JOHNS HOPKINS UNIVERSITY CIRCULARS

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GENERAL STATEMENTS AS TO THE COURSES OF INSTRUCTION.

The Johns Hopkins University will begin its twenty-seventh year, October 1, 1902.* The work will go forward in these divisions:

The Graduate department, in which arrangements are made for the instruction of advanced students in the higher studies of literature and science;

The Undergraduate or Collegiate department, in which students receive a liberal education leading to the degree of Bachelor of Arts;

The Medical department, in which students who have already received a liberal education are received as candidates for the degree of Doctor of Medicine, and in which Doctors of Medicine may attend special courses.

In other words, arrangements are made for the instruction of the following classes:

1. Graduate students and other qualified persons desiring to continue for one or more years their liberal education, and possibly to become candidates for the degree of Doctor of Philosophy;

2. Graduate students and other qualified persons wishing to proceed to the degree of Doctor of Medicine;

3. Doctors of Medicine who desire to follow special courses of lectures and laboratory work;

4. Undergraduates looking forward to the degree of Bachelor of Arts;

5. Special students who have not received an academic degree and are not candidates for a degree, but who desire to follow special courses of instruction in literature and science.

The medical department is open to women; the other departments are not.

An academic building, called McCoy Hall, in commemoration of its donor, contains the library and the class-rooms in languages, literature, history, and philosophy.

Laboratories are provided in Chemistry, Physics and Electricity, Geology and Mineralogy, and in the Biological Sciences (Anatomy, Physiology, Zoölogy, and Pathology).

Seminaries are organized in the Greek, Latin, French, German, English, Sanskrit, and Semitic languages, and also in History and Political Science. There are various scientific associations and journal clubs which hold regular meetings.

The Library contains more than one hundred and four thousand volumes, part of which are kept in the central reading room, while the remainder of the books are distributed according to their subjects in the different laboratorics and seminaries.

The Library of the Peabody Institute contains one hundred and forty thousand volumes. These books are selected with reference to the wants of scholars. They are well chosen, well arranged, well bound, and well catalogued, and are accessible daily from nine in the morning until half-past ten in the evening.

The proximity of Baltimore to Washington enables the students to visit the libraries, museums, and scientific foundations of the Capital.

The academic year extends from the first of October to the fifteenth of June.

The charge for tuition is one hundred and fifty dollars per annum in the graduate and undergraduate departments, and two hundred dollars in the medical department.

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The Annual Register, giving full statements as to the regulations and work of the University, and separate announcements of the Medical Courses, will be sent on application.

*The entrance examination of undergraduates will begin October 1; instruction in all departments October 7.
FACULTIES OF PHILOSOPHY AND MEDICINE, 1902-03.

IRA REMSEN, M. D., Ph. D., LL. D., President.

THOMAS C. GILCHRIST, M. B., M. R. C. S., Clinical Professor of Dermatology.
HENRY J. BERKLEY, M. D., Clinical Professor of Psychiatry.
NICHOLAS MURRAY, A. B., LL. B., Associate Professor of Medicine.
EDWARD H. STEINER, Ph. D., Associate Professor of Greek and Latin.
ETHAN A. ANDREWS, Ph. D., Associate Professor of Biology.
JOHN M. VINCENT, Ph. D., Associate Professor of History.
WILLIAM S. THAYER, M. D., Associate Professor of Medicine.
JOHN M. T. FINNEY, M. D., Associate Professor of Surgery.
LORRAIN S. HULBERT, Ph. D., College Professor of Mathematics.
C. W. EMIL MILLER, Ph. D., Associate Professor of Greek.
BERT J. VOS, Ph. D., Associate Professor of German.
ROSS G. HARRISON, Ph. D., Associate Professor of Anatomy.
JACOB H. HOLLANDER, Ph. D., Associate Professor of Political Economy.
CHRISTOPHER JOHNSTON, Ph. D., Associate Professor of Oriental History, etc.
C. CARROLL MARDEN, Ph. D., Associate Professor of Spanish.
EDWARD B. MATHEWS, Ph. D., Associate Professor of Mineralogy.
WESTEL W. WILLIAMS, Ph. D., Associate Professor of Political Science.
WILLIAM W. RUSSELL, M. D., Associate Professor of Gynecology.
THOMAS S. CULLEN, M. B., Associate Professor of Gynecology.
REID HUNT, Ph. D., Associate Professor of Pharmacology.
HARRY C. JONES, Ph. D., Associate Professor of Physical Chemistry.
EDWARD C. ARMSTRONG, Ph. D., Associate Professor of French.
PHILIP ODGEN, Ph. D., Associate Professor of French Literature.
ROBERT L. RANDOLPH, M. D., Associate Professor of Ophthalmology and Otology.
THOMAS R. FUTCHER, M. R., Associate Professor of Medicine.
WILLIAM J. A. BLISS, Ph. D., College Professor of Physics.
CHARLES R. BARDEEN, M. D., Associate Professor of Anatomy.
DUNCAN H. JOHNSON, Ph. D., Associate Professor of Botany.
WALTER JONES, Ph. D., Associate Professor of Physiological Chemistry.
WILLIAM G. MACCALLUM, M. D., Associate Professor of Pathology.
GEORGE E. SMITH, M. D., Associate Professor of Physiographic Geology.
HARRY L. WILSON, Ph. D., Associate Professor of Latin.
BOLLING W. BARTON, M. D., Lecturer in Systemic Botany.
PHILIP R. UHLE, LL. D., Associate in Natural History.

BERNARD C. STEINER, Ph. D., Associate in History.
JOSEPH C. BLOODGOOD, M. D., Associate in Surgery.
JAMES C. BALLAGH, Ph. D., Associate in Literature.
ABRAHAM COHEN, Ph. D., Associate in Mathematics.
J. ELLIOTT GILPIN, Ph. D., Associate in Chemistry.
GEORGE C. KEIDEL, Ph. D., Associate in Romance Languages.
HARVEY W. CUSHING, M. D., Associate in Surgery.
NORMAN MACL. HARRIS, M. B., Associate in Bacteriology.
JOHN B. WHITFORD, Jr., Ph. D., Associate in Applied Electricity.
FRANK R. SMITH, M. D., Associate in Medicine.
H. BARTON JACOBS, M. D., Associate in Medicine.
STEWART PATON, M. D., Associate in Psychiatry.
OLIVER L. FASSIO, Ph. D., Associate in Meteorology.
PENNY M. BARTLEY, M. D., Associate in Pathology.
FRANK W. LYNCH, M. D., Associate in Obstetrics.
HUGH H. YOUNG, M. D., Associate in Genito-Urinary Diseases.
COWELL GRAVE, Ph. D., Associate in Zoology.
GUY L. HENNIE, M. D., Associate in Gynecology.
S. EDWIN WHITMAN, Instructor in Drawing.
GUY CARLETON LEE, Ph. D., Instructor in History.
MURRAY P. BROWN, Ph. D., Instructor in Romance Languages.
LOUIS P. HAMMERMAN, M. D., Instructor in Medicine.
MERVIN T. SUDERS, Ph. D., Instructor in Anatomy.
HENRY E. KNOWLTON, Ph. D., Instructor in Anatomy.
GEORGE E. BARNETT, Ph. D., Instructor in Economics.
WILLIAM S. BAER, M. D., Instructor in Orthopedic Surgery.
CHARLES P. EMMERSON, M. D., Instructor in Medicine.
WILLIAM KURZELMAYER, Ph. D., Instructor in German.
WARREN H. LEWIS, M. D., Instructor in Anatomy.
JOHN D. TAYLOR, Ph. D., Instructor in Italian.
JOSEPH I. LARSEN, M. D., Instructor in Physiology.

In addition, there are a number of other Instructors and Assistants in the laboratories.
PROGRAMMES FOR 1902-1903.

The following courses in literature and science are offered for the academic year which begins October 1, 1902. They are open to properly qualified young men, according to conditions varying somewhat in each department.

MATHEMATICS.

Advanced Courses.

Professor Morley.

Geometry (Advanced Course).

Three times weekly, through the year.

The Theory of Groups.

Twice weekly, first half-year.

The Theory of Functions (Advanced Course).

Twice weekly, second half-year.

Mathematical Seminary.

Weekly, through the year.

Dr. Cohen.

Lie's Theory of Differential Equations.

Twice weekly, through the year.

Differential Geometry.

Twice weekly, through the year.

Elementary Theory of Functions.

Twice weekly, through the year.

Undergraduate Courses.

For Candidates for Matriculation.

Algebra (special topics); Solid Geometry; Plane Trigonometry; Analytic Geometry (straight line and loci).

Four hours weekly, through the year.

Students who complete this course in a satisfactory manner, will not be required to pass any further examination in mathematics for matriculation.

Minor Course.*

Analytic Geometry.

Four hours weekly, until the Christmas recess. Professor Hulburt.

Differential and Integral Calculus.

Four hours weekly, from the Christmas recess until the end of the year. Professor Hulburt.

Practical Exercises.

Two hours weekly. Professor Hulburt.

Major Course.

Determinants; Differential and Integral Calculus (special topics).

Four hours weekly, until the Christmas recess. Professor Hulburt.

Elementary Theory of Equations.

Four hours weekly, during January. Professor Hulburt.

Elements of Projective Geometry.

Four hours weekly, during February and March. Professor Hulburt.

Analytic Geometry of Three Dimensions.

Four hours weekly, during April and May. Professor Hulburt.

Practical Exercises.

Two hours weekly. Professor Hulburt.

The work designated as Practical Exercises consists, in both the Minor and Major Courses, of practice in the use of mathematical instruments, in the drawing of curves, in the graphical solution of problems, and in making mathematical computations. This work is not designed to increase the amount of work required of students in these courses, but, rather, to facilitate their preparation of the class work. This work is under the direction of Professor Morley, assisted by Professor Hulburt and Dr. Cohen.

Elective Course.

Differential Equations.

Two hours weekly, through the year. Dr. Cohen.

This course presents the elementary principles of Ordinary and Partial Differential Equations, and affords to students of Physics, Astronomy, and Electricity a necessary working knowledge of the subject. Much time is devoted to the solution of problems.

PHYSICS.

Advanced Work for Graduate Students.

Laboratory.

Under the direction of Professors Ames and Wood. Daily, except Saturday, from 9 a.m. to 5 p.m.

Advanced students are expected to give as much of their time as possible to laboratory work. This consists at first in carrying out experiments which familiarize the student with the use of instruments for exact measurement and with experimental methods. When sufficient experience of this kind has been acquired, the student undertakes, under the guidance of the instructors, some research designed to be of permanent value.

Seminary and Journal Meetings.

All advanced students are expected to meet with the instructors twice a week, once for the meetings of the Physical Seminary and once for the discussion of the current physical journals.

In the Seminary, which is directed by Professor Ames, a series of papers is presented by the members upon selected topics of present or historical importance. An attempt is made to stimulate original work and to maintain the interest in the purely experimental side of Physics, as distinct from the theoretical or mathematical. During the year 1902-1903 questions pertaining to Electricity and Magnetism will be discussed.

At the journal meetings reports upon articles in the physical journals are carefully prepared by the students and are presented for discussion.

et de Physique, Physikalische Zeitschrift, Zeitschrift für Instrumenten
Kunde, Nature, Comptes Rendus, London Electrician, the Proceedings
of the Royal Society of London and of many other societies.

Lectures.
1. General Physics. Professor Ams. Four hours weekly, through
   the year.
   This is a course of lectures continuing for three years, and includes
   the subjects of Theoretical Mechanics, Hydrodynamics, Elasticity, Sound,
   Thermodynamics, Heat Conduction, Electricity and Magnetism, and Light.
   The mathematical treatment of the subjects is fully developed, beginning
   however in an elementary manner.
   During the following year, 1892–1893, the lectures will be on Electricity
   and Magnetism.

2. Heat. Professor Wood. Three hours weekly, first half-year.
   This course will include an extended study of the physical phenomena
   of Heat, of the Kinetic theory of Gases, and of Thermodynamics.

3. Theory of Spectroscopic Apparatus. Professor Wood. Three
   hours weekly, second half-year.
   In this course the theory of the optical properties of telescopes and
   mirrors will be considered; and the theory of prisms, gratings and interfero-
   meters will be given in detail.

4. Recent Progress in Physics. Professor Wood. Fortnightly,
   through the year.
   In this course, which will be open to undergraduate students also, an
   account will be given of recent developments in Physics and of those which
   arise from week to week throughout the world. The experiments referred
   to in the lectures will be repeated before the class; and their essential
   features will be explained.

5. Applied Electricity. Alternating Current Apparatus. Dr.
   Whitehead. Two hours weekly, through the year.
   This course of lectures is designed to give the students of Physics the
   knowledge of applied electricity which is essential for their preparation.
   It is accompanied by instruction in the practical use and study of dynamos,
   motors, and transformers.

6. The Elements of Astronomy. Dr. L. A. Parsons. Weekly,
   through the year.
   In this course of lectures attention is called to those subjects of A-
   stronomy which should be known to all students of Physics. It is accompanied
   by instruction in the use of the astronomical instruments of the laboratory:
   equatorial, transit, meridian circle, etc.

This course is open to undergraduate students as well as
graduate.

Collegiate Courses.
These courses are adapted to undergraduates and to those grad-
uate students who wish to extend their knowledge of Physics but
are not prepared for more advanced work.

Lectures.
1. The Elements of Physics (Minor Course). Professor Ams,
   Dr. Whitehead, and Mr. Anderson. Four hours weekly,
   through the year.

2. Advanced Physics (Major Course). Professors Ams and
   Bliss. Four hours weekly, through the year.
   These two courses of lectures are intended to include the field of General
   Physics, so far as the time allotted permits. The first course presupposes
   a knowledge of the elements of plane trigonometry; and the second, the
   elements of analytical geometry of two dimensions and of the calculus.
   Either of these courses together with suitable laboratory work (see below)
   may be offered as a subordinate study for the degree of Doctor of Philosophy.

3. See courses 3 and 5 described above under “Advanced
   Work for Graduate Students.”

Laboratory Work.
1. Laboratory work for beginners. Dr. Whitehead, Dr.
   Parsons, and Mr. Anderson. Daily, except Saturday, 2 to
   5 p. m., through the year.

2. Advanced laboratory work. Professor Bliss and Dr.
   Whitehead. Daily, except Saturday, 2 to 5 p. m., through
   the year.
   Two afternoons a week are spent in the laboratory by all undergraduate
   students and by those graduate students who offer Physics as a subordinate
   study for the degree of Doctor of Philosophy.

   In the elementary work, the students are taught methods of exact
   observation and measurement, and study the fundamental phenomena of
   Physics qualitatively. In the advanced work problems and investigations
   of greater difficulty are undertaken, and special attention is given the
   theory of the experiments and methods. Carefully prepared reports of
   work are required of all students.

CHEMISTRY.

The courses in Chemistry are intended to meet the wants (1)
 of graduate students who make Chemistry their specialty, or who
 select it as one of their subordinate subjects for the degree of
 Doctor of Philosophy; and (2) of undergraduate students, who
 study Chemistry for general training, or as a preliminary to the
 study of medicine. The first and second years’ courses cover the
 ground of General Chemistry, as far as it is possible to do so in
 the time occupied. Together they form the full course designed
 for undergraduates. Graduates, including those who intend to
 enter the Medical School, who have not done an equivalent amount
 of work, will follow such parts of these courses as may seem
 desirable.

Advanced Work for Graduate Students.

Laboratory.

Under the direction of Professors Remsen and Morse and Asso-
ciate Professor Jones. Daily, except Saturday, from 9 a. m. to
5 p. m.

The work will consist in a thorough study of analytic methods, in making
typical preparations especially of compounds of carbon, in practice in the
methods of physical chemistry, and in carrying on investigations.

Lectures.

(a) Compounds of Carbon, by Professor Remsen. Three times
   weekly, through the year.

(b) Seminary for advanced students, conducted by Professor
   Morse. Twice weekly, through the year.

(d) Physical Chemistry, by Associate Professor Jones. Three
   times weekly, through the year.

Journal Meetings.—The instructors and advanced students will
meet weekly, on Mondays at 9 a. m., and at such other hours as
may be appointed, for the purpose of hearing reports on the prin-
cipal articles contained in the journals of Chemistry.

The journals read and regularly reported on are: Annalen der Chemie,
Berichte der deutschen chemischen Gesellschaft, Journal of the Chemical

Collegiate Courses.

Minor Course.

(a) Introduction to General Chemistry.
Lectures and recitations, four hours weekly, through the year, by Professor RenoiJf.

(b) Laboratory Work.
Fire to six hours weekly, through the year, under the direction of Professor RenoiJf and Dr. Gilpin.

No previous knowledge of chemistry is required. The class-room work is based on Rensens Chemistry (Briefer Course), and covers the field of inorganic chemistry, as far as possible. The last twenty class-room exercises give a sketch of organic chemistry, particularly for the benefit of those students whose study of chemistry is confined to the minor course. In the laboratory the student repeats the experiments performed in the class-room, and, in addition, has some practice in simple qualitative and quantitative analysis. Each student is required to keep a note-book of his work.

Major Course.

(a) Advanced Inorganic Chemistry.
Lectures and recitations, four hours weekly, until Christmas, by Dr. Gilpin.

(b) Chemistry of the Compounds of Carbon.
Lectures and recitations, four hours weekly, from January 2 to the end of the year, by Dr. Gilpin.

c) Laboratory Work.
Five to six hours weekly, through the year, under the direction of Professor RenoiJf.

The class-room work in inorganic chemistry, in the major course, is confined to a study of the metallic elements and to analytical chemistry. The laboratory work until January is systematic qualitative analysis; from January to the end of the year, the making of inorganic and organic preparations. The compounds to be made are so chosen that the student may become acquainted with as many classes and methods as possible. The textbooks used are Rensens Inorganic Chemistry (advanced course), Rensens Organic Chemistry, and RenoiJf's Inorganic Preparations.

GEOLOGY.

The instruction in Geology is under the direction of Dr. WM. BULLOCK CLARK, Professor of Geology, assisted by Dr. HARRY FIELDING REID, Professor of Geological Physics, Dr. EDWARD B. MATHEWS, Associate Professor of Mineralogy and Petrography, Dr. GEORGE B. SHATTUCK, Associate Professor of Physiographic Geology, Dr. OLIVER L. FASSIG, Associate in Meteorology, and Dr. G. C. MARTIN, Assistant in Paleontology.

An important course of lectures will be given by Mr. BAILEY WILLIS, of the United States Geological Survey, Lecturer on Stratigraphic and Structural Geology, and briefer courses by Professor CLEVELAND ABBE, of the United States Weather Bureau, Lecturer on Meteorology, and Dr. L. A. BAUER, of the United States Coast and Geodetic Survey, Lecturer on Terrestrial Magnetism.

Courses are offered to both graduates and undergraduates. In the case of graduate students, the work is arranged to meet the wants (1) of those who desire to make Geology their principal subject for the degree of Doctor of Philosophy, and (2) of those who wish to select certain courses in Geology for one or both of their subordinate subjects, the major subject being taken in another department. Special arrangements may also be made by graduate students whose time is limited, or who desire to devote their attention to particular courses without reference to a degree.

In the case of undergraduate students, Geology may be taken either as one of the major or as one of the minor courses for the degree of Bachelor of Arts.

The courses consist of lectures, laboratory and field work, and conferences upon topics of current literature. Great importance is attached to laboratory training as a part of the geological course, and facilities are given for daily work from 9 a.m. to 5 p.m.

Lecture Courses.

1. General Geology, by Professor Clark and Dr. Shattuck. Four times weekly.

2. Paleontology, by Professor Clark and Dr. Martin. Twice weekly.

3. Historical Geology, by Professor Clark. Twice weekly.

4. Experimental Geology, by Associate Professor Reid. Twice weekly, first half-year.

5. Geological Physics, by Associate Professor Reid. Twice weekly, second half-year.

6. Exploratory Surveying, by Associate Professor Reid. Twice weekly for one-third year.

7. General Mineralogy, by Associate Professor Mathews. Four times weekly.

8. Advanced Mineralogy, by Associate Professor Mathews. Three times weekly.

9. Petrography, by Associate Professor Mathews. Three times weekly.


11. Climatology, by Dr. Fassig. Twice weekly for one-third year.

12. Stratigraphic and Structural Geology, by Mr. Willis. Twice weekly, for one-third year.

13. Meteorology, by Professor Abbe.


Laboratory Work.

Laboratory courses are arranged to accompany the lectures, while advanced or special students will be given the opportunity to carry on fuller investigations upon either described or new materials.

Conferences and Student Lectures.

In order that the advanced students may be kept in touch with the most recent investigation in the science, conferences are held at which the leading journals in geology are reviewed by the students under the direction of the instructors. The conferences take place bi-weekly.

In order that the advanced students may also have the experience necessary for the successful preparation and delivery of class-room lectures, a course upon some phase of geology is arranged, a special topic being assigned to each student. The lectures take place bi-weekly, alternating with the conferences.
FIELD WORK.

The area of the State of Maryland includes, notwithstanding its comparatively small size, a remarkable sequence of geological formations. The ancient rocks of the earth's crust, as well as those still in the process of deposition, are found, while between these wide limits there is hardly a geological epoch which is not represented. As a result, most excellent facilities are afforded for a study of the various geological horizons.

GEOLOGICAL LABORATORY AND LIBRARY.

The Geological Laboratory is situated in Hopkins Hall, and comprises over thirty rooms, large and small. Here are placed the library, apparatus and collections, which are accessible to the student daily, from 9 a. m. to 5 p. m.

In accordance with the custom of the University, those books relating to the work of the geological department are given into its charge, the books of general reference being retained in the University Library.

The Library of the geological department contains a good representation of the leading journals and works of reference upon the geological subjects. It is greatly enriched by the Williams, Lewis and Abbe libraries. Extensive series of topographical and geological maps likewise form a portion of the library, and these are constantly increasing in number.

APPARATUS AND COLLECTIONS.

The collections of the department consist primarily of a large amount of important material brought together from Maryland and adjacent States. It represents all the horizons of the State, being especially rich in crystalline rocks, and in Cretaceous and Tertiary fossils. Some of this material has been already described, while much awaits further study.

Among the most important of the special collections are:

- The Williams collection of rocks and minerals, the Lewis collection of rocks and thin sections, the Krantz collection of fossils, the Hill collection of rocks and characteristic fossils from the Cretaceous formations of Texas, and the Stürtz, the Lehmann, and the Allen collections.

STATE SCIENTIFIC BUREAUS CONNECTED WITH THE GEOLOGICAL DEPARTMENT.

Two scientific bureaus, established by the Legislature and maintained at the expense of the State, are carried on in connection with the geological department. They are the Maryland Geological and Economic Survey and the Maryland State Weather Service. Professor Clark is in charge of both of these organizations, which are concerned with a study of the geology and physical features of the State of Maryland. A sum of $27,000 annually is appropriated by the State for the bureaus.

THE BIOLOGICAL SCIENCES.

The courses in the Biological Sciences are designed (1) for students who wish to make Zoology, Botany, Animal Physiology, Anatomy, or Pathology a subject of advanced study and research, or the principal or a subordinate subject for the degree of Doctor of Philosophy; (2) for graduates in medicine who desire special courses in one or more of these subjects; (3) for undergraduates who desire some knowledge of the biological sciences as part of a liberal education; and (4) for undergraduates who desire to prepare themselves for the study of medicine.

The various laboratories are open daily during the session from 9 a.m. to 5 p.m. The work is conducted under the direction of the professors in the different departments.

Graduate Courses.

ZOOLOGY AND BOTANY.

The work in Zoology and Botany is directed by Dr. W. K. Brooks, Professor of Zoology, assisted by Dr. E. A. Andrews, Associate Professor of Biology, Dr. D. S. Johnson, Associate Professor of Botany, Dr. B. W. Barton, Lecturer in Systematic Botany, Dr. Caswell Grave, Associate in Zoology, and other assistants.

1. Professor Brooks will conduct the following courses, with the assistance of Dr. Andrews.
   - Advanced laboratory work in Zoology.
   - Zoological Journal Club.
   - Zoological Seminary.

2. Dr. Johnson will conduct the following courses:
   - The Comparative Morphology of the Vegetable Kingdom.
   - Physiology and Histology of Plants.
   - Botanical Journal Club.
   - Botanical Seminary.

3. Dr. Andrews will give, in March, a course of ten lectures on Protoplasm.
4. Dr. Grave will give, in February, a course of five lectures on Echinoderms.

PHYSIOLOGY.

The following courses in Physiology are offered to graduate students:

1. By Professor Howell:
   - Work leading to the degree of Doctor of Philosophy, with Physiology as the principal subject. This work includes lectures, laboratory methods, research, and attendance upon the meetings of the physiological seminary and journal club.

2. By Professor Howell, Dr. Dawson, and Dr. Erlanger.
   - Work leading to the degree of Doctor of Philosophy, with Physiology as a subordinate subject. Two courses are offered, either of which will be accepted as abolishing the conditions for a subordinate subject. Either course may be taken by graduate students, without reference to a degree.
   - The course given to medical students, consisting of about three lectures weekly throughout the year, and laboratory work six hours weekly, from October to January. This course is given in the mornings.
3. By Professor Howell:  
Physiological Journal Club.  
Weekly, throughout the year.

4. By Professor Howell:  
Physiological Seminary.  
Weekly, throughout the year.

Special lectures on selected topics in Physiology, by members of the staff or advanced students, are given occasionally as part of the Seminary work.

5. By Professor Howell, Dr. Dawson, and Dr. Erlanger:  
Advanced laboratory work in Physiology, methods of demonstration and research.

This course is intended for those who have completed elementary courses in Physiology. The work is done individually.

ANATOMY.

The various courses given in the department of Anatomy are open to graduate students. In addition, opportunities are afforded for advanced work and original investigation. A general outline of the work of the department follows:

I. Systematic instruction in histology, microscopic anatomy, neurology, and embryology by Professor Bardeen, Dr. Sudler and Dr. Knowler, from October 1 to May 15, mornings.

II. Systematic instruction in gross human anatomy by Professors Mall and Harrison and Dr. Lewis, from October 1 to March 15, afternoons.

III. Advanced work and original investigation under the direction of Professors Mall, Harrison, and Bardeen, daily, during the academic year.

NOTE.—A more detailed description of the work outlined above will be found in the Announcement of the Medical Department.

PATHOLOGY AND BACTERIOLOGY.

Instruction in Pathology and Bacteriology for matriculates in the Medical Department is given during the second year of the medical course. To these courses a limited number of suitably trained physicians may be admitted. In addition special courses in these subjects are provided for physicians during May and June. Pathology or Bacteriology may be selected as one of the subjects available for the degree of Doctor of Philosophy.

The following courses are offered:

1. Bacteriology. Professor Welch, Dr. Harris and Dr. Opie. October 1 to Christmas. Three half-days weekly. This is a practical laboratory course intended to acquaint the student with technical procedures and with the characters of the important pathogenic micro-organisms.

2. Lectures on Infection and Immunity. Professor Welch. Once or twice a week, October 1 to Christmas.

3. General Pathology, Pathological Anatomy and Pathological Histology. Professor Welch and Drs. MacCallum, Opie, and Marshall. January 4 to June 1. Laboratory course, three afternoons a week.

4. Lectures on Pathology to accompany the preceding course. Professor Welch and Dr. MacCallum.

5. Recitations. Professor Welch. Once a week throughout the year.


7. The Conduct of Autopsies. Dr. MacCallum.

8. Special course in Bacteriology for Physicians. Dr. Harris. May and June. Three forenoons a week.

9. Special course in Pathology for Physicians. Dr. MacCallum, May and June. Three afternoons a week.

10. Lectures on Selected Topics in Pathology and Bacteriology for Physicians. Professor Welch. May and June. Once a week.

11. Advanced Work and Special Research. Professor Welch, and Drs. MacCallum, Harris, and Opie. The Pathological and Bacteriological laboratories are open to suitably trained physicians and students for the purposes of advanced study and original investigation. There is an ample supply of the necessary material and apparatus for these purposes. For more detailed information consult the Annual Announcement of the Medical Department, which will be sent upon application to the Dean.

Herbaria.

Captain John Donnell Smith, of Baltimore, has kindly consented to allow students to avail themselves of the opportunities offered in his private herbarium, which includes some 75,000 sheets of specimens from all parts of the world, and which is especially rich in its representation of the Flora of the United States and of the American tropics. He has also offered to special students the privilege of consulting his extensive botanical library.

Students of Botany have access also to the Schimper collection of European phanerogams, the Fitzgerald collection of mosses, and the local collection of the Baltimore Naturalists' Field Club.

Library Facilities.

A working library of monographs and periodicals for students of Zoology and Botany is contained in the biological laboratory of the University. A similar library for students of Physiology, Anatomy, and Pathology is provided in the physiological building of the Medical School and in the Johns Hopkins Hospital.

The general library of the University receives all the chief journals of general science, and the transactions of the leading learned societies of the world.

The library of the Peabody Institute, within five minutes' walk of the University, contains complete sets of many of the chief biological journals and of the proceedings of the learned societies, and other works of reference.

In the libraries of the Medical and Chirurgical Faculty of Maryland and the Johns Hopkins Hospital a large number of medical periodicals are accessible to members of the University.

Publications.

The University Circulars and the Hospital Bulletins provide for the prompt publication of abstracts of researches, or parts of researches, as soon as they are completed and ready for publication.

From time to time extensive memoirs of investigations in Zoology are issued by the University Press in a series of illustrated quarto Morphological Monographs.

Collegiate Instruction.

The regular undergraduate instruction in normal biology extends over two years. The first year constitutes a minor course and may be taken separately.

Special students, who are not graduates or matriculates, may enter the courses for undergraduates, on giving satisfactory evidence of fitness.
In addition to valuable training of the powers of observation and thought, the courses in biology present the science of life in its most fundamental aspects, and thus serve as a basis for the study of the phenomena of human existence dealt with in history, political economy, psychology, and ethics. They are open to all students, no previous training being required; and they will be found useful to those looking forward to a career in the ministry, to those designating to enter the medical profession, and to all who are interested in Natural History. In addition to the regular courses, the excursions of the Naturalists' Field Club, which are open to all, afford opportunities for a less formal study of Nature.

**Minor Course.**

*General Biology.*

Five to six hours laboratory work and four lectures and exercises weekly, through the year. Associate Professor Andrews, with the aid of Dr. Barton and laboratory assistants.

In the laboratory, the student studies, with the aid of the microscope and dissections, the life-history and structure of certain animals and plants; the skeletons of man and animals; the development of the frog and the fowl; and the elements of systematic botany. In the lecture room, fundamental facts and laws are emphasized.

This course is required of all who wish to enter the medical school.

**Major Course.**

The chief work in the laboratory is the dissection of the skate, shark, cod, frog, pigeon, and rabbit, and the practical study of the embryology of the chick and the pig. Selected types of some of the great groups of invertebrates such as a jelly-fish, star-fish, crab, grasshopper, and squid, are also dissected, and a part of the time is devoted to the study of the genera and species of fishes, and to the practical use of analytical keys for the identification of species.

This course is designed for those who intend to teach zoology; for those who look forward to advanced studies in zoology; for those who desire an acquaintance with the elements of zoology, and with comparative anatomy and embryology, as a part of a liberal education; and for those students who, having completed the minor course in biology, preliminary to medicine, desire a wider acquaintance with the animal kingdom.

1. Laboratory work in Zoology, Comparative Anatomy, and Embryology.
   *Six hours a week throughout the year.* Professor Brooks, Associate Professor Andrews, and Dr. Grave.

2. Elementary Zoology.
   *Four lectures a week until January 1.* Professor Brooks.

3. Elementary Botany.
   *Four lectures a week, from January 1 to April 1.* Associate Professor Johnson.

4. Embryology.
   *From April 1 to the end of the session.* Associate Professor Andrews.

**Systematic Botany.**

An introduction to systematic Botany, given by Dr. Barton in April and May, is open to any student, without previous training, as an equivalent of part of the course in free-hand drawing.

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**Greek.**

*Greek Seminary.*

Professor Gildersleeve will conduct the Greek Seminary, the plan of which is based on the continuous study of some leading author or some special department of literature.

The Seminary consists of the director, fellows, and scholars, and such advanced students as shall satisfy the director of their fitness for an active participation in the work by an essay, a critical exercise, or some similar test of attainments and capacity. All graduate students, however, may have the privilege of attending the course.

During the next academic year the study of Aristophanes and the Old Attic Comedy will constitute the chief occupation of the members. There will be two meetings a week during the entire session, chiefly for the criticism and interpretation of the author, but auxiliary studies in the literary and political history of the period will also find place in the plan of the Seminary.

**Advanced and Graduate Courses.**

1. Professor Gildersleeve will also conduct a course of Practical Exercises in Greek, consisting chiefly in translation at dictation from Greek into English, and English into Greek, two meetings a week from the beginning of the session to the first of January.

2. He will give a series of Readings in Aeschylus, Sophocles, and Euripides, once a week after January 1.

3. He will lecture once a week, during the session, on select chapters of Greek Syntax and Greek Style.

Arrangements will be made for the competent guidance of the private reading of advanced students; and a course of lectures on Greek Metres, with practical exercises, will be conducted by Associate Professor C. W. E. Miller.

The schedule given above is subject to additions and modifications.

The student should be provided with a complete text of Aristophanes, Bergk's or Meineke's, or Hall and Geldart's (Bibliotheca Oxoniensis), von Velsen's critical edition so far as issued, and Kock's editions of the Knights, Clouds (translated by Humphreys), Birds, and Frogs, and Starkie's Wasps (Macmillan).

It is also desirable that the students should possess some edition of the *Fragmenta Comicorum Graecorum*, if possible Kock's, or, if that should be too expensive (48 marks), Meineke's smaller edition of the fragments, and for the study of the period, Thucydides, Xenophon's Memorabilia and Hellenica, and Plutarch's Lives of Pericles and Alcibiades.

**Undergraduate Courses.**

*For Candidates for Matriculation.*

Homer, *Iliad* (book vi); *Herodotus* (book vii); Sight Reading; Prose Composition.

*Three hours weekly, through the year.* Associate Professor Miller.

**Minor Course.**

Xenophon, *Opera omnia.*

*Three hours weekly, first half-year.* Associate Professor Spieker.

Private Reading: Plato, *Apology.*
Lysias (one speech); Euripides (one play).
Three hours weekly, second half-year. Associate Professor SPIEKER.
Private Reading: Homer, Odyssey (books i, IX, X).
Prose Composition.
Weekly, through the year. Associate Professor SPIEKER.

Major Course.

Plato, Phaedo.
Three hours weekly, first half-year. Associate Professor SPIEKER.
Private Reading: Aeschylus, Prometheus.
Selections from the elegiac, melic, and iambic poets; Sophocles (one play).
Three hours weekly, second half-year. Associate Professor SPIEKER.
Private Reading: Aristophanes (one play).
Prose Composition.
Weekly, through the year. Associate Professor SPIEKER.

Elective Course.

Lucian's Vera Historia: Epistle of St. James.
Two hours weekly, first half-year. Associate Professor SPIEKER.


LATIN.

Latin Seminary.

Professor Kirby F. Smith will conduct the Latin Seminary, the plan of which is similar to that adopted in the department of Greek. During the next academic year the centre of work will be the Roman Comedy, especially Plautus and Terence. There will be two meetings a week throughout the session, devoted to critical interpretation and papers on special topics prepared by members of the Seminary.

Every student should possess a copy of Plautus (Edit. Minor, Goetz and Schoell, 7 parts, Teubner, Leipzig, 1893-96), Terence (Dziażko, Tauchnitz, Leipzig, 1884, or Fleckeisen, 2d edit., Teubner, 1898), Ribbeck's Scenicae Romanorum Poetarum Fragmenta (2 vols, 3rd edit., Teubner, 1897-98), and F. Leo's Senecone Tragóide (2 vols, Weidmann, Berlin, 1878-79). Books to be used in other courses will be announced later.

Advanced and Graduate Courses.

1. Professor Smith will lecture on the Roman Comedy, once a week throughout the year.
2. During the first half-year he will lecture once a week on selected topics connected with the history of the Antique Stage.
3. During the second half-year he will lecture once a week on the Roman Tragedy, especially Seneca.
4. He will also conduct a Journal Club, meeting fortnightly, to report and discuss recent literature of interest to students of Classical Philology.
5. During the first half-year, Associate Professor Wilson will give a course of lectures and practical exercises in Latin Palæography once a week.
6. During the second half-year he will lecture once a week on selected topics in Historical Latin Grammar.
7. He will also conduct a class of advanced students, meeting once a week throughout the year, for the rapid reading of Plautus, Terence, and Seneca.

Undergraduate Courses.

For Candidates for Matriculation.

Cicero, De Amicitia; Sallust, Catilina.
Two hours weekly, first half-year. Dr. Guernsey.
Ovid (selections); Vergil, Georgias.
Two hours weekly, second half-year. Dr. Guernsey.
Prose Composition.
Weekly, through the year. Dr. Guernsey.

Minor Course.

Livy (two books).
Three hours weekly, first half-year. Dr. Guernsey.
Private Reading: Caesar, Bellum Civile (book 1); Tacitus, Germania.

Horace (selections).
Three hours weekly, second half-year. Dr. Guernsey.
Private Reading: Ovid, Fasti (selections); Vergil, Aeneid (books IX, XII).

History of Roman Literature (with reading of selected passages).
Weekly, through the year. Professor Smith.
[For students in Group VI, as a substitute for Prose Composition.]
Prose Composition.
Weekly, through the year. Dr. Guernsey.

Major Course.

Juvenal; Pliny's Letters.
Three hours weekly, first half-year. Associate Professor Wilson.
Private Reading: Quintilian (book x).
Plautus (one play); Terence (one play).
Three hours weekly, second half-year. Associate Professor Wilson.
Private Reading: Plautus, Miles Gloriosus.
Prose Composition.
Weekly, through the year. Associate Professor Wilson.

Elective Course.

Petronius, Cena Trimalchionis.
Two hours weekly, first half-year. Associate Professor Wilson.
Lucretius (selections).
Two hours weekly, second half-year. Associate Professor Wilson.
This course is designed for students of the third year, and for others whose knowledge of the language is sufficiently advanced. Students in Group I may, if they so desire, combine a half-year of Greek with a half-year of Latin to form a classical elective.

The undergraduate courses in Latin vary somewhat according to the group of studies chosen, and the works which are read differ year by year, but it is intended that every student shall gain as wide a knowledge of the literature, and as intelligent an appreciation of those authors most typical of the great representative departments and periods of Roman life and thought, as is possible within the time at his command.

The authors prescribed for private reading are chosen either as supplementing the work of the class-room, or as leading the student into paths which otherwise he would be obliged to leave unexplored.

The importance of Latin prose composition is insisted upon as the best and most efficient method of acquiring that knowledge of the underlying principles of the language, without which an intelligent appreciation of the literature is impossible.
ORIENTAL SEMINARY.

Oriental History and Archaeology.
1. History of the Ancient East.
   Associate Professor JOHNSTON. Friday, 12 m.
2. Biblical Archaeology.
   Associate Professor JOHNSTON. Wednesday, 12 m.

Biblical Philology.
3. The Literature of the Bible.
   Professor HAUPT and Dr. FOOTE. Thursday, 5 p. m.
4. Biblical Literature (Second Year's Course).
   Professor HAUPT and Dr. FOOTE. Wednesday, 5 p. m.
5. Elementary Hebrew.
   Professor HAUPT and Dr. FOOTE. Wednesday, 2—4 p. m.
   Dr. BLAKE. Thursday, 2 p. m.
7. Reading of Unpointed Hebrew Texts.
   Dr. ROSENAU. Wednesday, 9 a. m.
8. Prose Composition (Hebrew, Arabic, Assyrian, Syriac, Ethiopic).
   Professor HAUPT. Tuesday, 4—5.30 p. m.
   Professor HAUPT. Monday, 9 a. m.
    Professor HAUPT. Tuesday, 2—4 p. m.
11. Hebrew Conversation.
    Dr. ROSENAU. Friday, 2 p. m.
    Dr. ROSENAU. Friday, 3—5 p. m.
    Dr. ROSENAU. Monday, 5 p. m.
    Dr. BLAKE. Thursday, 3 p. m.

Syriac.
15. Syriac (Roediger's Chrestomathy).
    Associate Professor JOHNSTON. Tuesday, 12 m.
16. Syriac Prose Composition.
    Professor HAUPT. See No. 8.

Arabic.
17. Elementary Arabic.
    Dr. BLAKE. Monday, 9 a. m.
18. Selections from Arabic Historians.
    Associate Professor JOHNSTON. Tuesday and Wednesday, 11 a. m.
19. Selections from the Koran.
    Mr. Oussani. Thursday, 11 a. m.
20. Arabic Conversation.
    Mr. Oussani. Monday, 11 a. m.
    Professor HAUPT. See No. 8.

Ethiopic.
22. Elementary Ethiopic.
    Dr. BLAKE. Monday, 10 a. m.
23. Ethiopic (Second Year's Course).
    Dr. BLAKE. Thursday, 4 p. m.
24. Ethiopic Prose Composition.
    Professor HAUPT. See No. 8.

Assyriology.
25. Elementary Assyrian.
    Dr. FOOTE. Monday and Thursday, 12 m.
26. Assyrian (Second Year's Course).
    Associate Professor JOHNSTON. Tuesday and Wednesday, 10 a. m.
27. Babylonian Nimrod Epic.
    Professor HAUPT. Monday, 3 p. m.
    Professor HAUPT. Monday 4 p. m.
29. Assyrian Prose Composition.
    Professor HAUPT. See No. 8.

Egyptology.
30. Old Egyptian (Advanced Course).
    Associate Professor JOHNSTON. Friday, 11 a. m.
31. Old Egyptian (Second Year's Course).
    Associate Professor JOHNSTON. Friday, 10 a. m.
32. Hieratic (Second Year's Course).
    Associate Professor JOHNSTON. Tuesday, 9 a. m.
33. Coptic (Steindorff's Grammar).
    Associate Professor JOHNSTON. Friday, 9 a. m.

Philippine Dialects.
34. Elementary Tagalog.
    Dr. BLAKE. Thursday, 10 a. m.
35. Tagalog (Second Year's Course).
    Dr. BLAKE. Thursday, 9 a. m.
36. Visayan for Beginners.
    Dr. BLAKE. Wednesday, 4 p. m.

SANSKRIT AND COMPARATIVE PHILOLOGY.

The following courses, in charge of Professor BLOOMFIELD, may be stated under two heads:

A. Indo-Aryan Philology.
1. Vedic Seminary: The Rig-Veda, in relation to the religion and institutions of the early Indian period.
   Weekly, through the year.
2. Pāli: The language and literature of Buddhism.
   Weekly, through the year.
   Twice a week, first half-year.
4. The elements of Vedic Philology: Vedic grammar, metres, and interpretation of selected hymns.
   Weekly, second half-year.
5. Beginners' course in Sanskrit: grammar (Whitney's Sanskrit Grammar) and interpretation of an easy text (Lanman's Reader).
   Weekly, through the year.

B. Linguistic Science and Comparative Grammar of the Indo-European Languages.

6. The elements of Linguistic Science, with an introductory account of the Ethnology of the Indo-European peoples.
   Weekly, through the year.
7. Comparative Grammar of Greek, Latin, German, and Sanskrit: The history of Indo-European consonants.
   Weekly, through the year.
8. Avestan, or Lithuanian.
   Weekly, through the year.

No knowledge of Sanskrit is required for any of the courses under B. Course 6 sketches briefly the history of the science of language; presents a concise account of the ethnological history of the Indo-European (Aryan) peoples; deals with the fundamental question of growth and change in language; and finally treats of the origin of language. Course 7 is intended as an introduction into the most elementary methods and results of the comparative grammar of the more important Indo-European languages.

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**ENGLISH.**

A. Professor Bright will conduct the following courses:

I. English Seminary.

Graduate students are admitted to the Seminary as soon as they have satisfied initial requirements for independent research. The discipline of the Seminary is designed to impart training in scholarly methods of dealing with literary and linguistic problems. Study and investigation are bestowed upon selected periods of literary history, upon departments of literature extending through successive periods, and upon the works of important writers, separately or in groups. Usually there is a change of subject each half-year.

During the next academic year, 1902–1903, the Seminary will be engaged upon the study and investigation of the following subjects:—
(a) In the month of October, the works of Chaucer (this will conclude the course pursued during the previous year).
(b) From November to March, 1903, the Anglo-Saxon Poetry of the Cynewulfian school.
(c) After March 1st, the Drama of Shakespeare.

The meetings of the Seminary will occupy four hours a week. 
Tuesday and Thursday, 3–5 p.m.

II. Lectures and Conferences on English Grammar. Tuesday and Thursday 12 m., first half-year.

III. Chapters in the History of English Literary Criticism. Tuesday, 12 m., second half-year.

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IV. Interpretation of the modern poets: Browning. (Professors Bright and Browne.) Monday, 9 a.m., first half-year.

V. The English Journal Club (fortnightly, two hours), for reports on the current journals, reviews of new books, and the presentation and discussion of original papers on linguistic and literary subjects.

VI. An introductory course in Anglo-Saxon, with Bright's Anglo-Saxon Reader as the text-book. Monday and Wednesday, 12 m.

B. Professor Browne will give the following courses in English Literature:

VII. A general course covering the whole field, from the 7th to the 19th century. The study, of course, is synoptical; but emphasis is laid upon the chief writers and most important periods. Arnold's Manual of English Literature is used as a text-book. Wednesday and Thursday, 1 p.m.

VIII. A course in the writers of the 12th, 13th, and 14th centuries (from the Peterborough Chronicle to Chaucer). The texts are read from Morris and Skeat's Specimens, the students beginning with the easier and proceeding to the more difficult. In addition to the knowledge thus acquired of an interesting and formative period of our literature, this introduction to the early forms of the language will be found a helpful introduction to the study of Anglo-Saxon. Monday and Tuesday, 1 p.m.

IX. A course in the writers of the Elizabethan period. The origin and development of the English drama will be traced from its earliest recorded beginnings down to Shakespeare, the representative of its highest perfection, and in its decadence in the later Jacobean dramatists. Tuesday, 12 m., first half-year.

X. A course in the literature of the first half of the nineteenth century. Tuesday, 12 m., second half-year.

XI. The Early Scottish Poetry from Barbour (A.D. 1350) to Lyndsay (A.D. 1550) will be studied by the aid of a chrestomathy especially prepared for this class. A course of historical and critical lectures will be given concurrently with the readings. Friday, 12 m.

XII. Lectures for advanced students on the Caroline Poets, and on the Principles of Criticism. Tuesday, 11 a.m.

C.

Professor Greene will give the following courses in Rhetoric and in English Literature:
XIII.

Rhetoric and English Composition. Theory, based upon textbooks, lectures, and discussions; critical study of prose writers; frequent practice in writing. Monday, Tuesday, and Wednesday, 12 m.

xiv.

English Literature. Outline history, with special study of the more important writers. Monday, 9 a.m., Tuesday, 10 a.m., Wednesday, 11 a.m.

xv.

The study of two contrasted periods:—(a) From the Restoration to the death of Pope (1660–1744); the work will centre upon the writings of Dryden, Steele, Addison, Swift, and Pope. (b) From the publication of the Lyrical Ballads to the death of Coleridge (1798–1834); the work will centre upon the writings of Wordsworth, Coleridge, Keats, Shelley, and Byron. Twice weekly.

NOTE—Courses i–v, xiii are for graduate students.
Courses vii and viii constitute the “English Minor,” and vi, ix, x, and xi the “English Major,” of Group vii.
Course xiii is prescribed for all college students during their first year; xiv is prescribed for the second year; and xv is elective in the third year.

GERMAN.

German Seminary.

The German Seminary will be conducted by Professor Wood. During the first half-year, the History of German Literature in the Eighteenth century will be studied. After a review of the Second Silesian literary movement, the critical reforms at the close of the Seventeenth century will be considered in detail, after which a series of representative Eighteenth century works will be read, extending to the publication of the Lyrical Ballads to the death of Coleridge (1798–1834); the work will centre upon the writings of Wordsworth, Coleridge, Keats, Shelley, and Byron.

Weekly, through the year.

The period from Uhland to Mörike will be considered in its chief representatives. Particular attention will be given to the relation of the Swabians to Young Germany and Heine.

Dr. B. J. Vos, Associate Professor of German, will give the following courses:

4. Middle High German. Introductory Course. Twice weekly, first half-year.
Paul, Mittelhochdeutsche Grammatik, 5. Auflage, Halle, 1900; Bachmann, Mittelhochdeutsches Lexebuch, 2. Auflage, Zürich, 1898; Lexer, Mittelhochdeutsehes Taschenwörterbuch.

5. Heinrich van Veldeke and the Beginnings of the Middle High German Court Epic. Twice weekly, first half-year.

6. History of Middle High German Literature. Lectures. Weekly, second half-year.
Continuation of the course given 1901–2.
Students should be provided with Braune, Althochdeutsche Grammatik (2 Ed.); Braune, Althochdeutsches Lexebuch (4 Ed.). It is also desirable that they should possess Müllenhoff and Scherer's Denkmiller deutscher Poesie und Prosa (3 Ed.).

Dr. T. S. Baker will give the following course:

Dr. W. Kurrelmeyer, Instructor in German, will give the following course:

Undergraduate Courses.

For Candidates for Matriculation.

Elementary German:

Thomas, Practical German Grammar; Vos, Materials for German Conversation; Storm, Immensee; Gerstäcker, Germelshausen.
Three hours weekly, through the year. Associate Professor Vos.
This course is intended for students who offer Greek for matriculation. Those who follow it are required to take Minor A in their groups.

Minor Course.

Class A:

Classics: Schiller, Maria Stuart; Goethe, Hermann und Dorothea.
Two hours weekly, through the year. Associate Professor Vos.

Prose Readings: Baumbach, Erzählungen und Mauzen; Seidel, Erzählungen.
Weekly, through the year. Associate Professor Vos.

Prose Composition.
Weekly, through the year. Professor Wood.

Private Reading: Sudermann, Frau Sorge (ed. Gruener).
Class B:
Otis, Elementary German; Brandt, German Reader; Keller, KleeDeren Leute; von Wildenbruch, Das edle Blut; Goethe, Egmont; Prose Composition (E. S. Buchheim, Elementary German Prose Composition, Oxford, 1893); Whitney, German Grammar.

Four hours weekly, through the year. Dr. Kurrelmeyer.

Minor Course B is intended only for students who have matriculated in German, and have fully met at entrance the matriculation requirements; for such students, it absolves the requirements in German. Other students must absolve Minor A.

Major Course.
Drana: Goethe, Faust; Schiller, Wallenstein's Lager, Picoelomini.
Two hours weekly, through the year. Professor Wood.

History of German Literature: Classical Period.
Weekly, through the year. Associate Professor Vos.

Prose Composition.
C. A. Buchheim, Materials for German Prose Composition, Parts I and II, London, 1894.
Weekly, through the year. Professor Wood and Mr. Hofmann.

Private Reading: Schiller, Wallenstein's Tod.

Elective and Special Courses.
Courses 1 and 2 are open to graduate students who already possess an elementary knowledge of German and wish to acquire greater fluency in reading. The first is intended for students in Languages, History, and Economics; the second, for students in the Natural Sciences. Successful completion of either course is accepted as an equivalent of the reading knowledge of German required of candidates for the degree of Doctor of Philosophy.

1. Historical Readings.
Seiler, Die Heimat der Indo-Germanen; Hoffmann, Historische Erzahlungen; Lange, Athen im Spiegel der Aristophanesischen Komodie.
Two hours weekly, through the year. Dr. Kurrelmeyer.

2. Scientific German.
Dippold, Scientifie German Reader, von Helmholtz, Uber Goethe's naturwissenschaftliche Arbeiten; Cohn, Uber Bakterien.
Two hours weekly, through the year. Dr. Kurrelmeyer.

This course is open also to undergraduate students who have completed the equivalent of a Minor in German.

3. Contemporary Literature, in Rapid Readings. [Elective Course.]
Works by Hauptmann, Sudermann, von Eber-Eschenbach, and von Wildenbruch are read.
Two hours weekly, through the year. Dr. Kurrelmeyer.

This course is intended for students who have completed the equivalent of a minor.

4. Oral Exercises in German.
Two hours weekly, through the year. Mr. Hofmann.

This course is intended especially for students in the departments of modern languages, who lack an extended vocabulary and sufficient familiarity with written and spoken German. A thorough knowledge of the elements is presupposed.

ROMANCE LANGUAGES.

Advanced Courses.

French.

(a) Old French Literature: Marie de France; Work on Manuscripts. Seminary. Professor Elliott. Two hours fortnightly.

(b) Modern French Literature: The French Theatre in the Eighteenth Century. Seminary. Associate Professor Ogden. Two hours fortnightly.

(c) The Development of the French Novel in the Nineteenth Century. Associate Professor Ogden. Weekly.


(e) The Carlovingian Epic of Medieval France. Professor Warren. Twenty lectures, December and January.

(f) The Modern French Drama. Professor Warren. Six public lectures.


(h) Readings in Old French Literature. Marie de France. Professor Elliott. Two hours fortnightly.


(j) French Syntax. Associate Professor Armstrong. Two hours weekly.

(k) French Phonology and Morphology. Associate Professor Armstrong. Three hours weekly.

(l) Readings in Old French Literature. Class B. Associate Professor Armstrong. Weekly.

(m) Physiological Phonetics. Associate Professor Armstrong. Weekly.

(n) French Dialects. Professor Elliott. Weekly.

Spanish.

(o) Old Spanish Literature: Libro de Appollonio. Seminary. Associate Professor Marden. Weekly.

(p) The Early Spanish Drama. Associate Professor Marden. Weekly.

(q) Readings in Old Spanish Literature. Associate Professor Marden. Weekly.

(r) Spanish Historical Grammar. Associate Professor Marden. Two hours weekly.

Italian.

(s) The Earliest Monuments of Italian Literature. Seminary. Dr. Shaw. Two hours weekly.


(u) Dante: La Divina Commedia. Professor Elliott. Weekly.

(v) Readings in Old Provençal Literature. Associate Professor Ogden. Weekly.
Undergraduate Courses.

FRENCH

Minor Course.

Class A:

1. Literature.


Four hours weekly, through the year. Dr. Brush.

Class B:


Four hours weekly, through the year. Associate Professor Ogden.

Minor Course B is intended only for students who have matriculated in Greek, and have fully met at entrance the matriculation requirements; for such students, it absolves the requirements in French. Other students must absolve Minor Course A.

Major Course.

1. Literature.


2. Lectures on French Literature, and on life in France during the seventeenth century. Private Reading.

3. Prose Composition, based on Kron’s *French Daily Life*.

Four hours weekly, through the year. Dr. Brush.

For Candidates for Matriculation.


Three hours weekly, through the year. Dr. Brush.

Elective Course.


Weekly practice in composition.

Two hours weekly, through the year. Associate Professor Armstrong.

SPANISH

Minor Course.

Ramsey: *Spanish Grammar*; Prose Composition; Matzke: *First Spanish Readings*; Alarcón: *El Capitán Veneno*; Tamayo: *Un Drama Nuevo*; Galdós: *Doña Perfecta*; Cervantes: *Don Quijote*.

History of Spanish Literature. Clark: *Spanish Literature*.

Four hours weekly, through the year. Associate Professor Marden.

This course is adapted to beginners.

Elective Course.

Edgren: *Spanish Grammar*; Loeux: *Spanish Reader*; Padre Isla: *Gil Blas de Scantillana*.

Two hours weekly, through the year. Associate Professor Marden.

This course is adapted to beginners.

ITALIAN

Minor Course.


Italian Literature. Garnett: *Italian Literature*.

Four hours weekly, through the year. Dr. Shaw.

This course is adapted to beginners.

Elective Course.


Two hours weekly, through the year. Dr. Shaw.

This course is adapted to beginners.

POLITICAL ECONOMY.

Graduate Courses.

The instruction in Political Economy will be under the charge of Associate Professor Hollander, assisted by Dr. Barnett. Dr. Hollander will meet students daily, in class or seminar organization, for formal instruction and for co-operative investigation. The courses are designed to afford systematic instruction in general economic principles, intelligent acquaintance with special fields of economic science, and, most important of all, knowledge of and ability to employ sound methods of economic research.

Associate Professor Hollander will conduct the following courses:

1. The Economic Seminary.

Two hours fortnightly through the year.

The work of the year will centre in a systematic study of the History, Activities, and Influence of Labor Organizations in the United States. The immediate environment will first be studied,
after which typical communities will be examined until sufficient data for reasonably safe generalizations have been attained. An initial task will be the preparation of a complete bibliography relating to the labor question in the United States.

2. The Development of Economic Thought.

Two hours weekly, through the year.

During the first half-year, a careful historical survey will be made of Economic Thought before Adam Smith; during the second half-year, attention will be given to the so-called "classical" political economy, centering in a critical study of the Economic System of David Ricardo. Representative texts will be assigned for reading and study.


Two hours weekly, through the year.

During the first half-year, critical study will be made of the Theory of Money and Credit; during the second half-year, the Institutions of the Money Market will be examined. In connection with the course, exercise will be afforded in the use of original sources of economic and financial information.

Dr. G. E. Barnett, Instructor in Economics, will offer the following course:

The Organization of Industry in the Nineteenth Century.

One hour weekly, through the year.

During the first half-year, attention will be given to Labor Problems; during the second half-year, study will be made of Industrial Corporations.

While primarily designed, as has been noted, for the needs of students preparing for a scientific career in the field of Political Economy, the instruction offered above will be found of material service to persons looking forward to practical social work, or proposing to enter the public service, the professions of law or journalism, or desirous of equipping themselves for a large and generous citizenship. With this in view, particular attention is paid to recent industrial and financial developments in the United States. Proximity to Washington offers special facilities for study and investigation in these directions, and efforts are made to profit by close acquaintance with and by actual use of the opportunities there existing.

Undergraduate Courses.

Associate Professor Hollander and Dr. Barnett will conduct the following courses:

1. Minor Course:

Four hours weekly, through the year.

(a). Economic History. Elements of Economics.


2. Major Course:

Four hours weekly, through the year.

(a). Theory of Political Economy.

(b). Modern Economic Institutions.

This course may be taken in place of the course in Politics (English and American Constitutional History) and as a regular major course. One section may also be taken as a two hour elective.


Two hours weekly, through the year.

(a). Elements of Economics.

(b). Applied Economics.

HISTORY AND POLITICAL SCIENCE.

History.

Graduate Courses.

Associate Professor John Martin Vincent will conduct the following courses:

Early Modern Europe.

1. The Old Regime in France.

Two hours weekly, first half-year.

2. Central Europe in the 17th Century.

Two hours weekly, first half-year.

3. The Puritan Revolution.

Two hours weekly, second half-year.


Two hours weekly, second half-year.

5. Historical Seminary.

This is a conference for the study of practical problems in historical investigation. Systematic topics in connection with the class lectures are assigned to advanced students for research, and the results are subjected to mutual criticism for the purpose of developing historical judgment.

One hour weekly, through the year.

Historical and Political Science Association.

This association affords additional opportunity for the discussion of original papers by instructors, advanced students, and invited speakers. It is intended to bring forward only the most advanced research in history, politics, and economics.

Alternate Friday evenings.

Dr. Bernard C. Steiner, Associate in History, will act as one of the advisers of advanced students in their original investigations in American History.

Dr. J. C. Ballagh, Associate in History, will act as one of the advisers of graduate students and will conduct the following courses:


Two hours weekly, through the year.

2. Southern History.

One hour weekly, through the year.


One hour weekly, through the year.

Dr. James Schouler, of Boston, will give a short course of lectures, in the spring of 1903, on the life of the people during the American Revolution. This will be in continuation of his course in 1902, and will be open to the entire University and the general public.

The Albert Shaw Lectures on Diplomatic History will be continued as heretofore. The lecturer will be announced later.

Oriental History. Students in the historical group may also avail themselves of the lectures by Professor Bloomfield, of the department of Sanskrit and Comparative Philology, on the ethnological history of the Indo-European peoples; also the courses of Dr. Christopher Johnston, of the Oriental Seminary, on the history of the Ancient East.
UNDERGRADUATE COURSES.

Dr. Bernard C. Steiner:
1. American Political and Constitutional History.
   Two hours weekly, through the year. (Part of “Politics Major.”)
2. Historical Politics.
   Two hours weekly, through the year. This is intended for undergraduates not following Group VI. (Part of “History-Economics.”)

Dr. J. C. Ballagh:
1. Classical History.
   Four hours weekly, through the year. (Minor History.)
2. Civilization and Politics in the Far East.
   Four hours weekly, through the year. (Part of “Major History.”)

Dr. Guy Carlton Lee:
1. English Political and Constitutional History.
   Two hours weekly, through the year. (Part of “Politics Major.”)
2. Introduction to the Study of Law.
   One hour weekly, through the year. For college seniors.
3. Public Speaking and Class Debates.
   Six hours weekly, through the year.

Mr. E. J. Benton:
European History.
   Two hours weekly, through the year. (Part of “Major History.”)

Political Science.

GRADUATE COURSES.

Associate Professor W. W. Willoughby will conduct the following courses:
1. Political Seminary.
   Fortnightly, throughout the year.
   Current problems in International and Constitutional Law will be considered by the students, under the direction of the instructor.
2. Introduction to the Study of Public Law.
   Two hours weekly, first half-year.
3. Comparative Constitutional Law.
   Two hours weekly, second half-year.
4. The Political Theories of Greece and Rome.
   Two hours weekly, first half-year.
5. Political Theories and Literature of the Middle Ages.
   Two hours weekly, second half-year.
   Historical and Political Science Association.
   This affords opportunity for the presentation and discussion of original papers by instructors, advanced students and invited speakers; review of current literature of history, politics, and economics.

Public Aid, Charity, and Correction.

Dr. J. R. Brackett, President of the Board of Supervisors of Charities, Baltimore, will give class instruction in the following subjects:
1. Public Aid, Charity, and Correction.

PHILOSOPHY.

The undergraduate courses in Philosophy provide five hours per week of work for one year, under the direction of Professor Griffin. All candidates for the degree of Bachelor of Arts are required to follow them during the last year of residence.

1. Deductive and Inductive Logic.
   The logical forms—terms, propositions, syllogisms—are studied as an analysis and explanation of the thinking process and as a practical discipline in exact thought: attention is given also to the material elements in inference as these are stated in the several inductive methods.
   Creighton’s Introductory Logic is used as a text book, with references to the works of Jevons, Mill, Bain, Keynes, and other writers.
   Four hours weekly, until Christmas.

2. Psychology.
   The instruction in psychology is intended to give a general view of the results of the present methods of study, the investigation in regard to the quality and intensity of sensations, the duration of psychic acts, etc.—in general, the subjects treated in Part II of Ladd’s Physiological Psychology—being presented with sufficient detail to render them intelligible and interesting. A series of lectures and demonstrations on the anatomy and physiology of the nervous system, by Dr. C. R. Bardeen, is included in the course.
   Special emphasis is laid upon the facts of conscious experience as known through introspection, the most important end to be secured being, it is believed, such an understanding of the facts and laws of mental life as shall fit one for wise self-government and effective influence. With this view, such powers and states of mind as attention, memory, association, habit, imagination, the feelings, the will, are discussed in as concrete and practical a way as possible. A text book is used as a basis of instruction, but this is largely supplemented by informal lectures, and by references to various authorities.
   Baldwin’s Elements of Psychology, Sully’s Human Mind, James’s Psychology, Hofding’s Outlines of Psychology, Dewey’s Psychology, Hamilton’s Lectures on Metaphysics, Porter’s Human Intellect, Spencer’s Principles of Psychology, Ladd’s Outlines of Physiological Psychology, are used as books of reference. One essay on an assigned subject is required from each member of the class.
   Four hours weekly, during January; five hours from February 1 to April 1.

3. Ethics.
   Ethics is treated with reference to its fundamental problems as a theoretical science, and also from a practical point of view. Its psychological basis in the various forms of feeling native to our constitution, and in the power of rational self-determination; the nature of the sense of obligation; the authority of conscience; the diversities of moral opinion; the historic theories of morals—hedonism, utilitarianism, intuitionism, and the application to the ethical theory of the doctrine of evolution;—these are some of the topics discussed.
   Mackenzie’s Manual of Ethics is employed as a text-book, but the instruction is given, to a considerable extent, through lectures. One essay is required from each member of the class.
   Five hours weekly, after April 1.

   Outline of Greek Philosophy.
   Weekly, first half-year.
   Outline of Modern Philosophy. [Optional Course.]
   Weekly, second half-year.

   For next year, the following advanced courses in Philosophy are offered:
   1. Modern Philosophy from Descartes to Kant.
      Weekly, through the year.
   2. Modern Ethical Theories.
      Fortnightly.
DEGREES CONFERRED JUNE 10, 1902.

The public exercises of Commencement were held in the Academy of Music at 4 p.m., Tuesday, June 10, 1902. Degrees were conferred on forty-seven bachelors of arts, seventeen doctors of philosophy, and fifty-seven doctors of medicine. President Remsen presided and conferred the degrees. The honors of the year and the recent appointments were announced. An address was made by Dr. E. K. L. Gould, City Chamberlain of New York.

DOCTORS OF PHILOSOPHY.


DOCTORS OF MEDICINE.

JOHN AZER, of Chicago, Ill., S. B., University of Michigan, 1888.

JOHN BRADFORD BRIGGS, of Baltimore, S. B., New York University, 1898.

BENNET BERNARD BROWN, of Baltimore, A. B., Johns Hopkins University, 1898.

ROBERT MARTIN BURNS, of New Orleans, La., A. B., University of Virginia, 1896.

WILLIAM MORGAN CASE BRYAN, of St. Louis, Mo., A. B., Washington University, 1897.

CAMILLUS BUSH, of Woodland, Cal., S. B., University of California, 1898.

JOHN WOOLMAN CHURCHMAN, of Burlington, N. J., A. B., Princeton University, 1898.

THOMAS WOOD CLARKE, of Utica, N. Y., A. B., Harvard University, 1899.

HENRY WIREMAN COOK, of Baltimore, A. B., Johns Hopkins University, 1898.

JOHN JACOB JONES COONS, of Milledgeville, O., S. B., Ohio Wesleyan University, 1898.

GUSTAVUS CHARLES DOHME, of Baltimore, A. B., Johns Hopkins University, 1898.

DAVID HUGH DOLLEY, of Hillboro, Va., A. B., Randolph-Macon College, 1897.

RALPH DUFFY, of Baltimore, A. B., Johns Hopkins University, 1898.

JOHN DUNLOP, of Washington, D. C., S. B., Princeton University, 1898.

WILLIAM GAGE ERVING, of Hartford, Conn., A. B., Yale University, 1898.

NEWELL SIMMONS FERRY, of New Haven, Conn., Ph. B., Yale University, 1898.

NELLIS BARNES FOSTER, of Utica, N. Y., S. B., Amherst College, 1898.

WILLIAM WILLOUGHBY FRANCIS, of Toronto, Ont., A. B., Johns Hopkins University, 1898.

MAURICE ALBERT FRANKENTHAL, of St. Louis, Mo., A. B., Washington University, 1898.
JOHNS HOPKINS

W. Harry Glenny, of Buffalo, N. Y., Ph. B., Yale University, 1894.
Clarence Foster Hardy, of Waukesha, Wis., B. L., University of Wisconsin, 1891.
Morrison Le Roy Haviland, of Glen Falls, N. Y., Ph. B., Union College, 1898.
Marie Stevens Haynes, of Boston, Mass., A. B., Bryn Mawr College, 1898.
Leonard Keene Hirshberg, of Baltimore, A. B., Johns Hopkins University, 1898.
Solomon Hyman, of San Francisco, Cal., S. B., University of California, 1898.
William Frederick Jelke, of Cincinnati, O., Ph. B., Yale University, 1898.
Thomas Monroe Jones, of Anderson, Ind., A. B., Indiana University, 1898.
Arthur Herbert Kimball, of Washington, D. C., S. B., Amherst College, 1897.
Louis Charles Lehr, of Baltimore, A. B., Johns Hopkins University, 1898.
Edward McCrady L'Engle, of Baltimore, A. B., St. John's College, 1897.
George Victor Litchfield, Jr., of Abingdon, Va., A. M., Randolph-Macon College, 1897.
Emma Lozzi, of Boston, Mass., A. B., Smith College, 1897.
Seymour DeWitt Ludlum, of Paterson, N. J., S. B., Rutgers College, 1897.
George Malcolm MacGregor, of Monrovia, Wis., S. B., University of Wisconsin, 1894.
Samuel Andrew Marshall, of Cromwell, Conn., A. B., Yale University, 1898.
John Scott McFarland, of Buffalo, N. Y., Ph. B., Yale University, 1898.
Edmund Webster Meisenhelder, of York, Pa., A. B., Pennsylvania College, 1898.
John Elmer Meisenhelder, of Hanover, Pa., S. B., Pennsylvania College, 1897.
Henry William Ochsner, of Waunautke, Wis., S. B., University of Wisconsin, 1898.
Edward Hiram Reed, of Baltimore, A. B., Cornell University, 1898.
Edwin Nicholas Riggins, of East Orange, N. J., A. B., Williams College, 1897.
Carey Petham Rogers, of Raleigh, N. C., A. B., Wake Forest College, 1897.
Stephen Rushmore, of Plainfield, N. J., A. B., Amherst College, 1897.
George Barr Scholl, of Baltimore, A. B., Johns Hopkins University, 1898.
Melville Silverberg, of San Francisco, Cal., A. B., University of California, 1897.
John Nathan Simpson, of Point Pleasant, W. Va., A. B., University of Nashville, 1893.
Harry Merriman Steele, of Waterbury, Conn., Ph. B., Yale University, 1894.
Alice Weld Tallant, of Boston, Mass., A. B., Smith College, 1897.
Concord Brewer Van Abs Hall, of Harrodsburg, Ky., A. B., Kentucky Wesleyan College, 1894.
John Van Denburgh, of San Francisco, Cal., A. B., Leland Stanford Jr. University, 1898.

Otis Buckminster Wight, of Stanford University, Cal., A. B., Leland Stanford Jr. University, 1898.
Clara Louise Williams, of San Francisco, Cal., S. B., University of California, 1897.
Dudley Williams, of Baltimore, A. B., Johns Hopkins University, 1897.
Charles Benjamin Wright, of Grand Forks, N. Dak., A. B., University of North Dakota, 1898.

. Bachelors of Arts.

Edward Bailey Beasley, of Baltimore.
Henry Breuwiers, of Baltimore.
Elbridge Palmer Bernheim, of Louisville, Ky.
William Jackins Butts, of Baltimore County.
John Gorsuch Campbell, of Baltimore County.
Robert Treat Crand, of Baltimore County.
Albert Goucher Dew, of Baltimore.
Ross Miles Dogos, of Baltimore.
Joseph Townsend England, of Baltimore.
Horace Clandenin Gillespie, of Cecil County.
John Sharshall Grasty, of Staunton, Va.
Frederick Lee Guggenheimer, of Baltimore.
John Phelps Hard, of Baltimore.
Henry Honeyman Hazen, of Washington, D. C.
Louis Foltat Hildebrandt, of Baltimore.
William Bryant Hill, of Harford County.
William Edwin Hopfman, Jr., of Baltimore.
William Kirk, of Baltimore.
William Howard Koppelman, of Baltimore.
David Israel Mach, of Baltimore.
Ogle Marbury, of Laurel, Md.
Charles Markell, Jr., of Hagerstown, Md.
Bartgis McGloine, of Baltimore.
Robert Emory Moore, of Baltimore.
Lyman Clements Murphy, of Baltimore.
Charles Augustus Myers, of Baltimore.
John Norris Myers, Jr., of Baltimore.
Marbury Bladen Ogle, of Baltimore.
Aubrey Pearre, Jr., of Baltimore.
Isaac Rosenbaum Pels, of Baltimore.
Thomas Coulson Pinkerton, of Baltimore.
Milton Williams Powell, of Baltimore County.
Benjamin Swayne Putts, of Baltimore.
Charles Frederick Ranft, of Baltimore.
Walter Ford Reynolds, of Baltimore.
Jacob Aner Saylee, Jr., of Baltimore.
William Christian Schimesser, of Baltimore.
Ralph Carlton Sharrett, of Baltimore.
Lloyd Parker Shippin, of Baltimore.
Gibson Emerson Sisco, of Baltimore.
John Aydelotte Simons, of Salisbury, Md.
Sidney Smith, of Louisville, Ky.
Harvey Brinon Stone, of Baltimore.
Henry Philip Straus, of Baltimore.
Solomon Strouse, of Baltimore.
Samuel Wolman, of Baltimore.
Peregrine Wroth, Jr., of Baltimore.
APPOINTMENTS, PROMOTIONS, AND HONORS ANNOUNCED
JUNE 10, 1902.

IN THE PHILOSOPHICAL FACULTY.

KIRBY F. SMITH, Ph. D., now Associate Professor, to be Professor of Latin.
GEORGE B. SHATTUCK, Ph. D., now Associate, to be Associate Professor of Physiographic Geology.
HARRY L. WILSON, Ph. D., now Associate, to be Associate Professor of Latin.
CASWELL GRAVE, Ph. D., now Assistant, to be Associate in Zoology.
FRANK R. BLAKE, Ph. D., to be Instructor in Oriental Languages.
JULIUS HOFMANN, to be Assistant in German.
LOUIS A. PARSONS, Ph. D., to be Assistant in Physics.

IN THE MEDICAL FACULTY.

WILLIAM G. MACCALLUM, M.D., now Associate, to be Associate Professor of Pathology.
GUY L. HUNNER, M. D., now Instructor, to be Associate in Gynecology.
WALTER BADMOONLEN, M. D., to be Assistant in Medicine.
GLANVILLE Y. RUSE, M. D., to be Assistant in Psychiatry.
FLORENCE R. SABIN, M. D., to be Assistant in Anatomy.
BENJAMIN R. SCHEFF, M. D., to be Instructor in Gynecology.

FELLOWSHIPS.

ADAM T. BRUCE FELLOW IN BIOLOGY.

RENAIR PARKER COWLES, of Los Angeles, Cal., A. B., Stanford University, 1899, Fellow of the Johns Hopkins University, 1901–02.

WILLIAM S. RAYNER FELLOW IN SEMITIC LANGUAGES.

THEODORE CLINTON FOOTE, of Baltimore, A. B., Racine College, 1880, S. T. B., General Theological Seminary (N. Y.), 1884, Ph. D., Johns Hopkins University, 1902.

FELLOWS.

LEROY CARR BARRETT, of Richmond, Mo., A. B., Washington and Lee University, 1897. Sanskrits.
ELBERT JAY BENTON, of Holton, Kan., A. B., Campbell University, 1895. History.
GEORGE OLAF BERO, of Sacred Heart, Minn., A. B., St. Olaf College, 1899. Greek.
PHILIP HOWARD EDWARDS, of Baltimore, A. B., St. John's College, 1898. Latin.
CHARLES KEYSER EDMUNDS, of Baltimore, A. B., Johns Hopkins University, 1897. Physics.
FREDERICK HUTTON GETMAN, of Stamford, Conn., A. B., Johns Hopkins University, 1897. Chemistry.
YUKIMASA HATTORI, of Sagakuen, Japan, Tokyo College of Science, 1898. Economics.
ALBERT JOHANNSEN, of Fremont, Neb., S. B., University of Utah, 1898. Geology.
ALFRED ALLAN KERN, of Nashville, Tenn., A. B., Randolph-Macon College, 1898. English.
ERNST GAUL MARTIN, of St. Paul, Minn., Ph. B., Hamline University, 1897. Physiology.
ALFRED JAMES MURRISON, of Farmville, Va., A. B., Hampden-Sidney College, 1895. Romance Languages.
GABRIEL OUSIANI, of Bagdad, Turkey, A. B., College of the Propaganda (Rome), 1895. Semitic Languages.

WALTER THOMSON PRINCE, of South Charleston, O., A. B., Ohio Wesleyan University, 1894. Romance Languages.
LEE VANDELY, of Danville, Ky., A. B., Centre College, 1897. Greek.
ROBERT BRUCE ROLSTON, of Baltimore, A. B., Johns Hopkins University, 1890. German.
DAVID HILT TWEEDST, of Janesville, Wis., S. B., Olivet College, 1900. Zoology.
ROY McLEAN VAN MART, of Montreal, Canada, A. B., University of New Brunswick, 1898. Pathology.
KISARURO YAMAGUCHU, of Tokyo, Japan, Tokyo College of Science, 1891. Chemistry.

TO VIRGINIA AND NORTH CAROLINA STUDENTS.


*Mr. Peirce waives the emolument.

TO JOHN MARSHALL PRIZE.

The John Marshall Prize for 1902 has been awarded to James Curtis Ballagh, Ph. D., for his work entitled, “A History of Slavery in Virginia,” recently published. This prize, consisting of a bronze likeness of Chief Justice Marshall, is awarded annually for the best essay written by a graduate of the University upon some subject in historical or political science.

HONORS OF THE MEDICAL STUDENTS.

HENRY W. OUSNER, M. D.
THOMAS W. CLARKE, M. D.
JOHN AUBER, M. D.
JOHN BRADFORD BRIGGS, JR., M. D.
CARL M. HOEFST, M. D.
ALICE W. TALLANT, M. D.
JOHN W. CHUROCHM, M. D.

In case of vacancies, these nominations will be made:

JOHN VAN DESBURGH, M. D.
WILLIAM M. C. BRYAN, M. D.
DAVID H. DOLLEY, M. D.

HOPKINS SCHOLARSHIPS.

These scholarships, in accordance with the wishes of the founder, are awarded to candidates from Maryland, Virginia, and North Carolina who are considered to be the “most deserving of choice because of their character and intellectual promise.”

*Mr. Peirce waives the emolument.
K. E. Hendricks (A. B., Guilford, 1890), of Asheboro, N. C.
E. J. Hoffman (A. B., Davidson, 1890), of Dallas, N. C.
J. F. Messick (A. B., Randolph-Macon, 1891), of Front Royal, Va.
H. B. Phillips (S. B., Eskkine, 1900), of Lexington, N. C.
J. T. Porter (A. B., Randolph-Macon, 1895), of Front Royal, Va.
J. L. Prichard (A. B., Wake Forest, 1898), of Burden, N. C.
J. D. Rodeffer (A. B., Roanoke, 1895), of Lovettsville, Va.
J. E. Routh, Jr. (A. B., Johns Hopkins, 1900), of Petersburg, Va.
G. B. Sanderlin (A. B., Wake Forest, 1899), of Belcross, N. C.
R. C. Ramsay (A. B., Guilford, 1901), of Beaufort, N. C.
B. A. Wilder (A. B., Randolph-Macon, 1897), of Cantersburg, Va.
R. H. Wright (S. B., North Carolina Agricultural Coll., 1900), of Pin-
nacle, N. C.

TO MARYLAND STUDENTS.

IN THE SECOND YEAR.

John Coffey Hildt.
Joseph Tate Smith, Jr.
Theodore Wesley Glocker.
James Wallace Bryan.
Louis Adelsdorf.
G. Drayton Strayer.

IN THE FIRST YEAR.

Charles Henry Saylor.
Josias Clerk Lee Hawkins.
Samuel Hyman Schapiro.
Reginald Stevenson Opie.
Gerald Benjamin Rosenheim.

WASHINGTON SCHOLARSHIPS.

James Bayard Gregg Curtis, Jr.
Moses Walton Hendry.

HONORS OF THE UNDERGRADUATES.

The standing of students in the class about to graduate, who are entitled to honorable mention, is as follows:

Charles Augustus Myers.
Charles Markell, Jr.
Harvey Brinton Stone.
Albert Guicher Dew.
Samuel Wolman.
David Israel Mack.
Solomon Strode.
Markbury Bladen Ogles.
William Kirk.
John Gorschuch Campbell.
Isaac Rosenbaum Pels.
Bartos McGlone.
Frederick Lee Guggenheimer.
William Ford Reynolds.
Louis Foltat Hildebrandt.
Perfurhine Wroth, Jr.

The standing of students of the second year, who are entitled to honorable mention, is as follows:

John Coffey Hildt.
Joseph Tate Smith, Jr.
Theodore Wesley Glocker.
James Wallace Bryan.
Robert Sampson Lanier.
Louis Adelsdorf.
James Bayard Gregg Curtis, Jr.
G. Drayton Strayer.
William Urick Murklund.
Wilton Snowden, Jr.
Charles Albert Robinson, Jr.
William Wetherall Ammen.
Charles Henry Studenrauch.
Carroll Mason Sparrow.
Harry Norman Bartzer.
Harry King Tooth.
Henry Ward Pflegemeyer.

The standing of students of the first year, who are entitled to honorable mention, is as follows:

Ralph Ottomar Fuhrmingir.
Charles Henry Saylor.
Josias Clerk Lee Hawkins.
Samuel Hyman Schapiro.
Reginald Stevenson Opie.
Gerald Benjamin Rosenheim.
Charles Robert Austrian.
Wilbur Leslie Leborn.
Henry Loane Lloyd.
Luther Martin Reynolds Willis.
John Newman Numsen.

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The Annual Catalogue and Announcement, 1902-1903, of the Medical Faculty, is ready and will be sent on application to the Registrar of the Medical Department.