

CATALOGUE

OF THE

OFFICERS AND STUDENTS

OF THE

UNIVERSITY OF WISCONSIN,

FOR THE

ACADEMIC YEAR 1878-9.

MILWAUKEE, WIS.

CHAMBER, ADENS & CHAMBER, PRINTERS,
1878.

FACULTY AND INSTRUCTORS.

JOHN BASCOM, D.D., LL. D.,

President and Professor of Mental and Moral Philosophy.

JOHN W. STERLING, Ph. D.,

Vice President and Professor of Mathematics.

WILLIAM F. ALLEN, A. M.,

Professor of Latin and History.

STEPHEN H. CARPENTER, LL. D.,

Professor of Logic and English Literature.

ALEXANDER KERR, A. M.,

Professor of the Greek Language and Literature.

JAMES C. WATSON, A. M.,

Director of the Washburn Observatory.

WILLIAM J. L. NICODEMUS, A. M., C. E.,

Professor of Military Science and Civil and Mechanical Engineering.

JOHN B. PARKINSON, A. M.,

Professor of Civil Polity and Political Economy.

JOHN E. DAVIES, A. M., M. D.,

Professor of Astronomy and Physics.

W. W. DANIELLS, M. S.,

Professor of Agriculture and Chemistry.

ROLAND IRVING, A. M., E. M.,

Professor of Geology, Mining and Metallurgy, and Curator of Cabinet.

RASMUS B. ANDERSON, A. M.,

Professor of Scandinavian Languages, and Librarian.

DAVID B. FRANKENBURGER, Ph. B.,

Professor of Rhetoric and Oratory.

HON. ORSAMUS COLE, LL. D.,

Associate Justice of the Supreme Court of Wisconsin,

Professor of Law.

HON. WILLIAM PENN LYON, LL. D.,

Associate Justice of the Supreme Court of Wisconsin,

Professor of Law.

J. H. CARPENTER, LL. D.,

Dean of Law Faculty.

UNIVERSITY OF WISCONSIN.

WILLIAM F. VILAS, LL. B.,
Professor of Law.

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Professor of Law.

S. U. PINNEY, Esq.,
Professor of Law.

J. B. CASSODAY, Esq.,
Professor of Law.

EDWARD A. BIRGE, A. M., Ph. D.,
Instructor in Natural History and Assistant Curator of Cabinet.

EDWARD T. OWEN, A. B.,
Instructor in Modern Languages.

ALLAN D. CONOVER, C. E.,
Instructor in Mathematics.

E. J. NICHOLS, B. S.,
Assistant in Civil Engineering.

GOTTLOB MÜHLHÄUSER, A. M.,
Instructor in Latin and Modern Languages.

CHARLES T. KING,
In charge of the Machine Shop.

HENRY J. TAYLOR, A. B.,
Instructor in Latin and Mathematics.

F. A. PARKER,
Instructor in Vocal and Instrumental Music.

Mrs. D. E. CARSON,
Preceptress.

Miss S. A. CARVER,
Instructor in French and German.

Miss ALICE J. CRAIG,
Instructor in Elocution.

COURSES OF STUDY.

I. GENERAL COURSES.

1. *Course in General Science.*

This course, whilst including all of the branches of an ordinary classical course, other than the ancient languages, covers a much wider field in mathematics, and is now so arranged that each of the main departments of science, viz: Zoology and Botany; Chemistry (including Analytical Chemistry); Physics; Mineralogy and Geology—has devoted to it three to four terms of continuous daily exercises in the class room and laboratory. The modern languages are also included. This arrangement makes it possible for the student to obtain such a thorough grounding in each branch of science that he can subsequently apply it to practical purposes, or follow it out as a specialist, without further class-room instruction. It is believed that, in this regard, the course is unlike the ordinary "science course," and that, whilst offering an unsurpassed general training, it is also adapted to the wants of all, including classical graduates, who wish ultimately to make some one branch of science a specialty.

FRESHMAN YEAR.

FIRST TERM.

Mathematics—Higher Algebra. Loomis.
English—Anglo-Saxon and English Analysis.
German—Whitney's Grammar and Reader.
Optional—Norse.

SECOND TERM.

Mathematics—Solid Geometry. Loomis.
English—Anglo-Saxon and Analysis.
German—Schiller.
Optional—Norse.

THIRD TERM.

Mathematics—Plane Trigonometry and its Applications. Loomis.
Botany—Lectures.
German—Lessing.
 Themes and Declinations throughout the year; also, German Composition.

SOPHOMORE YEAR.

FIRST TERM.

Analytical Geometry—Loomis.
Rhetoric—Hill. (Nine weeks.)
Zoology—Orton's Comparative Zoology. Invertebrates.
Mechanics—(Six weeks).
Optional—French. (The whole year must be chosen.)
Optional—Icelandic.
Optional—Botany. (Six weeks.)

SECOND TERM.

Zoology—Orton. Invertebrates.
Analytical Geometry and Calculus—Loomis.
English—Carpenter's English of the XIVth Century.
Optional—Icelandic.
Optional—French.

THIRD TERM.

Calculus—Loomis.
Zoology—Orton and Macallister. Vertebrates.
Physics—Deschanel on Heat.
Optional—French.
 Composition and Conversational Exercises in French and German throughout the year.

JUNIOR YEAR.

FIRST TERM.

Physics—Deschanel on Electricity and Magnetism.
Chemistry—Thorpe, Lectures and Laboratory Practice.
English Literature—Shaw and Lectures.
Modern History—Michelet (once a week).

SECOND TERM.

Physics—Deschanel on Sound and Light.
Chemistry—Thorpe, Lectures, and Laboratory Practice.
Crystallography and Mineralogy—Dana's Text Book.
Optional—Readings in Shakespeare (Mondays).

THIRD TERM.

Physics, History or Chemistry—(Elective).
Mineralogy, Determinative—Brush.
Chemistry—Laboratory Practice; Johnson's Fresenius.
Optional—Readings in Shakespeare (Mondays).

SENIOR YEAR.

FIRST TERM.

Mental Philosophy—Bascom and Lectures.
Spherical Trigonometry and Astronomy—Loomis.
Geology—Lectures, and Dana's Manual.
Lectures—Science of Language.
International Law—Lectures.
Optional—Metallurgy, Assaying.

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SECOND TERM.

Moral Philosophy—Hickok.
Natural Theology—Chadbourne.
Logic—Deductive, Jevons and Lectures.
Political Economy—Fawcett and Lectures.

THIRD TERM.

Pathetics—Buseorn.
Logic—Inductive—Rowley and Lectures.
Institutional Law—Story and Lectures.
Optional—Economic Geology.

2. *Course in Modern Classics.*

In this course German and Anglo-Saxon take the place of Greek.

FRESHMAN YEAR.

FIRST TERM.

Mathematics—Higher Algebra. Leonius.
Latin—Cicero De Senectute and Latin Composition.
German—Whitney's German Grammar and Reader.
Optional—Norse.

SECOND TERM.

Mathematics—Solid Geometry. Leonius.
Latin—Livy, Composition.
German—Schiller.
Optional—Norse.

THIRD TERM.

Mathematics—Plane Trigonometry and its Applications.
Botany—Lectures.
German—Lessing, Composition.
Latin—Livy, Composition.
 Themes and Declamations throughout the course; also French and German Composition.

SOPHOMORE YEAR.

FIRST TERM.

Conic Sections—Leonius (six weeks).
Mechanics—(Six weeks).
Latin—Horace, Odes and Epodes.
German—Goethe's Prose.
French—Grammar and Reader.
Optional—Icelandic.

SECOND TERM.

Rhetoric—Hill (nine weeks).
Latin—Horace, Satires and Epistles.
French—Select Prose and Poetry.
German—Bachheim's Prose Composition.
Optional—Icelandic.

THIRD TERM.

Latin—Sallust's *Catiline*.
French—
Physics—Deschanel.
Optional—History of French Literature.
Optional—Anglo-Saxon.

JUNIOR YEAR.

FIRST TERM.

Physics—Deschanel on Electricity and Magnetism.
Latin—Tacitus (three times a week).
Chemistry—Thorpe and Lectures (twice a week).
English Literature—Shaw and Lectures.
Modern History—Michelet (once a week).

SECOND TERM.

Physics, History or Chemistry—(Elective).
Geology—Dana's Geological Story Briefly Told (six weeks).
German—H. Grimm's *Raphael* and Michael Angelo.
Zoology—Orton's Comparative Zoology.
Optional—Readings in Shakespeare (Mondays).

THIRD TERM.

Physics, Chemistry or History—(Elective).
Latin—Tacitus.
Anglo-Saxon—Carpenter's Reader.
Comparative Philology—Twelve Lectures.
Optional—Readings in Shakespeare (Mondays).

SENIOR YEAR.

FIRST TERM.

Mental Philosophy—Buscom and Lectures.
Rhetoric—Day's Art of Discourse.
Spherical Trigonometry and Astronomy—Leomis.
German—Goethe's *Faust*.
International Law—Lectures.

SECOND TERM.

Moral Philosophy—Hickok.
Natural Theology—Chadbourn.
Logic—Deductive, Jevons and Lectures.
Political Economy—Fawcett and Lectures.

THIRD TERM.

Æsthetics—Bascom.*Logic*—Inductive, Fowler, and Lectures.*Constitutional Law*—Story and Lectures.*History of Civilization*—Lectures.

NOTE.—Those who wish to take music, etc., or who may be unable to complete the course in four years, may extend it over six, according to the following schedule.

- I. 1. Latin; German. 2. Latin; German. 3. Botany; Latin and German.
- II. 1, 2, 3. Latin and German; Mathematics.
- III. 1. French; Mathematics and Mechanics. 2. French; Rhetoric. 3. French; Physics.
- IV. 1. Physics and History; Latin and Chemistry. 2. Zoology; Physics, History or Chemistry. 3. Latin and German; Physics, History or Chemistry.
- V. 1. English Literature; Rhetoric and German. 2. Geology and German; Political Economy. 3. Comparative Philology and Anglo-Saxon; Constitutional Law.
- VI. 1. Mental Philosophy; Astronomy and International Law. 2. Moral Philosophy; Deductive Logic. 3. Æsthetics; Inductive Logic.

3. *Course in Ancient Classics.*

This course embraces the Ancient Classics, Mathematics, Natural Sciences, English Literature, and Philosophy.

FRESHMAN YEAR.

FIRST TERM.

Mathematics—Higher Algebra, Loomis.*Latin*—Cicero De Senectute, and Latin Composition.*Greek*—Homer's Odyssey, Grammar and Composition.*Optional*—Norse.

SECOND TERM.

Mathematics—Solid Geometry. Loomis.*Latin*—Livy. Composition.*Greek*—Herodotus. Grammar and Composition.*Optional*—Norse.

THIRD TERM.

Mathematics—Plane Trigonometry and its Applications.*Botany*—Gray's Manual, and Lessons.*Greek*—Thucydides. Grammar and Composition.*Latin*—Livy. Composition.

Themes and Declamations throughout the course.

SOPHOMORE YEAR.

FIRST TERM.

Conic Sections—Loomis (six weeks).*Latin*—Horace. Odes and Epodes.*Mechanics*—(Six weeks.)*French*—Grammar and Reader.*Greek*—Demosthenes. Goodwin's Moods and Tenses.

SECOND TERM.

Rhetoric—Hill.*Latin*—Horace. Satires and Epistles.*Greek*—Tragedy.*French*—Select Prose and Poetry.

THIRD TERM.

Latin—Sallusts' Catiline.
Greek—Tragedies.
Physics.
Optional—Anglo-Saxon.

JUNIOR YEAR.

FIRST TERM.

Latin—Tacitus. (Three times a week.)
Chemistry—Thrope and Lectures. (Twice a week.)
English Literature—Shaw and Lectures.
Physics—Deschanel on Electricity and Magnetism.
Modern History—Michelet. (Once a week.)

SECOND TERM.

Physics, History, or Chemistry—(Elective.)
Greek—Plato—Apology and Crito.
Geology—Dana's Geological Story Briefly Told (Six weeks).
Zoology—Orton's Comparative Zoology.
Optional—Readings in Shakespeare (Mondays).

THIRD TERM.

Physics, History, or Chemistry—(Elective.)
Latin—Tacitus.
Greek—Plato.
Comparative Philology—Twelve lectures.
Optional—Readings in Shakespeare (Mondays).

SENIOR YEAR.

FIRST TERM.

Mental Philosophy—Bascom and Lectures.
Rhetoric—Day's Art of Discourse (three days a week).
Spherical Trigonometry and Astronomy—Loomis and Lectures.
Greek—Philosophy.
International Law—Lectures.

SECOND TERM.

Moral Philosophy—Hickok.
Natural Theology—Chadbourne.
Logic, Deductive—Jevons and Lectures.
Political Economy—Fawcett and Lectures.

THIRD TERM.

Esthetics—Bascom.
Constitutional Law—Story and Lectures.
Logic, Inductive—Fowler and Lectures.
History of Civilization—Lectures.

CLASSICAL COURSE.

The classical Sub-Freshman Course consists of two years' studies.

FIRST YEAR.

FIRST TERM.

<i>Ancient Classics.</i>	<i>Modern Classics.</i>
<i>Latin</i> (Twice a day),	<i>Leighton's Lessons.</i>
<i>Inc. History</i> —Wythe's Hist. of Greece;	<i>Algebra</i> —Loomis' Higher.
Creighton's History of Rome.	

SECOND YEAR.

THIRD TERM.

<i>Latin</i> ,	<i>Leighton's Lessons.</i>
<i>Greek</i> —Goodwin's Grammar and	<i>Algebra</i> —As first term.
White's Lessons (twice a day).	<i>Natural Philosophy</i> —Norton.

<i>Latin</i> (twice a day),	<i>Cesar, and Allen's Composition.</i>
<i>Greek</i> —As before.	<i>Plane Geometry</i> —Loomis.

SECOND YEAR.

FIRST TERM.

<i>Latin</i> ,	<i>Cicero's Select Orations, and Composition and Grammar through the year.</i>
<i>Greek</i> —Xenophon's Anabasis, and	<i>German</i> —Comfort's Course.
Composition (twice a day).	<i>Inc. History</i> —Wythe, and Creighton.

SECOND TERM.

<i>Latin</i> ,	<i>Cicero, Virgil's Aeneid (twice a day).</i>
<i>Greek</i> —As before.	<i>German</i> —As before.

THIRD TERM.

<i>Latin</i> ,	<i>Virgil.</i>
<i>Greek</i> —Xenophon's Anabasis and	<i>German</i> —Whitney's Reader.
Homer's Iliad (twice a day).	<i>Botany</i> —Gray's Manual.

2. Post Graduate Department.

Bachelors of Art, Science, and Philosophy will be admitted to the University as candidates for an appropriate degree. They must devote two years to study under the direction of the President and Faculty, and pass a satisfactory examination before the Board of Examiners appointed by the Regents.

The studies are optional, but they must be selected from at least two sections, and the studies in some one section must be continued during the whole course.

COURSE OF INSTRUCTION.

- Sec. 1. *Philosophy and History.* History of Philosophy; History of Institutions; International Law and Jurisprudence.
- II. *Philology.* Sanskrit; Ancient and Modern Classic Languages; Comparative Grammar; *English*—Critical Study of English Literature, Anglo-Saxon, &c.
- III. *Mathematics and Physics.* Calculus of Variations; Analytical Mechanics; Dynamical Theory of Heat, Light, etc.; Practical Astronomy and Geodesy.
- IV. *Natural History.* Botany; Zoology; Comparative Anatomy.
- V. *Natural Sciences.* Mineralogy; Geology; Chemical Philosophy and Analysis.
- VI. *Applied Sciences.* Mining Engineering; Civil Engineering; Mechanical Engineering; Architecture; Chemical Technology; Metallurgy; Economic Geology.

3. *Lectures.*

In addition to the lectures given with the recitations, some subjects are taught entirely by lectures, the students being required to take notes and to recite upon the lectures as from a text book.

SENIOR CLASS.

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| Mental and Moral Philosophy, | Pres. BASCOM. |
| Logic and Didactics, | Prof. CARPENTER. |
| History, | Prof. ALLEN. |
| Political Economy and International Law, | Prof. PARKINSON. |
| Geology and Economic Geology, | Prof. IRVING. |
| Mining Engineering and Metallurgy, | Prof. IRVING. |

JUNIOR CLASS.

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| Physics and Astronomy, | Prof. DAVIES. |
| English Literature and History of English Language, | Prof. CARPENTER. |
| History, | Prof. ALLEN. |
| Chemistry, General, Analytical and Applied, | Prof. DANIELS. |
| Metallurgy and Assaying, | Prof. IRVING. |
| Comparative Philology, | _____ |

SOPHOMORE CLASS.

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| History, | Prof. ALLEN. |
| Zoology, | Mr. BIRGE. |

FRESHMAN CLASS.

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| Laws of Health and Methods of Study, | Pres. BASCOM. |
| Botany, | Mr. BIRGE. |

DEPARTMENTS OF STUDY.

PHILOSOPHY (PRES. BASCOM)—

Five recitations, of a term each, are devoted to philosophy, to-wit, one to deductive and one to inductive logic ; and three to psychology, ethics, aesthetics, and natural theology. The time is abundant, and the course correspondingly complete.

In psychology the President uses the new edition of his own work. The aim of the recitation is to give the present conclusions on living questions in philosophy, and to prepare the mind for the *slow* formation of an opinion concerning open points, and for the *clear apprehension of settled facts*. While the text-book guides and steadies the discussion, and gives a frame-work of thought for the memory, much matter is incidentally introduced for the fuller presentation of opposing views, and the further enforcement of those offered.

In the course of the recitations, subjects in philosophy are assigned to be discussed historically in essays before the class. The library is well provided with works of philosophy, and the students are urged to read systematically in connection with the work in the recitation room. Leading historical facts in philosophy are thus brought before the class, and at least a partial knowledge of influential systems, like that of Spencer, secured. Free discussion and inquiry are had in the class room. The effort is not so much to control belief, as to secure its best conditions.

The recitation is ordered in reference to the present state of philosophy, and existing facts are made to run back into the history of philosophy. The opposite method requires more time, and has, for the beginner, less interest. On the whole, we regard the proper starting point of inquiry to be the facts before us.

Ethics follows psychology, and natural theology and aesthetics follow ethics. While hard work is done, and the leading principles are established in psychology, essentially the same method is pursued in each of these branches. The text-book in ethics has been Dr. Hickok's. Natural theology has been taught chiefly by lectures, sustained by Dr. Chadbourne's work. In aesthetics the work used is the *Science of Beauty*, by the President.

In ethics and natural theology the ruling idea is freedom of discussion, with a full presentation of opposing views. We believe this to be the best and safest way to form and flexible opinions.

Esthetics is taught with extended illustrations, and the purpose is to bring delicacy to the perceptions and culture to the feelings.

LOGIC. (PROF. CARPENTER.)—

The course in Logic extends through two terms in the Senior year—one term being given to Deductive (Differential), and one to Inductive (Integral) Logic. Jevon's Deductive and Fowler's Inductive are the text-books used as a basis; the study is largely extended by lectures. Logic is not considered as a mere formal science; but forms are treated as material symbols of thought, and the aim of the science is held to be the general laws of which these symbols are the material interpretation. The essential unity of Deduction and Induction is held—the one from the Law seeking the Forms; and the other from the Forms seeking the Law. The method of study seeks to base Logic on the laws of mental action, rather than upon the symbols used to express the product of mental action.

DIDACTICS. (PROF. CARPENTER.)—

A Course of Lectures upon Didactics, thirty-five in number, is given to the Senior Class. The object of this course is to make the college culture and discipline of direct service in the profession of teaching. The methods of imparting and receiving knowledge are considered as subject to the laws of mental action, and thus capable of strict scientific treatment.

HISTORY. (PROF. ALLEN.)—

All persons entering the University are examined in United States History. Candidates for the Freshman Class of the College of Letters are examined also in Ancient History.

The regular course in History consists of a weekly exercise in the first term of the Junior year; the text-book will be Michelet's Modern History. An Elective course in the third term of the same year (elective with Physics and Chemistry), takes up the history of modern institutions, with special reference to England. The instruction is given by lectures; students are required to take notes of the lectures and write them out in full.

For the College of Letters there is another Elective course in the second term Junior (elective with Physics and Chemistry); the subject is the Constitutional History of Greece and Rome.

CIVIL POLITY AND POLITICAL ECONOMY. (PROF. PARKINSON.)—

The work in this Department begins with the Senior Class, at the commencement of the first term and continues through the year. One lecture

a week, during the fall term, will be given upon International Law. The aim is to present the outlines of the subject in as complete a manner as possible in the time allotted, and to note any modifications or advances made, from time to time, in the recognized law of nations.

At the opening of the third term, there is a short course of lectures upon general Constitutional Law, dwelling more especially upon the English Constitution—its gradual formation and distinguishing characteristics. It is the aim in these lectures to lay suitable ground-work for the study of the Constitution of the United States, which is taken up at their conclusion and continued with recitation or lecture daily through the term. The Constitution is investigated in no party spirit, but in that of free inquiry. Special attention is given to important cases involving vital principles of Constitutional Law, and to the adjudications upon them by the highest judicial tribunals. It is designed in the study of the constitution and throughout this department, to give instruction that shall be practical in the highest sense of the term, and which cannot but be of immediate service to that large class of graduates who pass at once from the Academic to the Law Department of the University.

POLITICAL ECONOMY is taken up at the beginning of the second term and continued to its close as a full study. The subject is taught with the aid of an appropriate text-book and of works of reference, supplemented largely with lectures and discussions upon the more important topics. It is designed to treat the science, not as an isolated one, but as intimately connected with that of Government, and as closely bearing upon the welfare and inter-dependence of nations as well as of individuals.

LATIN. (PROF. ALLEN.)—

The course in Latin occupies eight terms; three of them with daily recitations; in the other five alternating with Greek, (in the Modern Classical Course, German,) or some other study.

During the Freshman year the chief object is to enlarge and confirm the knowledge of the language by constant grammatical drill, and by weekly exercises in writing Latin. In the following years it is the intention, without neglecting grammatical training, to pay special attention to the subject matter of the books read, and their place in the history of literature.

As a course in Roman literature, the work of these eight terms—taken in connection with the books read before entering—is designed to embrace all the leading classes of composition, and most of the authors of first rank.

Before entering upon Livy, the author usually first in the college course, it is thought advisable to read one of the shorter works of Cicero—at present his "*Cato Major*," (*De Senectute*). The rest of the Freshman year

is devoted to Livy. Two terms of the Sophomore year (recitations every other day) are devoted to Horace; the third to some prose author—the present year, Sallust's *Catiline*; the Junior year to Tacitus and Plautus or Terence.

Other authors and works of Roman literature are treated by lectures in optional classes of Seniors and Juniors. The books so taken up the present year are Cicero *pro Cluentio* and the *Agricola* of Tacitus.

GREEK. (PROF. KERR.)—

The study of Greek extends through eight terms of the college course. Preparatory to this, the student should be well grounded in the elements of Greek grammar, and should be able to write Greek with the accents, in addition to reading the required amount of the *Anabasis* and the *Iliad*.

FRESHMEN.—The course for the first College year includes a study of the Homeric Poems, with reference to a critical knowledge of the epic dialect, and the interpretation of the Greek Mythology. Half of the Eighth Book of Herodotus is read as a means of teaching the New Ionic, and as a basis of instruction in the Greek Historians. Sixty chapters from the First Book of Thucydides give drill in elliptical and difficult constructions, and serve as an introduction to the history and literature of the Age of Pericles. The class also read selections from Xenophon's *Memorabilia*, from the Dialogues of Lucian, with frequent exercises in writing prose.

SOPHOMORES.—The Sophomore year is given to the study of Greek Oratory and Tragedy. The *Philippics* of Demosthenes (or their equivalent) are read and analyzed, and are illustrated by instruction in Athenian Politics and Grecian Antiquities. The work in tragedy consists in the reading and analysis of the *Medea* of Euripides, and the *Oedipus Tyrannus* of Sophocles, or their equivalents, accompanied by instruction in the Greek Drama. The study of the difficult principles of Greek Syntax is continued during the year, but only as subordinate and incidental to the study of the authors themselves.

JUNIORS AND SENIORS.—The last two years are given to Greek Philosophy. The course of reading is in Plato, and is designed to make the student familiar with the Socratic Method, and to show him the power of the language as a medium of thought.

Resident graduates and special students in Greek may read with the professor from authors not named in the course.

ENGLISH LANGUAGE AND LITERATURE. (PROF. CARPENTER.)—

An examination in English Grammar and Sentential Analysis is required of all students upon entering. This examination is intended to test the pupil's knowledge of the subject, rather than his knowledge of any particular text-book.

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In the Scientific Course the study of the English Language is begun in the first term Freshman with the Anglo-Saxon, or Original English, which is continued for two terms. This study is pursued mainly for the sake of elucidating the etymology and syntax of modern English. The text-book used is Carpenter's Introduction to the Study of Anglo-Saxon.

In the second term Sophomore (Scientific) Chaucer is studied—the text-book being Carpenter's English of the XIVth Century, embracing the Prologue to the Canterbury Tales and The Knight's Tale. This is selected as being the earliest Modern English Literature. Three points are kept prominently in view: 1st. The Grammatical construction—each sentence being subjected to a rigid analysis; 2d. The Derivation and use of Words—the aim being to show the origin, relation, meaning and use of words, and thereby lead the student to greater definiteness in the use of language; 3d. The Literary character of the text, as an illustration of the principles of Rhetoric. This method of instruction is continued in the Junior year with a weekly reading in Shakespeare, during the first term, which may be continued as an optional study through the year—Rolfe's edition being preferred as text-books.

In the first term of the Junior year, English Literature is taught, using Shaw's Complete Manual as a text-book, supplemented by lectures and illustrative readings. The aims kept in view in this study are: 1st. To inform the student what composes the body of English literature; 2d. Its literary character and value; 3d. The peculiar social and moral forces that produced and shaped it. The second point is largely, and the third wholly, taught by Lectures.

Advanced instruction is also furnished those who desire it, in Anglo-Saxon, Early English, and The History and Development of the English Language. For this course, March's Anglo-Saxon, Morris's Specimens of Early English, and Marsh's Lectures on the Origin and History of the English Language, are the text-books used.

MODERN LANGUAGES. (MR. OWEN.)—

1. GERMAN.—In the College of Arts the German Language is a full study during the Sub-Freshman and Freshman years. The basis of instruction following the Empirical Method is a thorough course in Grammar with oral and written translations and Conversational Exercises. A sufficient amount of Prose and Poetry is read to give the student a fair reading knowledge of the German Language.

In the *College of Letters* (Modern Classical Course) the study of German is pursued for three years. During the Sub-Freshman year the students recite with the members of the College of Arts. During the following years the historical and comparative method is employed; authors of the Classical period are read, combined with German Composition and Con-

modes of tempering surface plate work ; second term, wood turning for practice and patterns ; use and care of carpenter tools ; third term, pattern work and moulding.

Seniors, first term, metal alloys ; brazing and soldering ; second term, lathe, planer and milling machine work ; third term, designing and constructing pieces of machinery.

Two hours are daily employed in shop work, drawing, or laboratory practice.

NATURAL HISTORY. (MR. BIRGE.)

PHYSIOLOGY is taught to the students of the scientific course during the first term of their Sub-freshman year. The text-book used is Huxley and Youman's Physiology and Hygiene, and the subject is illustrated by specimens so far as is practicable. Students desiring to enter the Freshman class will be expected to have a knowledge of Physiology equivalent to that obtained by students in the Preparatory Course here.

BOTANY. The Preparatory Course in Botany occupies the third term of the year. The subject is studied by the Scientific and Modern Classical (2d year) Sub-freshmen, and by the Ancient Classical Freshmen. The text-book used is Gray's Manual with Lessons. After the appearance of the flowers, two recitations in the week are devoted to careful analysis and description of plants ; one plant occupying the hour. The students are required to mount and name an herbarium of thirty-five specimens.

The advanced course in Botany consists of Lectures given to the Modern Classical and Scientific Freshmen. The subjects of Vegetable Anatomy and Physiology are treated of in the Lectures, and two days in the week are given to analysis. The students are required to hand in an herbarium of fifty specimens (of which the specimens of the previous year may count as part), and to write descriptions of twelve plants.

An optional course in analysis of plants is given the first term of the Sophomore year. It begins with the opening of the term and lasts, usually, about six weeks. Practice in identification of flowers is thus secured, and an acquaintance with fall flowers is gained.

Students desiring to enter the Sophomore class, will be examined on Thome's Structural and Physiological Botany, Chapters I, II, III, and V.

ZOOLOGY. The Classical course in Zoology consists of one term's work, done in the winter term of Junior year. Orton's Comparative Zoology is the text-book used. The course aims to give the students the rudiments of Comparative Anatomy and Physiology, with the outlines of classification.

The Scientific course in Zoology extends throughout the Sophomore year. Over three hundred hours are spent in laboratory work and in recitation. The students will become acquainted with the main facts of