandslied, selections from the Nibelungenlied, the works of Wolfram, Gottfried, Hartmann, the Minnesingers and the Meistersingers, Volkslied, selections from Luther, Hans Sachs,-all according to Wenckebach's Meisterwerke. Occasional reference to Scherer's and Vogt und Koch's Geschichte der deutschen Literatur.
203. History of German Literature. (Not offered in 1921-22.)

Open to sophomores, juniors, and seniors who have completed course 202, and to others by permission of the department; required in connection with course 201. Course 203 cannot be taken without course 201. Two hours a week for the second semester.

Miss Wipplinger.

The course is a continuation of course 202; the methods and aims are the same. Chief topic: the classical period in German literature, with special emphasis on Lessing, Herder, Schiller, Goethe.
204. Schiller's Life and Works (Introductory Course).

Open to students who have completed courses 103, 104, or 201, 202. 203. Three hours a week for the first semester.

Miss Wipplinger.
Lectures, discussions. Study of Schiller's life and some of his important dramatic works. Texts: Boyesen's Schiller's Life; Die Räuber (Cotta); Wallenstein (Carruth); Schiller's Gedichte (Cotta); Schiller's Briefe (Kühnemann).
205. Goethe's Life and Works (Introductory Course).

Open to students who have completed course 204. Three hours a week for the second semester.

Miss Wipplinger.
Lectures, discussions. Study of the principal characteristics of Goethe's life and works to the time of his literary co-operation with Schiller. Works discussed in class: Götz von Berlichingen, Iphigenie, selected poems (Goebel). Interpretation of "Storm and Stress" in connection with Götz, of German classicism in connection with Iphigenie. Supplementary discussion of some of the following: Goethe's Briefe (Langewiesche), Dichtung und Wahrheit, Euripides' Iphigenie, Boyesen's Life of Goethe.
206. German Lyrics and Ballads. (Not offered in 1921-22.)

Open to students who have completed courses 103, 104 or 201, 202, 203, and are taking other work in German. One hour a week for a year.

Historical study of Minnegesang, Volkslied, and the principal lyric poets up to the present day.
207. Studies in Modern German Idiom. (Not offered in 1921-22.)

Open to students taking other work in German, who have completed courses 103, 104, or 201, 202, 203, and by special permission to those who have completed course 102. One hour a week for a year.

This course is designed to aid the student in acquiring a larger working vocabulary. Modern German texts are used as a basis of study. Constant oral and frequent written practice.

## 301. The German Novel. (Not offered in 1921-22.)

Open to juniors and seniors who have completed or are taking three hours of grade II. Two hours a week for a year.

Lectures on the historical development of the German novel before Goethe. Special study of some of the representative novels by Goethe, Eichendorff, Freytag, Spielhagen, Keller, Storm, Sudermann, and others, illustrative of certain important phases of German Kulturgeschichte.
302. History of the German Language. (Not offered in 1921-22.)

Open to juniors and seniors who have completed three hours of grade II and are taking other work in German. One hour a week for a year.

This course aims to give a fuller and more thorough understanding of modern German through the study of its historical development. Text-book: Behagel's Die deutsche Sprache.
303. Middle High German (Introductory Course). (Not offered in 1921-22.)
Open to juniors and seniors who have completed at least three hours of grade II. Three hours a week for the second semester.
Survey of Middle High German forms and sounds. Translation of Middle High German epic and lyric poetry into the modern idiom.

## 304. Goethe's Faust, Part I.

Open to juniors and seniors who have completed courses 204, 205. Three hours a week for the first semester.

Miss Wipplinger.
Study of the pre-Goethean development of the Faust legend in its more important literary forms. Close study of the text of Goethe's Faust, Part I. Collateral readings and reports on the relation of the poem to Goethe's life and times. Part II will be treated in a few final lectures.

## 305. The German Romantic School.

Open to juniors and seniors who have completed course 304. Three hours a week for the second semester.

A study of the development and spirit of the German Ro-
mantic School. Outside reading assigned from the following reference books: Haym, Brandes, Beers, on Romanticism; R. Huch's Blütezeit der Romantik; Hillebrandt's Lectures on German Thought; Boyesen's Essays; Heilborn's Novalis. Class work is based on the works of Friedrich Schlegel, Novalis, Tieck, Chamisso, Eichendorff, Heine, and others.
306. Lessing as Dramatist and Critic (Seminary Course). (Not offered in 1921-22.)

Open to seniors who have completed three hours of grade 11I, and to others by special permission. Three hours a week for the second semester.

Miss Wipplinger.
Treatment of Lessing's critical work in literature, theology, and æsthetics. Works read and discussed are: Minna von Barnhelm, Emilia Galotti, Nathan der Weise, Die Hamburgische Dramaturgie, Laokoon, Axiomata, Anti-Götze, Erziehung des Menschengeschlechts. Reference books: Erich Schmidt's Lessing, Kuno Fischer's Lessing als Reformator der deutschen Literatur, Kuno Fischer's Lessing's Nathan, and others.
307. Goethe, Advanced Course (Seminary Course).

Open to seniors who have completed course 304 and at least one other three-hour semester course of grade III; students not taking course 304 till the senior year, may by special permission enter course 307. Three hours a week for the first semester.

## Miss Wipplinger.

Study of Goethe's lyrics, ballads, later dramas, parts of Faust II, Wilhelm Meister, and other works. Collateral reading in the Goethe Jahrbuch, and from Eckermann, Gräf, Harnack, and others. Consideration of Goethe's relation to other literatures, and as art-critic.
308. Nineteenth Century Drama.

Open to seniors who have completed course 307. Three hours a week for the second semester.

Miss Wipplinger.
Special study of Kleist, Grillparzer, Otto Ludwig, Hebbel, Ibsen, Hauptmann, Sudermann, and others; their relation to classic and romantic art, and to the social and philosophical problems of the century.
309. Schiller as Philosopher and Writer on Æsthetics (Seminary Course). (Not offered in 1921-22.)
Open to seniors who have completed course 204 and at least three hours of grade III. Three hours a week for the first semester.

Study of Schiller through his correspondence with Körner, Goethe, etc., and his philosophic-æsthetic poems and essays. These are read and discussed in class.
310. Gothic. (Not offered in 1921-22.)

Open to graduates and to seniors by permission of the instructor. Three hours a week for the second semester.

## GREEK

Professors : Katharine May Edwards, ${ }^{2}$ Ph.D. Alice Walton, Ph.D.
Instructor : Edith Marion Smith, M.A.
101. Beginning Greek.

Open to all students. Three hours a week for a year.
Miss Walton, Miss Smith.
The aim of the course is to cover in one year the fundamental facts of Greek grammar with practice in reading and writing. The text-book is Allen's First Year in Greek. The longer selections for reading are from Plato, but quotations from other masterpieces of prose and poetry are included.
201. Second Year Greek.

Open to students who have completed course 101 or the two unit admission requirement. Three hours a week for a year.

Miss Walton.
First semester: Plato; Apology and selections from other dialogues.

Second semester: Homer; Selected books of Iliad or Odyssey.
202. Plato: Apology and selections from other dialogues; Homer:

Odyssey (six or seven books); Euripides: one drama.
Open to students who have met the three unit admission requirement. Three hours a week for a year.

Miss Walton, Miss Smith.

[^14]
## 203. Greek Literature in English Translations.

Open to juniors and seniors, and to sophomores who have completed one full course in Greek, or Art, or English Literature. One hour a week for a year.

Miss Walton.
The work of the first semester will be the reading and study of Homer, with class discussions, and lectures on the development of Epic and Lyric Poetry. The second semester will be given to the critical study of several plays with lectures on the development of Greek Drama.

## 301. Fifth Century Dramatists and Historians.

Open to students who have completed course 201 or 202. Three hours a week for a year.

Miss Smith.
Reading and study of dramas of Æschylus, Sophocles and Euripides, at least one of each, preceded by rapid reading, partly in class, of selections from Herodotus (Battles of Thermopylæ and Salamis) and Thucydides( Democracy of Athens).
302. Greek Lyric Poetry. (Not offered in 1921-22.)

Open to students who have completed course 301. Three hours a week for a year.

Miss Edwards.
Special study of the poems of Sappho and Alcæus; Pindar and Bacchylides; Theocritus. Lectures on development of Greek Lyric Poetry. Reading of Plato's Ion and Aristotle's Poetics.
303. Homeric Seminary. (Not offered in 1921-22.)

Open to students who have completed course 302. Three hours a week for a year.

Miss Edwards.
Critical study of selected portions of the Iliad, with discussions and lectures on special problems.
304. Greek Dialects. (Not offered in 1921-22.)

Open to students who have completed one full course of grade III. Three hours a week for a year.

Miss Edwards.
A comparative study of the Greek dialects, their characteristics and their relations to each other, with reading and study of inscriptions and selected texts.
305. Modern Greek. (Not offered in 1921-22.)

Open to students who have completed one full course of grade III. One hour a week for a year.

Miss Edwards.
The course has two objects: first, a practical one, to give some acquaintance with the spoken and written Greek of to-day; second, a linguistic one, to trace the historical development of the language from classical times to the present.

306 General Introduction to the Science of Language. (Not offered in 1921-22.)
Open to seniors and juniors who have had one year of Greek. One hour a week for a year and an additional hour in alternate weeks. To count as one and one-half hours.

Miss Edwards.
Lectures on the origin and nature of language and the principles of its life and growth; outline studies in phonetics; classification of languages; groups of the Indo-European languages with chief characteristics.

For additional courses see Classical Archæology.
For courses in the study of Greek Testament see Biblical History.

## HISTORY

Professors: Julia Swift Orvis, Ph.D.
Mabel Elisabeth Hodder, Ph.D.
Associate Professors: Edna Virginia Moffett, Ph.D.
Barnette Miller, Ph.D.
Assistant Professors : Edward Ely Curtis, Ph.D. Judith Blow Williams, ${ }^{4}$ Ph.D.
Instructors : Margaret Bancroft, M.A. Sarah Wambaugh, ${ }^{8}$ M.A.
$103 \ddagger$. History of Western Europe from the Fifth Century to the Congress of Vienna.
Open to all undergraduates. Three hours a week for a year.
Mrs. Hodder, Miss Miller, Miss Bancroft.
A general survey of the history of Western Europe from the decline of Rome to 1815. Emphasis is laid upon such topics as:

[^15]the mediæval Empire, the Papacy, feudalism, monasticism, the Crusades, the rise of towns, Hundred Years' War, mediæval and Renaissance life and culture, the Reformation, and the beginnings and development of modern nationalities. The course aims to train students in methods of historical work and to furnish a background for the detailed study of particular periods.
201. History of Europe since the French Revolution.

Open to sophomores, juniors, and seniors who have completed one full course in History. Three hours a week for a year.

Miss Orvis.
This course involves (1) an introductory discussion of the condition of France on the eve of the Revolution; (2) a study of the Revolution and the Napoleonic Era; (3) a study of the influence of revolutionary ideas in the subsequent history of Europe.
202. Constitutional History of England to 1399. (Not offered in 1921-22.)
Open to students who have completed one full course in History. Three hours a week for the first semester.

Miss Moffett.
A study of the development of English constitutional government as an expression of the character of the English people. The course deals with the Germanic origins, and with the development of English thought along constitutional lines to the close of the Plantagenet period.
203. Constitutional History of England from 1399 to the Present

Time (Not offered in 1921-22.)
Open to students who have completed one full course in History. Three hours a week for the second semester.

Miss Moffett.
A study of the later development of the English constitution, the rise of party and cabinet government, and the actual working of the constitution to-day.

## 204. History of Rome.

Open to sophomores, juniors, and seniors who have completed one college course in History, or who are giving special attention to Latin or Greek. Three hours a week for a year.

Mrs. Hodder.
This course offers a general survey of Roman History. The attempt is made to present the problems of recent scholarship in the study of the earlier period, but the main emphasis is placed
upon the later Republic and the Empire. Particular attention will be given to economic and social conditions, and to the development of the Roman system of government.
205. Colonial America.
a. Age of Discovery and Conquest.
b. The American Revolution.

Open to sophomores, juniors, and seniors who have completed or are taking a full course in History. Three hours a week for a year.

Mr. Curtis.
After surveying the discovery and exploration of America in the sixteenth and seventeenth centuries, the course deals with the foundation and growth of the British Empire in America. Emphasis is laid upon British colonial policy and administration. The second semester is devoted mainly to a consideration of the American Revolution, attention being directed to the problems of British statesmanship and the European background.

## 206. Constitutional Government.

Open to juniors and seniors who have completed courses 101, 102 (1, 2 of 1919-20) or course 103, or Economics 201 or 205. Three hours a week for a year.

Miss Wambaugh.
This is an introductory course dealing with comparative governments. In the first semester the governments of Great Britain, France, Italy, and Germany are studied as a basis for comparison with the government of the United States, on which the second semester is spent. Throughout the course, special attention is given to the practical working of governments, to modern political tendencies, and to the relations of the individual to the government. An aim of the course is to prepare students for intelligent and effective citizenship.
207. Geography of European History. (Not offered in 1921-22.)

Open to all seniors and to juniors and sophomores who have completed one college course in History. Three hours a week for the first semester.

## Miss Moffett.

The institutions, economic and social conditions, and political history of some parts of Europe will be briefly studied in connection with their topography. Besides the study of the more important changes of boundaries, the course will attempt to strengthen the connection between events and localities, and to give a clearer
conception of the scene of events already studied, or to be studied, in other courses in European History.

## 208. International Politics.

Open to all seniors and to juniors who have completed or are taking a full course in History. Three hours a week for the second semester.

Miss Miller.
The object of this course is to give a general view of international conditions since the close of the Bismarck period, with especial reference to the present relations of Europe, America, and Asia.
209. Political History of Russia from the earliest times to the present. (Not given in 1921-22.) Open to all seniors and to juniors who have completed or are taking another course in History. One hour a week for a year with an additional appointment in alternate weeks. To count as one and one-half hours.

This course includes a study of (1) the forces which made Russia a world power, (2) the development and policy of the autocracy, and (3) the struggle for freedom culminating in the revolution of 1917.

## 210. Medieval Life and Institutions.

Open to students who have completed course 103. Three hours a week for a year.

Miss Moffett.
The aim of the course is to show the points of contact and of difference between the modern spirit and the medirval, as well as to serve as a background for the study of modern history, or of medixval art or literature. It covers the period from the fourth to the close of the fourteenth century, emphasizing those phases of mediæval life which have left the strongest impress, and dealing with some of the great personalities whose work is still vital. A few mediæval sources are read at first hand.
301. History of the United States from 1787 to the Present Time. Open to juniors and seniors who have completed one full course and have completed or are taking a second course in History. Three hours a week for a year.

Mr. Curtis.
A study of the formation and development of the constitution of the United States, with especial reference to controlling forces,
such as the organization of parties, the growth of democracy, the rise of the slave power, the political effect of the development of the West.
$302 \dagger$. Europe in the Fifteenth Century. (Not offered in 1921-22.)
Open to juniors and seniors who have completed two full courses in History, or course 103 or 104, (10 of 1919-20), and two courses in Art. Three hours a week for a year.

Miss Moffett.
A study of the intellectual, religious, and social life of the fifteenth century, and of the institutions and movements which were its outcome.

## $303 \dagger$. Europe in the Sixteenth Century.

Open to juniors and seniors who have completed two full courses in History. Three hours a week for a year.

Miss Moffett.
A continuation of course 302 though the latter is not a prerequisite.

A brief introductory survey of conditions in the fifteenth century is followed by a more detailed study of the sixteenth, its great movements, and its great personalities.
304. England under the Tudors and Stuarts.

Open to juniors and seniors who have completed two full courses in History. Three hours a week for a year.

Mrs. Hodder.
This course deals with the religious and constitutional struggles in the sixteenth and seventeenth centuries, with economic and social changes, international relations, and with the founding of the British Empire.
305. Diplomatic History of Europe since 1740.

Open to juniors and seniors who have completed two full courses in History. Three hours a week for a year.

Miss Orvis.
This course includes (1) a review of the period 1648-1740; (2) the age of Frederick II.; (3) a Survey of the Revolutionary and Napoleonic period; (4) the age of Bismarck and its results.
$\dagger$ History 302 and History 303 will not both be given in the same year.
306. Growth of the British Empire. (Not offered in 1921-22.)

Open to iuniors and seniors who have completed two full courses in History. Three hours a week for the first semester.

This course includes (1) a historical review of the development of the empire; (2) a study of the changes of colonial policy; (3) a study of colonial administration; and (4) a discussion of present colonial and imperial problems.

## 307. American Foreign Relations.

Open to juniors and seniors who have completed two full courses in History. Three hours a week for a year.

Mr. Curtis.

This course deals with the most significant diplomatic problems which have arisen as the result of war, westward expansion, the growth of foreign commerce, immigration, and the acquisition of colonial possessions. The origin of important treaties, the development of the Monroe Doctrine, and the evolution of the United States into a world power will be traced.
308. History of Political Institutions.

Open to juniors and seniors who have completed two full courses in History. Three hours a week for a year.

Miss Wambaugh.
This is an introductory course in the comparative study of the origin, character, development, and aim of political institutions.
309. Selected Studies in Medieval History.

Open to graduates, seniors, and approved juniors who have completed course 103 and one other full course in the department. Three hours a week for a year.

The course is designed to give training in methods of historical research, using the mediæval period as a field.
310. The Development of Thought from Classic Times Through the Middle Ages: A Study of the Evolution of the Medieval Mind. (Not offered in 1921-22.)

Mrs. Hodder.
311. Social and Cultural History of Europe. (Not offered in 192122.)

Miss Williams.

## HYGIENE

Director : Mabel Louise Cummings.<br>Professor : William Skarstrom, M.D.<br>Associate Professors : Eugene Clarence Howe, Ph.D.<br>Alice Middleton Boring, Ph.D., Associate Professor of Zoology.<br>Resident Physician : Katharine Piatt Raymond, B.S., M.D.<br>Instructors : Edna Barrett Manship. Margaret Johnson.<br>Elizabeth Halsey, Ph.B.<br>Mary Sophie Haagensen. Harry Edward Brown, B.A.<br>Assistants : Fanny Garrison, B.A.<br>Annie Chapin Stedman.<br>Julia Rebecca Grout, B.A.<br>Recorder: Ruth Farish Reynolds, B.A.<br>Librarian : Julia Clemma Knowlton, Ph.B., B.L.S.<br>Secretary : Anna Elizabeth Anderson.<br>Special Lecturers : Walter Adams Bradford, D.M.D.<br>Lecturer on Oral hygiene<br>Foster Standish Kellogg, M.D.<br>Lecturer on Pelvic Hygiene<br>Walter B. Lancaster, M.D.<br>lecturer on Visual Hygiene<br>Andrew Roy MacAusland, M.D. Lecturer on Orthopedics<br>William Russell MacAusland, m.D.<br>Lecturer on Orthopedics<br>William Emerson Preble, B.A., M.D. Lecturer on Internal Medicine<br>Harold Grant Tobey, M.D.<br>Lecturer in Oto-Laryngology<br>harvey Parker Towle, M.D.<br>Lecturer on the Hygiene of the Skin

## I. Courses Prescribed for the Certificate of the Department

(1) A two years' course especially designed for the training of teachers of hygiene and physical education and leading to the certificate of the Department of Hygiene is offered to graduates of approved colleges. In order to be admitted to this course candidates must be without organic disease or serious functional disorder. A keen sense of rhythm is necessary, and also the ability to use the voice with ease and power. Previous courses in Chemistry, Physics, Psychology and Education are essential. If a satisfactory course in Chemistry or Physics is lacking, it must be taken in the first year.*

Courses leading to the degree of M.A. may be completed while in residence for the certificate. Detailed information will be found in the Circular of the Department of Hygiene or the Graduate Circular.
(2) A five years' course is offered leading to the B.A. degree and the certificate of the Department of Hygiene. This course is open only to candidates for the B.A. degree in residence at Wellesley College. In general, students in this course receive the B.A. degree at the end of the fourth year and complete in the fifth year the work required for the certificate of the Department of Hygicne. (See pages 124, 125 for Directions for Candidates for the B.A. Degree and for the Certificate of the Department of Hygiene.)

* See undergraduate courses in Chemistry or Physics.


## Required Courses for First-Year Students

101. Gymnastics.

Required of all first-year students. Five hours a week in the fall and winter.

Dr. Skarstrom.
Marching-adaptation of modern military marching. Elementary to fairly advanced free-standing gymnastic exercises. Elementary exercises on gymnastic apparatus, such as booms, ladders, ropes, rings, vaulting box, horse and buck.

102*. Outdoor Games and Sports.
Required of all first-year students. Three hours a week in the fall, eight hours in the spring.

Miss Manship, Miss Halsey, Mr. Brown, Miss Garrison.

In addition to field work, rules are studied and principles of management and coaching are discussed in the following sports: fall season-baseball, basket ball, and field hockey; spring season -archery, baseball, basket ball, field hockey, rowing, and tennis.
103. Personal Hygiene.

Required of all first-year students. One hour a week for the first semester.

Mr. Howe.

A conservative exposition of the regulation of the environmental conditions of health, and of the guidance of adaptation to these conditions.
104. Dancing.

Required of all first-year students. One hour a week for a year. Miss Manship.

Elementary course in Folk Dancing and singing games.

## 105. Dancing.

Required of all first-year students. One hour a week for a year. Miss Manship.

This course includes elementary exercises in technique to secure plasticity, poise, co-ordination and grace. Dances are graded from

[^16]Nursery Rhyme dances for children in the lower grades to slightly more complicated æsthetic, classic, and interpretative dances.

## 106. Symptomatology and Emergencies.

Required of all first-year students. One hour a week for the first semester.

Dr. Raymond.

This brief course is intended to enable students to understand something of the nature, causes, and symptoms of the more common diseases; to detect conditions of doubtful health in applicants for gymnastic training; to comprehend intelligently the directions given by physicians regarding patients whom they may advise to take gymnastic exercise; and to apply First Aid methods in case of accident or sudden illness in camp or gymnasium.

107*. Swimming. (Not offered in 1921-22.)
203. Normal Instruction.

Required of all first-year students. Three hours a week for a year.
Dr. Skarstrom.
This course comprises five or six weeks of lectures ind quizzes on gymnastic terminology with a survey of gymnasic material, followed by preliminary practice teaching. Students are given thorough drill on all the technical devices of teaching gymnastics.
208. Play, Playgrounds, and Athletics.

Required of all first-year students. Two hours a week for a year.
Mr. Brown.
Theory of play; forms, uses, and selection of play activities, methods of organizing and encouraging group participation in play.
Management and supervision of a system of playgrounds. Planning and directing the activities of a single playground. Practice in athletics and other forms of play.
209. Corrective Gymnastics and Massage.

Required of all first-year students. One hour a week for a year.
Miss Haagensen, Dr. W. Russell McCausland.
Lectures on the theory and mechanics of faulty posture with

[^17]practice in giving exercises suitable for each condition. General and local massage for cases that teachers of physical education should be able to treat under a physician's direction.

## 210. Remedial Gymnastics.

Required of all frst-year students. One hour a week for the first semester; two hours a week for the second semester.

## Miss Haagensen and Special Lecturers.

This is a course in applied hygiene, arranged to present the causes, early indications and management of functional deviations which require individualized exercise or regimen.
301. Mammalian Anatomy and Histology. (Zoology 301.)

Required of first-year students in the Department of Hygiene; also open to juniors and seniors who are registered as five-year students. If counted as part of a major in Zoology, Zoology 301 must be preceded by Zoology 101. One and one-half hours a week for a year.

Miss Boring.
Lectures and laboratory work on the gross and microscopic anatomy of bones and muscles; digestive, respiratory, excretory, reproductive, circulatory, and nervous systems. Special emphasis is given to the study of the human skeleton and muscles.

This course counts one and one-half hours toward the Bachelor's degree.
302. General Physiology. (Zoology 302.)

Required of frst-year students in the Department of Hygiene; also open to juniors and seniors who are registered as five-year students. If counted with Zoology 301 as part of a major in Zoology, Zoology 302 must be preceded by Zoology 101. Three hours a week for a year.

Miss Boring.
The aim of the course is to present the fundamental facts and theories which underlie the normal functions of animal organisms. Mammalian and human physiology will receive particular attention. It will include a brief survey of foods; a consideration of the problems of nutrition and metabolism; and as detailed a study as time will permit of the digestive, respiratory, circulatory, muscular, nervous, excretory, and reproductive systems, and of the special sense organs.
This course counts three hours toward the Bachelor's degree.
303. Kinesiology.

Required of all frst-year students. Three hours a week for a year. Dr. Skarstrom.

Lectures and recitations dealing with the anatomical mechanism of movements: the rôles of joint motion, muscular action, gravity, leverage, inertia, and internal resistance in the production and modification of gymnastic movements and their effects, as contrasted with "natural" movements.

This course counts three hours toward the Bachelor's degree.

## Required Courses for Second-Year Students

201. Gymnastics.

Required of all second-year students. Four hours a week in the fall and winter.

Dr. Skarstrom.
Intermediate and advanced marching, gymnastic free-standing exercises, and apparatus work.

202*. Outdoor Games and Sports.
Required of all second-year students. Eight hours a week in the fall, six hours a week in the spring.

> Miss Manship, Miss Johnson, Miss Halser. Mr. Brown, Miss Garrison.

In addition to field work, rules are studied and principles of management and coaching are discussed in the following sports: fall season-archery, baseball, basket ball, field hockey, rowing, and tennis; spring season-archery, baseball, basket ball, field hockey, and tennis.
204. Dancing.

Required of all second-year students. One hour a week for a year.
Miss Manship.
Advanced course in Folk and National Dances.
205. Dancing.

Required of all second-year students. Two hours a week for a year.
Miss Manship.

[^18]This course includes more advanced work than that offered in course 105. Assignments are made for two original dances.
206. Practice in Teaching Æsthetic, Social and Folk Dancing.

Required of all second-year students. One hour a week for a year.
Miss Manship.
Practical work in teaching dances similar to those in courses 104, 105, 204, 205.

Demonstrations and criticisms of original dances written for course 205. Practice in teaching dances suitable for schoolrooms and playgrounds.
211. Anthropometry.

Required of all second-year students. One hour a week for the second semester.

Laboratory work in the use of anthropometric instruments in recording and filing; a presentation of the statistical methods of value in anthropometry; and the solution of problems based upon anthropometric measurements.

## 212. History and Literature of Physical Education.

Required of all second-year students. One hour a week for a year.
Mr. Brown.
The purpose of this course is to give the student a comprehensive survey of the field of physical education, past and present; to give a clear understanding of the conditions governing the success or failure of the application of its principles; and to show the relation it bears to the other big movements of our time with a view to revealing a vision of its tremendous opportunities.

## 213. Corrective Gymnastics and Massage.

Required of all second-year students. Two hours a week from November until May.

Miss Hafgensen.

Practice under supervision in the use of methods and exercises taught in course 209 with the college students whose physical examinations have shown the need for special training in order to attain and maintain good posture.
214. Practice Teaching.

Required of all second-year students. Six to eight hours a week for the year.

Dr. Skarstrom, Miss Manship, Miss Halsey, Mr. Brown.

Students assist in the required work of the college classes two to four hours a week, as coaches in the sports and squad leaders in the gymnasium and carry on under careful supervision regular physical education work in the public schools of Wellesley, teaching two or three different grades during the year, four hours a week.

## 215. Theory and Technique of Coaching Team Sports.

Required of all second-year students. One hour a week for the first semester.

Miss Manship, Miss Halsey, Mr. Brown.
The purpose of this course is to present the elementary principles of coaching common to all team sports, and the special technique of each. The course supplements courses 202 and 304 in furnishing the theoretical background for the practical work in course 214.
304. Theory of Physical Education and Methods of Teaching.

Required of all second-year students. Three hours a week for a year.

Dr. Skarstrom, Miss Halsey.
The aims of this course are: (1) to discuss the purposes, scope, and ideals of physical education; (2) to study the character, selection, classification, arrangement, and progression of gymnastic exercises; (3) to make a systematic study of the principles and technique of teaching gymnastics.
321. Applied Physiology.

Required of all second-year students. Course 302 or its equivalent is a prerequisite. Three hours a week for a year.

Mr. Howe.

Advanced problems in hygiene-their solution in terms of physiology and chemistry, and their relation to physical education and growth.
This course counts three hours toward the M.A. degree.

## Elective Courses

108. Indoor Basket Ball.

Open to first and second-year students, and to five-year students by permission. One hour a week for the first semester.

Miss Manship.
The technique and practice of indoor basket ball.
109. Gymnastic Apparatus Work.

Open to first and second-year students, and to five-year students by permission. One hour a week, November to May.

Dr. Skarstrom.
Review and additional practice of the apparatus work given in 101 and 201 in order to secure greater proficiency.
216. Music in Relation to Dancing.

Open to first-year students. One hour a week for the second semester.

Miss Johnson.
This course aims to develop the ability to distinguish different kinds of dance music and to put to music appropriate dance movements. It will include ear-training for dance music, lectures on rhythms and time, and analyses of music forms and dance forms and their relationship to each other.
217. Problems of Organization and Administration.

Open to first and second year students. One hour a week for the second semester.

Miss Cummings.
The organization and management of physical education and hygiene in public schools, normal schools, colleges, hospitals, industrial establishments and social service institutions will be studied by field trips, discussion and library investigation. Study will also be made of records, reports and budgets, construction and upkeep of buildings and sport fields.
218. Problems in Corrective Work.

Open to second-year students. One hour a week for the second semester.

Instruction and practice in bandaging. Training in methods of relaxation and neuro-muscular economy.
322. Health Problems of School and Community.

Open to all students who have completed course 302 or 321. Three hours a week for a year.

Mr. Howe.
The first part of the course deals with school health problems such as methods of effective health instruction, statistics and discussion of child development from the point of view of hygiene; and all of the sanitary aspects of school environment. In the second part are discussed the phases of general sanitary science with which teachers of hygiene and physical education come in contact not only in schools, but in social settlements, camps, industrial and recreation centers, etc. The laboratory appointments equivalent to two or three hours a week will be devoted to the practical and experimental study of such problems as ventilation and lighting, and to visits to open air schools, school lunch establishments, swimming pools, clinics, board of health laboratories, and to certain industrial and commercial plants. The course is illustrated by lantern slides showing conditions at home and abroad, and by the latest charts, maps, and bulletins of boards of health and education.

This course counts three hours toward the M.A. degree.
323. Seminary in Hygiene and Physical Education.

Open to graduate students by permission. One or more hours for a semester.

The Director and Members of the Department.
Reading, investigation and reports on current problems in hygiene and physical education; conferences; presentation of one or more papers for discussion.

## II. Courses open to all Undergraduates

Two hours in Hygiene are prescribed for the degree. One hour of this requirement is met by course 120 ; the second hour is met by four periods of practical work, two periods per week in the freshman year (course 121) and two in the sophomore year (course 122).

Courses 124 and 125 may be required in place of 121 and 122; and course 123 may be substituted for 122 . See description of courses. Except as thus provided they do not count toward the degree.
120. Personal Hygiene.

Required of freshmen. One hour a week for a year. Miss Cummings and Other Lecturers.

The aim of this course is to present the principles of personal hygiene and public health and to develop their intelligent applica-
tion to the daily living of college students and members of families and communities.

## 121. Gymnastics and Outdoor Sports.

Required of all freshmen. Two hours a week for a year, counting one-half hour toward the degree.

Miss Manship, Miss Johnson, Miss Halsey, Mr. Brown, Miss Garrison, and Assistants.

Outdoor work in the fall and spring terms-organized sports: archery, baseball, basket ball, golf, field hockey, horseback riding, rowing, tennis, volley ball and selected track events. This part of the work is designated as 121 f.s. (fall, spring).

Indoor work in the winter term-gymnastics. This part of the course is designated as 121 w . (winter). Students needing corrective or remedial work will substitute course 124 or 125 for the indoor gymnasium practice.
122. Gymnastics and Outdoor Sports.

Required of all sophomores who have completed course 121. Two hours a week for a year, counting one-half hour toward the degree.

Miss Manship, Miss Johnson, Miss Halsey, Mr. Brown, Miss Garrison, and Assistants.

Advanced work in the activities enumerated under course 121. The outdoor work of this course is designated as 122 f.s. (fall, spring), and the indoor work as 122 w . (winter). Students needing corrective or remedial work will substitute course 124 or 125 for the gymnasium practice of this course.

## 123. Gymnastics.

Open to juniors and seniors who have completed courses 121 and 122 or their equivalent, and, by permission of the instructor, open to sophomores who have had an equivalent of courses 121 and 122 and who meet the requirements of the department. Two hours a week from November until May.

Dr. Skarstrom, Miss Johnson, and Assistants.

## 124. Corrective Gymnastics.

Required in place of the indoor work of courses 121 and 122 in the case of all freshmen and sophomores whose physical examination indicates the need of posture training or other corrective work.

Miss Hafgensen, Miss Garrison, and Assistants.
125. Remedial Gymnastics.

Required in place of the indoor work of courses 121 and 122 in the case of all freshmen and sophomores whose physical examination indicates the need of remedial work. This course is open also to juniors and seniors. A fee may be charged for this course.

Miss Haagensen, Miss Garrison, and Assistants.
126. Organized Sports.

Open to juniors and seniors who have completed courses 121 and 122, or their equivalent. Two hours a week in the fall and spring terms. Not to count toward the degree.

Miss Manship, Miss Johnson, Miss Halsey, Mr. Brown, Miss Garrison, and Field Instructors.
Archery, basket ball, baseball, golf, field hockey, horseback riding, rowing, running, tennis, and volley ball.
127. Elementary Dancing.

Open to students who have had no previous training. One hour a week from Norember until May. Not to count toward the degree.

Miss Manship.

This course will include exercises in technique to insure poise, co-ordination, plasticity, and grace. Dances will be graded from simple Nursery Rhyme dances to slightly more complicated æsthetic, classic, and interpretative dances. A synopsis of each day's program is typewritten and posted, and each student is required to keep a notebook.
128. Advanced Dancing.

Open to students who have completed course 127 or an equivalent. One hour a week from November until May. Not to count toward the degree.

Miss Manship.
This course includes exercises in technique and dances more advanced than those offered in course 127. Each student is required to keep a notebook.

## Requirements for the B.A. Degree and for the Certificate of the Department of Hygiene

Five years are required to complete the work for the degree and for the certificate. The work of the degree may be completed at the end of the fourth year.

A student may enter this five-year course at the beginning of her freshman, sophomore, or junior year. By the end of the sophomore year a student should have completed Hygiene 120, 121, 122, Biblical History 101.2, Chemistry 101, and Physics 101, or should offer satisfactory equivalents. A full major in Zoology is an advantage and courses 127, 128 in Hygiene are advised. The work for the next three years for a student who has had no previous work in Zoology is as follows:

Junior Year: Courses 101, 102, 105, 208, 303, and Zoology 301, 302. Course 303 counts three hours toward the B.A. degree.

Senior Year: Courses 104, 106, 123, 203, 209, 210, 321 by permission. Course 321 must generally be postponed to the fifth year, but if taken will count three hours toward the B.A. degree.

Fifth Year: Courses 201, 202, 204, 205, 206, 211, 212, 213, 214, 215, 304, 321 if not already completed. Course 322 can be elected and counts three hours for the M.A. degree; course 321 may also count toward the M.A. degree.

Education 201 is required, and courses in French, German and Economics are advised.

## ITALIAN

Professor: Margaret Hastings Jackson.

## 101 $\ddagger$. Elementary Course.

Open to all undergraduates. Three hours a week for a year.
Miss Jackson.
Grammar, with written and oral exercises; reading and sight translation; conversation.

## 201. Intermediate Course.

Open to students who have completed course 101 or equivalent. Three hours a week for a year.

Miss Jackson.
Grammar, prose composition; reading and translation at sight; in the first semester from modern authors; in the second semester from the classic authors.
$\ddagger$ Italian 101 may not be counted toward the B.A. degree, if taken after the junior year.

202*. Dante and the Early Italian Renaissance. English Course. Open to juniors and seniors. Three hours a week for a year.

## Miss Jackson.

Dante's Divine Comedy (in English) and the conditions of the age which produced it; the Early Italian Renaissance as expressed in the works of Petrarch, Boccaccio. A knowledge of Italian is not required.

Note.-The Dante Society offers an annual prize of one hundred dollars for the best essay on a subject drawn from the life or works of Dante. The competition is open to students or graduates of not more than three years' standing from colleges or universities in the United States. For subjects and conditions consult page 237 of the Harvard University Catalogue, 1920-21.
301. History of Italian Literature in the Thirteenth and Fourteenth Centuries. Emphasis on Dante. (Not offered in 1921-22.)
Open on consultation with the instructor to juniors and seniors who have a reading knowledge of Italian. Three hours a week for a year.

Miss Jackson.
Selections from the Vita Nuova and the Divina Commedia of Dante, the Sonnets of Petrarch and the Tales of Boccaccio will be read in the original.
302. History of Italian Literature in the Nineteenth Century. (Not offered in 1921-22.)
Open to students who have completed courses 101 and 201 or equivalents. Three hours a week for a year.

Miss Jackson.
303*. Italian Prose Writers of the Fifteenth and Early Sixteenth Centuries.

Open on consultation with the instructor to juniors and seniors who have a reading knowledge of Italian. Three hours a week for the first semester.

Miss Jackson.
Selections from the works of Macchiavelli, Castiglione, Savonarola and other writers of the period will be read in the original.

[^19]304*. Italian Poets of the Fifteenth and Early Sixteentif CenTURIES.

Open on consultation with the instructor to juniors and seniors who have a reading knowledge of Italian. Three hours a week for the second semester.

Miss Jackson.
Selections from Poliziano, Lorenzo de' Medici, Boiardo, Ariosto, Michael Angelo, Vittoria Colonna will be read in the original.

While courses 303 and 304 are continuous, one being the complement of the other, they may be elected separately.

305*. Literature of the Italian Revaissance. (Not given in 192122.)

Open on consultation with the instructor to graduate students who have a reading knowledge of Italian. Three hours a week for a year.

Miss Jackson.
It is not the intention of the instructor to cover the entire period of the Renaissance but to treat of certain aspects only, the work to adjust itself to the needs of the individual student. Under the supervision of the instructor the student will choose some author, or phase, or problem of Italian literature for special study, reporting thereon weekly.

## LATIN

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Professors: Adeline Belle Hawes, M.A. Alice Walton, Ph.D.
Associate Professor: Caroline Rebecca Fletcher, M.A.
Assistant Professor: Anna Bertha Miller, Ph.D.
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101. Introduction to Latin Literature.

Open to freshmen, and to sophomores, juniors, and seniors who have had no Latin in college. Three hours a week for a year.

Miss Hawes, Miss Fletcher, Miss Miller.
A brief survey of the literature, illustrated by short passages from representative authors.

A more detailed study of certain masterpieces in prose and verse, with special regard to their literary form and their influence upon modern writers.

First Semester, Studies in Prose Authors: Cicero: Essay on

* It will be the privilege of students in courses 202, 303, 304, and 305 to H'ave access to the manuscripts and early-often contemporary-editions of Italian authors contained in the Frances Pearsons Plimpton Collection.

Friendship, and selections from his correspondence with friends. Pliny the Younger: The letter as a literary form. Letters of Erasmus.
Second Semester, Selections from Latin Poets: Terence: The Andria. Short Selections from Horace, Ovid, and other poets.
102. Contributions of Latin Literature to Modern Life and Thought. Open to freshmen, and to sophomores, juniors, and seniors who have had no Latin in college. Three hours a week for a year. Miss Miller.

The study of passages in Latin authors embodying certain fundamental ideas which are a part of the classical heritage of modern life. The reading and class discussion will center about topics suggested in such current terms as imperial destiny, citizenship, nationalism, the State Church, humanism, etc. The readings will be selected from Catullus, Cicero, Horace, Livy, Ovid, Vergil, and other authors.
201. Horace.

Open to students who have completed course 101 or 102. Three hours a week for the first semester.

Miss Miller.
The Odes are studied, with selections from the Epistles.
202. Vergil.

Open to students who have completed course 101 or 102. Three hours a week for the first semester.

Miss Fletcher.
Selections from the Bucolics, Georgics, and Eneid, VII-XII.
203. Tibullus, Propertius, and Ovid. (Not given in 1921-22.)

Open to students who have completed course 101 or 102 and who are taking course 206 or 207. Two hours a week for the first semester.

Miss Fletcher.
204. Studies in Tacitus and Pliny.

Open to students who have completed a semester course of grade II. Three hours a week for the second semester.

Miss Fletcher, Miss Miller.
Tacitus, Germania and Agricola, with selections from the other
works. Pliny's Letters. The work in Pliny includes careful study of certain letters and the rapid reading of many others.
205. Cicero. Essays and Letters. (Not given in 1921-22.)

Open to students who have completed a semester course of grade II and who are taking course 206 or 207. Two hours a week for the second semester.

Miss Fletcher.
206. Latin Prose Composition. Intermediate Course.

Open to students who have completed course 101 or 102. One hour a week for a year.

Miss Fletcher.
207. Sight Reading in Prose and Verse. (Not given in 1921-22.)

Open to students who are taking a full course of grade II or courses 203-205. One hour a week for a year. A second appointment with the instructor is substituted for preparation.

Miss Miller.
208. Roman Life and Customs. (Not offered in 1921-22.)

Open to juniors and seniors without prerequisite, and to sophomores who have completed course 101 or 102. One hour a week for a year.

Miss Miller.
Lectures, illustrated by photographs and lantern slides, on subjects connected with the daily life and surroundings of the Romans, such as family life, dress, education, buildings, roads, travel, social functions, amusements, religious customs, etc. The required reading will be mainly in English.
301. Comedy. Plautus and Terence.

Open to students who have completed two full courses. Three hours a week for the first semester.

Miss Hawes.
This course includes the careful study of two or more plays together with the rapid reading of several others.
302. Satire. Horace and Juvenal.

Open to students who have completed two full courses. Three hours a week for the second semester.

Miss Hawes.
This course includes the reading of selected satires of Horace
and Juvenal, with study of other Roman satirists by lectures and special topics. Sight reading in Martial.
303. Latin Epigraphy. (Not offered in 1921-22.)

Open to students who have completed two full courses. Three hours a week for the first semester.

Miss Walton.
Selected inscriptions will be studied both for their content as sources of Roman public and private life, and their form. Egbert's Latin Inscriptions and facsimiles will be used.
304. Topography of Roman Sites.

Open to students who have completed two full courses. Three hours a week for the first semester.

Miss Miller.
Architectural History and Topography of Ancient Rome and of typical municipal and provincial towns.
305. Livy. Books I-X. (Not offered in 1921-22.)

Open to students who have completed two full courses. Three hours a week for the first semester.

Miss Fletcher.
Study of the sources of the early history of the Roman Republic. Lectures and collateral reading.
306. Ovid, Fasti; Cicero, De Divinatione, De Natura Deorum. (Not offered in 1921-22.)

Open to students who have completed two full courses. Three hours a week for the second semester.

Miss Fletcher.
The early religious institutions of the Romans will be studied from these sources and from other selected readings.
307. Latin Literature of the Early Christian Period.

Open to students who have completed two full courses. Three hours a week for the second semester.

Miss Miller.
Readings from the Early Christian Apologists and Fathers illustrating the contact of Christian ideals with Pagan thought and civilization. Latin Hymns.

This course may count as an elective in the Department of Biblical History.
308. Latin Prose Composition.

Open at the discretion of the instructor to students who have completed course 206, and who are taking a full course in the department. One hour a week for a year.

Miss Fletcher.
309ђ. Literature of the Roman Empire. (Not offered in 1921-22.)
Open to students who have completed three full courses. Three hours a week for a year.

Miss Hawes.
The aim of this course is to secure an acquaintance with many representative authors of the Roman Empire, and to show the interest and the value of the "Silver Latinity" and the writers of the later Imperial Period. The readings, which include both poetry and prose, and vary somewhat from year to year, will include selections from Velleius Paterculus, Seneca, Quintilian, Tacitus, Martial, Apuleius, Claudian, Boethius, and other authors.
Rapid reading without translation is one of the features of this course.
The course includes also a few lectures on various aspects of society in the time of the Empire.

310 $\ddagger$. History of Latin Poetry.
Part I, Poetry of the Republic.
Part II, Post-Augustan Poetry.
Open to students who have completed three full courses. Three hours a week for a year.

> Miss Hawes.

In Part I some study will be given to the beginnings of Latin poetry and the earlier poets, but the main emphasis will be placed upon the poets of the Ciceronian Age, Catullus and Lucretius. Since the Augustan poets are studied in the grade II courses, that period will be considered only by way of review and comparison. In Part II the aim will be to secure an acquaintance with representative poets of different periods, and to show the interest and the value of the later Latin poetry.

Rapid reading without translation is one of the features of this course.
$\ddagger$ Courses 309 and 310 are not given in the same year.
321. Outline History of Latin Literature. (Not given in 1921-22.)

Primarily for graduates. Open to qualifed seniors by permission of the department.

Lectures and readings, with direction of the students' private reading.

The aim of this course is to give a general survey of the subject, tracing the beginnings and development of the various kinds of prose and poetry, and considering the changes in the political and social conditions under which Latin literature developed.

## MATHEMATICS

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\begin{aligned}
\text { Professors : } & \text { Helen Abbot Merrill, Ph.D. } \\
& \text { Roxanna Hayward Vivian, Ph.D. } \\
\text { Associate Professor : } & \text { Clara Eliza Smith, Ph.D. } \\
\text { Assistant Professors : } & \text { Mabel Minerva Young, Ph.D. } \\
& \text { Lennie Phoebe Copeland, Ph.D. } \\
& \text { Mary Curtis Grausteins }{ }^{4} \text { Ph.D. } \\
\text { Instructors : } & \text { Marion Elizabeth Stark, M.A. } \\
& \text { Rachel Blodgett, Ph.D. } \\
& \text { Ruby Willis, B.A. }
\end{aligned}
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101. Trigonometry.

Required of freshmen. Three hours a week for the first semester.

> Miss Vivian, Miss Smith, Miss Young, Miss Copeland, Miss Stark, Miss Blodgett, Miss Willis.

Trigonometric equations and transformations, including the use of inverse functions; radian measure; graphs of the trigonometric functions; solution of triangles.
102. Higher Algebra.

Required of freshmen who do not take course 103. Three hours a week for the second semester.

Miss Vivian, Miss Smith, Miss Young, Miss Copeland, Miss Stark, Miss Blodgett, Miss Willis.
The elementary theory of determinants, followed by a study of limits and derivatives, upon which the work in series and theory of equations is based.

## $103 \dagger$. The Elements of Analytic Geometry.

Open to approved freshmen as an alternative to course 102. Three hours a week for the second semester.

> Miss Smith, Miss Young, Miss Stark.

[^20]A brief course, covering the usual topics, and planned to introduce students as early as possible to advanced courses in mathematics. The necessary topics in higher algebra will be treated.
201. Analytic Geometry and Calculus.

Open to students who have completed courses 101 and 102. Three hours a week for a year.

Miss Young, Miss Copeland.
The more elementary parts of Analytic Geometry and Calculus.
202. Differential and Integral Calculus.

Open to students who have completed courses 101 and 103. Three hours a week for a year.

Miss Smith, Miss Young.
The applications include a course in curve tracing.
203. History of Elementary Mathematics.

Open to students who have completed or are taking course 201 or 202. Three hours a week for the second semester.

Miss Copeland.
The evolution of the fundamental concepts of mathematics. Great mathematicians and their chief contributions to elementary mathematics. A brief survey of modern developments in mathematics and its literature. A standard text is used, supplemented by lectures and short reports chiefly based upon rare old books in the mathematical library.
204. Introduction to the Theory of Statistics.

Open to students who have completed course 101 and either course 102 or 103. One hour a week for a year.

Miss Vivian.
Lectures with supplementary reading on some of the mathematical principles and methods used in statistical work. Each student will present one or more papers based upon data drawn from biology, economics, education, insurance, psychology, vital and population statistics, or other sources.
205. Problem Work in Statistics.

Open to students who have completed course 101 and either course 102 or 103. One hour a week for a year.

Miss Vivian.
The class will meet two periods a week for problem work and ex-
ercises in the collection and arrangement of material, and certain methods will be presented in addition to those in course 204.

Note.-Course 204 is primarily for theory and for those students who wish to use critically the statistics of others. Course 205 is primarily for problem work and for those students who wish practice in collecting and arranging statistical material. Students may elect course 204 without course 205, but not course 205 without course 204.

## 206. Descriptive Geometry.

Open td students who are taking a three-hour elective course in Mathematics. One hour a week for a year.

The theory and practice of the representation of geometric figures. The use of two or more planes of projection in representing lines, surfaces, and solids. Shades and shadows. One lecture a week with one laboratory period.
301. Calculus and its Applications.

Open to students who have completed course 201. Three hours a week for a year.

Miss Merrill.
The applications include a study of curves and space forms, and simple problems in mechanics and differential equations.
302. Higher Analysis.

Open to students who have completed course 202 or 301. Thrce hours a week for a year.

Miss Merrill.
Differentiability and integrability of functions, continuity, convergency of series, representation of functions by power series, theory of integration, infinite integrals, elliptic integrals, Fourier series, and other allied subjects.

303*. Differential Equations.
Open to students who have completed course 202 or 301. Three hours a week for the first semester.

Miss Copeland.

An introductory course in ordinary and partial differential equations.

[^21]304. Theory of Equations, with Determinants. (Not offered in 192122.)

Open to students who have completed course 202 or who have completed or are taking course 301. Three hours a week for the first semester.

The work is based on Burnside and Panton's Theory of Equations.
305. Solid Analytic Geometry. (Not offered in 1921-22.)

Open to students who have completed course 202 or who have completed or are taking course 301. Three hours a week for the second semester.

The straight line; the plane; surfaces of the second order. Brief study of surfaces in general.
306. Modern Synthetic Geometry.

Open to students who have completed course 202 or 301. Three hours a week for a year.

Miss Merrill.
Metrical and projective properties of plane and sheaf forms of the first and second orders; the anharmonic ratio; harmonic forms; the method of inversion; involution; collineation; the law of duality; theory of poles and polars; reciprocation; space forms and surfaces of the second order. Given by lectures and references, with constant practice in the solution of geometrical problems.
307. Higher Plane Curves. (Not given in 1921-22.)

Open to students who have completed course 202 or 301. Three hours a week for a year.

Miss Vivian.
Systems of coordinates; general theory of algebraic curves; singularities; selected curves of different orders; theory of correspondence; transformation of curves.

A lecture course, time being allowed for students to present papers to the class dealing with phases of the subject not covered by the lectures.
308. Functions of a Complex Variable. (Not given in 1921-22.)

Open to students who have completed course 202 or 301. Three hours a week for a year.

Miss Smith.
Elementary treatment of analytic functions. Infinite series and products, with applications to beta, gamma, and elliptic functions.

## MUSIC

> Professors: Hamilton Crawford Macdougall, Mus.d. Clarence Grant Hamilton, M.A.
> Instructors: Emily Josephine Hurd.
> Albert Thomas Foster. Blanche Francis Brocklebank. Joseph Goudreault. Raymond Clark Robinson. Carl Webster.
> Assistant : Miriam Louise Merritt, Mus.B.

The Wellesley College Choir of forty members, founded in 1900, furnishes the music for the Sunday services in the Memorial Chapel. Any student with a good natural voice is eligible for membership; trials to fill vacancies are held at the opening of each College year.

The college Symphony Orchestra, consisting of about thirty student and faculty members, was founded in 1906. It offers advantages of competent instruction in ensemble playing under a professional conductor. It gives one or two concerts a year with a program of classical music. Any members of the College who have sufficient technique are admitted to membership.

A limited number of tickets for reserved seats at the concerts of the Boston Symphony Orchestra in Symphony Hall, Boston, are free to students in the department who are able to use them profitably.

## I. Musical Theory

The courses in theory and history are open to all students without regard to previous musical knowledge, and count toward the B.A. degree. The history and theory courses are subject to no separate tuition fee, with the exception of courses 202, 303. 304, and 311, where a nominal fee of five dollars is charged for tuning and repairs of instruments. Courses 102, 206, 305, 306, 307, and 308 are designed especially for those students desiring to gain an appreciative knowledge of musical literature.

## 101. Elementary Harmony.

Open only to freshmen who are taking practical music. Two hours a week for a year. No prerequisites.

Mr. Hamilton.
This course is designed for freshmen who enter college with the intention of specializing in music. It may be followed by course 201, but not by course 102. This course covers musical notation, the formation of triads and chords of the seventh, the invention of
melodies and their harmonization, the simpler kinds of non-harmonic tones, elementary form, and ear training. Carefully kept notebooks are a part of the work.
102. Introductory Harmony.

Open to sophomores, juniors, seniors, and advanced freshmen (five-year music course). Three hours a week for a year. No prerequisites.

Mr. Robinson.
This course covers the ground necessary for admission to course 201 or 305 , and also offers a substantial foundation for subsequent work in practical or theoretical music. It includes the material of the ordinary elementary harmony course and in addition emphasizes ear training and harmonic analysis.

This course is not open to students who have taken course 101.

## 103. Interpretation.

Open to sophomores, juniors, and seniors who are at the same time taking lessons in practical music in the department and who have acquired a satisfactory degree of skill. One hour a week for a year.

Mr. Macdougall, Mr. Hamilton.

This course is a training in the principles of interpretation, developed through the performance in class of music studied with the private teacher and by listening to and analyzing compositions perr formed by others. The course concerns itself with the recognition of the simple cadences, harmonic figuration as applied to the accompaniment, the broader rhythmical distinctions, the relations of melody and accompaniment, the school of the composer, biographical data, and the simpler elements of form.
Note.-Students wishing to elect the course should apply directly to the head of the department.
Students may elect practical music without electing the course in interpretation; but no one may elect the course in interpretation without at the same time electing practical music.

## 201. Advanced Harmony.

Open to students who have completed course 101 or course 102 or the equivalent. Three hours a week for a year.

Mr. Macdougall.
This course covers in extenso the various classes of non-harmonic tones, chords of the ninth modulation, elementary orchestration, writing for the piano, organ, and for voices. The course aims to give facility in elementary composition.
202. Applied Harmony. (Not offered in 1921-22.)

Open to those students only who are at the same time taking course 201. Two hours a week for a year. A laboratory fee of five dollars is attached to this course.

Mr. Hamilton.
This course aims to realize synthetically at the pianoforte the principles taught in course 201, following what may be termed a laboratory method.

Note.-Instruction will be given in small classes of not less than three students. The course is in no sense a substitute for pianoforte lessons. Students must satisfy the head of the department that they have a pianoforte technique adequate for the work; in general, the ability to play the easier Mendelssohn Songs without Words, and to read hymn tunes accurately at sight will be sufficient.
203. Musical Analysis. (Not given in 1921-22.)

Open to students who have completed course 101 or course 102 or the equivalent. Two hours a week for a year.

Mr. Robinson.
A course both technical and appreciative, designed to furnish students with a knowledge of harmony and musical form sufficient for the intelligent understanding of the standard classical and modern works. The course takes up the study of the principal chords, their function in the musical sentence, the smaller forms (song form, the small classical and modern dance forms) and then proceeds to the larger forms (Suite, Sonata, Symphony, Canon, Fugue, Overture, Symphonic Poem.) The smaller forms will be studied through individual and class analysis, individual reports and short papers, while the victrola and player-piano will be freely used in the analysis of the larger forms. No original work in composition is required.

## 204. Interpretation.

Open to students who have completed course 103 and who are at the same time taking lessons in practical music in the department and have acquired a satisfactory degree of skill; also by special permission to seniors. One hour a week for a year.

Mr. Macdougall, Mr. Hamilton.
This course is a continuation of course 103 . The subjectmatter of the course is the thematic and polyphonic melody, the larger forms, harmony in its æsthetic bearings, the æsthetic
effects of the more complicated rhythms, comparative criticism and the various schools of composition. See note to course 103.
206. History of Music.

Open to juniors and seniors, and to sophomores who have had one course in the department. Three hours a week for a year.

Mr. Hamilton.
Lectures on the history of music of all nations, with assigned readings and frequent musical illustrations, from which the student is taught to compile analytical programs and critiques.

The course is non-technical and no previous knowledge of music is required. It is not open to students who have taken or are taking course 305 .
301. Counterpoint.

Open to students who have completed course 201. Three hours a week for the first semester.

Mr. Robinson.
Counterpoint in two, three, and four voices; double counterpoint; analysis; the distinctions between strict (modal) and free counterpoint; the rules for the latter deduced from contemporaneous practice; fugue for two and three voices.
302. Musical Form.

Open to students who have completed course 301. Three hours a week for the second semester.

Mr. Robinson.
This course aims to cover the various imitative forms, the suite and sonata forms, the large forms of vocal and orchestral music.

Students have the opportunity of doing practical work in composition (song form, sonata movements, etc.)
303. Applied Counterpoint. (Not offered in 1921-22.)

Open to those students only who are at the same time taking course 301. Two hours a week for the first semester. A laboratory fee of two dollars and a half is attached to this course.

This course aims to realize synthetically at the pianoforte the laws of simple and double counterpoint by the constant playing and analysis of the best examples from the masters. See note to course 202.
304. Applied Form. (Not offered in 1921-22.)

Open to those students only who are at the same time taking course 302. Two hours a week for the second semester. A laboratory fee of two dollars and a half is attached to this course.

This course aims to play and to analyze a great number of specimens of the various forms, with careful analysis and classification. See note to course 202.
305. The Development of the Art of Music. (Not offered in 1921-22.)

Open to students who have completed courses 102 and 201 or 203. Three hours a week for a year.

Mr. Macdougall.
A course in the appreciation of music designed to develop musical perception and the ability to listen intelligently to the best music. It includes the evolution of rhythm, harmony, and melody, and their powers and offices in musical expression; the principal musical forms analytically considered; studies of the principal composers, their lives, their strongest works, their relation to the progress of musical art. Some great work will be selected for study during the year.

This course is not open to students who have taken or are taking course 206.
306. Beethoven and Wagner. (Not offered in 1921-22.)

Open to students who have completed course 201 or its equivalent. Three hours a week for a year.

Mr. Macdougall.
An intensive course devoted to the analyses of selected pianoforte sonatas, chamber music, the symphonies of Beethoven, "Fidelio," and the operas of Wagner. The aim of the course will be to give an intimate knowledge of the two composers' works and to estimate their place in musical history.

## 307. Schubert and Schumann.

Open to students who have completed course 201 or its equivalent. Three hours a week for the first semester.

Mr. Hamilton.
An illustrated lecture course, intensive in character, devoted to the study of the principal works of the composers named. The romantic movement in music, the development of the German

Song, the poetical and lyric piano piece and the birth of musical criticism are among the principal topics treated.

The work of the class will be based mainly upon assigned readings and critical papers.

## 308. Mendelssohn and Chopin.

Open to students who have completed course 201 or its equivalent. Three hours a week for the second semester.

Mr. Hamilton.
An illustrated lecture course, intensive in character, devoted to the study! of the principal works of the composers named. The beginnings of modernism, the culmination of sacred music in the oratorio, the age of the virtuoso, the development of instruments and individual and emotional treatment in music are the principal topics studied.

The work of the class will be based mainly upon assigned readings and critical papers.
310. Free Composition. (Not offered in 1921-22.)

Open by permission to students who have completed courses 301 and 302. Three hours a week for a year.

Mr. Macdougall.
311. Applied History. (Not offered in 1921-22.)

Open to those students only who are at the same time taking course 305. Two hours a week for a year. A laboratory fee of five dollars is attached to this course.

Mr. Macdougall.
This course aims to realize synthetically at the pianoforte the development of music from the organum of Hucbald to the Wagner opera. Specimens of the music of various schools and periods will be collected, played, and analyzed. See note to course 202.

## 312. Critical Studies in Musical History.

Open to graduates and to approved seniors who have taken one of the following sequences of courses, or their equivalent: 101, 201; 101, 203; 102, 201; 102, 203. Three hours a week for the year. Mr. Macdougall.
The course attempts to give training in musical investigation. To each student will be assigned some special problem in musical history, musical criticism, musical form, or the like, on which she reports progress from week to week in the seminar.

## II. Practical Music (Instrumental and Vocal Lessons)


#### Abstract

Attention is called to the fact that a student need not necessarily spend five years in college in order to carry on practical music at the same time


 with the academic course. See (a) following.It is believed that students having a command of pianoforte or organ technique will be able to profit by the theoretical instruction given in the department to a fuller degree than those without such a technique. To encourage students to acquire a technique, as well as to furnish authoritative instruction, the department undertakes to give lessons in pianoforte, organ, violin, and violoncello playing, and in singing. Practical work is an elective, and students should notify the department of their election of the subject in the usual manner and at the proper time. Attention is called to the fact that students who elect Musical Theory 103 and 204, are thereby obtaining two hours' credit toward the B.A. degree in connection with work done in practical music. It is offered to all students, whether candidates for degrees or not, as stated below:-
(a) Candidates for the B.A. degree who propose to spend but four years in college may take practical music, provided that they obtain each year the permission of the Dean of the College as well as of the Professor of Music; they must also take a full course in Musical Theory, unless they have completed two two-hour or three-hour courses in the subject.
(b) Candidates for the B.A. degree who are willing to devote five years to the college course will be permitted to take practical music each year of the course, governed by the restriction laid down in (a).
(c) Candidates for the B.A. degree who wish also the Certificate of the Department of Music should plan to devote five years to the college course. Such students are required to take practical music, two lessons a week, throughout the five years. They must complete, satisfactorily to the department, a course in the literature of the instrument chosen or of the voice; they must apply for the certificate at least three years in advance. After the first year the study of Musical Theory is required.
(d) Students not candidates for the B.A. degree who desire to specialize in music must meet the requirements prescribed for admission to the freshman class, and must in addition pass an examination on the rudiments of music. This examination will be based upon W. H. Cummings' Rudiments of Music (No. 2 of Novello Company's Music Primers), chapters 6, 9, and 10 omitted. Special students must take both Musical Theory and vocal or instrumental lessons, two a week, with not less than twelve hours of weekly practice. They must also take from six to nine hours per week of academic work, including Musical Theory, as may be decided in consultation with the Dean of the College.
(e) Students not candidates for the B.A. degree who wish the Certificate of the Department of Music must comply with the conditions laid down in (d); moreover, the academic work taken must include modern languages. Such students must apply for the certificate on entering the
department, and must have already acquired the fundamental technique of the instrument chosen or of the voice. The time occupied in study for the certificate depends upon the talent, upon the proficiency of the student at entrance, and upon her subsequent diligence; but in general four years at least are necessary. The various courses are so arranged that the pupil on completion will have an acquaintance with the best musical literature.
( $f$ ) Graduates of Wellesley College or of other institutions may make special arrangement for instrumental or vocal lessons.
(g) Permission to practice in Music Hall cannot be given to students not regularly registered in the department.
(h) Students whose progress is not satisfactory may be required to discontinue their lessons.

# PHILOSOPHY AND PSYCHOLOGY 

Professors : Mary Whiton Calkins, M.A., Litt.D., LL.D. mary Sophia Case, B.A. eleanor Acheson mcCulloch Gamble, Ph.D.<br>Associate Professor: Christian Alban Ruckmick, Ph.D.<br>instructor: Flora isabel MacKinnon, ${ }^{7}$ M.A.<br>Reader in Philosophy: Grace Allerton Andrews, M.A.<br>Graduate Assistants: Marjorie Cornelia Day, B.A.<br>Florence Moran Orndorff, B.A. Inez Teress Cohen, B.A.

The requirement in philosophy for a degree is met by course 101 (first semester) followed in the same year by course 102 (second semester).

The department offers direction to graduate students in independent work in psychology and in philosophy, and conducts graduate conferences with individual students.

## I. Logic

103. Logic.

Open to sophomores and juniors. Three hours a week for the first semester.

Miss Gamble.
Training in argument and in logical criticism. Work expressly designed to meet the practical needs of the student. The course deals not only with the principles of deductive logic, but also with elementary questions of observation and testimony, and of scientific, statistical, and legal evidence. Text-book: Sellars, Essentials of Logic.

[^22]
## II. Psychology

For description of the Psychology Laboratory, see page 183.
101. Introductory Course in Psychology.

Open to sophomores, juniors, and seniors. Three hours a week for the first semester.

Lecture divisions A and B, Miss Gamble;
Division C, Mr. Ruckмick. Conferences, Miss Gamble, Miss Calkins, Mr. Ruckmick, Miss Day, Miss Orndorff.

This course aims to secure to students an acquaintance with primary mental facts, to give them a definite notion of the topics treated and of the experimental and statistical methods employed in psychology, to provide a psychological basis for the study of philosophy, of sociology, and of education, and to fit them for more advanced psychological work. The course is conducted mainly by lectures, with weekly laboratory or conference appointments. The course is at present based largely upon an outline to be obtained from the instructor. Supplementary text-books: Calkins, A First Book in Psychology; Titchener, A Text-book of Psychology; James, Psychology, Briefer Course.
202. Social, Abnormal and Applied Psychology.

Open to seniors who have completed course 101. Three hours a week for a year.

Miss Gamble, Miss Calkins.
This course will treat the following topics: the facts of the social experience with special reference to social suggestibility and social initiative; the psychology of testimony; intelligence tests; mental deficiency; mental derangement; and social hygiene as based on psychology with special consideration of the causes and types of delinquency. Among the books referred to will be: McDougall, Social Psychology and The Group Mind; LeBon, The Crowd; W. Fite, The Individual; R. M. Maciver, Community; Hollingworth, Vocational Psychology; Tredgold, Mental Deficiency; White, Outlines of Psychiatry; Healy, The Individual Delinquent; Rosanoff, Manual of Psychiatry.
201. Experimental Psychology. (Not offered in 1921-22.)

Open to students who have completed course 101. Three hours a week for the second semester.
301. Experimental Psychology, Laboratory Course.

Open to juniors, seniors, and graduate students who have completed course 101. Three hours a week fort the first semester.

Mr. Ruckmick.
Every student is expected to perform one or two typical experiments in each of the main fields of psychological investigation. The accompanying lectures will trace the relation of experimental results to their historical background and to general psychological theory.
This course is designed to train the student in psychological method.

## 302. Experimental Problems in Psychology.

Open to students who have completed course 201 or 301. Three hours a week for the second semester.

Miss Gamble, Mr. Ruckmick.

This course consists of investigation of special problems, experimental or statistical, by individual students. In 1921-22 the problems will probably be chosen from among the following: association, attention, memorizing, imagery and thought-processes, mental tests. The methods employed are wider than the problems and are adapted to training students in the fundamental demands of research.
303. Second Course in Experimental Problems in Psychology.

Open to students who have completed three semesters of Psychology. Three hours a week for a year.

Mr. Ruckmick, Miss Calkins.
Investigation of special problems. The work on any one of these problems may, at the discretion of the department, be preceded by some weeks of general laboratory training.
324. Seminary. Types of Psychological Theory.

Open by permission to graduate students. Three hours a week for a semester or for a year.

Mr. Ruckmick, Miss Calkins
The topics of the course, selected by the members of the seminary, will be presented and discussed in their systematic and historical relationships.
203. Reading Course in German or in French Psychological Texts. (Not given in 1921-22.)

Open to students who are taking elective work in Psychology. One hour a week for a year.

Miss Gamble.

## III. Philosophy

102. Introduction to Philosophy.

Open to sophomores, juniors, and seniors who have completed course 101. Three hours a week for the second semester.

Lecture divisions A and B , Miss Calinins;
Division C, Miss MacKinnon.
Conferences, Miss Calkins, Miss MacKinnon, Mr. Ruckmick, Miss Day, Miss Orndorff.

This course begins with a brief study of ethics, treated from a psychological starting point, as the science of the moral self. The emphasized topics of this study are the nature of goodness and of duty and the relation of virtue to instinct and to habit. The greater part of the course is devoted to the discussion of the philosophical problems raised in the study of psychology: the nature of body, the nature of mind, and the connection between mind and body. The relations of philosophy to physical science and to religion are briefly considered. The discussion is based upon Descartes, Meditations; selections from La Mettrie, and from Haeckel; Berkeley, Principles of Human Knowledge and Three Dialogues between Hylas and Philonous.
204. Greek Ethical Theories in their Relation to Twentieth Century Ethics.

Open to iuniors and seniors who have completed or are taking course 101. Three hours a week for a year.

Miss Case.
Primarily text-study. (a) Brief study of pre-Sophistic philosophy. Lectures and outlines; fragments of Herakleitos, Parmenides and Anaxagoras. (b) The rise of ethical inquiry. Lectures and selections from Xenophon's Memorabilia and from the dialogues of Plato. (c) Plato. The chief ethical dialogues. (d) Aristotle. The Nicomachean Ethics; selection from the Metaphysics and from De Anima. (e) The Stoics and Epicureans. Selections from Epictetus and Marcus Aurelius; lectures and modern commentaries. ( $f$ ) Current and recent ethical writ-
ings, especially on social ethics, to be assigned chiefly in the second semester. At all stages emphasis will be laid upon the underlying metaphysics. Discussions throughout.
205. Social Ethics. (Not offered in 1921-22.)

Open to seniors. One hour a week for a year with an additional appointment in alternate weeks. To count as one and one-half hours.

Miss Case.
304. Problems of Modern Philosophy.

Open to juniors who are taking course 204, to seniors, and to graduate students. Three hours a week for a year.

Miss Calkins.
This course is conducted through discussions, supplemented by occasional lectures, on problems of philosophy, including the principle of causation, the problem of knowledge, the nature and existence of the self, the nature of the physical world, the relation of idealism to realism, and the issue between pluralism and absolutism. The study of these problems involves the critical reading of Hume's Inquiry Concerning. Human Understanding and parts of the Treatise; of portions of Kant's Critique of Pure Reason and Metaphysic of Ethics; of Spinoza's Ethics; of Fichte's Vocation of Man; and of selected chapters from the writings of Pearson, James, Royce, Ward, Bradley, Bergson, Russell, and other contemporary writers.

## 305. The Logic of Hegel.

Open to students who have completed course 204 and have completed or are taking course 304, and by special arrangement to graduate students who have completed course 304. Three hours a week for the first semester.

Miss Case.
Text study of extended passages from the Logic of Hegel's Encyclopedia.
306. Philosophy of Religion.

Open to students who have completed course 305. Three hours a week for the second semester.

Miss Case.
(a) Critical study of methods of examining religious beliefs, especially the psychological method and the method of Hegel.

The relation of these methods to pragmatic tests. Readings from Durkheim, James, Coe, Royce, Bosanquet, Hocking, Dewey, and others. (b) Discussion of special problems selected by the class. (c) Concluding lectures on the significance of religious experience.
321. Seminary. Ethics. (Not offered in 1921-22.)

Open by permission to graduate students. Three hours a week for the second semester.

Miss Case.
Subject in 1920-21: Current Tendencies in Ethics.
322. Seminary. Constructive Treatment of Problems in Metaphysics.
(Not offered in 1921-22.)
Open by permission to graduate students. Three hours a week for the first semester.

Miss Calkins.
Subject in 1920-21: Problems of the Philosophy of Nature.
323. Seminary. Special Study of Philosophical Systems.

Open by permission to graduate students. Three hours a week for the first semester.

Miss Calkins.
Subject in 1921-22: Neo-realistic doctrine. The work of the course is based on S. Alexander's Space, Time and Deity.
325. Seminary. Current Tendencies in Philosophy.

Open by permission to graduate students. Three hours a week for the second semester.

This course aims to train the student (1) to read present-day books and journals, (2) to interpret them sympathetically, (3) to detect the main lines of tendency indicated, and (4) to evaluate those tendencies constructively. Especial attention will be given to method.

## PHYSICS

Professor : Louise Sherwood McDowell, ${ }^{3}$ Ph.D.<br>Associate Professors: Grace Evangeline Davis, M.A.<br>Frances Lowater, Ph.D.<br>Assistant Professor: Lucy Wilson, Ph.D.<br>Instructor: Mildred Allen, ${ }^{8}$ M.A.<br>Assistant: Hilda Lydia Begeman, M.A.<br>Laboratory Assistant : Margaret Dodd, B.A.

101. Elementary Physics.

Open to students who do not offer Physics for admission. Three hours a week for a year.

> Miss McDowell, Miss Wilson, Miss Allen, Miss Begeman, Miss Dodd.

This course is for beginners and presents briefly the elementary principles of mechanics, sound, heat, electricity, and light, and their simpler applications. The course is conducted by means of experimental lectures followed by laboratory work.
102. General Physics: Mechanics, Electricity, and Light.

Open to students who have met the admission requirement and who are electing course 103 or 202. Three hours a week for the first semester.

Miss Lowater.
This course is intended to give students who already have an elementary knowledge of the phenomena of the physical world a rapid survey of the fundamental principles in mechanics, magnetism and electricity, wave motion and light. It is conducted by means of experimental lectures and laboratory work.
103. General Physics: Sound and Heat.

Open to students who have completed course 102. Three hours a week for the second semester.

Miss Lowater.
This course continues the work of course 102. In sound, emphasis is laid on the physical basis of music; in heat, on the applications of the principles in daily life.

## 201. Electricity.

Open to students who have completed course 101 or 103, or 202, and by special permission to juniors and seniors who have met

[^23]the admission requirement. Three hours a week for the first semester.

Miss Davis.
Magnetic and electric fields of force; the study and use of instruments for the measurement of current, potential difference, resistance, and capacity; electromagnetic induction.
202. Нeat.

Open to students who have completed course 201 and by permission to those who have completed course 101 or 102, or are taking course 101. Three hours a week for the second semester.

Miss Davis.
Thermometry, calorimetry, properties of vapors and gases, liquefaction of gases, transmission of heat and its application in the heating and ventilation of buildings, kinetic theory, elementary thermodynamics, heat engines.
203. Meteorology.

Open to sophomores, juniors, and seniors who have completed course 101 or who have met the admission requirement. Three hours a week for the second semester.

Miss Davis.
Text-book: Humphrey's Physics of the Air with library references. The study of the phenomena of the weather,-air pressure, temperature, progress of storms, cold waves, winds, clouds, pre-cipitation,-leading to an understanding of the principles of weather prediction.
204. The Automobile: Principles and Construction.

Open by permission to juniors and seniors who have completed course 101, or who have met the admission requirement. One hour a week for a year.

Miss Wilson.
The internal combustion engine; carburetors; systems of ignition, starting and lighting, and transmission. Lectures with demonstrations to illustrate the physical principles involved. Individual laboratory study of various automobile mechanisms.
301. Light.

Open to students who have completed course 201. Three hours a week for the first semester.

The wave theory and its application to the phenomena of dispersion, interference, diffraction, polarization, propagation in crystalline media; theory and use of optical instruments; modern methods of illumination.
302. Electromagnetic Waves and Radio Telegraphy. (Not offered in 1921-22.)
Open to juniors and seniors who have completed course 201. Three hours a week for the second semester.
303. Recent Developments in Electricity.

Open to juniors and seniors who have completed course 201. Three hours a week for the second semester.

Miss McDowell, Miss Wilson.
The electrolytic dissociation theory; conduction through gases, cathode rays, Roentgen rays; radio-activity; the electron theory.
304. Theoretical Electricity and Magnetism. (Not offered in 192122.)

Open to juniors and seniors who have completed course 201 and also course 301 in Mathematics. Three hours a week for the first semester.

The work is based upon Starling's Electricity and Magnetism and free use is made of the calculus.
305. Mechanics.

Open to students who have completed course 101 or course 102 in Physics, course 301 in Mathematics and either course 304 in Physics or course 303 in Mathematics. When combined with course 303 in Mathematics it may be counted toward a major in Mathematics. Three hours a week for the second semester.

Miss Lowater.
Equations of motion; simple harmonic motion; central orbits; statics of rigid bodies; work, energy; dynamics of a particle; motion of rigid bodies.
306. Mathematical Theory of Light. (Not offered in 1921-22.)

Open to students who have completed course 301. Three hours a week for the second semester.
307. Laboratory Practice. (Not given in 1921-22.)

Open to juniors and seniors who have taken or are taking a grade III course in the department. One hour a week for a year.

Laboratory practice arranged to fit the needs of the individual student.

## READING AND SPEAKING

Professor: Malvina Bennett, M.A.
Assistant Professors : Elizabeth Parker hunt, M.A.
Edith Margaret Smaill.
Six hours in this department may be counted within the fiftynine required for the B.A. degree.
101. Reading and Speaking.

Open to all undergraduates. Three hours a week for a year.
Miss Bennett, Mrs. Hunt, Miss Smaill.
It is the purpose of this course to develop the ability to read aloud simply and easily and to speak with clearness and conviction.
Various forms of literature studied, and exercises given to free the body and voice; phonetics and enunciation.
102. English Speech.

Open to all undergraduates. Advised for foreign students. Three hours a week for a year.

Mrs. Hunt.
This course is designed to teach foreigners the correct pronunciation of English; for students who intend to teach English speech to foreigners at home or abroad; and to help all students who need to overcome serious defects in speech. Attention is given to individual needs and special exercises prescribed.

## 103. Public Speaking.

Open to sophomores, juniors, and seniors. Three hours a week for a year.

## Mrs. Hunt.

This course is designed to develop the ability to speak in public effectively. There will be the presentation and criticism of original speeches, and of speeches selected from famous addresses.
201. Advanced Course in Interpretative Reading.

Open to students who have taken one course in the department. Three hours a week for a year.

Voice training continued.
The study and presentation of various forms of standard literature.

This course is designed primarily to develop the imaginative and creative power of the individual and to arouse an appreciation of the educational value of interpretative expression.

Tennyson, Browning, Modern Poetry, and Drama.
301. Interpretation of Shakespeare.

Open to students who have taken one course in the department, also to those who have completed or are taking English Literature 305 or 309. Three hours a week for a year.

Miss Bennett.
Intensive study of the text for expression; the giving under student management of all the great scenes in a play.
Three plays studied.

## SPANISH

Associate Professor: Alice Huntington Bushee, M.A.
Assistant Professor: Angela Palomo, m.A. Instructor: Ada May Coe, b.A.

Note.-A reading knowledge of French is required for all grade III work and desirable in all courses. The language of the class room is Spanish.
101 $\ddagger$. Elementary Course.
Open to all undergraduates. Three hours a week for a year.
Miss Bushee, Miss Palomo, Miss Coe.
Grammar, composition, dictation, conversation, prepared and sight translation. Short lectures are given in Spanish on different literary subjects to train the ear and serve as an introduction to later study.

## 102. Intermediate Course.

Open to students who have completed course 101 or an equivalent. Three hours a week for a year.

Miss Palomo.
Grammar, composition, themes, lectures, reading of typical modern novels and selections from Don Quijote.
$\ddagger$ Spanish 101 may not be counted toward the B.A. degree if taken after the junior year.
201. Spanish Literature in the Eighteenth and Nineteenth Centuries.
Open to students who have completed course 102. Three hours a week for a year.

Miss Bushee.
The aim of this course is to give the student a general idea of Spanish literature after the Golden Age: the French influence, Romanticism, and the noted authors of the latter part of the nineteenth century. This includes the rapid reading of both prose and poetry.
202. Modern Spanish American Literature.

Open to students who have completed course 102. Three hours a week for a year.

Miss Coe.
The aim of this course is to show the influences at work in the making of Spanish American Literature with the reaction, especially in poetry, on the literature of Spain. Lectures will be given on the political and social conditions of the leading countries.
203. Advanced Conversation and Composition.

Open to students who have completed course 102. One hour a week for a year.

Miss Palomo.
Three or four twentieth century plays will form the basis for this course and will give opportunity for oral discussion and written reports on life in contemporary Spain.
301. Drama of the Golden Age.

Open to students who have completed course 201 or with the permission of the instructor to those who have completed course 202. Three hours a week for a year.

Miss Bushee.
This course will be introduced by a short general outline of the historical and literary influences at work during the period. Characteristic dramas of Lope de Vega, Alarcón, Tirso de Molina, and Calderón will be studied as representative of the nation's thought and ideals at the time.

## 302. The Spanish Novel. (Not given in 1921-22.)

Open to students who have completed course 201 or with the
permission of the instructor to those who have completed course 202. Three hours a week for a year.

Miss Bushee.
The first semester will be devoted to a general study of the novel before 1650 (especially the caballeresca, picaresca, and pastoral) and its relation to other countries. During the second semester Don Quijote will be studied.
303. Old Spanish Literature from 1150 to 1400. (Not given in 1921-22.)

Open to graduates and to approved seniors who have had at least one course of grade III. Three hours a week for a year.

Study of "El Poema del Cid" and other characteristic works of the period.

## ZOOLOGY AND PHYSIOLOGY

Professors: Marian Elizabeth Hubbard, B.S. Caroline Burling Thompson, Ph.D.<br>Associate Professors : Julia Eleanor Moody, Ph.D. Alice Middleton Boring, Ph.D.<br>Assistant Professor : Esther Maud Greisheimer, Ph.D.<br>Instructors: Margaret Alger Hayden, ${ }^{7}$ M.A. Harriet Cutler Waterman, M.A. Mabel Irene Smith, M.A. helen Warton Kaan, B.A.<br>Curator: Albert Pitts Morse.<br>Lecturer in Entomology.<br>Custodian and Assistant : Mary lellah Austin, B.A.<br>Laboratory Assistants : Alice Rupp, B.A.<br>Blanche Lindsay, B.A.

## 101. The Biology of Animals.

Open to freshmen, sophomores, and juniors. Three hours a week for a year.

> Miss Hubbard, Miss Boring, Miss Hayden, Miss Waterman, Miss Smith, Miss Kaan, Miss Austin.

This course is designed to furnish an introduction to the fundamental principles of Zoology. It aims to furnish a clear conception of what an animal is, and to build up, on a concrete basis, an understanding of the process of evolution. This is done through a study of a number of representative forms,-the lobster, unicellular animals, the hydra, and a vertebrate.

Lectures, laboratory, field work.
${ }^{7}$ Appointed for second semester only.
201. Invertebrate Zoology. (Not offered in 1921-22.)

Open to students who have completed course 101. Three hours a week for the first semester.

Miss Hayden.

A study of invertebrate types, except the Arthropoda, with reference to their structure, life-history, habits, and distribution; emphasis is given to the general principles of evolution. Lectures, laboratory, field and museum trips.
202. Invertebrate Zoology. (Not offered in 1921-22.)

Open to students who have completed course 201, or, by permission of the department, to students who have completed course 101. Three hours a week for the second semester.

Miss Thompson.
A study of the Arthropoda with special reference to the group of insects; their structure, life-history and habits. Attention will be given to insects of economic importance, such as the silkworm, the disease carriers, household insects and those injurious to vegetables, fruit and trees. Lectures, laboratory, field and museum trips.
203. Vertebrate Zoology.

Open to juniors and seniors without prerequisites, and to other students who have completed course 101. Three hours a week for a year.

Miss Moody.
Evidences of evolution from the study of comparative anatomy and the development of the vertebrates, based upon a careful dissection of dogfish, necturus, reptile, and cat. The aim throughout is to trace the evolution of the vertebrate type with particular reference to the history of the human body. Lectures, laboratory and museum work.
301. Mammalian Anatomy and Histology. (Hygiene 301.)

Required of first-year students in the Department of Hygiene; also open to juniors and seniors who are registered as five-year Hygiene students. If counted as part of a major in Zoology, course 301 must be preceded by course 101. One and one-half hours a week for a year.

Miss Boring.
Lectures and laboratory work on the gross and microscopic anatomy of bones and muscles; digestive, respiratory, excretory, reproductive, circulatory and nervous systems. Special emphasis is given to the study of the human skeleton and muscles.
302. General Physiology. (Special Course for Hygiene Students. Hygiene 302.)
Required of first-year students in the Department of Hygiene; also open to juniors and seniors registered as five-year Hygiene students. Regular college students take 308. If counted as part of a major in Zoology, course 302 must be preceded by course 101. Three hours a week for a year.

Miss Boring.

The course aims to present the fundamental facts and theories which underlie the normal functions of animal organisms. It includes a brief survey of foods, a consideration of the problems of nutrition and metabolism, and a study of the action of the digestive, respiratory, circulatory, excretory, reproductive, muscular and nervous systems.

## 303. Histology.

Open to juniors and seniors who have completed or are taking course 203 or 308. Three hours a week for the first semester.

Miss Thompson.
A study of animal cells, tissues and organs, with discussions of related problems. Practical work in technique, or the making of microscopic preparations, is required of each student.
304. Embryology.

Open to juniors and seniors who have completed or are taking course 203 or 308. Three hours a week for the second semester.

Miss Thompson.
A general study of the processes and principles of animal development and the related problems. The illustrative material includes some invertebrates for early stages, and for later stages the chick and the pig. Microscopic preparations of a series of stages of the chick are made by each student.
305. Theories and Problems of Zoology.

Open with the approval of the department to students who have completed or are completing, in addition to this course, three years' work in Zoology. Three hours a week for the second semester.

Miss Thompson.
A critical study of theories of the origin of life, development, evolution and heredity.
306. Genetics.

Open with the approval of the department to students who have completed or are completing, in addition to this course, three years' work in Zoology; and by exception to five-year Hygiene students who are completing a major in Zoology. Three hours a week for the first semester.

Miss Boring.
Problems in variation and heredity, with a study of their cytological basis, and their application to eugenics. Reports on papers from recent journals bearing on these problems.
307. Research. (Not given in 1921-22.)

Open with the advice of the department to students who have completed or are completing a nine-hour major in Zoology. One and one-halt or three hours a week for a year or three hours a week for a semester.

Elementary problems in Histology, Embryology, Invertebrate or Vertebrate Zoology, Physiology. Independent work will be required of the student under the direction of the instructor in the field chosen.
308. General Physiology.

Open to students who have completed course 101, and who have completed or are taking an elementary course in Chemistry; or to students who in addition to fulfilling the Chemistry requirement have completed or are taking Zoology 203. Three hours a week for a year.

Miss Waterman.
This course aims to present the fundamental facts and theories which underlie the normal functions of animal organisms. It studies the action of the various organ systems such as the muscular and nervous, digestive, respiratory, circulatory, excretory, and reproductive, and includes a brief survey of foods and a consideration of the problems of nutrition and metabolism.

## 309. Metabolism.

Open to students who have completed course 308. Three hours a week for the first semester.

Miss Greisheimer.
Properties and composition of living matter; foods; digestion; excreta; metabolism. This course will include lectures, labora-
tory work, reviews of recent publications and reports on special problems.
310. Nervous System.

Open to students who have completed course 308. Three hours a week for the second semester.

Miss Greisheimer.
A study of the central nervous system and sense organs, including structure and function.

This course will include lectures, laboratory work, reviews of recent publications and reports on special problems.
321. Seminar.

Open to graduate students and to approved seniors. One hour a week for a year.

Reports and discussion of current investigations in zoology and and physiology, under the guidance of the staff, and as a part of the departmental Journal Club.

## COLLEGE EXAMINATIONS

An examination period occurs at the end of each semester. At these periods, and also during the days of the admission examinations in September, examinations for the removal of conditions and deficiencies and for advanced standing may be taken.

A student who wishes to take an examination upon a course which is not a part of her approved schedule for the year, must apply to the Dean for the requisite card of admission to the examination. The last day for receiving applications for such cards is for the September examinations, September first; for the mid-ycar examinations, January first; for the June examinations, May fifteenth.
N. B. Examinations for the removal of conditions and deficiencies excepted, no student can be admitted to examination upon a course which is not a part of her approved schedule for the year without permission both from the Head of the Department concerned and the Dean of the College. No student, therefore, should enter upon preparation for such an examination until her plan has been approved by both of the above named officers.

Tess The College reserves the right to require the withdrawal of students whose scholarship is not satisfactory, and of those who for any other reason are regarded as not in accord with the ideals and standards which the College seeks to maintain.

## DEGREES

The following degrees are conferred by the Trustees upon recommendation of the Academic Council:-

Bachelor of Arts. Master of Arts.

## REQUIREMENTS FOR THE B.A. DEGREE

Every candidate for the B.A. degree must complete before graduation the equivalent of fifty-nine hours. Since 1896, two grades in work which reaches the passing mark have been distinguished: one "Passed"; the other, "Passed with Credit." In order to be recommended for the degree of Bachelor of Arts a student must have "passed with credit" in not less than six hours in the first semester of the freshman year and in not less than nine hours in each succeeding
semester. Deficiency of such work in any semester may be made good in accordance with regulations adopted by the Faculty. First-year French and first-year German may not both be counted among the fifty-nine hours. Neither firstyear French nor first-year German may be so counted if taken after the sophomore year. Second-year French, sec-ond-year German, first-year Italian and first-year Spanish may not be counted among the fifty-nine hours, if taken after the junior year. Of the fifty-nine hours required for the B.A. degree, a certain number is prescribed, the rest elective.
I. Prescribed. The following subjects are required as specified:-

| Biblical History |  |  |
| :---: | :---: | :---: |
| English Composition | 3 or $41 / 2^{*}$ |  |
| Mathematics | 3 |  |
| Language (unless a third language has been presented for admission) | 3 | " |
| Natural Science (if not presented for ad- mission) | 3 |  |
| A Second Natural Science | 3 |  |
| Philosophy | 3 |  |
| Hygiene | $2 \dagger$ |  |

$24 \mathrm{I} / 2$ or 26 hours
Of the required subjects, Mathematics must be taken in the freshman year; Hygiene one and one-half hours in the freshman year, and one-half hour in the sophomore year; Biblical History, three three-hour semester courses in the sophomore and the junior years; English Composition three hours per week in the freshman year.* Of the natural sciences, one must be taken before the junior year; either a language or a science must be taken in the freshman year and both if neither a third language nor a science is offered for admission. Philosophy should ordinarily be taken before the senior year.
II. Elective. All courses are classified in Grades I, II, III; Grade I including elementary courses and Grade III the most advanced courses. All of the fifty-nine hours not indicated in the above are elective, subject to the approval of the Faculty.

* If a student fails to pass with credit in the second semester of English Composition 101, she will be required to take an additional semester course in the sophomore year.
$\dagger$ One hour of this requirement is met by a one-hour course in Hygiene in the freshman year; the second hour is met by four periods in practical work, two periods per week in the freshman year and two in the sophomore year.

Moreover every candidate for the B.A. degree must show before graduation that she has completed either
(1) nine hours in each of two departments, or
(2) twelve hours in one department and six hours in a second department.
Of the courses offered to fulfill this requirement, at least one full course of Grade III must be taken in the senior year. The nine-hour group must consist of at least six hours above Grade I, three hours of which must be of Grade III. The twelve-hour group must consist of at least nine hours above Grade I, six hours of which must be of Grade III. The six-hour group must include at least three hours above Grade I.

These requirements are met in the freshman year as fol-lows:-


These electives must be chosen in accordance with the prerequisites given in the department statements from the list of courses named below, subject to the following restrictions:-
(1) One elective must be a science (if no science is offered for admission), and the second a language (if only two foreign languages are offered for admission).
(2) One elective must be chosen from courses in classics, history, or science.
(3) Only one of the following subjects may be elected: Art, Musical Theory, English Literature, Reading and Speaking.
(4) French 101 and German 101 may not both be elected.

Language
Greek 101, 201, 202
Latin 101, 102
German 101, 102, 103
and 104
French 1^1, 102, 103
Italian 101
Spanish 101, 102

Sciences
Astronomy 101
Botany 101
Chemistry 101, 102 and 201
Geology 101
Physics 101, 102 and 103 Réading and Speaking 101, Zoology 101

Other Subjects
Art 101, 102
English Literature 101, 102 and 103
History 103
Musical Theory 101 102

If $161 / 2$ hours are satisfactorily completed in the freshman year, the normal program for the remaining years would be as follows:-

| Sophomore year | . | . | . | . | . | 15 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Junior year | hours |  |  |  |  |  |  |
| Senior year | . | . | . | . | . | . | . |

If $161 / 2$ hours are not completed in the freshman year, a student may by special permission carry extra hours in the remaining years.

Elective courses must be chosen with great care so that changes will not be necessary. Students are held responsible for observing the requirements for the degree and the proper sequence of courses.

All requests for changes of elective courses should be sent to the Dean of the College before September 15th. In general, no changes may be made after the beginning of the year.

## REQUIREMENTS FOR THE M.A. DEGREE

The work required of a candidate for the M.A. degree is expected to occupy her entire time for a college year and is the equivalent of fifteen hours of college work. It includes, in general, no fewer than two full courses of Grade III or their equivalents, in addition to a thesis or a report or reports based on some piece or pieces of independent work. The student should choose one major subject and not more than one minor subject, which should be related to the major; or she may, if she prefers, do all her work in one subject. A candidate for the M.A. degree is ordinarily required to have a reading knowledge of French and of German, although another language may sometimes be substituted for one of these languages.

One year of graduate work is required of all candidates for the M.A. degree, but more time may be needed for the completion of the work.

Graduates of Wellesley College may do all the work in non-residence, under conditions defined in the Graduate Circular.

One year in residence is required of all other candidates for the degree.

Information regarding thesis, final examinations, etc., will be found in the Graduate Circular which will be sent on application to the College Recorder.

## EXPENSES

## TUITION

The charge for tuition to all students, whether living in college buildings or not, is $\$ 300$ a year. Tuition is payable in advance and is not subject to return or deduction.

Students who are permitted to take seven hours or less of class-room work a week, and who do not live in college buildings, pay tuition by the course as follows: for a one-hour course, $\$ 35$; a two-hours course, $\$ 70$; a three-hour course, $\$ 100$. Payment is due at the beginning of the year. No charge is made for tuition in Biblical History.

## TUITION AND OTHER CHARGES IN DEPARTMENT OF MUSIC

For instruction for the college year in Pianoforte, Organ, Violin, or Vocal Music, two lessons a week ..... $\$ 120$
One lesson a week ..... 60
(Lessons thirty minutes in length.)
For use of the Pianoforte, one period daily for the college year ..... 15
For two and three periods daily, in proportion.
For use of the Pipe Organ in Music Hall, one period daily, for the college year ..... 20
For two or three periods daily, in proportion.
Special arrangements may be made for lessons on instruments notmentioned above.

Tuition in music must always be paid in advance and is not subject to return or deduction.

## FIXED TIMES AND AMOUNTS OF PAYMENTS

I. For students who room in college buildings.
Application fee payable in advance ..... $\$ 10$
September (at the opening of college)
On account of tuition ..... $\$ 190$
On account of board and room ..... 440
February (before the beginning of the second semester) Balance on tuition ..... $\$ 100$
Balance on board and room ..... 350
Total for the year ..... $\$ 800$The regular charge for board begins at the opening of dormitories.
II. For students who do not room in college buildings.
a. Students who take their meals in college buildings, butroom in private houses.
Application fee payable in advance ..... $\$ 10$
September (at the opening of college)
On account of tuition ..... $\$ 190$
On account of board ..... 165 ..... 355February (before the beginning of the second semester)
Balance on tuition ..... $\$ 100$
Balance on board ..... 160 ..... 260
Total for year ..... $\$ 625$
Such students make payments for rooms directly to the householder atsuch rates and times as the parties to the arrangement may agree upon.Information regarding boarding places may be obtained by addressing theDean of Residence.
b. Students who neither board nor room in college buildings pay tuition as follows:-

Application fee payable in advance . . . . . . $\$ 10$
September (at the opening of college) . . . . . 190
February (before the beginning of the second semester) . . $\frac{100}{\$ 300}$
Total for the year . . . . . . . . .
Such students make payment for room and board directly to the management of the private houses in which they have secured lodging and meals, at such rates and times as the parties to the arrangement may agree upon. Information regarding boarding places may be obtained by addressing the Dean of Residence.
29 Payments must be made before the student can take her place in the class room. No exception will be made to this rule without a written permission from the Treasurer.

Checks or money orders should be made payable to Wellesley College.

## FEES

## I. Undergraduate.

An application fee of $\$ 10$ is required from all candidates for admission, and no application is recorded until the fee is received. The same fee is required from all students in college who are intending to return for the following year, and from all former students who apply for readmission. If the student enters college, the amount of the application fee is deducted from the first tuition bill after entrance. If formal notice of withdrawal is received at the College before August 15 th of the year for which the application is made, the fee will be refunded. In all other cases it is forfeited to the College. A student who postpones entrance until the year following the one for which she first applied may transfer her application fee. But a fee so transferred will not be refunded if the student later decides to withdraw, unless the request for the transfer was received within the specified time. Requests for second transfers are sometimes granted, but a fee transferred a second time will not be refunded under any circumstances.
An additional charge is made for materials and the use of apparatus in the following laboratory courses: $\$ 5$ for each laboratory course in Astronomy, Botany, Chemistry, Geology, Physics, Zoology; $\$ 5$ each for course 321 in Hygiene
and for courses 202 and 205 in Musical Theory; $\$ 2.50$ each for the half courses 303 and 304 in Musical Theory, and for course 210 in Hygiene; $\$ 2$ each for the studio courses in Art, and $\$ 1$ each for other Art courses, $\$ 2$ being the maximum charge for Art fees to any student. These fees are not subject to refund. Every student should also reckon on the expenditure of $\$ 15$ to $\$ 30$ annually for the purchase of books. At the time of taking the B.A. degree or the certificate in Hygiene a diploma fee of $\$ 10$ is charged.

## II. Graduate.

A matriculation fee of $\$ 5$ is payable when a student is accepted as a candidate for the Master's degree. The amount of this fee will be deducted from the diploma fee of $\$ 25$ payable when the degree is received.

No student can receive a diploma until a satisfactory settlement of all her college dues has been made.

## RESIDENCE

The residence halls belonging to the College and situated within the limits of the campus are Stone, Norumbega, Freeman, Wood, Fiske, Wilder, Pomeroy, Cazenove, Beebe, Shafer, Tower Court, Claflin, and The Homestead. Eliot, Washington, Noanett, Crofton and Little Houses, also the property of the College, and eight houses leased to the College for dormitory purposes in order to meet temporary needs, are situated outside and immediately adjoining the college grounds. All these houses are under the direction of officers appointed by the College. All the rooms are furnished, and supplied wth electric lights.

Ress $A$ student vacating a room before the close of the year, or relinquishing a room reserved for her at the beginning of the year, will be charged for board, until the vacancy has been filled by an incoming student, at the rate of not less than $\$ 15$ a week, the minimum charge being for one full week. Therefore, notice of intention to withdraw should be given at the earliest possible moment. No deduction is made for absences during the year.

Applications for rooms in college buildings take the date at which the application fee is received. (See pages 26 and 165.)

Until May first, but not after that date, applications from former students will take precedence of those of new students in the matter of rooms.

## HEALTH

The resident physician, Katharine P. Raymond, B.S., M.D., together with the Director of the Department of Hygiene, the Dean of Residence, and the President and the Dean of the College, ex officio, constitute a board of health to which all matters affecting the health of students are referred. Simpson Cottage is maintained as an infirmary under the charge of Dr. Raymond. A neighboring cottage has recently been fitted up as an annex. Two trained nurses are in constant attendance. The privileges of the infirmary when prescribed by the Resident Physician are open to all students without charge for a period not exceeding seven days provided no extra service is required. There will be a charge at the rate of $\$ 2.25$ a day for periods exceeding seven days. Charges for extra service will be determined by the amount required. The services of the Resident Physician for consultation and treatment are free to all students.

## FELLOWSHIPS AND SCHOLARSHIPS

## A. FOR GRADUATES

The Alice Freeman Palmer Fellowship, yielding an income of about $\$ 1,000$, was founded in 1903, by Mrs. David P. Kimball.

The holder of this Fellowship must be a graduate of Wellesley College or some other American College of approved standing, a young woman of good health, not more than twenty-six years of age at the time of her appointment, unmarried throughout the whole of her tenure, and as free as possible from other responsibilities. The same person will not be eligible to the Fellowship for more than two years.

The Fellowship may be used for study abroad, for study at any American college or university, or privately for independent research. Several times during the period of tenure the holder of the Fellowship must furnish evidence that it is used for purposes of serious study and not for general culture; and within three years from entrance on the Fellowship she must present to the faculty a thesis embodying the results of the research carried on during the period of tenure.

Applications for this Fellowship should be received by the President of Wellesley College not later than February first of the academic year preceding that for which the Fellowship is asked. These applications must be accompanied by thesis or papers presenting evidence of the most advanced work of the candidates, since the Fellowship is not assigned on the basis of unsupported credentials, however commendatory.

## Holders of this Fellowship

1904-1905-Lehmann, Harriet (Mrs. Kitchin),
Biology.
B.A. Ripon College, 1902; M.A. Northwestern University, 1903; Graduate Student Radcliffe College, 1904-1905.
1905-1906-Andrus, Grace Mead (Mrs. de Laguna),
Philosophy.
B.A. Cornell University, 1903; Graduate Student Cornell University, 1903-1905.
Declined the Fellowship, which was awarded to
Gardiner, Elizabeth Manning (Mrs. Whitmore),
Art.
B.A. Radcliffe College, 1901; M.A. Wellesley College, 1905; Student American School of Classical Studies in Rome, 1905-1907; American School of Classical Studies in Athens, 1907-1908; Instructor in Art, Wellesley College, 1908-1910; Assistant to Director, Worcester Art Museum, 1909-1913; Assistant Professor of Art, Smith College, 1919- -.
1906-1907-Johnson, Anna (Mrs. Pell)
Mathematics.
B.A. University of South Dakota, 1903; M.S. University of Iowa, 1904;
M.A. Radcliffe College, 1905; Graduate Student Radcliffe College, 19051906; Student University of Gottingen, 1906-1907, 1908; Instructor in Mathematics, University of South Dakota, 1907; Ph.D. University of Chicago, 1910; Instructor in Mathematics, 1911-1914, and Associate Professor, 1914-1918, Mt. Holyoke College; Associate Professor of Mathematics, Bryn Mawr College, 1918-.
1907-1908-Cook, Helen Dodd (Mrs. Vincent),
Philosophy. B.A. Wellesley College, 1905; M.A. 1907; Fellow in Philosophy and Psychology, Wellesley College, 1906-1907; Student at University of Würzburg, 1907-1909; Ph.D. University of Würzburg, 1909; Instructor in Psychology, Wellesley College, 1909-1913; Instructor in Psychology, Montclair Normal School, 1913-1916.
1908-1909-Stone, Isabelle, Greek.
B.A. Wellesley College, 1905; Graduate Student Cornell University, 19051908; Ph.D. Cornell University, 1908; Student American School of Classical Studies in Athens, 1908-1909; Reader in Greek, Bryn Mawr College, second semester, 1909-1910; Head of Greek and Latin Departments, Woman's College of Alabama, first semester, 1910-1911.
1909-1910-Shepperle, Gertrude (Mrs. Loomis), Comparative Literature. B.A. Wellesley College, 1903; M.A. 1905; Graduate Student Radcliffe College, 1905-1907; Student University of Munich, 1907-1908; University of Paris, 1908-1911; Ph.D. Radcliffe College, 1909; Instructor in English, University of Illinois, 1911-1912; Instructor in German, New York University, 1912-1913; Instructor in English, 1913-1914, and Associate in English, 1914-1919, University of Illinois; Assistant Professor of French, Vassar College, 1919- -
1910-1911-Hibbard, Laura Alandis, English Literature. B.A. Wellesley College, 1905; M.A. 1908; Graduate Student University of Chicago, 1909-1911; Ph.D. University of Chicago, 1916; Instructor in English Literature, Mit. Holyoke College, 1908-1916; Instructor in English Literature, 1916-1917, and Associate Professor, 1917- W, Wellesley College.
1911-1912-Barbour, Violet,
History. B.A. Cornell University, 1906; M.A. 1909; Graduate Scholar in History, Cornell University, 1908-1909; carrying on historical research in England, France, and Holland, 1911-1913; Ph.D. Cornell University, 1914; Instructor in History, 1914-1919, and Assistant Professor 1919- -, Vassar College.

1912-1913-Coats, Bessie Marion, Philosophy.<br>B.A. Vassar College, 1907; Mary E. Ives Fellow, Yale University, 1910 1911; Graduate Student Radcliffe College, 1911-1915; M.A. Radcliffe College, 1912; Principal of Ferry Hall, Lake Forest, Ill., 1915-1918; Principal of Bradford Academy, Bradford, Mass., 1918- -

1913-1914-Stocking, Ruth (Mrs. Lynch), Zoology. B.A Goucher Coilege, 1910; Gradvate Student Goucher College and Johns Hopkins University, 1910-1911; Graduate Student Bryn Mawr College, 1911-1912; University Fellow in Zoology, Johns Hopkins University, 1912-1913; Johns Hopkins University, 1913-1914; Ph.D. Johns Hopkins University, 1915; Professor of Biology, Agnes Scott College, 1915-1916; Professor of Biology, Wells College, 1916-1917; Assistant Professor of Biology, Carnegie Institute of Technology, 1917-1918; Fuel Administrator, 1918; Instructor in Protozoology, School of Hygiene and Public Health of Johns Hopkins University, 1918-1920; Research work Carnegie Laboratory of Johns Hopkins Medical School, 1920; Assistant in Zoology, Johns Hopkins University, 1920--.
1914-1915-Holden, Ruth,
Botany.
B.A. Radcliffe College, 1911; M.A. Radcliffe College, 1912; Graduate Student Radcliffe College, 1912-1913; Student in Botany School, Cambridge University, England, 1913. Died April 23, 1917.
1915-1916-Hazlett, Olive Clio, Mathematics. B.A. Radcliffe College, 1912; M.S. University of Chicago, 1913; Graduate Student and Fellow, University of Chicago, 1912-1915; Holder of Fellowship of the Boston Branch of the Association of Collegiate Alumnae, 1914-1915; Ph.D. University of Chicago, 1915; Student at Radcliffe College, 1915-1916; Associate in Mathematics, Bryn Mawr College, 19161918; Assistant Professor of Mathematics, Mt. Holyoke College, 1918- -
1916-1917-Hazlett, Olive Clio,
Mathematics. Declined the Fellowship, which was awarded to Dunn, Grace Adelaide,

Botany.
Ph.B. Hamline University, 1909; M.A. Johns Hopkins University, 1914; Ph.D. Johns Hopkins University, 1915.
1917-1918-Hempl, Hilda (Mrs. Heller), Bacteriology. B.A. Leland Stanford, Jr., University, 1914; M.S. University of Michigan, 1915; Holder of the Scandinavian-American Fellowship, 1915-1916; Holder of the European Fellowship of the Asscciation of Collegiate Alumnae, 1916-1917; Student at University of California, 1917-1918; Ph.D. University of California, 1920; Fellow in Research Medicine, University of California.
1918-1919-Cohen, Teresa, Mathematics. B.A. Goucher College, 1912; M.A. Johns Hopkins University, 1915; Ph.D. Johns Hopkins University, 1918; Student University of Illinois, 1919; Instructor in Mathematics, 1920-21, and Assistant Professor, 1921--, Pennsylvania State College.
1919-1920-Ai.lard, Beatrice (Mrs. Brooks),
Semitic Languages.
B.A. Mt. Holyoke College, 1915; Scholar in Semitic Languages, Bryn Mawr College, 1915-1916; Fellow, Bryn Mawr College, 1916-1918; Holder of the Mary E. Woolley Fellowship of Mt. Holyoke College, Bryn Mawr College, 1918-1919; Instructor in Biblical History, Wellesley College, 1920-1921.
1920-1921-Whitaker, Edith Susan,
Botany.
B.A. Radcliffe College, 1916; M.A. Radcliffe College, 1917; Graduate Student at Radcliffe College, 1917-1918, 1920-1921; Instructor in Botany, University of Maine, 1918-1920.
1921-1922-Viola Blackburn,
English Literature. B.A. Wellesley College, 1918; Graduate Student Wellesley College, 19181919; Graduate Student, University of Chicago, 1919-1921.
Eighteen Graduate Scholarships to the value of $\$ 300$ A YEAR, the equivalent of one year's tuition, have been established for the benefit of approved candidates for the M.A. degree in residence at Wellesley. Applications for these
scholarships should be addressed to the College Recorder, Wellesley College, Wellesley, Mass.

Scholarships in Schools of Classical Study.-Studentships in the American School of Classical Studies in Athens, and the American Academy in Rome, are open to graduates and graduate students of Wellesley College who have done sufficient work in the classics to meet the admission requirements. The object of these schools is to afford opportunity for the study of classical literature, art, and antiquities, to aid in original research in these subjects, and to conduct the exploration and excavation of classical sites.
The American School of Classical Studies in Athens.-The school year extends from October first to June first. The regulations for admission are as follows: "Bachelors of Arts of co-operating colleges, and all Bachelors of Arts who have studied at one of these colleges as candidates for a higher degree, shall be admitted to membership in the School on presenting to the Committee a certificate from the classical department of the college at which they have last studied, stating that they are competent to pursue an independent course of study at Athens under the advice of the Director." Members of the school are subject to no charge for tuition.* Further information can be had by application to Professor Walton.
The American Academy in Rome, School of Classical Studies.-The American School of Classical Studies is now one of the consolidated schools of the American Academy in Rome. The school year extends from the fifteentl' of October to the fifteenth of June. It is hoped that a summer session also for teachers of the classics may be arranged. For information in regard to the work of the School and the requirements for admission, application may be made to Professor Hawes.
Scholarships in the Marine Biological Laboratory at Woods Hole $\dagger$.-Wellesley College offers annually two scholarships for study at this laboratory. The laboratory is open to investigators for the whole year. During the summer four courses in Zoology and one in Botany are offered to those needing instruction. Applicants desiring to take any of these courses must have completed a college course in the subject in which they wish to work.

Students in either Botany or Zoology who desire to undertake original work will receive suitable direction. In addition to these opportunities there are courses of lectures on special topics and on subjects of general biological interest. Applications for appointment should state the char-

OOn the approval of the Department, the scholarship in Botany may be assigned, under special conditions, for study in other summer laboratories,
acter of the work to be done,-i.e., whether botanical or zoological, whether general work, investigation under direction, or independent in-vestigation,-and should be forwarded to Professor Hubbard or Professor Ferguson in time to reach Wellesley College before April first.

The Ruth Ingersol Goldmark Memorial Fund was established by Mr. C. J. Goldmark in 1917, at present affording an income of $\$ 250$, to be applied to the aid of deserving students doing graduate work at Wellesley College or elsewhere in English Literature or English Composition or in the Classics, English Literature being given the preference.

The Loretto Fish Carney Memorial Fund, founded in 1920 by the alumnæ and staff of the Boston Normal School of Gymnastics and the Department of Hygiene of Wellesley College, the income to be awarded to a senior in the department at the discretion of the teaching staff of the Department and the President of the College. (Accumulating.)

## B. FOR UNDERGRADUATES

The income of these scholarships is applied to the aid of meritorious undergraduate students whose personal means are insufficient for their maintenance in college.

The Wood Memorial Scholarship of $\$ 5,000$, founded in 1878 by Caroline A. Wood, in memory of her husband.
The Grover Scholarship of $\$ 5,000$, founded in 1878 by William O. Grover.
The Weston Scholarship of $\$ 5,000$, founded in 1878 by David M. Weston.
The Northfield Seminary Scholarship of $\$ 5,000$, founded in 1878.
The Pauline A. Durant Scholarship of $\$ 7,315$, founded in 1880 by Mr. and Mrs. Henry F. Durant, and raised to its present amount by bequest of Mrs. Durant in 1919.
The Sweatman Scholarship of $\$ 5,000$, founded in 1880 by V. Clement Sweatman.

The Walter Baker Memorial Scholarship, founded in 1880 by Eleanor J. W. Baker; raised to $\$ 7,000$ by will of Mrs. Baker in 1892.
The Annie M. Wood Scholarship, founded in 1880 by Frank Wood, who maintained it by annual payments; capitalized at $\$ 10,000$ in 1915 by bequest of Mr. Wood.

Two Frost Scholarships, founded in 1880 by Rufus S. Frost, as follows:-

One of $\$ 1,000$, the income to be given annually to some member of the graduating class designated by the Faculty.
One of $\$ 5,000$, the income to be devoted annually to the aid of students.

The Union Church Scholarship, founded in 1880 by Mr. and Mrs. A. W. Stetson.
The Florence N. Brown Memorial Scholarship of $\$ 5,000$, founded in 1880 by Mr. and Mrs. Samuel N. Brown, Jr.
The Augustus R. Clark Memorial Scholarship of $\$ 5,000$, founded in 1880 by Mr. and Mrs. A. N. Clark.
Four Harriet Fowle Smith Scholarships, founded in 1881 by Henry Fowle Durant, in memory of his mother.
The Durant Memorial Scholarship of $\$ 5,000$, founded in 1883 by the officers and students of Wellesley College, in honor of Henry F. Durant, the income to be appropriated annually to some student selected by the Faculty.
The Jane Topliff Memorial Scholarship of $\$ 6,000$, founded in 1883 by Mrs. William S. Houghton, in memory of her mother.
The Income of a Fund of $\$ 25,000$, known as the Stone Educational (Scholarship) Fund, founded in 1884 by Valeria G. Stone.

The Jeannie L. White Scholarship of $\$ 5,000$, founded in 1886 by herself.
The Mr. and Mrs. Solomon F. Smith Memorial Scholarship of $\$ 200$ annually, founded in 1888 by George Smith, for the tuition of students from the town of Wellesley.
The Margaret McClung Cowan Fund of $\$ 1,000$, founded in 1888 by Rev. and Mrs. P. D. Cowan, in memory of their daughter.
The Emmelar Scholarship of $\$ 5,000$, founded in 1889 by the class of 1891, the income to be appropriated annually to some student selected by the Faculty.

The Sarah J. Houghton Scholarship of $\$ 6,000$, founded in 1889 by William S. Houghton, in memory of his wife.
The Edith Baker Memorial Scholarship of $\$ 7,000$, founded by bequest of Eleanor J. W. Baker in 1892.
The Joseph N. Fiske Memorial Scholarship of $\$ 8,000$, founded in 1892 by Mrs. J. N. Fiske.
The Abbie A. Coburn Memorial Scholarship of $\$ 2,000$, founded in 1892.
The Eliza C. Jewett Scholarship of $\$ 6,000$, founded in 1894; the income to be appropriated to the daughter of a clergyman, or of a home or foreign missionary, selected by the Faculty of the College.
The Ada L. Howard Scholarship of $\$ 6,000$, founded in 1895.

The Helen Day Gould Scholarship, founded in 1896 by Helen Miller Gould (Shepard), in memory of her mother; raised to $\$ 10,000$ by the donor in 1901 .
The Goodwin Scholarship of $\$ 5,000$, founded in 1897 by Hannah B. Goodwin.
The Hyde Scholarship of $\$ 2,000$, founded in 1898 by Sarah B. Hyde.

The Bill Scholarship of $\$ 7,000$, founded in 1898 by Charles Bill.
The Holbrook Scholarship of $\$ 3,000$, founded in 1898 by Sarah J. Holbrook.
The (second) Helen Day Gould Scholarship, founded in 1899 by Helen Miller Gould (Shepard); raised to $\$ 10,000$ by the donor in 1901.
The Mary Elizabeth Gere Scholarship of $\$ 5,000$, founded in 1899 by Mary Elizabeth Gere.
The Ann Morton Towle Memorial Scholarship Fund of $\$ 5,000$, established in 1901 by bequest of George Francis Towle.
The Dana Scholarship of $\$ 5,000$, founded in 1901 through the gift of Charles B. Dana.
The (third) Helen Day Gould Scholarship of $\$ 10,000$, founded in 1901 by Helen Miller Gould (Shepard).
The George William Towle Memorial Scholarship Fund of $\$ 6,750$, founded in 1901 by bequest of George Francis Towle.
The Anna Palen Scholarship of $\$ 10,000$, founded in 1902.

The Rollins Scholarship of $\$ 8,000$, founded in 1903 by Augusta and Hannah H. Rollins, in memory of their parents.
The Class of 1889 Memorial Scholarship of $\$ 1,000$, founded in 1904 by the class, in memory of classmates who have died.
The Elizabeth S. Fiske Scholarship of $\$ 5,000$, founded in 1904 by bequest of Miss Fiske.
The Mae McElfain Rice Memorial Scholarship of $\$ 1,000$, founded in 1905 by the class of 1902.
The Sanborn Alumine Scholarship, founded in 1905 by Helen J. Sanborn of the class of 1884 for the benefit of daughters of alumnæ: capitalized at $\$ 10,000$ in 1919 by bequest of Miss Sanborn.
The Julia Ball Thayer Scholarship of $\$ 2,000$, founded in 1907 by bequest of Mrs. Julia Beatrice Ball Thayer of Keene, N.H.
The Adams Scholarship of $\$ 2,000$, founded in 1907 by bequest of Adoniram J. Adams of Boston.
The McDonald-Ellis Fund of $\$ 500$, established in 1908 by former students of the McDonald-Ellis School of Washington, D.C., in memory of the late principals of the school.
The Ransom Scholarship of $\$ 1,000$, founded in 1908 by bequest of Catherine Ayer Ransom.
The Emily P. Hidden Scholarship of $\$ 2,000$, founded in 1909 by bequest of Mary E. Hidden.
The Ethel Howland Folger Williams Memorial Fund, established in 1911 from the estate of the late Ethel Howland Folger Williams of the class of 1905, the income to be given to a sophomore at the end of the first semester at the discretion of the head of the German Department.
The Sophie Jewett Memorial Scholarship of $\$ 1,000$, founded in 1911 by Elsa D. James.
The Mildred Keim Fund of $\$ 10,000$, founded in 1912 by Newton and Frances S. Keim, in memory of their daughter, Mildred Keim.
The Connecticut Scholarship of $\$ 5,000$, founded in 1912 by the will of Louise Frisbie.

The Anna S. Newman Memorial Scholarship of $\$ 1,000$, established in 1913 through the gift of former students.
The Mary G. Hillifan Mathematical (Prize) ScholarsHip of $\$ 1,000$, established in 1913 by Elizabeth A. Hillman, in memory of her sister.
The Class of 1893 Memorial Scholarship of $\$ 5,000$, established by the class in 1913.
The M. Elizabeth Gray Scholarship of $\$ 10,000$, established in 1914 by bequest of William J. Gray.
The Cora Stickney Harper Scholarship of $\$ 2,000$, established in 1915 by bequest of Mrs. Cora Stickney Harper.
The Oliver N., Mary C., and Mary Shannon Scholarship Fund of $\$ 15,000$, established in 1916 by bequest of Mary Shannon, as a permanent fund for scholarships.
The Dr. Alma Emerson Beale Scholarship Fund of $\$ 3,000$, founded in 1917 by bequest of Dr. Alma E. Beale of the class of 1891 ; the income to be applied annually to a student of the College who intends to become either a foreign or a home missionary, or, second, to a student of the College who is the daughter of a clergyman.
The Stimson Mathematical Scholarship of $\$ 100$ annually, founded in 1919 by Candace C. Stimson in memory of her father, Dr. Lewis A. Stimson.
The Marie Louise Tuck Scholarship Fund of $\$ 9,500$, founded in 1919 by bequest of Alice C. Tuck.
The Class of 1884 Memorial Scholarship, founded by the Class in 1919 (accumulating).
The Charles B. Botsford Scholarship Fund of $\$ 5,000$, founded in 1920 by bequest of Lucy A. Botsford.
The Katharine Knapp Scholarship of $\$ 5,000$, founded in 1920 by bequest of Miss Knapp.

These scholarships are in general not competitive. They are awarded in recognition of genuine pecuniary need and of satisfactory character, college citizenship, health, and intellectual and practical ability as tested by a year or more of life and study at Wellesley. The foundations are of varying amounts, and the income is apportioned according to need and merit as justly as possible. No scholarship yields the full amount required for both tuition and residence on the ordinary plan.

Students who are looking forward to a course at Wellesley but are anxious about their support are advised to secure money from friends, or from persons of means apart from the College, for maintenance during the first year or two. Although there is no provision for scholarship aid during the freshman year, any school principal or teacher having in view a candidate, thoroughly prepared for the College and desirable in every respect, yet unable to enter on account of lack of means after every effort to secure funds has been made, is advised to let the case be known to the Administration of the College, since it is often possible to make some suggestion which proves to be of advantage.

A co-operative house is open to self-helping students but is not of sufficient capacity to provide for freshman applicants as well. A system of student waitresses is also in operation, and freshmen can often avail themselves of the opportunity of self-help thus afforded. A descriptive circular will be mailed on application.

The Christian Association of the College is actively engaged in bringing students into connection with work to be done for compensation within the College and in the neighborhood, but such employment, since it makes a distinct draft upon strength and time, is hardly to be advised for the freshman year.

Another source of pecuniary aid is in the work of the Students' Aid Society established by the founders of Wellesley and revived and incorporated by the alumnæ of the College in April, 1916. The Wellesley College Loan Fund, established in 1908 through contributions from alumnæ and other friends of the College, is included in the resources of the Students' Aid Society. Small amounts are loaned to students without interest in expectation that these students will repay whenever they are able. Assistance is often given partly in gifts and partly in loans. The existing funds are not sufficient to meet the wants of deserving applicants, and contributions of any amount will be gladly received by the treasurer, Miss Mary Caswell, Wellesley College.

## FOUNDERS HALL

Founders Hall, a building for lecture rooms and department offices pertaining to instruction in the Liberal Arts, was opened for use in September, 1919. The hall was built from the Restoration Fund, secured for the College through trustees, faculty, alumnæ, and other friends, and replaces in some part College Hall, the first and main building of the College, destroyed by fire, March 17, 1914. The building is dedicated as a memorial to the Founders of the College, Henry Fowle Durant and his wife, Pauline Adeline Durant.

Founders Hall is the first achieved member of a group of academic buildings designed by Messrs. Day and Klauder of Philadelphia, and to be completed as soon as funds allow.

## LIBRARY

The Library of the College, endowed by Eben Norton Horsford, now numbers 94,256 bound volumes, including the departmental and special libraries enumerated below. The General Library is open on week days from 8.10 A. M. to 9.30 p. m., and on Sundays from 2.30 to 5.30 r. m. Students have direct access to the shelves. The library is catalogued by author and subject entries, and the most recent and useful bibliographical aids are provided; special effort is made by the librarians to train students in methods of research.
The Library subscribes for seven daily papers and for three hundred and seventy American and foreign periodicals. The list includes the most important representatives of the branches of instruction comprised in the college curriculum.

The Gertrude Memorial Library established by Mr. A. A. Sweet, the Missionary Library, and other collections in the General Library, furnish 8,131 volumes for Biblical study and religious reading.
The Plimpton Library, established by Mr. George A. Plimpton in memory of his wife, Frances Pearsons Plimpton of the class of 1884, comprises 940 volumes of early Italian literature, including both manuscripts and printed books of the fifteenth century.

The following collections are placed in the buildings of the respective departments:-

Art Library, 2,803 volumes.
Botany Library, 998 volumes.
Chemistry Library, 910 volumes.
Astronomy Library, 1,169 volumes.
Hygiene Library, 2,731 volumes.
Music Library, 1,262 volumes.

## EQUIPMENT IN HYGIENE

The department of Hygiene occupies Mary Hemenway Hall on the western border of the college grounds. It is designed to meet the requirements of the course for the training of teachers of hygiene, and to provide practical instruction for the entire college. The equipment includes large, well-lighted gymnasiums with ample bathing facilities, administrative offices, class rooms, and laboratories for anatomy, physiology, bacteriology, hygiene, anthropometry, corrective gymnastics, and research. The department library contains 2,731 volumes, a collection of valuable pamphlets, and regularly receives twenty-one journals dealing with matters related to hygiene. Immediately adjoining Mary Hemenway Hall are tennis and archery courts, basket ball, baseball, volley ball, and hockey fields, an oval for horse back riding and a riding hall, with room for further expansion. Lake Waban furnishes facilities for rowing, swimming and skating, and there is also a golf course with a clubhouse. The equipment of the department is designed for the application of modern science to the maintenance and promotion of health and for education through motor activity.

## THE FARNSWORTH ART BUILDING AND ART COLLECTIONS

The Farnsworth Art Building, the gift of the late Issac D. Farnsworth, was opened in September, 1889. Besides lecture rooms, galleries for collections, and studios for drawing
and painting, a special feature is the arrangement of laboratories and libraries, so that the books and art material relating to particular subjects and periods can be made immediately available to general students.

The Art Collection consists of a large number of photographs and other material, including the James Jackson Jarves collection of laces and vestments; the M. Day Kimball Memorial, consisting of original pieces of antique sculpture; a few examples of early Italian painting; a collection of Indian baskets, the gift of Mrs. Rufus S. Frost; various Egyptian antiquities obtained through the kindness of the late Mrs. Tohn C. Whitin, including certain interesting papyri; and scarabs and seals from the collection of Dr. Chauncey Murch, the gift of Mrs. Helen M. Gould Shepard; two Renaissance sculptured columns, the gift of Mr. William C. Safford; the Stetson collection of modern paintings, and a few other examples.
The collection of photographs and other reproductions numbers over fourteen thousand.

## EQUIPMENT IN MUSIC

Music Hall and Billings Hall are large brick buildings, devoted to the department of Music. Music Hall contains offices, studios, and practice rooms equipped with thirty-seven new pianos of standard makes, a victrola and three player-pianos; also a large room, containing a twomanual pipe organ for the use of the organ pupils. Billings Hall, opened in 1904, contains the office of the Professor of Music, the library and class rooms for instruction in Musical Theory; also a concert room, seating four hundred and ten people, and containing the Grover organ,-a large threemanual organ, rebuilt and modernized.

The Music Library includes a collection of manuscripts, about two hundred scores (Symphony, Opera, Oratorio, and Cantata), two hundred songs, three hundred piano arrangements (two, four, and eight hands,) besides seven hundred and fifty reference books on musical subjects. The department owns one hundred records for the victrola and three hundred records for the player-pianos.

## LABORATORIES AND SCIENTIFIC COLLECTIONS

## ASTRONOMY

The Whitin Observatory is a one-story building of white marble, situated on a small hill on the college grounds, and devoted entirely to the use of the department of Astronomy. It contains two rooms surmounted by rotating domes, twenty-five feet and twelve and one-half feet in diameter respectively; two transit rooms; a spectroscopic laboratory; a large, well-lighted room for elementary laboratory work; and another large room in which is kept the department library. In the larger dome room is mounted a twelve-inch Clark equatorial refracting telescope, which is provided with a filar micrometer, a polarizing photometer, and a six-prism spectroscope. The twenty-five foot dome is rotated by an electric motor. The smaller dome contains a six-inch Clark equatorial refractor. There are two transit instruments, the larger a Bamberg prismatic transit of three inches aperture. A four-inch telescope with objective by Browning is mounted in a south wall of the building, with the eye end inside and the optic axis parallel to the axis of the Earth; a plane mirror beneath the objective reflects into the latter the light of the object observed. In the spectroscopic laboratory is a Rowland concave grating spectroscope of six feet focal length.

The Observatory is supplied with two Howard sidereal clocks, a Bond mean-time chronometer, and two chronographs, any of which may be connected electrically through a switchboard with keys near the various telescopes; a Berger surveyor's transit; an Evershed protuberance spectroscope; a Gaertner comparator for measuring spectrograms; a projecting lantern and about 400 astronomical lantern slides; and a large collection of illustrative apparatus and photographs.

The Observatory House, the residence of the Observatory staff, is near by. Both the Observatory and the house, and also the greater part of the astronomical equipment, are the gift of the late Mrs. John C. Whitin.

## BOTANY

The department of Botany has well-equipped laboratories and a range of greenhouses.

The illustrative collections comprise an herbarium of over twenty thousand phanerogams and twenty-one thousand cryptogams, including the lichen collection of the late Prof. Clara E. Cummings; also a collection of woods, fruits, and economic vegetable products; three hundred charts by Henslow, Kny, Dodel, Tschirch, and others; a collection of Auzoux's botanical models; Brendel's glass models of cryptogams; seventeen hundred water color paintings of North American plants by Helen Frances Ayres; lantern slides and microscopic mounts. In addition collections for a permanent museum now number more than five thousand specimens.

The department has an "Outdoor Laboratory" for the use of certain courses. The green houses contribute to all the courses in the department; but are of especial importance in connection with the work in landscape gardening, in plant physiology and ecology.

The native flora about Wellesley is easily accessible, furnishing a convenient field for both the taxonomist and ecologist. The library ranks with the best botanical libraries in the country and is well supplied with reference works and with current periodicals.

## CHEMISTRY

The department of Chemistry occupies a separate building, which contains two lecture rooms and the chemical library, in addition to the rooms fitted up for laboratory work. Separate rooms are provided for work in general chemistry, organic chemistry, qualitative and quantitative analysis, and food analysis. The building is conveniently arranged and well equipped with necessary apparatus and appliances.

During the summer of 1918, a large well-lighted room, with all modern laboratory equipment, was added for the use of the courses in organic chemistry.

## GEOLOGY AND GEOGRAPHY

The department of Geology and Geography has a large and well-equipped lecture hall provided with a Leitz epidia-
scope for lantern slide and opaque projection, a good sized class room, and two laboratories furnished with students' desks, one for the use of geography classes, the other for work in geology.

The Geology Museum contains a typical college collection of dynamical, structural, and historical geology specimens,a systematic collection of minerals arranged according to Dana, and a systematic collection of rocks. There are three collections arranged for class-room use,-one each in mineralogy, petrology and structural and historical geology. These collections are all the generous gifts of colleges, museums, and friends. The department has two noteworthy collections. The first is the Horace I. Johnson Mineral Collection, which consists of five thousand valuable and beautiful mineral specimens, including many precious metals and stones. This collection is the gift of the late Mr. John Merton, and was presented through the Class of 1915 by the courtesy of Miss M. Helen Merton. The second is the Reverend David F. Pierce Collection, which includes a complete and rare collection of building and ornamental stones and many precious and semi-precious minerals. This collection is the gift of Professor Frederick E. Pierce of Yale, Miss Anna H. Pierce, and Miss Mary E. Pierce of the Class of 1898.

The maps of the department include wall maps of different countries and sections of countries; all the United States Geologic Folios, and ten thousand topographic maps of the United States Geologic Survey. Six thousand of these latter maps are arranged in groups to illustrate geographic types.
The department has four thousand lantern slides which illustrate all phases of geology and geography.

## MATHEMATICS

The fine collection of Mathematical Models was destroyed by fire in March, 1914. At present there is only a small number of models for use in the elementary work.

## PHYSICS

The department of Physics occupies temporary quarters consisting of two conveniently arranged lecture rooms, fitted
with direct and alternating current and gas, and laboratories for general physics, electricity and heat, and light.

The equipment, destroyed by fire in March, 1914, is being replaced as rapidly as funds permit. The lecture apparatus is sufficient to permit a wide range of experimental lectures. In the elementary laboratory duplication of apparatus permits a close co-ordination between lectures and laboratory exercises. The advanced laboratory equipment is especially strong in electrical and optical apparatus.

## PSYCHOLOGY

The laboratory is housed in ten rooms, eight in the south wing of the Administration Building, and two in Founders Hall. Of the latter, one is a dark room and one is a quiet room for sound experiments. The equipment, entirely destroyed by fire in March, 1914, is being replaced as fast as conditions permit or as need arises. It is now quite adequate for demonstration, for general experimental work, and for many lines of research.

## ZOOLOGY

The department of Zoology is housed in a temporary building, to which, in the summer of 1919, a large wing was added. This building contains laboratories for the elementary course in zoology, for histology and embryology and for physiology. The course in comparative anatomy is conducted in the laboratories in Mary Hemenway Hall.

The equipment lost in the fire of March, 1914, is being replaced as rapidly as conditions permit. The fundamental needs of the various courses have been met, and the physiology laboratory in the new wing is fully equipped with modern apparatus.

The nucleus of a new museum has been formed, and additions are being made as fast as funds and the lack of adequate fire-proof space allow. A collection of New England birds, and a valuable collection of shells, the gift of Mrs. Rebecca S. Beaman, of Cambridge, are housed in a basement room of the Library.

## FORMS OF BEQUEST

I give and bequeath to Wellesley College, a corporation established by law, in the town of Wellesley, county of Norfolk, and Commonwealth of Massachusetts, the sum of dollars, to be safely invested by it, and called the Endowment Fund. The interest shall be applied to the payment of the salaries of teachers in Wellesley College, as the Trustees shall deem expedient.

I give and bequeath to Wellesley College, a corporation established by law, in the town of Wellesley, county of Norfolk, and Commonwealth of Massachusetts, the sum of dollars, to be appropriated by the Trustees for the benefit of the College in such manner as they shall think will be most useful.

I give and bequeath to Wellesley College, a corporation established by law, in the town of Wellesley, county of Norfolk, and Commonwealth of Massachusetts, the sum of dollars, to be safely invested by it, and called the -Scholarship. Fund. The interest of this fund shall be applied to aid deserving students in Wellesley College.

## DEGREES CONFERRED IN 1921

## MASTER OF ARTS

Ruth Margery Addoms (B.A., Wellesley College, 1918), Botany.
Mary Barrett Ashbaugh (B.S., University of Alabama, 1917), Physics; Mathematics.
Anne Taylor Caswell: (B.A., Wellesley Coilege, 1911), Chemistry.
Dorothy Collier (B.A., University of Oregon, 1918), Philosophy and Psy. chology; Economics.
Eleanor Dewey Mason (B.A., Mount Holyoke College, 1919), Zoology; Chemistry.
Angela Palomo y Abeza (B.A., Instituto del Cardenal Cisneros, Madrid, 1907), Spanish.
Margaret Terrell Parker (B.S., University of Chicago, 1916), Geology and Geography.
Mary Beatrice Putney (B.A., Wellesley College, 1919), English Literature; Latin.
Mildred Catharine Smith (B.A., Wellesley College, 1914), English Literature; English Composition.
Helen Frances Whiting. (B.A., Wellesley College, 1918), Philosophy and Psychology; Biblical History.
Irene Harriet Wilson (B.A., Wellesley College, 1919), English Literature.
Lucretia Helm Yeaman (B.A., University of Colorado, 1917), English Literature.

## BACHELOR OF ARTS

Hazel Beatrice Aaron
Josephine Carter Abbott
Isabel Sara Abelson
Leah Janette Abrahamson
Caroline Mary Adams
Ruth Elizabeth Allen
Lydia Alvino
Edith Anderson
Katherine Louise Andrews
Emma Morrow Atchison
Grace Julia Averill
Dorothy Eaton Avery
Sara Mildred Broomfield Axelrod
Rachel Helen Babb
Rebecca Bacharach
Katharine Baetjer
Mildred Irene Bair
Deborah Sanford Barlow
Katharine Craft Barnett
Dorothy Mildred Barnfiart
Lillian Gladys Barr
Ruth Stanley Bayles
Wilhelmine Crawford Bayless
Margaret Medella Beachem
Pauline Margaret Beamer
Barbara Wardwell Bean
Marian Ruth Bean
Babette Minnie Becker
Helen Victoria Bell
Charlotte Berger
Leah Rebecca Bernstein
Elizabeth Scholle Bier
Carita, Bigelow
Edith Bixby
Ruth Elizabeth Bixby
Henriette Elizabetii Bohmfalk
Mary Case Bosworth
Thelma Irene Bowman
Miriam Elizabeth Boyd
Dorothy Hobart Brainard
Anita Matilda Brandt
Helen Brickett

Margaret Frederica Brickner
Dorothy Bright
Katherine Lyman Broadiurst
Frances Edna Brocks
Elizabeth Brown
Elizabeth Corelli Brown
Eugenia Bushnell Brown
Henrietta Browning
Eleanor Stuart Burch
Loraine Huntington Callan
Sarah Elizabeth Cameron
Lilian Ruth Carhart
Elenor Carpenter
Edith Lyle Carroll
Eleanor Marshall Case
Madeline Cassidy
Cakoline Chaffee
Laura Blanche Chander
Elizabeth Chase
Celia Bradford Christie
Jessie MacGregor Cleland
Jean Marie Cline
Inez Teress Cohen
Vivian Dunbar Collins
Helen Augusta Comegys
Jessie Esther Comegys
Dorothy Stewart Conant
Dorothy Margaret Cook
Helen Mary Cook
Helen Carolyn Cope
Bertha Emilie Copeland
Elizabeth Fairbrother Cornell
Elizabeth Couch
Florence Sophia Covell
Mary Virginia Crane
Mary Elizabeth Craver
Elizabeth Amelia Crawford
Emily Muriel Crawford
Marcia Frances Cressey
Julia May Currier
Ruth Green Cushing
Rose Danzis

Mary Dawson
Amelia Jocelyn De Wolf
Mary Catharine Dooly
Ruth Lillian Downer
Mary Munger Dudley
Anna-Belle Dunn
Tommy Louise Durham
Elsie Butler Eaton
Eleanor Edwards
Christine Evans
Margaret Francis Evans
Elinor Everitt
Margaret Macduff Farmer
Winifred Grenell Farmer
Isabel Bonnar Faye
Louise Barbara Feely
Elizabeth Putnam Fleming
Martha Fohl
Ruth Elisabeth Foss
Gertrude Foster
Gladys Hulda Fox
Mary Virginia French
Gladys Helen Friedman
Ivy Burchfield Friesell
Elizabeth Mary Fry
Harriet Neff Gans
Editha Clapp Gardner
Alice Marie Garlock
Helen Alma Gary
Katherine Haynes Gatch
Helen Albro Gates
Edith Gayton
Lydia Elizabeth Gelvin
Ruby Louise George
Margaret Darsie Gerwig
Eleanor Grant Goldsmith
Edith Churchill Gordon
Dorothy Gow
Eleanor Gow
Mary Orrea Gray
Olivia Green
Helen Gross
Phebe Gross
Caroline Lehe Gruhler
Alice Payne Hackett
Margaret Williams Haddock
Ada Heilner Haeseler
Frances Hall
Phoebe Judd Hall
Frieda Langley Halsted
Ruth Hampson
Harriet Glass Hannan
Sara Rose Hardenbergh
Gladys Louise Hathaway
Dorothy Flora Heller
Angeline Hengeveld
Christine Bracken Henshey
Alida Wilhelmina Herling
Jessie Margaret Herring
Bertha Vivian Hershman
Mildred Clara Hesse
Josephine Heydrick
Rebecca Stoughton Hill
Ruth Hill
Shirley Paine Himes
Mary Clemewell Hinchliff
Margaret Hodge
Florence Wood Holmes

Charlotte Hartwell Homer
Madelaine Prentice Howe
Elizabeth Warner Hubbard
Katharine Reed Hughes
Mabel Graybill Hunt
Marjory Beadle Irving
Marguerite Helen Jackson
Eleanor Maughs Jameson
Virginia Austin Jeffries
Eleanor Johnson
Laura Shumway Johnson
Mildred Dorothy Johnston
Sarah Mildred Jones
Alice Joy
Katharine Judd
Margaret Shirra Kates
Elizabeth Boyd Kibler
Margaret Elizabeth Kilgore
Elizabeth Sarah Kutz
Vera Caroline Lange
Florabel Liggett
Helen Hague Lincoln
Edna Browning Lippincott
Catherine Hill Livermore
Marian Malvina Lockhart
Mary Georgiana Lockwood
Margaret Hoff Longaker
Myrtle Lorch
Clara Olds Loveland
Maude Ludington
Marian Murdock Lunan
Jeannette Louise Luther
Ruth Esther McCollum
Alice McCullough
Bess Alison McFalls
Helen Annette McKearin
Adele McKenzie
Ruth McLachlan
Elizabeth McLaughlin
Helen Grace McMahon
Gladys Eliot Mansir
Bertha Marcus
Ruth Marsh
Edna Noble Marshall
Dorothy Joyce Martin
Mildred Van Noy Masters
Hope Mathewson
Edith Rittenhouse Mayne
Lois Meier
Ruth Eleanore Melgaard
Adela Merrell
Margaret Metzger
Ruth Metzger
Zilpah May Meyer
Catherine Rowand Miller
Helen Emelyn Miller
Marian Huddleston Miller
Maud Gates Miller
Catherine Mary Mitchell
Theresa Cassandra Montgomery
Anna Hooker Morse
Chloe Stevens Morse
Willis Russell Munger Pearl Jeannette Murray Annabel Bennett Neiman
Natalie Noyes Nickerson
Dorothy Niebrugge
Katharine May Noble

Marion Calista Noble
Eugenia Whitehead Norris
Annis Mabel Noxon
Mary Elizabeth O’Keefe
Mary Virginia Oldham
Helena Catherine Otto
Nancy Pearl Oxnard
Gretchen Katharine Paff
Helen Darling Parker
Eleanor Perret
Helen Lucille Phillips
Marie Elizabeth Poland
Ruth Winifred Potter
Frances Powell
Margaret Powell
Janet Fredericka Purvin
Elizabeth Prentiss Rand
Dorothy Grace Ransley
Josephine Langworthy Rathbone
Dorothy May Reed
Louise Davis Reynolds
Dorothy Rice
Elizabeth Prince Rice
Mary Elizabeth Richards
Isabel Richardson
Phebe Ann Richmond
Dorothy Anna Riebel
Mary Elizabeth Ritchey
Elisabeth Hitchcock Roberts
Helen Barrett Robertson
Emmy Elizabetii Bettina Roessler
Charlotte Warner Rosewater
Helen Carpenter Ross
Edith Carolyn Rowse
Helen Gertrude Russell
Geraldine Ryder
Mary Parrot Saltonstall
Mona McCollar Sanborn
Eleanor Sanford
Elizabeth Knight Sayre
Winifred Ellen Schwingel
Mary Bragdon Scofield
Margaret Elizabeth Scripps
Constance Selden
Emelie Sellers
Matilda Bernice Sergeant
Gwendolyn Parker Shannon
Olive Moakler Shaw
Elizabeth Gordon Shedd
Helen Sherman
Marjorie Siedle
Ann Maurine Simmons
Mary Burrier Simpson
Dorothy Webster Smith
Isabella Barnes Smith
Margaret Wyman Smith
Marion Calvert Smitif
Elinor Bruce Snow

Martha Dickinson Snow
Olive Snow
Madeline Eunice Snyder
Mary Hildegard Soderberg
Edith Cushing Spencer
Dorothy Sperry
Harriet Armstrong Spink
Dorothy March Stevens
Esther Reese Stevens
Helen Grover Stone
Louise Countiss Stirling
Katherine Mildred Strasmer
Nana Anne Taylor
Ruth G Taylor
Katharine Slocum Tempiet
Sarah Elizabeth Terky
Leslye Ida Thomas
Sally Rumford Thompson
Evelyn Tilden
Katharine Tracy
Virginia Macqueen Travell
Erna Louise Trostel
Elizabeth Virgin Trump
Frances May Turrentine
Catherine Davis Twiss
Marjorie Twitchell
Martha Sophronia Twyman
Cornelia Burrows Van Alen
Mildred Van Blarcom
Constance Vander Roest
Janet Waldron Victorius
Gertrude Knowlton Wain
Eleanor Beverly Walden
Sibyl Huntington Wardwell
Mary Florette Webb
Marion Kahn Weil
Anne Gwendolyn Wells
Rilma Marian Werner
Marjorie Abigail Westgate
Margaret Anna White
Constance Whittemore
Evelyn Prescott Wiggin
Esther Taber Wilcox
Margaret Webster Wilcox
Mary Elizabeth Willis
Julia Louise Willsea
Helen Elizabeth Wilson
Nathalie Lois Wilson
Maria Winne
Harriette Ellanor Winner
Gertrude Ethel Winspear
Esther Wolcott
Laura Charlotte Wolman
Margaret Carver Woodward
Pauline Woodward
Doris Moulton Worthen
Rena Myra Young
Sze Tsong Yuan

## CERTIFICATES IN HYGIENE AWARDED IN 1921

Jessie Virginia Baltezore, B.A., Whitman College

Dorothye Elizabeth Brock, B.A., Smith College

Emily Ingersoll Case, B.A., Wellesley College

Ruth Chandler,
B.A., Leland Stanford Jr. University

Frances Gorham Dennett, B.A., Wellesley College

Alice Louise Gall, B.A., University of Minnesota

Margaret Evertson Phillips, B.A., Vassar College.

Marion Alice Shepard, B.A., University of Minnesota

## HONOR SCHOLARSHIPS

Honor Scholarships (without stipend) have been established by the College for the purpose of giving recognition to a high degree of excellence in academic work. These honors fall into two classes: students in the first, or higher class, are termed Durant Scholars; students in the second class are termed Wellesley College Scholars.

These honors are awarded to seniors on the basis of two and one-half years' work, to juniors on the basis of one and one-half years' work. The standard in each case is absolute, not competitive.

## DURANT SCHOLARS

APPOINTED IN 1921

Edith Margaret Barrolvs, '22
Babette Minnie Becker, '21
Alfarata Bowdoin, '22
Eleanor Stuart Burch, '21
Edith Carroll, '21
Eleanor Marshall Case, '21
Helen Houghton Chain, '22
Hildegarde Ellen Churchill, '22
Inez Teress Colien, '21
Vivian Dunbar Collins, '21
Laverna Marian Cone, '22
Julia McDonald Davis, ' 22
Ruth Josephine Dean, '22
Mary Munger Dudley, '21
Isabel Bonnar Faye, '21
Alice Elizabeth French, '22
Mary Virginia French, '21
Elizabeth Claudia Frost, '22
Helen Alma Gary, '21
Katherine Haynes Gatch, '21
Emily Elizabeth Gordon, ' 22
Janice Mildred Grant, '22
Margaret Williams Haddock, '21
Ada Heilner Haeseler, '21
Mary Hankinson, '22
Hortense Rene Henenberg, '22
Alida Wilhelmina Herling, ' 21
Shirley Louise Himes, '21
Elizabeth Warner Hubbard, '21
Kikue Ide, '22
Marion Ellsworth Ireland, '22
Marguerite Helen Jackson, ' 21
Gertrude Marie Kessel, '22 Marjorie Jeanne Klein, '22
Ruth Gertrude Lindall, '22
Rose Loewenstein, '22
Clara Olds Loveland, ' 21
Elizabeth Kirkpatrick Lum, '22
Jeannette Louise Luther, ' 21
Eleanor Thayer McArdle, '22

Alice McCullougir, '21
Helen Annette McKearin, '21
Hope Mathewson, '21
Edith Rittenhouse Mayne, '21
Ruth Eleanore Melgaard, 21
Adela Merrell, '21
Margaret Merrell, '22
Mildred Dunbar Miles, '22
Carol Frazier Mills, '22
Helen Muriel Morris, '22
Emily Guild Nicholas, '22
Grace LeBarron Osgood, '22
Nancy Pearl Oxnard, '21
Marjorie Ellen Packard, '22
Elizabeth Prentiss Rand, '21
Tosephine Langworthy Rathbone, '21
Louise Dayis Reynolds, '21
Phebe Ann Richmond, '21
Mary Elizabeth Ritchey, '21
Helen Gertrude Russell, '21
Eleanor Sanford, '21
Elizabeth Knight Sayre, '21
Ruth Schlivek, '22
Abigail, Eliot Smith, '22
Elinor Bruce Snow, '21
Olive Snow, '21
Mary Enith Stahl, '22
Esther Reese Stevens, '21
Helen Grover Stune,' 21
Enid Constance Straw, '22
Katherine Slocum Temple, '21
Elizabeth Alden Tracy, '22
Tanet Graeme Travell, '22
Virginia Macqueen Travell, '21
Frances May Turrentine,' 21
Doris Rebecca Ulmann, '22
Margaret Anna White, '21
Evelyn Prescott Wiggin, '21
Nathalie Lois Wilson, '21
Sze Tsong Yuan, '21

## WELLESLEY COLLEGE SCHOLARS

APPOINTED IN 1921

Josephine Carter Abbott, '21
Dora Maude Armstrong, ' 22
Mihiam Batchelder, '22
Aimee Louise Bettman, '22
Edith Bixby, '21
Ruth Elizabeth Bixby, '21
Henrietta Browning, '21
Margaret Russell Byard, '22
Lillian Ruth Cariart, 21
Lois Alward Childs, '22
Mary Elizabeth Clark, '22
Ruth Clingan, '22
Dorothy Greeno Cochlin, '22
Dorothea Birchall Comly, '22
Helen Carolyn Cope, '21
Elizabeth Fairbrother Cornell,
Gladys Louise Corthell, '22
Emma Couch, '22
Mary Virginia Crane, '21
Tilse Elise Daniels, ' 22
Mary Margaret Denton, '22
Amelia Jocelyn DeWolf, '21
Mary Catharine, Dooly, ' 21
Naomi Downer, '22
Mildred Elizabeth Durant, '22
Winifred Grenell Farmer,' 21
Helen Grace Forbush, '22
Mary Louise Fritchman, '22
Lois Mae Gibboney, '22
Mary Ramsdell Giddings, '22
Dorothy Allen Grover, '22
Ethel Mildred Halsey, '22
Ruth Hampson, '21
Grace Harriet Harding, '22
Mildred Clara Hesse, '21
Rebecca Stoughton Hill, '21
Charlotte Wallace Hilton, '22
Florence Wood Holmes, '21
Caroline Lawrence Ingham, ' 22

Katherine Ingling, ' 22
Marjorie Beadle Irving, '21
Eleanor Maughs Jameson, '21
Kathryn Kidd, '22
Margaret DeWitt Kittinger, '22
Mildred Van Noy Masters, '21
Lois Meier, '21
Marian Huddleston Miller, '21
Elizabeth Caldwell Morrison, '22
Anna Hooker Morse, '21
Edith May Nutt, '22
Mary Virginia Oldham, '21
Helen Darling Parker, '21
Eleanor Peckham, '22
Helen Barrett Robertson, '21
' 21 Carol Mary Roehm, ' 22
Lillian Rosenweig,' 22
Mary Parrot Saltonstall, '21
Elizabeth Gordon Shedd, '21
Beatrice Lida Smith, '22
Margaret Wyman Smith,' 21
Marion Calvert Smith,' 21
Shirley Soule Smith, '22
Dorothy Lee Stevens, '22
Katherine Mildred STrasmer, '21
Nana Anne Taylor, ' 21
Lucy Lewis Thom, '22
Erna Louise 'Trostel, '21
Elizabeth Virgin Trump, '21
Madeline Van Dorn, '22
Harriet Virginia Vought, ' 22
Mary Celina Ward, '22
Betty Pauline Watt, '22
Louise Young Wheelock, '22
Helen Elizabeth Wilson, '21
Esther Wolcott, '21
Helen Woodruff, '22
Helen Ruth Woods, '22
Elizabeth McIver Woody, '22

## SUMMARY OF STUDENTS

Resident candidates for the M.A. degree ..... 31
Resident candidates for the Certificate in Hygiene ..... 22
Candidates for the B.A. degree:-
Seniors ..... 356
Juniors ..... 305
Sophomores ..... 373
Freshmen ..... 412
Unclassified ..... 461,492
Non-candidates for degrees ..... 3
Total registration, November, 1921 ..... 1,548
United States:-
Alabama 5 New Hampshire ..... 26
Arizona 1 New Jersey ..... 146
Arkansas 2 New Mexico ..... 1
California 9 New York ..... 257
Colorado 9 North Carolina ..... 1
Connecticut 58 Ohio ..... 90
Delaware 2 Oklahoma ..... 3
District of Columbia 24 Oregon ..... 6
Florida 4 Pennsylvania ..... 182
Georgia Rhode Island ..... 34
Hawaii 5 South Carolina ..... 2
Idaho 4 Tennessee ..... 8
Illinois 95 Texas ..... 22
Indiana 14 Vermont ..... 7
Iowa 12 Virginia ..... 12
Kansas 5 Washington ..... 11
Kentucky 18 West Virginia ..... 9
Louisiana 3 Wisconsin ..... 15
Maine 30 Wyoming ..... 1
Maryland 18 Canada ..... 5
Massachusetts 288 China ..... 12
Michigan 33 England ..... 2
Minnesota 10 France ..... 3
Missouri 2.5 Japan ..... 3
Nebraska ..... 10

## OFFICERS OF THE ALUMNAE ASSOCIATION 1921-1922

Mrs. Helen Knowles Bonnell (Mrs. H. H.), President
111 Moreland Ave., Chestnut Hill, Philadelphia, Pa. Mrs. Helen Foss Wood (Mrs. G. B.), Vicc-President,

1830 Spruce St., Philadelphia, Pa.
Mrs. Ethel Doak Camp (Mrs. G. R.), Corresponding Secretary,
513 South 45th St., Philadelphia, Pa.
Mrs. Stella Wrenn Parsly (Mrs. E. G.), Director,
6426 Sherwood Rd., Overbrook, Pa. Cynwyd, Pa . Miss Jeannette Keim, Treasurer, Cynwyd, Pa . Miss Laura M. Dwight, Alumnae General Secretary and Secretary of the
Graduate Council,

## LOCAL ASSOCIATIONS

In the following, an arrangement by states has been adopted. The name standing after that of the club refers to the secretary-treasurer unless otherwise specified. In the addrcss of this officer, the name of the city (or town) and state are omitted if these have already been expressly stated in the heading. Corrections or additions will be gratefully received. Brackets indicate information not recent.

California.
Central, Elizabsth S. Adams, 1770 Pacific Ave., San Francisco. Southerr, Frances L. Rogers, 7180 Sunset Blvd., Hollywood.
Canada.
Montreal, Grace Wagner Bean (Mrs. H. D.), 320 Hingston Ave. China.

Katherine Williams, Y. W. C. A., Peking.
Colorado.
State, Mrs. Laura M. Sigel, 609 East Colfax Ave., Denver.
Columbia, District of
Edna Spaulding, 3021 Q St., N. W., Washington.
Connecticut.
Bridgeport, Elizabeth Carter, 480 Wood Ave.
Hartford, Dorothy Larrabee, 27 Summer St.
New Haven, Mary Burdett Edgerly (Mrs. Clifton), 820 Elm St.
Hawair.
Johnette Pierik, 1628 College St., Honolulu. Illinors.

Chicago, Ruth Watson, 3832 North Keeler Ave., Irving Park.
Indiana.
Ethyl Hutchinson, 960 N. Delaware, Indianapolis. Iowa.

Iowa, Dorothy Deemer Houghton (Mrs. H. C.), Red Oak, President.
Des Moines, Mary Aldrich, 4200 Pleasant St., President.
Japan.
Gertrude Willcox Weakley (Mrs. Wm. R.), 14 Kawagucha, Osaka.
Kentucky.
Edith Bain, 516 West 3d St., Lexington.
Maine.
Eastern, Bernice B. Dunning, 156 Cedar St., Bangor.
Western, Mabel Wood Little (Mrs. Albion), 473 Cumberland Ave., Portland, President.

Maryland.
Baltimore, Helena Stewart Dalrymple (Mrs. P. W.), South Ave., Mt. Washington.
Massachusetts.
Berkshire, Martha Butler Hoffman (Mrs. Lloyd), 261 South St., Pittsfield.
Boston, Helen Howe, 148 Lexington Ave., Cambridge.
Fitchburg, Louise Stratton Vaughan (Mrs. Wm. R.), 16 Cherry St.
Haverhill, Lucasta Boynton, 140 Pleasant St., Bradford.
Loxell, Hannah E. Moors, 104 Moore St.
Lynn, Theresa La Croix Buckley (Mrs. John), 15 Sheridan Rd., Swampscott.
Middlesex, Vera Hemenway, Framingham Center, President.
Quincy, Harriet Whitaker Kimball (Mrs. Clifton), 137 Shaw St., East Braintree.
S. E. Mass., Alice T. Abbe, 375 Rock St., Fall River.

Springfield, Lucy Besse Mitchell (Mrs. John), 90 Westminster St.
Worcester, Marjory Boynton Rugg (Mrs. C. B.), 53 Institute Rd.
Michigan.
Detroit, Ernestine Miller Fries (Mrs. Wm.), Parkview Ave.
Minnesota.
Duluth, Anne Macfarlane, Glen Avon, Duluth.
Minneałolis, Dorothy Stacy, 2307 Colfax Ave., S.
St. Paul, Ada Henry Diether (Mrs. Carl), 1449 Lincoln Ave.
Missouri.
Kansas City, Lucy A. Holmes, 4128 Warwick Blv'd.
St. Louis, Kathryn Farrar, 6316 Emma Ave.
Nebraska.
Omalia, Gertrude White McClure (Mrs. G. C.), 1312 South 33rd St.
New Hampsiire.
Cornelia V. B. Kimball, St. Paul's School, Concord.
New Jersey Coast.
Marjorie B. Cook, 506 Eighth Ave., Asbury Park, N. J.
New Mexico.
Lillian Spitz Bigler (Mrs. Earle), Box 125, Artesia.
New York.
Buffalo, Hazel Cowan Bruce (Mrs. O. S. Jr.), 144 Clarmont Ave.
Eastern N. Y., Cornelia Mills, 155 South Lake Ave., Albany.
Ithaca, Emma Barrett Coffin (Mrs. Foster), 417 E. Seneca St., President.
New York City, Frances Hildreth Eddy (Mrs. Walter), 509 West 121st St.
Rochester, Elaine Clark, 269 Alexander St.
Syracuse, Marjorie E. Wyatt, 611 University Ave.
Utica, Marguerite F. Williams, 348 Genesee St.
Оніо.
Akron, Margaret S. Wright, 384 West Market St.
Cincinnati, Louise Domhoff, Hotel Gibson.
Cleveland, Anna Brinton Wilson (Mrs. J. F.),. 1872 Rudwick Rd.
Columbus, Hattie Weiler Lazarus (Mrs. Robt.), 43 Preston Rd., Bexley, R. F. D., Columbus.

Toledo, Marie Schmidt, 719 Michigan St.
Youngstown, Frances Mason Lynn (Mrs. D. J.), 929 Belmont Ave.
Oregon.
Portland, Mary Atkinson Tracy (Mrs. R. S.), 715 Hancock St.
Pennsylvania.
Eastern, Georgine Kurtz Gruver (Mrs. M. E.), 247 N. 5th St., Reading.
Northeastern, Mary James, 1744 Capouse Ave., Scranton.
Philadelphia, Margaret Jones, 122 Oak Ave., Moorestown, N. J.
Pittsburgh, Mary Bishoff, 801 S. Braddock Ave.
Southeastern, Lucy H. Ellmaker, 342 East Orange St., Lancaster.
Williamsport, Mary Brown Taggart (Mrs. H. W.), 317 Campbell St.
Rhode Island.
Providence, Corinne Harris Smith (Mrs. E. Kirk), 139 Ivy St.

South Dakota.
Ann Abbott Brown (Mrs. Rush), 413 Minnesota Ave., S., Sioux Falls. Tennessee.

Memphis, Mary V. Little, 576 Linden Ave.
Utah.
Salt Lake City, Dorothy Day, 2480 5th St.
Vermont.
State, Ellen Cramton, 111 Park Ave., Rutland.
Virginia.
State, Helen Coale Worthington (Mrs. Hugh), Sweet Briar.
Washington.
Western, Anne Mobley Sutton (Mrs. W. H.), Benvenuto, East Seattle. Wisconsin.

Madison, Florence Hastings Stebbins (Mrs. B. W.), 1032 Sherman Ave.
Milwaukee, Ruth Strong, 619 Shepard St.

## INDEX




[^0]:    ${ }^{1}$ The officers of instruction are arranged in three groups; the first group includes professors and associate professors, the second instructors, and the third other officers.
    ${ }^{2}$ Absent on Sabbatical leave.

[^1]:    ${ }^{4}$ Absent on leave.

[^2]:    ${ }^{4}$ Absent on leave.
    ${ }^{5}$ Absent on leave for the second semester.

[^3]:    ${ }^{8}$ Appointed for the first semester only.

[^4]:    *A half unit of either Solid Geometry or Trigonometry is not accepted unless a half unit of the other is also presented, making one full unit of Mathematics.
    $\dagger$ All students are advised to offer Ancient History for admission. When two or three units of History are offered, it is required that one unit shall be Ancient History.

[^5]:    *i.e., In addition to the 2 unit requirement.
    $\ddagger$ A part of this may be critical reading, a part rapid or outside reading. $\dagger$ From texts not previously memorized.

[^6]:    * See "Suggestions Concerning Preparation," on page 39.

[^7]:    $\dagger$ That is, the 2 unit requirement.
    *See "Suggestions Concerning Preparation," on page 39.

[^8]:    * See note on page 58.
    ${ }^{2}$ Absent on Sabbatical leave.
    ${ }^{7}$ Appointed for the second semester only.

[^9]:    4 Absent on leave.

[^10]:    - Absent on leave.

[^11]:    ${ }^{*}$ Absent on leave for the first semester.
    ${ }^{7}$ Appointed for the second semester only.
    ${ }^{8}$ Appointed for the first semester only.

[^12]:    ${ }^{8}$ Absent on leave for the second semester.

[^13]:    - Absent on leave.

[^14]:    ${ }^{2}$ Absent on Sabbatical leave.

[^15]:    4 Absent on leave.
    ${ }^{8}$ Appointed for the first semester only.
    $\ddagger$ Course 103 is prerequisite to later election.

[^16]:    * A course of twelve lessons, including methods of instructing beginners, will probably be given at an adjacent swimming pool during the indoor season and also similar lessons in horseback riding. A charge will be made for these lessons.

[^17]:    * A course of twelve lessons, including methods of instructing beginners, will probably be given at an adjacent swimming pool during the indoor season and also similar lessons in horseback riding. A charge will be made for these lessons.

[^18]:    * A course of twelve lessons, including methods of instructing beginners, will probably be given at an adjacent swimming pool during the indoor season and also similar lessons in horseback riding. A charge will be made for these lessons.

[^19]:    * It will be the privilege of students in courses 202, 303, 304, and 305 to have access to the manuscripts and early-often contemporary-editions of Italian authors contained in the Frances Pearsons Plimpton Collection,

[^20]:    4 Absent on leave.
    $\dagger$ Course 103 will count one hour only toward the B.A. degree for students who offer course 102 also.

[^21]:    * Physics 305, if preceded by Mathematics 303, may be counted toward a major in Mathematics.

[^22]:    ${ }^{7}$ Appointed for the second semester only.

[^23]:    ${ }^{3}$ Absent on Sabbatical leave for the first semester.
    ${ }^{8}$ Appointed for the first semester only.

