DENISON UNIVERSITY

Annual Catalogue 1915-1916

> GRANVILLE, OHIO March, 1916

The University Sufficien are investiguariesty and outered at the Poor Office in Granville, Obje, as could matter of the Second Chief-



DENISON UNIVERSITY

Annual Catalogue 1915-1916

> GRANVILLE, OHIO March, 1916



The University Bulletins are issued quarterly and entered at the Post Office in Granville, Ohio, as mail matter of the Second Class.



The Eighty-Fifth

Annual Catalogue

of

Denison University

For the Year 1915-1916



GRANVILLE, OHIO 1916

Contents

DENISON UNIVERSITY, Calendar	4
Trustees and Committees	5-7
Faculty and Other Officers	8-12
General Information	13-30
GRANVILLE COLLEGE	31-87
Entrance Requirements	32-36
Departments of Study	37-77
The Group System	77-87
SHEPARDSON COLLEGE	88-91
DOANE ACADEMY	92-107
CONSERVATORY OF MUSIC	08-120
STUDENT LISTS	
SCHEDULE AND INDEXES	

For information concerning Granville College, address C. W. CHAMBERLAIN, Ph. D., President Granville, Ohio

For information concerning Shepardson College, address LUCILE POWELL, A. M., ACTING DEAN GRANVILLE, OHIO

For information concerning the Conservatory of Music, address KARL H. ESCHMAN, A. M., DIRECTOR GRANVILLE, OHIO

For information concerning Doane Academy, address H. RHODES HUNDLEY, D. Sc., DEAN GRANVILLE, OHIO

The University Calendar

1916		
February	7	Monday Second Semester begins, 7:30 A. M.
March	29	Wednesday Spring Recess begins, at noon.
April	5	Wednesday Spring Recess ends, at noon.
June	11	SundayBaccalaureate Sermon and Sermon be- fore Christian Associations.
June	12	MondayGraduating Exercises of Doane Academy, 10 A. M.
		Field Day, at 1:30 P. M.
		Lewis Literary Prize Contest, 8 P. M.
June	13	TuesdayClass Day Exercises, 10 A. M.
		Alumni Meeting, 2 P. M.
		President's Reception, 8 P. M.
June	14	WednesdayUniversity Commencement, 10 A. M. Alumni Dinner, 1 P. M.
	St	MMER VACATION, JUNE 14 TO SEPTEMBER 14.
September	13	WednesdayExaminations for Admission. Registration of new students.
September	14	Thursday First Semester begins, 9 A. M.
November	29	WednesdayThanksgiving Recess begins, at noon.
December	4	Monday Thanksgiving Recess ends, at noon.
December	22	FridayHoliday Recess begins, 4:30 P. M.
1917		
January	9	Tuesday Holiday Recess ends, 7:30 A. M.
January	18	Thursday Day of Prayer for Colleges.
Jan. 30-Feb	1	TuesThurs Mid-year Examinations.
February	5	Monday Second Semester begins, 7:30 A. M.
February	22	Thursday Washington's Birthday. Charter Day.
March	28	Wednesday Spring Recess begins, at noon,
April	4	
June	13	WednesdayCommencement.

Board of Trustees

OFFICERS OF THE BOARD

G. Moore Peters, A.M., LL.D., President.

CHARLES T. LEWIS, A.B., Vice President.

MILLARD BRELSFORD, A.B., Secretary.

ELMER E. HOPKINS, A.B., Treasurer.

Members

Ex-Officio.

CLARK W. CHAMBERLAIN, A.B., PH.D......Granville

President of the University.

Class I.—Term Expires June, 1916.

REV. CHARLES J. BALDWIN, A.M., D.DGranville.
CHARLES T. LEWIS, A.BToledo.
*W. Howard Doane, Mus.D
EDWARD CANBY, EsqDayton.
FRANKLIN G. SMITH, EsqCleveland.
G. Moore Peters, A.M., LL.D
REV. MILLARD BRELSFORD, A.BGranville.
*HARVEY KEELER, A.BCleveland.
JOHN M. AMOS, EsqCambridge.
Julius G. Lamson, EsqToledo.
REV. AUGUSTINE S. CARMAN, A.M., D.DMarietta.
CHARLES H. PRESCOTT, JR., EsqCleveland.

^{*}Deceased.

Class II .- Term Expires June, 1917.

HENRY A. SHERWIN, Esq
FREDERICK P. BEAVER, Esq
WILLARD D. CHAMBERLIN, Esq Dayton.
PROFESSOR ALFRED D. COLE, A.M
REV. GEORGE W. LASHER, A.M., D.D, Cincinnati.
EDWARD A. DEEDS, B.S
BURTON CASE, EsqGranville.
WALLACE H. CATHCART, B.SCleveland.
REV. CHARLES J. ROSE, A.B., D.D
OSMAN C. HOOPER, A.MColumbus.
DAVID E. WILLIAMS, A.B
DAVID E. GREEN, B.SCleveland.

Class III.—Term Expires June, 1918.

EUGENE J. BARNEY, Esq	. Dayton.
J. LORING CHENEY, PH.D	Hebron.
TORRENCE HUFFMAN, Esq	. Dayton.
JACOB R. DAVIES, A.M	. Newark.
VINTON R. SHEPARD, A.M	. Cincinnati.
BENJAMIN F. McCann, A.M	.Dayton.
LEWIS R. ZOLLARS, Esq	.Canton.
Ambrose Swasey, Sc.D	.Cleveland.
REV. HERBERT F. STILWELL, A.M., D.D	.Cleveland.
JOHN M. SWARTZ, A.M	.Granville.
REV. JOHN F. HERGETT, A.M	.Cincinnati.
FRED D. BARKER, B.PH., M.D	.Dayton.

Committees

Executive Committee.

CLARK W. CHAMBERLAIN, Chairman.

JACOB R. DAVIES, I. LORING CHENEY, MILLARD BRELSFORD, JOHN M. SWARTZ.

Finance Committee.

Finance Examining Committee.

TORRENCE HUFFMAN.

WILLARD D. CHAMBERLIN.

Auditing Committee.

DAVID E. WILLIAMS.

J. LORING CHENEY.

Committee on Library and Laboratories.
C. H. Prescott, Chairman.

CLARK W. CHAMBERLAIN,

CHARLES J. ROSE, VINTON R. SHEPARD.

DAVID E. GREEN,

as on Instruction

Committee on Instruction.
WALLACE H. CATHCART, Chairman.

HERBERT F. STILWELL,

ALFRED D. COLE,

CHARLES T. LEWIS.

MILLARD BRELSFORD.

Committee on Conservatory of Music. Charles T. Lewis, Chairman.

*W. Howard Doane, Augustine S. Carman. CHARLES H. PRESCOTT, OSMAN C. HOOPER,

Committee on Campus and Buildings.

Ambrose Swasey, Chairman.

EUGENE J. BARNEY, CHARLES T. LEWIS. HENRY A. SHERWIN, FREDERICK P. BEAVER.

EDWARD A. DEEDS.

^{*}Deceased.

The Faculty of Instruction

CLARK W. CHAMBERLAIN, A.B., PH.D., President.
Maria Theresa Barney Professor of Intellectual and Moral Philosophy.

RICHARD S. COLWELL, A.M., D.D., Dean.
Professor of the Greek Language and Literature.

GEORGE F. McKibben, A.M., Ph.D., Professor of the Romance Languages.

CHARLES L. WILLIAMS, A.M., L.H.D., Professor of Rhetoric and English Literature.

WILLIAM H. JOHNSON, A.M.,

Eliam E. Barney Professor of the Latin Language and Literature.

H. RHODES HUNDLEY, A.M., Sc.D., Dean of Doane Academy, with rank of Professor.

WILLIS A. CHAMBERLIN, A.M., Ph.D., Professor of the German Language and Literature.

CHARLES E. GOODELL, A.M., Professor of History and Political Science.

FRANK CARNEY, AM., PH.D., Professor of Geology and Geography.

ARTHUR M. BRUMBACK, A.M.,
Professor of Chemistry.

MALCOLM E. STICKNEY, A.M.,
Professor of Botany.

PAUL BIEFELD, A.B., PH.D.,
Professor of Astronomy and Director of the Swasey Observatory.

FORBES B. WILEY, A.B., PH.D., Benjamin Barney Professor of Mathematics.

CLARENCE D. COONS, M.S., Henry Chisholm Professor of Physics.

THEODORE S. JOHNSON, M.S., Professor of Civil Engineering.

THOMAS A. LEWIS, A.M., Ph.D.,
Professor of Education and Philosophy.

HAROLD D. FISH, M.S., Acting Professor of Zoology. ANNA B. PECKHAM, A.M., Associate Professor of Mathematics. (Absent on leave, 1915-1916.)

BUNYAN SPENCER, A.M., Associate Professor of Philosophy.

RAYMOND W. PENCE, A.M., Associate Professor of English.

AUGUST ODEBRECHT, A.M., Associate Professor of Modern Languages.

KARL H. ESCHMAN, A.M.,

Assistant Professor of Music and Director of the Conservatory.

IRVING STODDARD KULL, A.M.,
Assistant Professor of History.
(Absent on leave, 1915-1916.)

LUCILE POWELL, A.M.,

Acting Dean of Shepardson College and Assistant Professor of Latin.

DERWENT S. WHITTLESEY, A.M., Acting Assistant Professor of History.

EVERETT P. JOHNSTON, A.B., Acting Assistant Professor of Public Speaking.

WALTER LIVINGSTON, B.S., Director of Physical Training for Men.

LILY BELL SEFTON, B.S., Instructor in Chemistry.

HAZEL E. SCHOONMAKER, A.M., Instructor in Mathematics.

FANNIE J. FARRAR, Instructor in Piano and Head of Department.

> CARRIE M. HOWLAND, Instructor in Art.

EUGENIA E. FINLEY, Instructor in Domestic Science.

ANNABEL BRADSTREET, A.B., Instructor in Physical Training for Women.

HENRY H. TILBE, A.B., PH.D., Instructor in Latin.

FRANCIS F. PATRICK, B.PH., Instructor in English.

> RUTH ORCUTT, M.S., Instructor in Biology.

DENISON UNIVERSITY

GAYLE I. SMITH, Instructor in Violin. GRACE JEANNETTE BROOKS, Instructor in Voice and Head of Department.

HENRY PRESTON, A.M., Instructor in Voice.

LEILA C. BROWN, Instructor in Organ and Piano.

HAROLD W. EMSWILER, Assistant in Mathematics.

ROBERT P. VICKERS, Assistant in Geology.

Committees of the Faculty

Committee on Curriculum:

Professors Colwell, Biefeld, Brumback, Goodell, and W. H. Johnson.

Committee on Entrance and Advanced Standing:

PROFESSORS W. H. JOHNSON, GOODELL and HUNDLEY.

Committee on Registration and Classification:

PROFESSOR GOODELL and COLWELL, ASSISTANT PROFESSOR POWELL.

Committee on Student Aid:

PRESIDENT CHAMBERLAIN, PROFESSORS COLWELL AND HUNDLEY, ASSOCIATE PROFESSOR SPENCER, ASSISTANT PROFESSOR POWELL, E. E. HOPKINS, MRS. ALICE K. HERRICK.

Committee on Student Affairs:

PRESIDENT CHAMBERLAIN, PROFESSOR T. S. JOHNSON, ASSISTANT PROFESSOR POWELL.

Committee on Advanced Degrees:

PROFESSORS W. A. CHAMBERLIN, BIEFELD and FISH.

Committee on Rules and Regulations:

PROFESSOR CARNEY, McKibben and Wiley, Assistant Professor Whittlesey.

Committee on Schedule:

PROFESSORS COONS and W. H. JOHNSON, ASSOCIATE PROFESSOR ODEBRECHT and ASSISTANT PROFESSOR POWELL.

Committee on Teaching Appointments:

PROFESSORS LEWIS, COONS and W. H. JOHNSON.

Committee on Student Publications:

PROFESSORS W. H. JOHNSON, McKibben and Williams.

Committee on Athletics:

Professors Colwell, T. S. Johnson and Coons.

Committee on Inter-Collegiate Debating:

Associate Professor Spencer, Professor Williams, Assistant Professor Johnston.

Committee on Community Service:

Professor W. A. Chamberlin, President C. W. Chamberlain, Professor T. S. Johnson.

Officers of Administration

CLARK W. CHAMBERLAIN, A.B., Ph.D., President of the University.

RICHARD S. COLWELL, A.M., D.D., Dean of the University.

> LUCILE POWELL, A.M., Acting Dean of Shepardson College.

H. RHODES HUNDLEY, Sc.D., Dean of Doane Academy.

CHARLES E. GOODELL, A.M., Registrar.

ELMER E. HOPKINS, A.B., Treasurer, Curator and Business Manager.

> KATE S. HINES, A.M., Librarian.

WILLIAM H. JOHNSON, A.M., Editor of the University Bulletins.

VERA B. THOMSON, A.B., Secretary to the President.

MARY H. HUNT, A.B., Recorder.

RUTH I. HOPKINS, Assistant to the Treasurer.

MRS. ALICE K. HERRICK, Matron of Shepardson College.

MRS. CARRIE M. ALTROGGE, Director of Shepardson Commons.

Denison University

General Information

LOCATION.

Granville, the home of Denison University, is situated on the Toledo and Ohio Central Division of the New York Central railway system, near the geographical center of Ohio. By electric car to Newark, six miles distant, it has access to the Pennsylvania system, the Baltimore and Ohio, and connecting lines. It has hourly trolley car connections with the Ohio Electric system, and is provided with local and long distance telephone service. It lies among the moderately elevated and partly wooded hills which mark the transition from the more level portion of the State to the more diversified surface of the southeastern section, conditions of natural environment admirably suited to the spirit and purpose of college life. The community is of New England origin, and similar to the traditional New England village in the high estimate which it places upon intellectual, moral and religious forces. It has long been free from saloons.

BUILDINGS

Among the buildings occupied by the various departments of the University the following may be mentioned:

MEN'S DORMITORIES

Marsh Hall, erected in 1856, and Talbot Hall, completed fifteen years later, furnish together dormitory accommodations for about one hundred and fifty students. Both are brick buildings, four stories high. Lavatories with shower baths and hot and cold water are accessible to each dormitory room, on the same floor. The rooms are provided with a white iron bedstead and mattress for each student, dresser, lounge, bookcases, study

table and chairs. They are lighted by electricity and heated by hot water, from the central plant. Talbot Hall, in addition to its dormitory rooms, contains class-rooms for the departments of Latin, German, Romance Languages, Mathematics, Botany and Zoology.

Women's Dormitories

There are three buildings erected as dormitories for young women, Burton Hall, King Hall, and Stone Hall. These edifices are all provided with electric lights, heated by hot water radiators, and supplied with hot and cold water for the lavatories, from the central heating and lighting plant. Together they furnish rooms for about one hundred and twenty young women, aside from reception rooms, reading rooms, several class-rooms, offices, and apartments for members of the faculty of Shepardson College. These balls, as in the case of the dormitories for young men, are named in commemoration of individuals or families intimately connected with the management and growth of the institution in its earlier days. Easily accessible to the dormitories is the Shepardson Dining Hall, a bright, spacious, and well equipped room in which students and teachers living on the Shepardson College grounds take their meals.

THE LIBRARY BUILDING

Doane Hall, a building of brick and stone, was erected for the library of the University in 1878, by Dr. W. Howard Doane, a member of the Board of Trustees. Its shelves contain the general library, comprising over thirty thousand bound and unbound volumes, in addition to which several departments maintain special libraries, housed in immediate proximity to their lecture rooms and laboratories.

BARNEY MEMORIAL HALL

This building is the gift of E. J. Barney, Esq., erected in memory of his father. It is of fire-proof construction throughout, and built with the most careful attention to the needs of the work for which it is intended. It is devoted to the departments of Physics, Geology, and Civil Engineering, and provided with fine equipment, a description of which will be found under the heading of "Scientific Equipment," a few pages further on.

DOANE ACADEMY

This building, in addition to the principal's office, the lecture rooms and society halls of the Academy, for which it is especially designed, contains the offices of the President, Registrar and Treasurer, the President's lecture room, the lecture rooms of the Departments of English and Greek, and the University Chapel. It is of Oakland pressed brick and Amherst stone, and is three stories high above the basement. It was presented to the University by Dr. W. Howard Doane. The spacious basement of this building has been fitted up to serve as temporary quarters for the Department of Chemistry.

Conservatory Buildings

The main building of the Conservatory of Music was presented by Professor Almon U. Thresher and Mrs. Thresher. It is located on Cherry Street, opposite the grounds of Shepardson College, and contains rooms for instruction and practice, with apartments for members of the faculty of the Conservatory. Adjacent to it is Recital Hall, a well equipped building for chorus practice and public musical entertainments. It is provided with opera chairs, and has a raised floor, so as to give all spectators an unbroken view of the stage. The building is furnished with Steinway concert grand and parlor grand pianos and a pipe organ, the gift of Dr. Doane.

CLEVELAND HALL AND THE DOANE GYMNASIUM

Cleveland Hall is the home of the Young Men's Christian Association, the Gymnasium for young men and the College Literary societies. The main Gymnasium floor, with gallery and running track, occupying the east end of the building, is called the Swasey Gymnasium, in recognition of the generosity of Mr. Ambrose Swasey, of Cleveland. For the same reason the Assembly room of the Young Men's Christian Association, in the west end of the building, is designated as Sherwin Hall, in honor of

Mr. H. A. Sherwin, of Cleveland. Adjoining the main Gymnasium floor is a spacious locker room, leading at the other end to the swimming pool and lavatories. On the second floor is a large reading room, provided with a well selected list of current magazines and newspapers, open to all young men of the University. The third floor is divided into two large halls occupied by the Calliopean and Franklin Literary societies. There are also committee rooms, and offices for the Director of Physical Training.

The Doane Gymnasium was erected by Dr. Doane in order to furnish similar facilities for the physical health and development of the young women of Shepardson College. It contains ample floor space for all healthful forms of indoor exercise, a good running track, a swimming pool, and such other appliances as experience shows to be valuable in maintaining robust physical health in young ladies engaged in study. That the best results may be secured from these appliances, the use of the Gymnasium is under the constant supervision of a competent director.

THE SWASEY OBSERVATORY

The Astronomical Observatory was built, equipped and presented to the University by Ambrose Swasey, Sc.D. Erected of white Vermont marble, it constitutes a highly attractive feature of College Hill. In its construction and equipment, down to the smallest detail, Mr. Swasey spared no pains or expense to bring everything into accordance with the most modern ideas of astronomical work.

A wireless telegraphic receiving station is installed in connection with the Observatory, through which the correct time is received twice each day from the National Observatory at Arlington.

THE HEATING AND LIGHTING PLANT

All the buildings of the University are heated and lighted from a central station, the boiler room of which is supplied with three horizontal-tubular boilers, and such auxiliary apparatus as is needed to distribute water for heating and lavatory purposes. The lighting apparatus consists of one 45 kilowat Thresher generator, direct-connected to a 60-horsepower Ball engine, and one 75 kilowatt Thresher generator, direct-connected to a Russell engine of 110 horsepower. The latter has a capacity of 1200 lights, the former 720. These supply light to all the University buildings, and electric current to the laboratories for experimental purposes.

SCIENTIFIC EQUIPMENT.

Physics.—The Department of Physics occupies the first and second floors of Barney Memorial Hall, and displays in its thirty-one rooms the most modern details of laboratory construction. These include offices of administration, library, lecture and recitation rooms, general and research laboratories, photometric and photographic dark rooms, instrument and preparation rooms, fire-proof vault, constant temperature vault, chemical kitchen and mechanician's shop. The laboratories are supplied with natural gas, air under pressure, vacuum, hot and cold water, soft water, time service, electrical distribution from storage battery and alternating or direct current generators. A full complement of modern apparatus is available for lecture demonstrations and student work in course, while special facilities are provided for thesis and research work.

Geology.-The Department of Geology occupies the entire third floor of Barney Memorial Hall. The main lecture room, in the east end, is equipped with stereopticon and permanent screen for use of slides, the collection of which numbers between four and five thousand. This room also contains relief maps and roll maps, for the illustration of lecture work, and over two hundred drawers of specimens for the elementary study of minerals. The corresponding room in the west wing is used for laboratory work in Physiography and Geography. It is well supplied with tables, maps, minerals, etc., and contains a specially designed case of one hundred and forty drawers for the filing of topographic maps. The main room on the north side is used for mineralogical work. Sets of natural and artificial crystals are kept in this room, together with rocks and minerals for experimentation. Adjoining this room is the administrative office of the department. The main room on the south side contains the Gilbert Geological Library, presented by the eminent geologist, Dr. G. K. Gilbert, of the United States Geological Survey, in recognition of the valuable work which has been done by the Geological Department of Denison. The room is also provided with a large number of current Geological and Geographical periodicals, English, French, and German. There is a workshop and a dark-room for photographic work. The shop contains a specially designed table for mounting maps on cloth. The equipment for geological photography is especially complete and efficient.

Civil Engineering.—The Department of Engineering occupies the fourth and fifth floors of Barney Memorial Hall. The equipment for field work includes transits, solar attachments, bevels, plane tables, compasses, leveling and topography rods of all patterns, together with all the smaller implements needed. an aid in class-room work the department has gathered a wellselected supply of shop drawings of railway and highway bridges. roof trusses, culverts, etc., with many drawings and specifications for sewers, water systems and other municipal work. From the Highway Commissions of various States the department has secured plans and specifications for every form of modern highway construction. The drafting rooms occupy the top floors of the central division, and of both wings of Barney Hall, are well lighted by large skylights, and furnished with all requirements for a thorough course in drafting. The department library and reading room is supplied with the best current technical periodicals and a carefully selected list of important books on all branches of engineering work. There is also a large collection of lantern slides for illustrative purposes.

Chemistry.—The Chemical Laboratories occupy the whole basement floor of the Doane Academy building. There are nine rooms, forming three laboratories, store rooms, balance room, lecture room and office, where is located a chemical library.

The equipment is ample for the needs of the courses. One store-room is well stocked with glass, wood, iron and porcelain ware, issued to the students in quantities amply sufficient for the



demands of the best work. The other store-room is stocked with chemicals. The equipment and supplies are selected with special reference to the aim of the course, which is to give a broad theoretical basis. The first three years of the work are devoted entirely to this end. Only students who acquire such a foundation are invited to continue work in chemistry. For all who are ready for advanced work the laboratories offer excellent means for entering upon special and technical subjects. Those who are interested in medicine, pharmacy, industrial chemistry, mining, chemical engineering and other allied branches will find in the laboratories abundant opportunity for securing preparatory training.

Botany and Zoology.—The Departments of Botany and Zoology occupy temporary quarters in Talbot Hall. The rooms provide for library and seminar work, lectures, recitations, elementary and advanced laboratory classes, and independent laboratory work. The opportunity for bacteriological studies is very good, and ample provision is made for the study of plant and animal genetics.

The University Herbarium embraces representative collections from all parts of the United States and Mexico, and is especially full in local flora, affording equipment for work in systematic botany. A number of the leading botanical and zoological journals in English, French and German are accessible to students. The library of the Scientific Association receives in exchange for the Bulletin of the Scientific Laboratories the Proceedings and Tranasactions of many learned societies at home and abroad, together with the scientific publications of the various States and of the United States Government. This library, located in Barney Memorial Hall, is open for consultation every working day of the college year.

Astronomy.—The Department of Astronomy occupies the Swasey Observatory. Its equipment is primarily intended for teaching, but serves for research along lines suitable for students prepared for it. Extension work will also be undertaken, through popular lectures, illustrated by lantern slides, for the general student body and for outside communities wishing to become acquainted with some of the various phases of the subject.

The equipment of the Observatory consists of an Equatorial Telescope, of the standard Warner and Swasev type, similar in design to the 36-inch Lick and the 40-inch Yerkes. The optical parts were furnished by the John A. Brashear Company. objective has a clear aperture of nine inches and a focal length of 135. The finder is of three-inch aperture and 17 inches focal length. In addition to the usual number of evepieces, there is provided a diagonal eveniece for zenith observations, a helioscope for observing the sun, and a standard Warner and Swasev position micrometer, for the measurement of double stars. Two twelve-inch circles are provided, one used as a setting circle, reading by opposite verniers to single minutes, the other divided on solid silver, reading by opposite verniers and magnifiers to ten seconds. The instrument has three fine levels in latitude and one for the horizontal axis. A perfect system of reversals is provided for use of the instrument, both as a transit and zenith telescope.

The library contains a standard Seth Thomas mean time clock, regulated to Central Time, and the siderial and mean time clocks, made by Riefler, of Munich. The cylindrical chronograph is electrically connected with both clocks, the transit instrument and the equatorial, so that work done with either of these instruments, involving time records, may be permanently recorded on the chronograph sheet to at least one-tenth of a second. A telegraph sounder is also provided, audible in transit and equatorial rooms, for the eye and ear method of observing. The shelves contain complete sets of the Proceedings of the Royal Astronomical Society of London, of the Monthly Notices, the Memoirs of the British Astronomical Association, the Journal of the British Astronomical Association, the Astrophysical Journal, and the Royal Society Proceedings. There are besides this the usual collection of star maps, charts, photographs, files of the more important astronomical journals, and various late reference books on astronomy in English, German and French.

The department has also a wireless receiving station, through the generosity of Mr. Swasey. This consists of two hog-chained steel poles, seventy-five feet high and two hundred and fifty feet apart, serving for the support of a horizontal directive antenna, (Arlington-Granville), of four copper wires, six feet apart. The receiving apparatus is of the commercial type, of modern construction, capable of receiving waves up to 4,000 meters. The receiving range is from 2,000 to 2,500 miles, depending upon the power of the sending station and the sensitiveness of the detector. The apparatus is used in determining the longitude of the Observatory by students in Practical Astronomy, and in the control of the astronomical clocks, when the usual means are not at command. Time signals are received daily from the Government Wireless Service at Arlington, Virginia.

LIBRARY PRIVILEGES

The University Library is open to the instructors and students in all departments. In addition to the general library, various special collections of books, periodicals, transactions of societies, etc., are maintained by the different departments. The Marsh Memorial Library, in King Hall, founded by Dr. and Mrs. Shepardson in memory of their daughter, Mrs. Lide Shepardson Marsh, furnishes a valuable collection of books for missionary and Bible study. A special collection of works on music is maintained in the Conservatory building, and in Burton Hall is an excellent library of literature bearing on the history and criticism of the Fine Arts.

SCIENTIFIC PUBLICATIONS

The "Bulletin of the Scientific Laboratories," published under the auspices of the "Denison Scientific Association," affords an opportunity for the publication of original work by students and instructors in the several departments.

Among the contents of this Bulletin have been many of the important geological and biological studies of C. L. Herrick; various studies in physics, by Professor A. D. Cole; studies in the pre-glacial Drainage of Ohio, by Professor W. G. Tight; a series of papers on the Clinton Group of Ohio, by August F. Foerste; studies on the nerve system of fishes, by Professor C. J. Herrick; a Catalogue of the Phanerogams and Ferns of Lick-

ing County, by Herbert L. Jones; the Birds of Licking County, by Irving A. Field; papers on various phases of the Geology of Licking County, by C. L. Herrick, W. G. Tight, Professor Frank Carney and others; studies in New Mexico Geology, by C. L. Herrick and Douglas W. Johnson, and a number of Professor Thomas Leonard Watson's researches in the various ore-deposits of Virginia, Georgia, and North Carolina.

THE DENISON SCIENTIFIC ASSOCIATION

This society aims, in the words of its constitution:

(a) To afford opportunity for the interchange of ideas by those interested in the various sciences.

(b) To collect, record, and disseminate information bearing on the sciences.

(c) To stimulate interest in local natural history and to preserve notes and specimens illustrating the same.

It has been the means of much good in arousing a desire for original scientific investigation, and the interest in its work is

constantly increasing.

For information concerning the Bulletin of the Scientific Laboratories, published under the auspices of this association, address the Permanent Secretary, Professor Frank Carney.

GEOLOGICAL SOCIETY

The C. L. Herrick Geological Society was founded in 1907, "to foster a spirit of inquiry, to stimulate an interest in Geological studies independent of class work, and to emphasize the pleasure to be found by the pursuit of knowledge in nature." A monthly programme is given throughout the school year, so arranged that each member appears before the society each semester. The number of active members is limited to twenty.

THE CHEMICAL SOCIETY

The Denison Chemical Society is open to all interested in any way in the chemical sciences. Its object is to foster a spirit of inquiry as to the progress and applications of chemistry. Meetings are held on the first Wednesday evening of each month.

HISTORY AND POLITICAL SCIENCE ASSOCIATION

The object of this association is to promote a study of the current literature of the Social Sciences, and from time to time to consider problems of research which any of its members may have in hand, as well as to cultivate a closer personal and professional feeling among its members. Any student who has acquired at least twelve points in History or Political Science is eligible to active membership.

THE CASTLE GENETICS CLUB

The Castle Genetics Club was founded in December, 1915, and named in honor of Dr. William Ernest Castle, a native of Licking County and a graduate of Denison in the class of 1889. Professor of Zoology in the Bussey Institution, of Harvard University and a pioneer in genetic research. The work of the club comprises (1) systematic reviews of the progress of genetic inquiry, (2) the extension of the application of genetics in fields of common and useful practice, and (3) the encouragement of further investigations. Active membership is limited to the biological faculty and twenty students. Associate membership is open to the entire student body. Honorary membership is purely elective. Monthly meetings are held, which are open to the public.

LITERARY SOCIETIES

There are seven literary societies maintained in the different departments of the University,—the Calliopean, and Franklin, open to all young men in Granville College classes; the Euterpean, Philomathean, and Thalian, for young women in Shepardson College classes; the Ciceronian, and Irving, of Doane Academy. These all maintain regular weekly meetings and are of great value to the literary and social life of the students.

THE DENISON ORATORICAL ASSOCIATION

The aim of this organization is to promote interest in public speaking. Under its auspices a local contest is held each year to determine who shall be the representative of the college at the Intercollegiate Oratorical Contest. Contests in debate are held annually with a number of other colleges. In preparation for these debates a regular class is organized, under instruction by a member of the college faculty, and members of the teams register for this work as for any other study, receiving a certain amount of scholastic credit when the work is satisfactorily done. At present there are two debating teams, each participating in two intercollegiate debates during the college year.

ATHLETIC ASSOCIATIONS

The Denison Athletic Association looks after the work in the gymnasium and provides other forms of physical training, at once interesting and profitable to the student. The payment of an annual athletic fee, assessed by the University, constitutes each male student a member of this association, entitled to all its privileges and to a vote in its management. The association possesses a fine athletic field, presented by Frederick P. Beaver, Esq., of Dayton. A similar association has been organized by the young women of the University, called the Shepardson Athletic Association.

MORAL AND RELIGIOUS INFLUENCES

Vigorous branches of both the Young Men's Christian Association and the Young Women's Christian Association are maintained in the University. These organizations maintain regular classes in systematic Bible Study, the Young Men's Association offering a four years' course comprising the Life of Christ, the Apostolic Age, Old Testament Biography, and New Testament Doctrines. Students taking this course receive certificates upon successful examination at the end of each year, and at the end of the course a diploma, under the auspices of the International Committee of the Young Men's Christian Association Bible Study Department.

The entire life and administration of the University, while avoiding sectarianism, is positively and emphatically in favor of the Christian religion. Each day the University assembles for prayers, and this service the students in all departments are re-



quired to attend. Valid reasons for exemption from this requirement will be considered if presented to the Dean for approval in advance. All students are also expected to attend morning and evening church services each Sunday, full liberty being allowed to conscientious denominational preferences in selecting a place of worship. Students are welcomed in the various Sunday Schools of the village, and in the Baptist Sunday School there are several classes taught by University instructors and intended expressly for students.

DIVISION OF THE SCHOOL YEAR.

The scholastic year, exclusive of the short winter and spring recesses, is divided into two semesters of eighteen weeks each. The Christmas and Easter vacations are continued, as under the former three-term system, but new students desiring to enter for the latter part of the year will present themselves not at the close of one of these vacations, but at the opening of the second semester. (See Calendar, page 4.)

REGULARITY AND PUNCTUALITY.

Punctuality in entering is especially desired, as losses incurred by beginning behind one's classes can never be fully repaired. Although students will be admitted at any time, it is highly desirable that they begin their studies with the Fall semester. If the attendance is expected to be for but one semester, that is best; if for longer, the regularity secured by beginning with the opening of the school year, in September, adds greatly to the profit of the study.

Careful records are kept by the University officers, from which each student's character for punctuality as well as for attainments in his studies can at any time be ascertained. This information will be furnished to parents or guardians at the end of each semester, and at any other time, on application to the President

CLASS STANDING.

Each instructor keeps a constant record of the work of each pupil, and reports the same to the Registrar at the close of the semester. In the college classes the standing is indicated as follows: Students making a passing grade in any study are divided into four groups, designated by the letters A, B, C, and D, respectively. The letter A opposite a student's name indicates that his work for the semester, including examination, has been excellent; B, that it has been good; C, fair, and D, poor.

Students not making a passing grade in any study are marked F. If any study so marked is necessary to the completion of their course, it must be taken over again in class, or if that is impossible, in such manner as the Faculty shall direct.

EXAMINATIONS.

A careful examination of every class is held at the close of each semester. All students, whether candidates for degrees or not, must attend all examinations in the studies which they pursue. No student whose examination in any study is reported "incomplete" will receive credit for that study until the examination has been completed.

SPECIAL STUDY FOR HONORS.

Any regularly classified student who has maintained an A rank in not less than half his work during two successive semesters of the freshman and sophomore years, and has not fallen below a passing grade in any single study, may, with the consent of the Faculty, be enrolled as a student for Honors in some selected department of study. Application for such enrollment shall be made prior to the first of April of the Junior year. If the application be granted, the Professor in charge of the department selected shall assign work to the applicant substantially equal in amount to a three-hour study for one college year.

The student shall be examined on this work prior to the first of May of the Senior year. The examination shall be conducted under the direction of the Professor in charge, assisted by some other member of the Faculty to be appointed by the President, and in addition to the special assignment it shall cover in a general way all other work which the applicant has taken in the same department. If creditably passed it shall entitle the applicant to

have his name placed upon the records of the University as having won Honors in this department, and the fact shall be announced on Commencement day and published in the annual catalogue.

During the interval between enrollment for Honors and examination, the student must maintain an A rank in all work done in the department to which his special study shall belong, and must not fall below B in any other department. He must also maintain an unblemished record in deportment.

Work done for Honors must not be elementary in its character, and in no case shall it be the only work done in the department in which it is taken. Advanced elective courses already offered may be utilized as Honor courses, or special topics may be assigned to suit individual cases; but in no case shall work upon which Honors are bestowed be counted as any part of the student's requirements for his baccalaureate degree.

PRIZES.

- 1. The Lewis Literary Prize Contest. Charles T. Lewis, Esq., of Toledo, offers to the Franklin and Calliopean Literary Societies the following prizes, to be obtained by literary contests during Commencement week. Forty dollars to the best debater, thirty dollars to the best orator, twenty dollars to the best essayist, and ten dollars to the best declaimer.
- 2. The Samson Talbot Prize Reading. This prize foundation is for the best reading of Scripture and is open to Seniors and Juniors. The prizes are \$40 and \$20, respectively.
- 3. Lake Laboratory Scholarship Prize. The University offers as a prize to students in the Department of Botany and Zoology a scholarship in the State University Lake Laboratory, for the summer session following the award. This prize is awarded on the basis of general excellence in the work done in these two departments. In case two applicants seem equally meritorious two such scholarships may be offered.

SCHOLARSHIP FUNDS.

For deserving students in need of assistance the University has at its disposal the annual income of the following funds:

- The Mary K. Monroe Fund, \$30,000. The income of this fund is available for ministerial students in Granville College, and in the Theological Seminaries after graduation from Granville College.
- The King Scholarship Endowment, of \$12,000, for the aid of young ladies in Shepardson College.
- The Ebenezer Thresher Fund, of \$10,000, for the aid of young men of Granville College.
- 4. The M. E. Gray Fund, of \$5,000, for the aid of ministerial students of Granville College.
- The David and Jane Harpster Fund, \$1,500, available for students in Granville College or Doane Academy.
- The David Thatcher Fund, of \$1,500, available for ministerial students in Granville College or Doane Academy.
- 7. The Mary Arnold Stevens Fund, of \$500, for students in Granville College or Doane Academy.
- The Shepardson Scholarship, income of \$1,000, for students in Shepardson College.
- The Luse Scholarship, income of \$1,000, for students in Shepardson College.
- The Bostwick Scholarship of \$1,000, established by A.
 F. and A. A. Bostwick, of Seville, Ohio.
- The Griswold Scholarship, the income of \$5,000, the gift of the late G. O. Griswold, Esq., of Warren, Ohio.
- The Lewis Scholarships, contributed by Charles T. Lewis, Esq., of Toledo, affording free tuition annually to two students.
- 13. The Doyle Scholarship, contributed by John H. Doyle, Esq., Toledo, Ohio, affording free tuition annually to one student.
- 14. The Gilpatrick Scholarship, endowed by a fund contributed through the Society of the Alumni by former students and friends of the late Professor John Lord Gilpatrick.

15. The Maria Theresa Barney Fund, from which the President of the University has a varying amount at his disposal each year to be loaned to students at his discretion, without interest.

16. The Ohio Baptist Education Society has at its disposal free tuition scholarships for its beneficiaries to the number of forty, if necessary.

forty, if necessary.

17. By authorization of the Trustees the President of the University may remit the tuition of a limited number of students in case of special necessity.

18. A few scholarships which were sold in the early days of the college were afterwards surrendered by the original pur-

chasers and are at the disposal of the Faculty.

Good class standing and exemplary conduct in all relations of life are prerequisite to the enjoyment of any of these scholarships. Pupils holding them may be called upon to render a certain amount of service to the University, but never to an amount which will interfere with regular college studies.

FIRST DEGREES.

The degrees of A.B., B.S., and B.Ph. are conferred upon such candidates for the same as have passed satisfactory examinations upon all studies required.

Candidates for these degrees are required to pay the Treasurer their dues, including the graduating fee of five dollars, as

early as June 1.

No first degree will be granted to any candidate therefor who, at the beginning of the second semester of the Senior year, shall have charged against him as incomplete any work of the course required prior to the Senior year.

SECOND DEGREES.

Candidates for the degrees of Master of Arts or Master of Science, must pursue graduate work in residence for one year (not less than thirty credit hours) under the direction of the Committee on Advanced Degrees. Suitable courses taken before graduation and not credited towards the requirement for the Bachelor's degree may constitute not to exceed one-half of this work, but

the Master's degree will not be granted earlier than one year after

the Bachelor's degree.

Before registering for work for a second degree, the applicant must present his proposed course of study to the Committee on Advanced Degrees, and the Professor under whom the major work is to be taken, and secure their approval of the same. Work done at other institutions and offered towards a second degree is subject to examination, at the option of the Committee, before acceptance. A final examination is given, on completion of the course, covering all the work offered in candidacy for the degrees. The committee of examination consists of the standing Committee on Advanced Degrees and the instructors under whom the work has been taken. Ability to read French or German is prerequisite to all graduate courses. For further details, consult the chairman of the Committee, Professor Willis A. Chamberlin.

Students in graduate courses are subject to the same tuition incidental and laboratory fees as others. The diploma fee for

the Master's degree is ten dollars.

Granville College

HISTORICAL STATEMENT.

The name "Granville College" was the official designation of the school now known as Denison University, for about ten years previous to the adoption of the present name. At various times during the succeeding years the re-adoption of the name had been informally discussed among the friends of the institution, but the matter had not been taken up officially. When the readjustment of the relations between Denison University and Shepardson College came before the Board, the necessity for some separate designation for the department of the University which has to do with the instruction of young men in the four college classes led inevitably to the revival of the old name Granville College. Wherever this term is used, the reader will understand that it refers to the department of collegiate instruction for young men, as distinguished from the departments dealing with the collegiate instruction of young women, preparatory instruction, etc.

Conditions of Admission

All statements in the following pages concerning entrance, requirements for graduation, courses of study, the group system, etc., apply equally to young men in Granville College and young women in Shepardson College.

Regularly authenticated graduates of Doane Academy are admitted to the Freshman Class without further examination.

The graduates of certain approved High Schools are credited with their certified High School work without examination, so far as such work coincides with the entrance requirements of the University. Candidates prepared elsewhere than in Doane

Academy must in every case present certificates or diplomas officially signed and showing the amount of work done and credit gained in each study. These must be presented when the student applies for admission.

Examinations for admission to the College classes will be held on the day preceding the beginning of the Fall semester, at

9 a. m. (See Calendar.)

Entrance Requirements

Fifteen units distributed as indicated below are required for entrance, and no student is admitted to Freshman rank who does not present at least fourteen units.

1. The following 101/2 units are prescribed for all:

English, 3. History, 1. Foreign language, 4. Science, 1/2.

Mathematics, 2.

 At least 2½ additional units must be selected from the following subjects, the number indicating the maximum number of units that will be accepted in any subject;

English, 4. Physics, 1.
Latin, 4. Chemistry, 1.
Greek, 3. Phys. Geog., 1.
French, 3. Botany, 1.
German, 3. Zoology, 1.
Spanish, 3. Physiology, 1.
History and Civics, 4. Agriculture, 1.
Mathematics, 3.

Not more than two units may be presented from the following subjects:

Mechanical Drawing, 1.

Freehand Drawing, 1.

Domestic Science, 1.

Manual Training, 1.

Commercial Law, 1.

Commercial Geography, 1.

Note.—Students entering the Classical Course, leading to the degree of A.B., will present four units of Latin and two of Greek. For those who have not had Greek in the high school or academy, a course in beginning Greek is offered in college, with full college credit. In general, students preparing to enter Denison are advised to look carefully over the courses offered in college and avoid the mistake of omitting in the preparatory school subjects which are essential to courses which they may desire in college.

Deficiencies in Certain Branches.—Students often apply for admission to regular classes, who are behind those classes in some study. If such students show ability, assistance is afforded them in compassing their purpose. It is sometimes, however, necessary for them to secure private instruction for a short time; but this may be obtained at reasonable rates.

REGISTRATION OF NEW STUDENTS.

1. Students registering in Denison University for the first time must first see the President and secure from him an admission card. With this card, the student will then present to the Registrar his credentials, which must include an official statement of all credits earned before coming to Denison. He will then receive a registration card on which to write a list of subjects for which he wishes to register. If he is of Freshman rank and entering for a regular course leading to a degree, this card will be filled out under the direction of some member of the Committee on Entrance, present in the Registrar's office.

After completing this process, the student receives from the Registrar a class card, together with a statement of his term bills. With this statement he proceeds to the Treasurer's office and settles the bills thereon indicated, retaining the class card in his own possession. He is then duly registered, and his name will be certified from the Registrar's office to the instructors of the various classes in which he is to be enrolled.

No student will be admitted to any class until the above steps have all been taken.

Changes in Registration.—Ordinarily no changes will be allowed in registration after the registration card has been filed with the Registrar. For every change that is allowed, a fee of fifty cents will be charged unless remitted by the Registrar.

Late Registration.—All students must complete their registration and settle with the Treasurer by the close of Thursday, the first day of the first semester, or Monday, the first day of the second semester. Failure to do so will be counted as late registration, entailing a fee of one dollar.

Normal Registration.—All students entering the University with the intention of completing a course leading to a degree, are required to register for at least thirteen hours. To take less than this requires special permission, for which the student should apply at the Registrar's office. The normal amount of work for which a student is supposed to register is sixteen credit hours per semester, and the student must ask permission to register for more. Students registering for more than eighteen hours are required to pay a fee of one dollar for each credit hour in excess.

SUBJECTS OPEN TO FRESHMEN.

1. Required Subjects .-

(a) Those in the Classical course must take the following subjects during their Freshmen year: Greek, 1 and 2; Latin, 1 and 2; English, 1 and 2; Mathematics, 1 and 2. (Mathematics 1b and 2b may be taken by students looking forward to the more advanced courses in Mathematics, Physics or Engineering.) One or two hours in addition may be elected from subjects open to election mentioned below.

(b) Those in the Philosophical course must take the following subjects during their Freshmen year: English, 1 and 2; Mathematics, 1 and 2, or 1b and 2b, as explained in the preceding paragraph; four hours of language each semester, Latin or Greek, or a modern language, preferably continuing the modern language offered for entrance, if any, where less than three years is offered. Five or six hours in addition may be elected from the subjects open to Freshmen. (See below.)

(c) Those in the Scientific course must take the following subjects during their Freshmen year: English 1 and 2; Mathematics, 1 and 2, or 1b and 2b in cases where it is desired to complete the fundamental work sooner as a basis for higher work in pure Mathematics, Physics or Engineering; a modern language, a year of science, either General Chemistry, or Chemistry 3 and 4 if High School Chemistry is offered, or Physics 1 and 2. Additional election to make sixteen hours to be made from subjects open to election below.

The above named subjects cannot be postponed except with the approval of the Committee on Registration and Classification. Those desiring to postpone any subject must first see the Registrar.

2. Subjects Open to Election .-

In addition to the required subjects, the following subjects are open to Freshmen. Courses designated by odd numbers are given during the first semester, even numbers, the second.

Astronomy, 1 and 2.

Biology,1 and 2.

Civil Engineering, 1 and 2, 4.

Chemistry, General Chemistry, or if the student offers chemistry for entrance, Chemistry 3 and 4.

Geology, 1a and 2b.

Geography, 1, 2 or 3.

History, 1 and 2. Physics, 1 and 2.

Political Science, 1 and 2.

Public Speaking, 1, 2.

Music, 1, 2, 5, 6, 7, 8, 17.

In addition to the foregoing, all language courses are open to Freshmen who can furnish the necessary prerequisites.

Dropping Work .-

Students wishing to drop a course must *first* see the Registrar and secure a change card. Dropping out of a class without permission obtained through the Registrar's office will be counted as a failure in the course dropped and will be so recorded.

REQUIREMENTS FOR GRADUATION.

To obtain the baccalaureate degree, the candidate must have completed one of the three courses, Classical, Scientific, or Philosophical, outlined on pages 78-87. This requires the completion of not less than 124 units, or credits, of scholastic work, the unit consisting of one hour a week of lecture or recitation, or two hours a week of laboratory work, through one semester. Four units of physical training are required. No degree will be given to a candidate whose work shall not have been of such a grade as to receive 135 "points," calculated as follows: for each semester hour of work graded A (excellent) by the instructor, the student receives two points; for each hour graded B (good) one and one-half points; for each hour graded C (fair) one point. No points are given for work graded D (poor). By the close of the Spring Recess previous to graduation the student, in order to be graduated, must have to his credit at least one hundred and six hours of college work and one hundred and eight points.

CLASSIFICATION OF STUDENTS.

No student will be classified as Freshman who is deficient at the beginning of the year in more than ten hours of preparatory work. For Sophomore standing the student must have removed entrance conditions and gained credit for at least twenty-two hours of college work and twenty-four points by the beginning of the year. For Junior standing he must have completed at least fifty-eight hours of college work and sixty-four points, and for Senior standing at least ninety-two hours and one hundred and one points. Gymnasium work required of Freshmen and Sophomores respectively must be completed before they will be advanced to Sophomore and Junior standing.

DISMISSION.

Students leaving before the close of a semester will not be regarded as having honorably terminated their connection with the University unless regularly dismissed by the President.

Statement of Work in the Various Departments of Instruction

EDUCATION AND PHILOSOPHY.

PRESIDENT CHAMBERLAIN (Office hours, 10:30 A. M. daily.)

(Office hours, Wednesday and Friday, 9:30 A. M.)
ASSOCIATE PROFESSOR SPENCER.

PHILOSOPHY.

- 1. Psychology. An introductory study of the different functions of the mind and of the laws that control its activity. The course is based on the results of introspective and experimental investigation. Open to Juniors and Seniors, with exceptions in the case of students doing major work in Education. First semester, two sections, Monday, Tuesday and Thursday, 9:30 A. M., and 10:30 A. M.
- 2. Ethics. A discussion of the principles that obtain in moral conduct, and of the methods by which these principles are applied in actual living. Open only to Juniors and Seniors, with exceptions as noted under course 1. Second semester, sections, days and hours as in course 1.
- 4. History of Philosophy. A review of the larger philosophical movements, beginning with the speculations of the early Greek thinkers. Special emphasis on modern theory and present tendencies. Open to Seniors. Second semester, Wednesday and Friday, 9:30 A. M.
- Logic. Deductive and Inductive. The subject is treated not merely as a system of mental gymnastics but as a method of practical training for philosophical, scientific and judicial investi-

gations. Open to Sophomores, Juniors, and Seniors. Second semester, Tuesday, Thursday and Friday, 2:30 p. m.

. 7. Argumentation. Special attention is given to debate. Open to Juniors and Seniors and others at the discretion of the Instructor. First semester, Tuesday, Thursday and Friday, 2:30 p. m. Courses 6 and 7 are given by Associate Professor Spencer.

EDUCATION.

The courses in education give students who expect to teach an opportunity to gain some knowledge of the principles and practice of that work. The subjects offered, along with 1, 2, and 4 in philosophy, count in absolving the requirement of thirty hours professional training set by the Ohio School Law of 1914 for those who wish to secure a four-year High School provisional certificate without an examination, and, after twenty-four months of teaching, a state life certificate.

- 1. History of Education. A general survey of educational practice and theory from ancient times to the present—subject matter, method, discipline, organization, etc. The influences of social conditions upon education. Special emphasis on the work of modern educational reformers. Prerequisite, Philosophy 1. First semester, Monday, Wednesday and Friday, 8:30 A. M.
- Secondary Education in the United States. The historical development of American middle schools—Grammar School, Academy, High School, and Normal Schools. Comparison with foreign systems. Present tendencies. Prerequisite, Philosophy 1 and Education 1. Second semester, Monday, Wednesday and Friday, 8:30 A. M.
- High School Methods. The choice and presentation of subject matter. The handling of the different subjects, with regard to studying and to teaching. School routine and management. Prerequisite, Philosophy 1. First semester, Tuesday, Thursday and Friday, 1:30 p. m.
- Principles of Education. An introduction to the fundamentals of education, from the side of psychology and sociology.
 The processes of learning; instinct, habit, memory, etc. Education.

tional development in relation to social life. Prerequisite, Philosophy, 1. Second semester, Tuesday, Thursday and Friday, 1:30 P. M.

7-8. Observation and Practice Teaching. Open only to those who have had Philosophy 1 and Education 5 and 6. Students in this course will visit High School classes as observers and will teach, under supervision. Weekly meetings will be held to discuss the different points that arise. Three credits.

MATHEMATICS.

PROFESSOR WILEY.

ASSOCIATE PROFESSOR PECKHAM.

(Absent on leave, 1915-1916.)

MISS SCHOONMAKER.

Courses 1 and 2, as described below, are required of all candidates for degrees unless the more extended courses, designated 1b and 2b, are substituted in their stead. Courses 1, 2, 3, 4 and 5 form a sequence, likewise courses 1b, 2b, 3b, and 4b. Or courses 1, 2, 3, 3b and 4b may be taken in sequence. The second sequence, 1b, 2b, 3b and 4b, is advised by the heads of the departments of Astronomy, Civil Engineering, Mathematics, and Physics for students who anticipate doing their major work in any of these departments.

- 1. Plane Trigonometry. Freshman year, first semester. Sections at 7:30 and 8:30 Monday, Wednesday and Friday; 10:30 Monday, Tuesday and Thursday; 2:30 Tuesday, Thursday and Friday.
- 2. Algebra. Selected portions. Freshman year, second semester, sections and hours as indicated for course 1, above.

1b-2b. Plane Trigonometry, Algebra, and Analytic Geometry, each twelve weeks. Freshman year, both semesters, five hours per week, 9:30 A. M. Advised instead of courses 1 and 2 for students doing their major work in departments of Astronomy, Civil Engineering, Mathematics, or Physics.

 Analytic Geometry. First semester, four hours per week, Friday excepted, 8:30 A. M. Prerequisite, courses 1 and 2.

- 3b. Differential Calculus. First semester, five hours per week, 7:30 A. M. Prerequisite, course 2b or 3.
- 4b. Integral Calculus. Second semester, five hours per week, 7:30 A. M. Prerequisite, course 3b or 4.
- 4. Differential Calculus. Second semester, four hours per week, Friday excepted, 8:30 A. M. Prerequisite, course 3 or 2b.
- Integral Calculus. First semester, four hours per week, Monday excepted, 9:30 A. M. Prerequisite, course 4 or 3b.
- Differential Equations. Second semester, four hours per week, Monday excepted, 9:30 A. M. Prerequisite, course 4b or
 Alternates with course 16 and is offered in 1916-1917.
- 10. Mathematical Theory of Investment. An introduction to the Algebra of certain forms of investment and to the fundamental principles of life insurance. Second semester, Monday, Tuesday and Thursday, 9:30 A. M. Prerequisite, course 2. Alternates with course 12 and is not offered in 1916-1917.
- 11. Solid Analytic Geometry. First semester, four hours per week, Monday excepted, 10:30 A. M. Prerequisite, course 3b or 4. Alternates with course 13 and is not offered in 1916-1917.
- 12. College Geometry. A synthetic treatment bearing somewhat the same relation to Plane Geometry as college Algebra does to high school Algebra. This course is designed for students who wish to acquire greater rigor in mathematical reasoning and those who expect to teach high school Geometry. Second semester, Monday, Tuesday and Thursday, 10:30 A. M. Open to all students. Alternates with course 10 and is offered in 1916-1917.
- 13. Vector Analysis. A concise treatment of the fundamental principles of the subject, with selected applications to geometry and mathematical physics. Prerequisite, course 4b or 5. First semester, four hours per week, Monday excepted, 10:30 A. M. Alternates with course 11 and is offered in 1916-1917.
- Theory of Equations. Second semester, Monday, Tuesday and Thursday, 10:30 A. M. Prerequisite, course 3b or
 Alternates with course 8 and is not given in 1916-1917.

O and the second

For courses in Applied Mathematics, see Physics 7-8, Astronomy 6, 9-10, and Civil Engineering 7-8.

HISTORY.

PROFESSOR GOODELL.

(Office hours, 9:30 A. M. daily.)

ASSISTANT PROFESSOR KULL.

(Absent on leave, 1915-1916.)

ACTING ASSISTANT PROFESSOR WHITTLESEY.

History is to society what memory is to the individual. The aim of the courses offered is to construct a perspective for understanding the problems that concern society and to prepare for the social professions,—law, the consular service, politics, the ministry, and education. Courses 1, 2, 7 and 8 compose the European History sequence, being continuous in time from the disintegration of the Roman Empire to the present. The work is done through lectures and recitations, the text-book and Library readings.

1-2. Medieval and Early Modern Europe. A general survey of European history from the decline of Rome to the middle of the 17th century. In introduction, the Greek, Roman, Christian and German contributions to Western Europe are analyzed. The "Fall of Rome," the rise and spread of the Catholic system, the Medieval Empire, medieval relations of church and state, feudalism, the rise of modern nationalities, medieval and renaissance life and culture, the rise and spread of Protestantism,—these suggest the chief points of emphasis. An introductory course open to all college students. Both semesters, two sections, Monday, Tuesday and Thursday, 9:30 A. M., and Tuesday, Thursday and Friday, 2:30 P. M.

3-4. American Political History. A general course in the political and constitutional history of the United States, from the Confederation to the close of the Reconstruction, following the Civil War. First semester, 1783-1829; second semester, 1829-1877. Open to Juniors and Seniors. Both semesters, Monday, Wednesday and Friday, 7:30 A. M. Alternates with 9-10 and is

not given in 1916-1917.

- 5-6. English History. A general course, from the Saxon period to the opening of the nineteenth century. (Constitutional development carried to the twentieth century.) The first semester covers the formative period of the constitution and extends to the Tudor period. The course is of especial value to prospective students of law and of English literature. Open to Juniors and Seniors. Not given in 1916-1917.
- 7. The French Revolution and the Napoleonic Era (1648-1815). The Ancient Regime in France, and the transition to the period of the Revolution; the political, social and international aspects of the Revolution, and the development of the Napoleonic Empire and institutions. Open to Juniors and Seniors and to Sophomores who have had courses 1-2, or who secure special permission from the instructor. First semester, Monday, Wednesday and Friday, 8:30 A. M.
- 8. Europe in the Nineteenth Century. The chief political changes in Europe after 1815; the rise of Liberalism; the revolution of 1848; national and democratic reconstruction of the last half of the century; social, industrial and religious changes. Open to Juniors and Seniors, without prerequisites, and to Sophomores who have had courses 1-2 or who secure special permission from the instructor. Second semester, Monday, Wednesday and Friday, 8:30 A. M.
- 9. Renaissance Culture. A lecture course, with biographical approach, aiming to arrive at the thought and interests of the age, political, cultural, religious, etc. The emergence of the individual, the revival of the antique, the development of the critical spirit, and the anti-ecclesiastical spirit of the age. Open to Juniors and Seniors without prerequisites and to Sophomores who have had courses 1 and 2 or by special permission from the instructor. First semester, Tuesday and Thursday, 8:30 A. M. Alternates with course 3 and is given in 1916-1917.
- 10. The Referention Era. A lecture course on the rise of Protestantism, its social, economical and political relations; its embodiment in Luther, Calvin and Zwingli. The English and Scottish reformations. The Catholic reformation. Rela-

tively more time is given to Germany and Luther. Open to Juniors and Seniors without prerequisites and to Sophomores who have had courses 1 and 2 or by special permission from the instructor. Second semester, Tuesday and Thursday, 8:30 A. M. Alternates with course 4 and is given in 1916-1917.

POLITICAL SCIENCE.

PROFESSOR GOODELL.

(Office hours, 9:30 A. M. daily.)

- 1-2. American Government. The practical working of government, national, state and local. Parties and party machinery. The direct primary contrasted with the convention system. Tendencies in constitutional development and in state and national legislation, such as the use of the initiative and the referendum, the growth of centralization, etc. The course is continuous throughout the year, but may be elected by semesters separately provided 1 precedes 2. Open to all students of college rank. Both semesters, Monday, Wednesday and Friday, 8:30 A. M.
- 3. Governments of Europe. A comparative study of European governments, particularly those of England, France and Germany. Points of contrast with the government of the United States, such as the differences between the organization and operation of the German federal system and our own, will be considered. The merits and disadvantages of federal and centralized governments; of parliamentary and presidential forms of government; rigid and flexible constitutions, etc. Open to those who have had Political Science 1-2 and History 8, to others only by special permission. First semester, Monday, Tuesday and Thursday, 10:30 A. M.
- 4a. Science of Government. An introduction to the general principles of Political Science, with discussion of theories as to the origin of the state, and its characteristics; the true ends of the state; the nature of sovereignty; distinction between state and government; proper functions of government; principles of legislative, executive and judicial organizations, etc.

The work of the preceding courses is very important as a preparation for this course. Therefore Political Science 1, 2 and 3 are prerequisite unless by permission of the instructor in charge. Second semester, Monday, Tuesday and Thursday, 10:30 A. M.

5. Political Economy. An introduction to the study of Economics. The aim will be to give a fair amount of time to both the principles and the problems of Economics. Thus, theories of value, price, rent, wages, interest, profits, etc., will be carefully considered. In connection with these subjects the problems of the trust, business organization, labor unions, the closed shop, minimum wage, free trade and protection, questions of money and banking, etc., will receive due consideration. First semester, five hours, 7:30 A. M.

8. International Law. A study of the general principles of the subject. The recent tendency of the United States to mingle in the affairs of the Orient gives the subject of International Law a new interest to every intelligent American. We can no longer maintain our policy of isolation,—we are a World Power whether we like it or not. It is important, therefore, that we become familiar with the principles governing nations in their intercourse with each other. Special attention will be given to the recent developments in the laws of war, and the rights and duties of neutrality. Although not required, History 8 is very desirable as a preparation for this course. Second semester, Monday, Wednesday and Friday, 7:30 A. M. Alternates with course 10. Offered in 1916-1917.

10. Government of American Cities. The origin and development of American cities; proper relations of state and city; proper methods of state supervision; municipal ownership of public utilities; the rise of the commission form of government, etc. Courses 1 and 2 are advised as preparation for this work. Second semester, Monday, Wednesday and Friday, 7:30 A. M. Not given in 1916-1917.

15-16. Advanced Political Science. A course in advanced investigation, for a limited number of students. Open to Juniors and Seniors who have completed twenty credit hours in the department. Two to four credits.

GREEK.

PROFESSOR COLWELL.

(Office hours, 8:00 A. M. daily, except Friday.)

The following courses are offered:

- 1. (a) Lysias. Selected orations, with history of Athens under the Thirty Tyrants and the Restoration of the Democracy. (b) Thucydides. Selections, with history of the Peloponnesian War. Reading at sight from Lysias, Lucian, and the New Testament. Freshman year, first semester, four hours, Friday excepted, 8:30 A. M.
- 2. (a) Thucydides. Continuation of course 1. (b) Homer. Selections from the Iliad, with sight reading from the Odyssey. Freshman year, second semester, four hours, Friday excepted, 8:30 A. M.
- 3. (a) Demosthenes. Selected orations, usually the Philippics and Olynthiacs. (b) Herodotus. Selections. Sight reading from Demosthenes, Herodotus, Diodorus Siculus, Xenophon, and the New Testament. Sophomore year, first semester, four hours, Monday excepted, 9:30 A. M.
- 4. (a) Herodotus. Continuation of course 3. (b) Plato. The Apology and Crito, with selections from the Phædo. Sight reading from the Memorabilia of Xenophon. Sophomore year, second semester, four hours, Monday excepted, 9:30 A. M.

Courses 1-4 are required of all candidates for the degree of Bachelor of Arts and of candidates for the degree of Bachelor of Philosophy who make Greek their major language.

- 5. Tragedy. Aeschylus, Sophocles, or Euripides. Elective for those who have completed courses 1-4. First semester, four hours, Monday excepted, 10:30 A. M.
- Aristophanes. Elective for those who have completed courses 1-4. Second semester, Tuesday, Thursday, Friday, 1:30
 P. M.
- 8. New Testament. Elective for those who have had courses 1-4. Second semester, Tuesday, Thursday, Friday, 2:30 P. M.

For college students entering without preparatory Greek the following courses are offered, with full college credit:

E-F. Elements of Greek Grammar, Greek Reader, and Xenophon's Anabasis. Both semesters, Monday, Wednesday and Friday, 8:30 A. M.

G-H. Xenophon's Anabasis continued, with Greek prose writing and further study of the principles of Greek Grammar. Both semesters, Tuesday, Thursday and Friday, 2:30 p. m.

These courses, confined to students of full college rank, are intended to cover the ground required for entrance to courses 1 and 2, and thus to make possible the completion of the regular classical course by students who have not been able to secure Greek in their preparatory schools.

LATIN.

PROFESSOR W. H. JOHNSON.

(Office hours, Monday 8:30 to 10:30; other days, 2:30.)

ACTING ASSISTANT PROFESSOR POWELL.

Of the following courses, numbers 1-4 are required for the degree of Bachelor of Arts and of applicants for the degree of Bachelor of Philosophy who elect the Latin group (group C1). All courses in the department are open as electives to any student who, in the judgment of the instructor, has had sufficient Latin to pursue the work with profit, but courses 1-2 must precede any of the more advanced work except courses 11-12, on Roman Life, which are open to all college students.

- (a) Cicero. De Senectute or De Amicitia. (b) Livy. Books XXI-XXII, or selections from the earlier books. Review of Latin syntax. First semester, four hours, section I, 7:30 a. M., Friday excepted: section II, 9:30 a. M., Monday excepted.
- Odes and Epodes of Horace. Sight reading from the Satires, and notes on Roman Poetry. Second semester, sections, days and hours as in course 1.
- 3. The Roman Stage. Two plays of Plautus and one of Terence. Notes on the history of the Ancient Drama. First semester, four hours per week, Monday excepted, 10:30 A. M.

4. Rhetoric and Literary Criticism of the Romans. This course is based upon Books X and XII of Quintilian, with collateral work in the rhetorical writings of Cicero, the Epistles of Horace and the Dialogus of Tacitus. The relation of Greek and Roman ideas to present-day problems of Rhetoric and Criticism is emphasized. Second semester, days and hours as in course 3.

5. The Roman Epigram and Elegy. Selections from Martial and the Elegiac poets. First semester, Tuesday, Thursday and Friday, 1:30 p. m. Alternates with course 7. Not given in

1916-1917.

6. The Annals of Tacitus, or Letters of Cicero and Pliny The emphasis is placed on the social and political conditions and problems suggested by the text, rather than on the language. Second semester, Tuesday, Thursday and Friday, 1:30 p. m.

Alternates with course 8. Not given in 1916-1917.

7-8. Virgil. A study of the poems of Virgil and their place in the History of Literature from points of view which cannot be emphasized in the preparatory school. The two semesters are not open to election separately. Especially advised for students who expect to become teachers of Latin in High Schools or Academies. Open to Juniors and Seniors who have had not less than three semesters work in this department. Both semesters, Tuesday, Thursday and Friday, 1:30 F. M. These courses alternate with 5-6 and are offered in 1916-1917.

9-10. Latin Writing. A course in composition, open to students who have had Freshmen Latin, and especially advised for those who are preparing to teach Latin. The two semesters are not open to election separately. Both semesters, Mcn:1av and Wednesday, 1:30 P. M. These courses alternate with 11-12, and are offered in 1916-1917.

11-12. Roman Life. An outline of the more important phases of Roman character and achievement. The text-book will be supplemented by notes and assigned reading, with photographs and lantern illustrations for certain portions of the work. Ability to read Latin is not prerequisite. Both semesters, Monday and Wednesday, 1:30 p. m. These courses alternate with 9-10 and are not given in 1916-1917.

RHETORIC AND ENGLISH LITERATURE.

PROFESSOR WILLIAMS.

(Office hours, Tuesday and Thursday, 10:30 A. M.)
ASSOCIATE PROFESSOR PENCE.

Throughout the course, the study of Rhetoric is pursued in combination with the study of literature. Instruction is given by text-books and notes. Themes are required throughout the course. Students are made acquainted with the principles of literary criticism, and encouraged to develop intelligent appreciation of the best that has been written from Caedmon to the present time. A number of electives are offered during the Junior and Senior years.

The following courses are given:

- 1-2. Freshman English. Recitations, themes, conferences, and the study of modern prose writers. Both semesters, four sections, I, Monday, Wednesday and Friday, 8:30 A. M.; II, Monday, Tuesday, and Thursday 9:30 A. M.; III and IV, Tuesday, Thursday and Friday, 2:30 P. M.
- 3-4. English Literature. Long's text-book is used, supplemented by selected readings and notes on special topics. The first semester covers the subject from the beginning to the eighteenth century; the second semester, to the close of the Victorian period. Prerequisite, courses 1 and 2. Both semesters, three sections, Monday, Wednesday and Friday at 8:30, Monday, Tuesday and Thursday at 9:30, and Tuesday, Thursday and Friday at 2:30.
- 5a-6. Shakespeare. Three plays are carefully studied each semester and other plays assigned for reading. Prerequisite, courses 1 and 2. Course 5a must precede 6. Both semesters, Tuesday and Thursday, 7:30 A. M.
- 8. History of the English Novel. Open to Juniors and Seniors who have had courses 1-4. Three lecture-recitation periods per week with assigned reading. Five hours credit. Second semester. Monday, Tuesday and Thursday, 10:30 A. M.

- 9. A Study of Prose Fiction. A text-book is used, supplemented by selected readings. Prerequisite, courses 1 and 2. First semester, Wednesday and Friday, 10:30 A. M.
- Later American Writers. Text-book, selected readings and notes. Prerequisite, courses 1 and 2. Hours as in 9.
- 11a-12. Anglo-Saxon. Bright's Anglo-Saxon Reader, with special study of the phonology of the language in its historical relations to German and English, occupies the first semester. Anglo-Saxon poetry, including Beowulf, is taken during the second semester. Both semesters, Tuesday, Thursday, and Friday, 2:30 P. M.
- 13. Poetics. Text-book, with selections for study. Prerequisite, courses 1-4. First semester, Wednesday and Friday, 9:30 A. M.
- 14. Later English Drama. Five plays are studied. Prerequisite, courses 1, 2, and 5a. Second semester, Wednesday and Friday, 9:30 A. M.
- 15. Technique of the Short Story. Critical analysis of the best modern writers and original work. Prerequisite, courses 1-2. First semester, Monday and Wednesday, 2:30 p. m.
- 16a. The Teaching of English. A course for those who expect to teach English in high schools. Designed especially for Juniors and Seniors and open to no one below these classes without express permission from the instructor. Second semester, Tuesday and Thursday, 8:30 A. M.
- 17a. Advanced Theme-writing. A course dealing especially with Exposition. Special attention is given to criticism of original themes. Prerequisite, courses 1-4. First semester, two recitations per week, hours to be arranged.
- 19. The Philosophy of English Literature. Open only to students who have had courses 1-6, 8, 9 and 13, or their equivalent. Two to four hours credit, but students must register in advance for a definite number of hours. Time of lectures or recitations to be arranged.

ROMANCE LANGUAGES.

PROFESSOR MCKIBBEN.

(Office hours, Wednesday, 10:00 a. m., Friday 11:00 a. m.)
ASSOCIATE PROFESSOR ODEBRECHT.

This department offers opportunity of studying French, Italian and Spanish. Its aims are: (1) The acquisition of a reading knowledge of the foreign language; (2) linguistic training; (3) introduction to the foreign literature and life.

French. Of the courses enumerated, numbers 1-2 are required of applicants for the degree of Bachelor of Science, numbers 1-2 and at least two four-hour courses in addition of applicants for the degree of Bachelor of Philosophy who choose French as their major language. The various courses are open as elective to students in all departments, with courses 1-2 prerequisite to any of the more advanced work. At the option of the student a year of Spanish will be accepted as the equivalent of a year of French in meeting the requirements noted above.

1-2. Beginners' Course. First semester, forms, translation, written exercises and grammar, with about 80 pages of simple reading. In the second semester this work is continued, with written and oral work in composition, and translation from prose and verse. Two sections, four hours, Friday excepted, 8:30 A. M. and 1:30 P. M.

3-4. Nineteenth Century Prose and Poetry. Review of grammar, with composition and dictation. Both semesters, four hours, Friday excepted, 2:30 p. M.

5-6. The Classical Authors. Reading of plays, with class reports on outside reading. Prerequisite, courses 1-4. Both semesters, Monday, Wednesday and Friday, 7:30 A. M.

7-8. French Prose Composition, or French Literature, with reading of representative modern authors. Prerequisite, courses 1-4. Both semesters, Wednesday and Friday, 9:30 a. M.

9-10. A course intended to afford advanced students practice in the oral use of the language by the careful study of some play, to be presented by the class. Prerequisite, courses 1-4. Maximum credit, 2 hours, time to be arranged.

Italian.

- 2. Grandgent's Grammar. Prose and verse of the Risorgimento. Outline of the history of Italian Literature. The forms of the language are learned and practiced in exercises, written and oral, and in translation. Elective in all courses. Second semester, four hours, Monday excepted, 10:30 A. M.
- 3. Modern Italian Prose and Poetry. First semester, four hours, Monday excepted, 10:30 A. M.

Spanish.

- 1. Garner's Grammar and Ramsey's Reader. The forms of the language are learned and practiced in written and oral exercises and in translation. Recent prose and verse. Sight reading of business correspondence. Open as an elective to students in all courses. First semester, four hours, Friday excepted, 7:30 A. M.
- 2. Cervantes, or modern prose. Second semester, four hours, Friday excepted, 7:30 A. M.

The courses in Spanish and Italian, while intended for upper classmen, may be taken by any who, in the judgment of the instructor, can carry them with profit.

GERMAN LANGUAGE AND LITERATURE.

PROFESSOR CHAMBERLIN.

(Office hours, Tuesday and Thursday, 3:30 p. m.) PROFESSOR BIEFELD.

German is treated as a living language, according to such methods as will develop a feeling for its native qualities and an appreciation of its literature. The study of the language is vivified by frequent references to the best features of German life and thought. The Library is well supplied with reference works and the choicest works of literature in this department, including the Kuerschner collection, a complete file of the Publications of the Modern Language Association of America and various German scientific and literary periodicals. Two courses in Anglo-Saxon are given by the German department in connection with the department of English.

- 1-2. Beginners' Courses. Essentials of German grammar; practice of pronunciation by phonetic and natural methods; oral and written reproduction of simple English expressions. About 150 pages of reading, including some of the best known songs and lyrics. Students presenting one unit of entrance credit in German will usually omit course 1 and enter course 2. Both semesters, four hours, Friday excepted, two sections, 7:30 A. M. and 1:30 P. M.
- 3. Short Stories. The course is based on such authors as Storm, Rosegger and Baumbach, accompanied by daily practice of the essentials of grammar, with oral and written reproduction in German. Prerequisite, courses 1-2, or two units of entrance credit in German. First semester, four hours, 8:30 A. M., Friday excepted, and 10:30 A. M., Monday excepted.
- 4. Schiller's Dramas and Ballads. Two of the poet's favorite dramas, usually Wilhelm Tell and Die Jungfrau von Orleans, and some of his ballads will be read and interpreted. Lectures and readings on the general principles of the drama, with analysis and reviews of important acts and scenes. Prerequisite, courses 1-3. Second semester, sections and hours as in course 3.
- 5. Modern Fiction. Rapid reading of two or three modern novels, with special attention to the common phrases and idioms. Translation is largely supplanted by oral and written reproduction of the features of the stories. Frequent exercises in writing German. Open to students who present not less than three entrance credits in German, or three semesters of college credit. First semester, Monday, Wednesday and Friday, 7:30 A. M.
- 6. Historical and Descriptive Literature. Works of standard authors bearing on the history and conditions of Germany are chosen for this course. May be taken by special arrangement after course 4, but regularly follows course 5. Second semester, Monday, Wednesday and Friday, 7:30 A. M.
- 7. Lessing and Schiller. Interpretations of Lessing's dramatic and critical works, with relation to the literary conditions in Germany in the eighteenth century. Schiller's life and his drama Wallenstein will be taken up during the last part of the

semester. Supplementary readings, on which reviews and themes are prepared, are included in the work. This course usually follows course 5 or 6, but in exceptional cases may be taken after course 4. First semester, Monday, Wednesday and Friday, 8:30 A. M.

- 8. Goethe. A study of the poet's life as reflected in his characteristic writings of different periods. The course includes Faust, Part I and the essential portions of Part II. Collateral readings as in course 7. Usually preceded by course 7, but may be taken separately by qualified students. Second semester, Monday, Wednesday and Friday, 8:30 A. M.
- 9. German Literature to 1750. Main tendencies of German literature from the earliest times to Lessing, with relation to the cultural history of Europe. A standard history of German literature will serve as the outline of the course, supplemented by lectures and reading in both English and German. Open to advanced students with a fair knowledge of German. First semester, Tuesday, Thursday and Friday, 1:30 p. m.
- 10. German Literature of the Nineteenth Century. The great literary movements of Germany in the last century, viewed as parts of the broader currents affecting all European literatures. The Romantic and Realistic schools, the rise of fiction and recent developments will be considered with reference to representative writers. Lectures and readings, with special topics assigned for investigation. Open to advanced students with a fair knowledge of German. Second semester, Tuesday, Thursday and Friday, 1:30 p. m.
- 12. Readings in Scientific Literature. Rapid reading, to gain familiarity with the style of German scientific works. Prerequisite, courses 1-4. An elective course, not given unless at least six register for it. Second semester, three credits, hours to be arranged.

PHYSICS.

PROFESSOR COONS.

(Office hours, 9:30 A. M.)

MR. HENDERSON.

The courses in Physics are arranged for four classes of students. (1) Applicants for the degree of A.B., who desire to elect one or more courses in Physics will find courses 1-4 open to their election. (2) Applicants for the degree of B.S., who are taking their major work in other departments. Courses 1 and 2 are required. Courses 3-8 are elective. (3) Applicants for the degree of B.S., who desire to take their major work in Physics. Courses 1-8 are required. (4) Students who desire to take a technical course in electrical or mechanical engineering. The best education for such engineers is one in which the liberal culture of a college course precedes the training of the technical school, but many cannot afford to spend the time to complete both the college and the technical courses. The Physics Group includes all the non-technical studies of the best technical schools, and its successful completion will fit a student to enter the third year of the technical school, and thus earn both the college and the engineering degrees in six years.

- 1. General Physics. Lecture demonstrations and recitations covering the more important principles of Mechanics, Sound and Heat. Required of candidates for the B.S. degree, elective for all others. Mathematics 1 should accompany or precede this course. First semester, three hours, Monday, Wednesday, Friday, 7:30 A. M.
- General Physics. A continuation of Physics 1. Electricity, Magnetism and Light. Required of candidates for the B.S. degree, elective for all others. Prerequisite, Physics 1. Mathematics 2 should accompany or precede this course. Second semester, Monday, Wednesday and Friday, 7:30 A. M.

1a-2a. General Physics, Laboratory courses paralleling the work of courses 1 and 2. Elective for students who are registered for Physics 1 and 2 and required of those who enter

Physics 1 and 2 without a unit of entrance Physics. Fee \$2.00. Both semesters, two hours, Tuesdays and Thursdays, 7:30-9:30.

- 3. Laboratory Physics. The essentials of Mechanics, Molecular Physics and Heat. Prerequisite, Physics 1-2, Mathematics 1 and 2. Fee \$2.00. First semester, four hours, Monday excepted, 9:30-11:30 A. M., or Friday excepted, 1:30-3:30 P. M.
- 4. Laboratory Physics. The more fundamental experiments in Sound, Light, Magnetism and Electricity. Prerequisite, Physics 1-2, Mathematics 1-2. Fee, \$2.00. Second semester, sections, days and hours as in course 3.
- Experimental Physics. An advanced course in Electrical Measurements. Prerequisite, Physics 1-4, and the Calculus. Fee, \$2.00. First semester, Tuesday, Thursday and Friday, 1:30-3:30 P. M.
- 6. Experimental Physics. An advanced course in Light, consisting of measurements in Diffraction and Interference. Prerequisite, 1-4, and the Calculus. Fee, \$2.00. Second semester, Tuesday, Thursday and Friday, 1:30-3:30 p. m.
- 7. Theoretical Physics. A lecture course presenting the Kinetic Theory and elementary Thermodynamics. Prerequisite, Physics 1-4, and the Calculus. First semester, Monday, Wednesday, Friday, 8:30 A. M.
- 8. Theoretical Physics. A lecture course in Physical Optics, covering selected topics in Diffraction and Interference. Prerequisite, courses 1-4 and the Calculus. Second semester, Monday, Wednesday and Friday, 8:30 A. M.
- 9-10. Elements of Electrical Engineering. A lecture and laboratory course presenting the general theory of direct and alternating current circuits, and their application to direct and alternating current machinery. Prerequisite, courses 1-4, and the Calculus. Fee, \$2.00. Both semesters, four hours. Lectures Wednesday and Friday, 10:30; laboratory, four hours, to be arranged.
- 12. History of Physics. A lecture and library course treating the development of Physics from an historical viewpoint.

Prerequisite, courses 1-3. Second semester, Monday and Wednesday, 2:30 p. m.

15-16. Thesis in Physics. Elective for Seniors in the Physics group. Students who have shown ability to profit by such a course will be assigned some subject for original investigation or the repetition of some important classical experiment. Both semesters, two to five hours.

CHEMISTRY.

PROFESSOR BRUMBACK.

(Office hours, 10:30 every day.)

MISS SEFTON.

- 1-2. General Chemistry. Arranged for college students who have never studied the subject. Offered as an alternative with Chemistry 3-4 to students who present Chemistry for entrance. Prerequisite, preparatory Physics. Fee, \$4.00. Four hours, both semesters, Tuesday and Thursday, 9:30 A. M.; Wednesday and Friday, 9:30-11:30.
- 1a-2a. Household Chemistry. A course in elementary Chemistry. Open to women only. Offered as an alternative with Chemistry 1-2 to women who do not present Chemistry for entrance. Fee, \$4.00. Four credits, both semesters. Tuesday and Thursday, 9:30-11:30; Wednesday and Friday, 9:30.
- 3-4. Qualitative Analysis. Required of scientific students who present Chemistry for entrance and who do not elect 1-2 instead. Recommended to all who have had one year of Chemistry. Prerequisite, one year of Chemistry and Physics. Two laboratory periods per week throughout the year. Fee, \$4.00. Both semesters, Tuesday and Thursday, 7:30-9:30.
- 5-6, 5a-6a. Quantitative Analysis and Chemical Arithmetic. The two courses must be taken together. Prerequisite, Chemistry 1-2 or 3-4. Both semesters, 5a-6a, Monday, 1:30; 5-6, Tuesday, Thursday and Friday, 1:30-3:30 p. m.
- 9-10. Organic Chemistry. Prerequisite Chemistry 1-2, or 1a-2a, or 3-4. Fee, \$4.00. Two recitations and two laboratory

periods per week through the year. Tuesday and Thursday, 2:30 p. m.; Monday and Wednesday, 1:30-3:30 p. m.

11-12. Inorganic Preparations. Students may register for either semester or both. Two to five credits. Prerequisite, one year of Chemistry. Primarily for Juniors and Seniors. Fee, \$4.00. Monday, Wednesday and Friday, 7:30-9:30 A. M.

13-14. Advanced Quantitative Analysis. (a) Ore Analysis, (b) Water Analysis, (c) Fire Assay, (d) Mineral Analysis, (e) Gas Analysis, (f) Paint Analysis, (g) Fertilizer Analysis. Students may register for either semester or both. Two to five credits. Prerequisite, courses 5-6 and 5a-6a. Fee, \$4.00. Tuesday and Thursday, 7:30-9:30.

HOUSEHOLD ECONOMICS.

MRS. FINLEY.

1-2. Foods. Their composition and the effect of heat upon them. Prerequisite, Chemistry 1a-2a, or Chemistry 3-4, which may accompany the course if not pursued previously. Fee, \$6.00 each semester. Three credits. Laboratory, Tuesday and Friday, 1:30-3:30 p. m.; lecture, Thursday, 1:30 p. m.

CIVIL ENGINEERING.

PROFESSOR T. S. JOHNSON.

(Office hours, 11 A. M. Wednesday and Friday.)

In field work the classes are divided into parties with just a sufficient number to do the required work. By rotation each member of the class becomes familiar with the duties of each position and with every different instrument used. A full set of notes of the work done by the party is kept by each member. The method of instruction in this department is by means of text-books and recitations, supplemented by lectures and individual instruction in field and office work. A liberal use is made of current engineering literature. In the course in drawing the main object is to give such a training as will meet the needs of the engineer as fully as possible.

The following courses are offered:

- 1-2. Mechanical Drawing. Use and care of drawing instruments, lettering, exercises in projection, and simple working drawings. Prerequisite, Preparatory Mathematics. Fee, \$1.00. Both semesters, Tuesday and Thursday, 7:30-9:30 A. M. Additional hours may be assigned to those desiring a more extended course.
- 3. Descriptive Geometry. A study of the representation of lines, surfaces, solids, tangencies, intersections, and developments, with original problems. Recitations, lectures, and drawing. Prerequisite, course 1. Fee, \$1.00. First semester, four hours, Monday excepted, 9:30-11:30 A. M.
- 4. Plane Surveying. An elementary study of surveying methods and instruments. Use of tape, chain, compass, level, transit. Adjustments. Lectures, recitations, problems, field work and platting. Prerequisite, course 1 and Mathematics 1. Fee, \$2.00. Second semester, four hours, Friday excepted, 1:30-3:30.
- Railroad Surveying and Earth-work. Problems attending the location and construction of railways. Transition curves, computation of earth-work, platting, profiles and construction of maps. This course will alternate with course 11. Prerequisite, course 4. Fee, \$2.00. First semester, four hours, Friday excepted, 7:30-9:30 A. M.
- 6. Railroad Engineering. The economic theory of location is studied for six weeks. This is followed by a preliminary survey of a railroad several miles in length, with preliminary map profile and estimates; location survey, profile and cross sectioning. A location map is made, earth-work computed, estimate of haul and cost of line. A map is also made of a railroad station grounds, showing industries, etc. Prerequisite, course 5. Second semester, Monday, Tuesday and Thursday, 9:30 A. M.
- 7. Applied Mechanics. The principles of Mechanics, with reference to their application to Engineering, Statics, center of gravity, moment of inertia, and Kinetics. An application of Mathematics to Engineering. Prerequisite, Mathematics 4 or 4a and Physics 1. First semester, four hours, Friday excepted, 1:30 p. m.

- 8. Applied Mechanics. A continuation of course 7. Strength of Materials, studies in Materials and their action under tension, compression and shear in beams. Columns, girders, shafts and engineering structures. Mathematical and Physical ideas underlying Mechanics of Materials. Prerequisite, course 7. Second semester, four hours, Monday excepted, 10:30 A. M.
- 9. Analysis of Structures. Determination of stresses in roof and bridge trusses by graphical and analytical methods. Prerequisite, course 8, Mathematics 4, Physics 1. Fee, \$1.00. First semester, four credits, Monday and Wednesday, 2:30 p. m., with laboratory periods to be assigned.
- 10. Roof and Bridge Design. A continuation of course 9. Design of actual roof and bridge trusses, and preparation of working drawings. Checking and discussion of working drawings. The department is provided with a large collection of such drawings, presented by railroads, structural iron companies and city engineers. Prerequisite, courses 8 and 9. Fee, \$1.00. Hours and credits as in course 9.
- 11. Topographical Surveying and Mapping. The methods of conducting topographical surveys are taken up. Each party makes a complete topographical survey of a certain tract, employing plane table, stadia, transit and rectangular methods. The area is computed and a map is made showing all topographical features. Alternates with course 5. Prerequisite, course 4. Fee, \$2.00. First semester, four hours, Friday excepted, 7:30-9:30 A. M.
- 12. Cement Testing. A study of the manufacture, properties and testing of hydraulic cements and mortars. Each student makes all the standard tests in the cement laboratory. Fee, \$2.00. Tuesday and Thursday, 7:30-9-30 A. M.
- 13. Highway Construction and Maintenance. A study is made of the methods and materials necessary to maintain streets and highways in city and country. Prerequisite, courses 1 and 4. First semester, Tuesday and Thursday, 2:30 p. m.
- 14. Hydraulics. A study of hydrostatics and hydrokinetics, pressure in pipes and reservoirs, flow of water through orifices

and pipes, and retaining walls. Prerequisite, courses 7 and 8. Second semester, two credits. Hours to be assigned.

15. Public Water Supplies. Quantity of water supply for cities and towns. Yield from drainage basins. Stream and ground water flow. Works for collection, purification and distribution of water. Prerequisite, Chemistry 1-2 or 3-4, Civil Engineering 4. First semester, Monday, Wednesday and Friday, 8:30 A. M.

16. Sewerage Systems and Sewage Disposal. A continuation of course 15 in Sanitary Engineering. Studies in the collection and disposal of public wastes and methods of improvement and conservation of public health. Second semester, prerequisites and hours as in course 15, which must precede this course.

DEPARTMENT OF GEOLOGY.

PROFESSOR CARNEY.

(Office hours, 9:30 A. M., Monday, Wednesday and Thursday.)

This department, which occupies the entire third floor of Barney Memorial Hall, is unusually well equipped with maps, relief models, minerals, rock specimens, and about 5,000 lantern slides. The laboratories are commodious, and fairly complete in appointments. Its library and well-lighted reading room, twenty-seven by thirty feet, places the G. K. Gilbert collection of books where it can be of most use to students; all the American periodicals bearing on geology and geography, as well as representative British, Scottish, German, and French magazines come regularly to the department library.

In its instruction the department places much emphasis on field work. We have within easy reach the formations from the Silurian to the Pennsylvanian inclusive. The topography where the Waverly and Mississippian rocks outcrop, and this is in the immediate region of Granville, affords excellent illustrations for studies in physiography. The conditions are also specially favorable for studies in glacial geology since we have close at hand the drift of different ice invasions, and are within a few miles of unglaciated territory. Students desiring only a general course in geology are advised to take 1a-2b; the courses in Geography are also of cultural value.

GEOLOGY.

la-2b. General Geology. Two lectures per week, with three all day field trips and five laboratory periods each semester. Three credits, or without the field and laboratory work, two credits. Fee, \$1.00 if taken for three credits. Lectures, Wednesday and Friday, 10:30 A. M.

4b. Glacial Geology. Lectures, readings and field work. Prerequisite, Geology 1a-2b. Two credits, Wednesday and Friday, 9:30 A. M.

5a-6b. Geological Literature. Open only to Juniors and Seniors. Prerequisite, Geology 1a-2b, and ability to read either French or German. Reports and discussion of assigned readings. Two credits. Monday and Wednesday, 2:30 p. m.

7a-8b. Investigation. Open to Seniors. Prerequisite, Geology 1a-2b, 4b. Hours to be arranged. Two to five credits.

GEOGRAPHY.

- 1. Physiography. Lectures and assigned readings. A study of land forms, and the processes by which they are altered; the oceans, atmosphere, earthquakes, volcanoes, and glaciers are treated quite fully. First semester, two credits. Tuesday and Thursday, 8:30 A. M.
- 2. Geographic Influences. Lectures supplemented by library assignments, considering several types of geographic influences, as observed in the habitats of primitive peoples, in the development of ethnic groups, in the growth of ideas concerning the size and shape of the earth, and in map-making; in the social, industrial and political activities of advanced peoples, and the influence of topographic and climatic environment on mental and moral qualities. Three credits, second semester, two sections, Monday, Tuesday and Thursday, 10:30 A. M.; Tuesday, Thursday and Friday, 1:30 P. M.

- 3. Geographical Influences. A repetition of course 2. First semester, sections, days and hours as in course 2.
- 4. Geography of North America. Lectures and collateral readings concerning the influence which the relief features, climate, and natural resources of the continent have had on its history, the development and shifting of particular industries, certain phases of conservation, the distribution of population, and inland water ways from the viewpoint of regional geography. Prerequisite, Geography 2 or 3. Three credits, second semester, Monday, Wednesday and Friday, 8:30 A. M.
- Geography of Europe. Lectures and library assignments following the line of treatment outlined for North America in course 4. Prerequisite, Geography 2 or 3. First semester, three credits, Monday, Wednesday and Friday, 8:30 A. M.
- Geography of South America. Lectures and library assignments following the method of work outlined in course 4, the Geography of North America. Prerequisite, Geography 2 or 3. Two credits, second semester, Tuesday and Thursday, 8:30 A. M.
- 7-8. Geographical Literature. Open only to Juniors and Seniors. Prerequisite, Geography 2 or 3, 4, 5 or 6, and ability to read French or German. Reports and discussions of assigned readings. Both semesters, two credits, Tuesday and Thursday, 7:30 A. M.
- 9-10. Investigation. Open only to Seniors. Prerequisite, Geography 1 or its equivalent, 2 or 3, 4, 5 or 6, 7 or 8. Both semesters, hours to be arranged. Two to five credits.

ASTRONOMY.

PROFESSOR BIEFELD.

(Office hours, Tuesday and Thursday, 1:30 p. m.)

Of the following courses, 1 and 2 are elementary, introducing the student to the subject and method of study. Course 3 is intended to be cultural, presenting a general survey of the subject in a simple way, and yet with scientific accuracy. Courses 4 and 6 bring the student in contact with the practical applications

of the subject, solving the fundamental problems with the rigor that mathematics and modern instruments make possible. Courses 7 and 8 give opportunity for work of high grade and lasting value to Astronomy, along the line of micrometric and photometric work, while 9 and 10 lead into the application of Mathematics to Astronomy, making use of the best that has been brought out in the English, German and French languages, on Celestial Mechanics.

- 1. Constellation Study. (a) Identification of the principal constellations, planets, star clusters and nebulæ, aided by opera glasses and the equatorial, eight evenings during the semester. (b) Talks on the celestial sphere and the solar system, eight evenings during the semester. (c) Exercise on the use of the celestial globe, ephemerides, and star maps. Study of the apparent motions of the sun, moon and planets. Elective for all students. Fee, \$1.00. First semester, two credits. One hour on Tuesday at 8 P. M. for lectures, or constellation study at the Observatory on clear nights. One laboratory period, two sections, Monday or Wednesday, 1:30-3:30 P. M.
- 2. Constellation Study. A continuation of course 1, in which opportunity is given to a limited number of students to study some of the constellations more in detail, with telescopic aid. Eight lectures on the History of Astronomy, from ancient times through the time of Newton. A study of the moon and one of the planets in the sky, by drawings on outline maps. Observation of variable stars, with naked eye, by grades. Elementary exercises with the astronomical clocks, the transit and the equatorial. Elective for all students. Fee, \$1.00. Credits and hours as in course 1, above.
- 3. Descriptive Astronomy. This course will be given in lectures based on non-mathematical text. The text being followed quite closely, will avoid the taking of notes and at the same time giving the student a chance to pay close attention and subsequently study with greater profit, errors and misstatements creeping into the notes being avoided. A ten minute quiz precedes the lecture each day, so that the ground may be thoroughly covered.

The lectures will be accompanied by demonstrations with the instruments of the Observatory. The usual topics will be taken up, as found in standard text books on Descriptive Astronomy.

The course may be taken by Sophomores, Juniors and Seniors, no special prerequisites. First semester, four hours,

Monday excepted, 10:30 A. M.

4. Practical Astronomy. Elective for students who have had Astronomy 3 and Physics 3, laboratory work in mechanics being of special importance. A laboratory course, taking up the work as follows: (1) Angle and time measurements. Work with vernier, level, micrometer, astronomical clock, and chronograph. (2) The Transit Instrument. Determination of the constants of the instrument. Wire intervals of micrometer, level constant, collimation constant, azimuth constant. Determination of time by eye and ear method, and by chronograph. Determination of longitude. (3) The Zenith Telescope. Determination of geographical latitude by Talcott method. (4) The Transit as Meridian Circle. Determination of nadir and equator point. Determination of right ascension and declination of stars differentially. Determination of longitude of the Observatory in connection with wireless signals from Arlington. (5) The Equatorial. Adjustments. Determination of the apparent place of a heavenly body, directly, by means of hour and declination circles, or differentially, by means of position micrometer. Double star work. Determination of position angle and distance with position micrometer. Fee, \$2.00. Second semester, four hours, Monday excepted, 10:30 A. M.

Method of Least Squares. Second semester, two hours, time to be arranged.

7-8. Advanced Observational Work. Use of the position micrometer and equatorial in measurement of double stars. Measurement of position, differentially, of fixed stars suspected of considerable proper motion. Stellar Photometry, with naked eye, by grades. Study of short period variables, with sliding wedge photometer. Prerequisite, Astronomy 1-3. Both semesters, three credit hours, time to be arranged.

9-10. Theoretical Astronomy and Celestial Mechanics. Selected chapters from English, German and French works on celestial mechanics and its application to the determination of orbits of comets. Prerequisite, Astronomy 3, 4 and 6, Calculus, and Differential Equations. Both semesters, three credit hours, time to be arranged.

ZOOLOGY.

ACTING PROFESSOR FISH.

(Office hours, Monday, 1:30-2:30 P. M.; Saturday, 10:30-11:30 A. M.)

The department aims:-

First, to give elementary instruction in the fundamental principles of biology, and enthuse those whose tastes and abilities qualify them for further study. (Courses marked A.)

Second, to give general instruction in the concrete facts of Zoology, and encourage those who show marked ability seriously to consider undertaking a life work in Zoology or some closely allied field. (Courses marked B.)

Third, to give detailed instruction in that particular field of Zoology which appeals most strongly to individual students of superior merit, and direct their first independent work. (Courses marked C.)

For students who intend to study medicine, courses 1-4, 5b, 6b, 7b, 11b and 13b are recommended. Any four of these courses which can be elected will fill the biological requirement for entrance to medical schools. See also reference to pre-medical work under department of Botany.

The courses in Botany and Zoology, in addition to the number designating them individually, are lettered with capital letters to indicate their elementary (A) or more advanced (B and C) nature. Two A courses in either Botany or Zoology are prerequisite to all B courses in Zoology. Four B courses in either Botany or Zoology are prerequisite to all C courses in Zoology.

1. Elementary Biology. (A). This course is listed also with the Botany courses and is given jointly by the two departments. It is a study of (1) the characteristics, (2) the properties, and

- (3) the activities of living things. One laboratory period, one lecture and one recitation each week. Three credits. Fee, \$2.50. First semester, Tuesday, 1:30-3:30, or 3:30-5:30 p. m.; Thursday and Friday, 1:30 p. m.
- 2. Elementary Biology. (A). Given jointly with the department of Botany, as course 1, which must precede it. Several of the professors from other departments will address the class on topics closely related to this course and their special fields of investigation. The course embraces (1) the more important theories of inorganic and organic evolution, (2) the laws of variation and heredity, (3) the evolution of society, and (4) the fundamental principles on which eugenics must depend. Fee, \$2.50. Second semester, days and hours as in course 1.
- 3. Invertebrate Zoology. (B). This course is (1) a laboratory study of representatives of the various phyla of invertebrates; (2) a text study of the classes and orders of invertebrates, and (3) an elementary study in the practice of descriptive illustration. Lectures, illustrated by lantern slides and charts, will supplement the text, and numerous prepared museum dissections will supplement the individual work in the laboratory. Fee, \$3.00. First semester, Tuesday and Thursday, 9:30 A. M.; Wednesday and Friday, 9:30-11:30 A. M. Not offered in 1916-1917.
- 4. Comparative Anatomy of Invertebrates. (B). This course is (1) a laboratory study of representatives of the various phyla of chordates, (2) a text study of the classes and orders of the chordates, and (3) an elementary study in fine dissection and descriptive illustration. Lectures illustrated by lantern slides and charts will supplement the text, and examples from paleontological and embryological material will supplement the individual work in the laboratory. Fee, \$3.00. Second semester, four credits. Tuesday and Thursday, 9:30 a. m.; Wednesday and Friday, 9:30-11:30 a. m. Offered in 1916-1917.
- 5h. Embryology. (B). This course is (1) a text and laboratory study of the development of organisms, from the egg to the adult, followed by (2) a study of the development of the

separate organs. The development of the frog and the chick will be studied intensively. Must be preceded by one B course in Zoology. Fee, \$3.00. First semester, three credits, Tuesday and Thursday, 9:30 A. M., and two hours to be arranged with the instructor. Offered in 1916-1917.

6b. Histology. (B). This course consists (1) of laboratory practice in the preparation of animal tissues for microscopic study, (2) text work on tissue structure and the organization of tissue into organs, and (3) supplementary lectures. Specimens of tissue from invertebrates and vertebrates will be prepared by the students, and microscope slides of human tissues already prepared will be furnished to the students for study. Must be preceded by one B course in Zoology. Fee, \$3.00. Second semester, four credits, Tuesday and Thursday, 9:30 A. M., and four hours to be arranged with the instructor. Not offered in 1916-1917

7b. Entomology. (B). This course is (1) a study of the anatomy and development of insects, and (2) their collection, preservation and classification. Each student will make individual collections, and weekly field trips will be made when possible. It is the plan of the department to make a careful canvass of the Denison alumni in foreign lands and secure specimens for the museum collection of the University and for exchange with the members of the class, by whom the work of mounting a part of the collection will be done, under the supervision of the instructor. Special readings from the works of famous investigators and from government reports will be made by each student and reported upon before the class. Fee, \$3.00. First semester, three credits, Monday, Wednesday and Friday, 8:30 A. M., with field trips at 3:30 P. M. during the week or at 8 A. M. on Saturday. Offered in 1916-1917.

8b. Entomology, (B), Similar to course 7b but may be taken either before or after that course. Fee, \$3.00. Second semester, credits, days and hours as in course 7b. Not offered in 1916-1917.

11b. Physiology. (C). A text study of the facts and theories concerned with (1) the structure, (2) the physics, and (3) the chemistry of the human body. Lectures at regular intervals on matters of personal and domestic hygiene. Lecture demonstrations by the instructor. To secure admission, the student must have had one year each of chemistry and physics with a total of 15 points. Fee, \$1.00. First semester, three credits, Monday, Tuesday and Thursday, 10:30 A. M., with occasional substitution of an hour at 3:30 P. M.

13b. Genetics. (C). A laboratory study of the laws of heredity. Each student will be assigned a problem in the production of "new true-breeding types," which he will be required to solve experimentally by propagating the fruit-fly, Drosophila ampelophila, at least six generations of which will be raised in the laboratory during the semester. In addition, some problem in plant genetics will be assigned to each student for temporary attention. (Experimental work not completed at the end of this course may be continued as a part of course 14b, 16b, 19 or 20, or botany 19 or 20, according to the nature of the work and the time to be devoted to it.) Class studies will be made of the fundamental processes of biometry. Bibliographical studies of the work of the principal investigators in plant and animal genetics will be made by each student. Students entering this course must have had one year of Chemistry, Physics or Geology and a year of Mathematics, with a total of fifteen points, or other equivalent work at the discretion of the instructor. Fee. \$4.00. First semester, five hours credit, Tuesday and Thursday, 8:30 A. M., and one laboratory hour each week day to be arranged with the instructor.

14b. Genetics. A further study of the topics considered in 13b, but not a continuation of that course, as the work of individual students will be wholly dissimilar. Special practice in the analysis of experimental data compiled by other investigators. Experimental work not finished at the completion of this course may be carried on as laboratory work in Zoology 16b, 19b, 20, or Botany 19 or 20, according to the nature of the experiment and the time to be devoted to it. Course 13b must precede this course. Fee, \$4.00. Second semester, five credits, Tuesday and Thursday, 8:30 A. M., and a laboratory hour each week day.



16b. Cytology. (C). Given jointly by the departments of Botany and Zoology. A laboratory study in (1) the microscopic anatomy of the cell and (2) the correlation of cell parts with the phenomena of heredity. Laboratory practice will be given in the preparation of material and some special problem will be assigned in connection with work which the student has already done or is undertaking in genetics. One lecture each week, illustrated by specially prepared material, charts and designs, will review the progress of cytological investigation. Course 13a must precede this work. Fee, \$3.00. Second semester, three credits, Monday, 1:30 p. m., and other hours to be arranged with the instructor. Offered in 1916-1917.

17. Biological Seminar. (C). Individual work in the preparation of bibliographies and reviews, as the basis of frequent reports before the class. The work may be wholly in the student's own field of investigation in Zoology 14b, 16b, 19, 20, or Botany 19 or 20, or it may be something suggested by work in the earlier courses in either department. The student must have had Zoology 13b and must have a reading knowledge of some modern language. Fee, \$1.00. First semester, two credits, hours to be arranged.

18. Biological Seminar. A course similar in all respects to course 17. May be taken either before or after 17.

19. Introduction to Research. (C). Each student will be assigned some problem of an experimental nature suited to his taste and training, and required to make a bibliography of the literature bearing upon the subject and to read the most important articles for report to the instructor. The work will be wholly independent research, with no lectures. Students will be met individually one hour each week by the instructor for conference on progress made during the previous week and plans for the week to come. Experiments unfinished at the completion of this course may be continued as Zoology 20. Fee, \$1.00 for each hour of credit elected. First semester, three to five credits, hours to be arranged.

 Introduction to Research. A second semester course similar in all respects to course 19. May be elected either before or after 19.

BOTANY.

PROFESSOR STICKNEY.

(Office hours, Tuesday and Thursday, 9:30 A. M.)
MISS ORCUTT.

The work in Botany is designed not only for the systematic development of that branch of science for the benefit of students who wish either to teach or in any other way devote themselves professionally to it, but also and more particularly to emphasize, through systematic training in observation and deduction, the broader and purely cultural side of the subject.

Students desiring a single course in Botany in addition to the work in general biology are advised to select 11 and 12 if their interest centers in the flowering plants, or 3 and 4 if they wish to obtain a broader survey of the entire plant kingdom. Courses 1-4, 7-8 have a special bearing upon pre-medical work, and 7-8 is likewise of special interest to domestic science students, while to the student of agriculture courses 1-2, 5-6, 7-8, and 9, are particularly recommended.

The courses in Botany, as well as those in Zoology, in addition to the numbers distinguishing them individually, are each given a capital letter to indicate their elementary (A), or more advanced nature (B or C). Two A courses are necessary as prerequisite for all B courses in Botany. Four B courses in either Botany or Zoology are prerequisite for all C courses in Botany. Special prerequisites for a course will be found in connection with its description as given below. The following courses are offered:

1-2. General Biology. (A), This course is given jointly by the departments of Botany and Zoology, and is identical with Zoology 1-2. The first semester is devoted to a consideration of the nature of life, and the characteristics, properties, and activities of living things, and of the relation of organisms to each



other and to their environment; while the work of the second semester includes a study of the more important theories as well as laws of heredity, variation and evolution of organisms. Open to general election, and required for admission to all other courses in botany unless an equivalent is offered. Fee, \$2.50 each semester. Both semesters, three credits, Tuesday, 1:30-3:30, or 3:30-5:30 P. M.; Thursday and Friday, 1:30 P. M.

3-4. Plant Morphology. (B). A very general survey of the plant kingdom, with a study of type forms from the lowest to the highest orders. Structure, development, reproduction and classification are considered from the standpoint of biology and evolution. One all-day field trip and several shorter excursions are required each semester. Offered in alternate years with courses 5 and 6. Fee, \$3.00 each semester. Both semesters, four credits, Tuesday and Thursday, 10:30 A. M.; Wednesday and Friday, 9:30-11:30 A. M. Not offered in 1916-1917.

5-6. Plant Histology and Physiology. (B). A study of cells, tissues and organs of higher plants, and of the relation of these structures to irritability, movement, secretion, nutrition, growth and reproduction. Special attention is given to the technique of microscopic study during the first semester, and to experimental methods during the second. Offered in alternate years with courses 3-4. Fee, \$3.00 each semester. Both semesters, four credits, Tuesday and Thursday, 10:30 a. m.; Wednesday and Friday, 9:30-11:30 a. m. Offered in 1916-1917.

7-8. Bacteriology. (B). A general consideration of the structure and activities of bacteria, with emphasis placed on their relation to human life and interests. Among the specific subjects treated are: soil fertility, sewage disposal, milk problems, butter and cheese making, diseases of plants and animals, and public health and sanitation. Elementary chemistry is advised in addition to the regular prerequisites for this course. Fee, \$3.00 each semester. Both semesters, three credits, Monday and Friday, 7:30-9:30 A. M.; Wednesday, 8:30 A. M.

9. Plant Pathology. (C). A study of the more important diseases of useful plants, including rusts, smuts, moulds, mildews, scabs and blights. Recognition of specific diseases

through symptoms, the economic importance of the various diseases, and methods of control, are phases of the subject receiving special attention including a consideration of different spraying mixtures, methods of application, and spraying calendars. The work of state and national governments in plant disease is brought particularly to the attention of the student in thesis work. Courses 5-6 and 7-8 should precede this course. Given in alternate years with course 11. Fee, \$1.00. First semester, two credits, Monday, 1:30-3:30 p. m.; Wednesday, 1:30 p. m. Not offered in 1916-1917.

10. Forestry. (B). An introductory consideration of the character, culture, protection and uses of the forest, and of the more important problems of economic and civic significance relating to the subject. The value of trees is emphasized, and the identification of native trees forms a part of the laboratory work. A good course in elementary botany may be substituted for Biology 1-2 as prerequisite for this course. Offered in alternate years with course 12. Fee, \$1.00. Second semester, two credits, Monday, 1:30-3:30 p. m.; Wednesday, 1:30 p. m. Not offered in 1916-1917.

11. Plant Ecology. (B). A study of the nature of plants as shown by their reactions to the various factors of their environment, water, light, soil, temperature, etc., in their struggle for existence. The distribution of plants, and their natural grouping into societies is considered, and special attention is given to the life problems of the plant, and the solution of those problems by the plant, as revealed in external form and internal structure. Four all-day field trips, and several short excursions take the place of a portion of the laboratory work. Offered in alternate years with course 9. Fee, \$2.00. First semester, three credits, Tuesday and Thursday, 7:30-9:30 A. M.; Wednesday, 7:30-9:30 A. M.; Offered in 1916-1917.

12. Systematic Botany. (B). A consideration of the principles of classification, from both historical and evolutionary standpoints, and the study of the classification of the flowering plants. Emphasis is placed on field and laboratory studies of native plants, while methods of collecting, arranging and pre-

serving receive attention. Four all-day field trips and several shorter excursions take the place of a part of the laboratory work. Offered in alternate years with course 10. Fee, \$2.00. Second semester, three credits, Tuesday and Thursday, 7:30-9:30 A. M.; Wednesday, 7:30 A. M. Offered in 1916-1917.

16b. Cytology. (C). Given jointly by the departments of Zoology and Botany, and listed also as Zoology 16b. A study of the microscopic structure of living material as organized into cells, and a consideration of the theories and laws of development, heredity and evolution based upon such study. This course should be preceded by a study of Genetics (Zoology 13b), with plant or animal histology also recommended. Offered in alternate years. Second semester. Three credits. Fee, \$3.00. Lectures Monday at 1:30 p. m. Laboratory, four hours to be arranged. Offered in 1916-1917.

17-18. Botanical Seminar. (C). The study of special topics with reports in class upon assigned readings. Either or both semesters may be taken. Ability to use French or German is desirable. Open to Juniors and Seniors only. Two meetings each week, with two credits. Hours of meetings to be arranged.

Fee, \$1.00 each semester.

19-20. Advanced Botany. (C). Special work on assigned problems leading to research in botany. This course may be taken only by competent students, and with the consent of the Professor in charge. Two to five credits. Hours arranged individually.

MUSIC.

ASSISTANT PROFESSOR ESCHMAN.

(Office hours, Monday, Wednesday and Friday, 8:30 A. M.)

Of the courses in the Theory and History of Music, some are offered largely for their general cultural value as a natural part of any liberal education. These courses are open without prerequisites to all students in the University. The others are mainly of a more technical nature, and cannot be elected without necessary preparation. For details consult the announcement of the Conservatory of Music, in this catalogue.

Following is a list of courses for which college credit is granted.

 Appreciation of Music. First semester, two credits, Monday and Wednesday, 2:30 p. M. Fee, \$8.00.

2. Elementary Theory. Second semester, two credits,

Monday and Wednesday, 2:30 p. M. Fee, \$8.00.

5-6. History of Music. Both semesters, three credits, Tuesday, Thursday and Friday, 1:30 p. m. Fee, \$12.00 each semester.

7-8. Harmony. Both semesters, three credits, Monday, Tuesday and Thursday, 10:30 A. M. Fee, \$12.00 each semester.

9-10. Counterpoint. Both semesters, three credits, Monday, Tuesday and Thursday, 9:30 A. M. Fee, \$12.00 each semester.

11-12. Musical Form. Both semesters, two credits, Wednesday and Friday, 9:30 A. M. Fee, \$8.00 each semester.

13-14. Strict Composition. Both semesters, two credits, Monday and Wednesday, 1:30 p. m. Fee, \$8,00 each semester.

 15-16. Free Composition. Both semesters, two credits, Wednesday and Friday. 10:30 A. M. Fee, \$8.00 each semester.

17. Physical Basis of Music. First semester, two credits, Monday and Wednesday, 2:30 p. m.

PUBLIC SPEAKING.

ACTING ASSISTANT PROFESSOR JOHNSTON.

This department affords training in Expression, by finding and applying principles for developing the voice, mind and body in reading and speaking. The work is in no sense a mere coaching for occasions, but a personal, cultural training which aims at helping the student get command of his own creative powers. The subject is studied as an art, and through it the student is brought into touch with the principles governing all art. The following courses are offered as college electives:

1-2. Fundamentals of Expression. A general preparatory course in the art of self-expression through speech and action. The aim is to enlarge the student's native powers, give him self-control before others, and awaken his interest in oral interpreta-

tion and its relation to every-day living. Brief talks upon the elements of expression, with emphasis upon the natural correlation of speech and action. An elementary training upon which satisfactory results in the subsequent courses are largely dependent. Open to Freshmen. Both semesters, three credits. Two sections, Monday, Tuesday and Thursday, 10:30 A. M.; Tuesday, Thursday and Friday, 2:30 P. M.

3a-4a. Extempore Speaking. Practice in thinking in the presence of others, and in presenting one's thoughts in a vigorous and attractive manner. A preliminary drill in "off-hand" speaking, a laboratory rather than a lecture course. The more common forms of occasional speech will be studied, with appropriate criticism by the instructor and class members. Prerequisite, courses 1-2. Both semesters, three credits, Tuesday, Thursday and Friday, 1:30 p. m.

5. Rhetoric of Oratory. A critical study of oratorical form, based upon the world's most famous orations, with investigation of the well established principles of appeal. Lectures on the place of oratory in the past and present, and the psychology of the public audience. Students will prepare complete outlines on various themes and present at least one carefully rehearsed oration each semester. Prerequisite, courses 1-2. First semester, two credits, Monday and Wednesday, 2:30 p. m.

6. Dramatic Reading. This course aims to develop the ability to express privately or from the platform some of the greatest thoughts of the world's great minds. Detailed study of the various tone qualities, gestures and attitudes employed by the reader as distinguished from the orator. The presentation of short scenes from various plays offers an opportunity for the simpler forms of stage craft. Prerequisite, course 1 or 2. Second semester, two credits, Monday and Wednesday, 2:30 p. m.

PHYSICAL TRAINING.

MR. LIVINGSTON.

Physical training is essential to sound scholarship. With this in view, a progressive course in systematic and rational physical training is given, covering a minimum of two hours

per week in the Freshman and Sophomore years, for which four credits are allowed. A careful physical examination of each student is made at the beginning of the school year, of which an accurate record is kept, and advice is given to assist the individual in acquiring or maintaining a healthy body.

In place of the systematic class work, those students who desire to follow other plans of physical training, by devoting four forty-five minute periods per week thereto, may receive credits for the same, as above, subject to the discretion of the Director. A short talk on the theory and practice of some athletic or gymnasium exercise from the standpoint of observer and participant is given each week, and is open to all students of the University.

An elective course in Physical Training is offered to Juniors and Seniors who desire a deeper knowledge of this subject than the work of under-classmen furnishes. This course includes lectures on the history, theory and practice of gymnastics and athletics; lighting, seating, heating and ventilating of school rooms; the taking of physical measurements and examination of heart, lungs and senses; first aid to the injured and care of minor injuries. Ample opportunity is given for practice in handling gymnastic classes and athletic teams.

HOUSEHOLD ECONOMICS.

EUGENIA E. FINLEY.

(Office hours, 12:00-12:30 p. m.)

- 1-2. Household Economics. A course on the composition of foods. Accepted as an elective in all college courses, with three credits, and described more fully under the department of Chemistry, with which it is allied.
- 1-2. Household Art. Sewing. Fee, \$12.00 each semester. Tuesday and Thursday, 7:30-9:30, or Wednesday and Friday, 9:30-11:30 A. M.
- 3-4. Household Art. Reed and Raffia Weaving. Fee, \$12.00 each semester. One two-hour period per week, Monday, 9:30-11:30 A. M.

Courses of Study

The unit of work is one hour of lecture or recitation work per week throughout a semester, and not less than 124 units are required to complete a course. In laboratory work a two-hour period counts as one unit. For aid in choosing electives, the student may consult the schedules of courses by hours, which will be found at the end of the volume.

To insure the organization of classes in purely elective studies the student must announce his election of any given study to the Professor or Instructor concerned thirty days previous to the close of the preceding semester.

THE GROUP SYSTEM.

To avoid the manifest evils of unregulated election a number of groups have been formed, each leading to one of the three degrees conferred by the University-Bachelor of Arts. Bachelor of Science, or Bachelor of Philosophy. Thus the student, upon entrance, elects first the degree for which he wishes to study and then makes his choice among the different groups leading to that degree. Each of these groups emphasizes some particular line of study, such as Botany, Physics, or History, for instance, and connects with this such other branches as are fitted to secure breadth and consistency in the result as a whole, together with a more extended knowledge of the field of study which forms the center of the group. A certain amount of free election is allowed in each group. After the student has made his choice of a group, all further matters affecting his schedule of studies, including his choice of free electives, must be determined in conference with his Faculty Adviser. At the head of each group schedule, in the pages following, will be found the name of the Faculty Adviser of that group.

The numbers following names of studies indicate the number of the course, as described in the preceding statements of the various departments of study. Odd numbers always indicate first semester courses, even numbers those of the second semester.

GROUP SCHEDULES.

A. FOR THE DEGREE OF BACHELOR OF ARTS.

Six groups lead to this degree, designated A1, A2, etc. The first is especially suited to students preparing to teach Greek or Latin, or to do graduate work in those branches. The second gives opportunity for advanced work in physics, with related mathematics in connection with the ancient classics. In the third, some other branch of science may be similarly emphasized; in the fourth, history; in the fifth, pure mathematics; in the sixth, English.

The common requirements for all groups leading to this degree are; Greek, courses 1-4; Latin, courses 1-4; Mathematics, courses 1-2; English, courses 1-4; six units of work in the department of Education and Philosophy; History, courses 1-2; eight units of science and eight units of modern language. In any of these groups Mathematics 1b-2b may be substituted for Mathematics 1-2 at the option of the student.

GROUP Al. ADVISER, PROFESSOR COLWELL.

Freshman Year.—English 1-2, Greek 1-2, Latin 1-2, Mathematics, 1-2. Election, two or three hours each semester.

Sophemore Year.—Greek 3-4, Latin 3-4, History 1-2; a modern language four hours each semester. Two or three hours' work may be elected in addition, with approval of adviser.

Junior Year.—English 3-4, a modern language four hours each semester; Greek or Latin, two, three or four hours each semester; History or Science. Free election, three or four hours each semester.

Senior Year.—Six units of work in the department of Education and Philosophy; Logic, History or a language. Free election, eight or ten hours each semester.

GROUP A2. ADVISER, PROFESSOR W. H. JOHNSON.

Freshman Year.—English 1-2, Greek 1-2, Latin 1-2, Mathematics 1-2. Election, two or three hours.

Sophomore Year.—Greek 3-4, Latin 3-4; Physics or Mathematics each semester. Election, two to six hours each semester,

but History 1 and 2 must be taken in the Sophomore or Junior year.

Junior Year.—English 3-4; Mathematics or Physics, three or four hours each semester; Modern Language or Science, three or four hours each semester. Election, three to nine hours each semester, but History 1 and 2 must be taken if not taken in the Sophomore year.

Senior Year.—Six hours' work in the department of Education and Philosophy; Mathematics or Physics, three or four hours each semester; Modern Language or Science, three or four hours each semester. Election, three to seven hours each semester.

GROUP A3. ADVISER, PROFESSOR W. H. JOHNSON.

Freshman Year.—Latin, Greek, English and Mathematics, as in Group A2, described above. Election, two to three hours each semester.

Sophomore Year.—Greek 3-4, Latin 3-4, History 1-2; Science or Modern Language, three or four hours each semester. Election, two or three hours each semester.

Junior Year.—English 3-4; Science, four hours each semester; History or Political Science, three or four hours each semester. Election, four or five hours each semester.

Scnior Year. Six hours' work in the department of Education and Philosophy; Science or Modern Language, three to four hours each semester. Election, seven to ten hours each semester.

GROUP A4. ADVISERS, PROFESSOR GOODELL AND ASSISTANT PROFESSOR KULL.

In addition to the general requirements for the A.B. degree, the student in this group will be expected to complete at least thirty credit hours in History and Political Science. For those majoring in Political Science, History 8 and Political Science 1-2 must be included; for those majoring in History, History 1, 2, 7 and 8, and Political Science 1-2. The student in this group must also complete at least twelve credit hours of Science. For those majoring in Political Science, Professor Goodell will act as Adviser; for those in History, Assistant Professor Kull.

GROUP A5. ADVISER, PROFESSOR WILEY.

In addition to the common requirements for all groups leading to the degree of Bachelor of Arts, page 83, a student in this group must complete one course in Mathematics each semester of his four college years. Physics 7 and 8, Astronomy 6, 9 and 10, and Civil Engineering 7 and 8 may be interpreted as Mathematics in meeting this requirement. Before the close of the Junior year one of the three sequences of courses (1, 2, 3, 4, 5, or 1b, 2b, 3b, 4b, or 1, 2, 3, 3b, 4b) must be completed. The selection of the second sequence is urged. The student will elect, in conference with the adviser, other courses sufficient to make up the 124 units required for the degree.

GROUP AO. ADVISER, PROFESSOR WILLIAMS.

Freshman Year.—English 1-2, Latin 1-2, Greek 1-2, Mathematics 1-2. Two or three hours election each semester.

Sophomore Year.—English 9-10; Latin 3-4; Greek 3-4; a modern language. Election, two or three hours each semester.

Junior Year.—English 3-4, 5a-6, 11a; a modern language. Election, sufficient to make a total of sixteen hours each semester.

Senior Year.—English 13 and 15, six hours in the Department of Education and Philosophy. Election, sufficient to make sixteen hours each semester. The year each of History and Science required for the degree should one or both be completed by the end of the Junior year.

B. FOR THE DEGREE OF BACHELOR OF SCIENCE.

Seven groups lead to this degree, designated B1, B2, etc., emphasizing respectively the departments of Botany, Chemistry, Engineering, Geology, Mathematics, Physics and Zoology.

The common requirements of all groups leading to this degree are: English, courses 1-4; Mathematics, courses 1-2 or 1b-2b; Chemistry, courses 1-2 or 1a-2a for those who do not present Chemistry for entrance, courses 3-4 for those who do; Physics, courses 1-2; six credit hours in the department of Education and Philosophy. All candidates for this degree must present at least eight units of French or Spanish, and eight of

German. Students who present two years of French or German for admission to the Freshman class must take at least eight additional units of foreign language work (French, Spanish, German or Latin) before graduation.

Time not provided for by these general requirements, or by the additional requirements of the particular group chosen, is open to free election in conference with the Group Adviser.

GROUP B1. BOTANY. ADVISER, PROFESSOR STICKNEY.

The student in this group, in addition to the common requirements for all groups leading to the degree of Bachelor of Science, must complete 32 semester hours in the departments of Botany and Zoology combined, of which not less than 22 semester hours must be in courses listed under the department of Botany. He must also receive not less than 40 credit points in biological work, 30 of which must be gained in courses in Botany. Of the 124 credit hours required for graduation, the amount not provided for in the preceding group requirement is open to election, in conference with the adviser.

GROUP B2. CHEMISTRY. ADVISER, PROFESSOR BRUMBACK.

Freshman Year.—English 1-2; Mathematics 1-2; Chemistry 1-2 or 1a-2a or 3-4. A modern language, four hours.

Sophomore Year.—Chemistry 5-8, a modern language four hours, Physics 1-2. Four to six hours each semester open to election.

Junior Year.—English 3-4, Chemistry 9-10. Seven to eleven hours open to election each semester.

Senior Year.—Six credit hours in Philosophy or Education. Ten or thirteen hours each semester open to election.

In this group two years each of French and German are urged, also Mathematics 3-4, Geology 1a-2b, or Geography 2, and Zoology 1-2.

GROUP B3. ENGINEERING. ADVISER, PROFESSOR T. S. JOHNSON.

Freshman Year.—English 1-2, Mathematics 1-2, Civil Engineering 1 or 2 and 4, Chemistry 1-2 or 3-4, Physics 1-2.

Sophomore Year.—Physics 3-4, Mathematics 3-4, French or German four hours each semester, Civil Engineering 3 and 12.

Junior Year.—English 3-4, Geology 1a-2b, German or French four hours each semester, Civil Engineering 7 and 13 first semester, 8 the second.

Scnior Year.—Six credit hours in Philosophy or Education, Civil Engineering 9 in the first semester, 10 in the second. Election, six hours each semester.

GROUP B4. GEOLOGY. ADVISER, PROFESSOR CARNEY.

Sub-group 1. Electives may be so arranged as to prepare for a teaching position in Geology and a modern language, or some other combination, or for work on the U. S. Geological Survey. The group comprises:

1. General Requirements, as in all B. S. groups, stated on

page 80.

Group Requirements, Geology 1a-2b, 4b, 5a-6b, 7a-8b;
 eight semester units of Geography, and six units of other science.

 Elective. Courses sufficient in number to make the 124 units required for a degree.

Sub-group 2, arranged for those who wish to major in Geography:

Freshman Year.—Mathematics 1-2, English 1-2, Chemistry 1-2, Geography 1-2, and a modern language throughout the year.

Sophomore Year.—Physics 1-2, History 1-2, Political Science 12, Geography 4-5, and a modern language. Elective, first semester, three hours.

Junior Year.—English 3-4, Geography 6, 7-8. Elective, nine hours, each semester.

Scalar Year.—Six hours in Philosophy, or Education; Geography 9-10. Elective, ten hours each semester.

The student is advised to include among his elections another year of Physics, General Biology, Latin 11-12 (Roman Life), and History 3-4.

GROUP B5. MATHEMATICS. ADVISER, PROFESSOR WILEY.

In addition to the common requirements for all groups leading to the degree of Bachelor of Science, stated on page 85, a

student in this group must complete one course in Mathematics each semester of his four college years. Physics 7 and 8, Astronomy 6, 9 and 10, and Civil Engineering 7 and 8 may be construed as Mathematics in meeting this requirement. Before the close of the Junior year one of the three sequences of courses (1, 2, 3, 4, 5, or 1b, 2b, 3b, 4b, or 1, 2, 3, 3b, 4b), must be completed. The second sequence is urged. The student will elect, in conference with the adviser, additional courses sufficient to make up the 124 units required for the degree.

GROUP BO. PHYSICS. ADVISER, PROFESSOR COONS.

Freshman Year.—English 1-2, Physics 1-2, Mathematics 1-2, or 1b-2b, Chemistry 1-2, or 3-4. Election, two to four hours each semester.

Sophomore Year.—Physics 3-4, Mathematics 3-4. Election, seven hours each semester.

Junior Year.—English 3-4, Physics 5-6. Election, seven to ten hours each semester.

Senior Year.—Philosophy or Education, six credit hours, Physics 7-8. Election, eight hours in each semester. Those desiring special or advanced work along particular lines in Physics may elect courses 15-16, and any who expect to pursue electrical or mechanical engineering are advised to elect courses 9 and 10.

GROUP B7. ADVISER, ACTING PROFESSOR FISH.

The student in this group, in addition to the common requirements for all groups leading to the degree of Bachelor of Science, must complete 32 semester hours in the departments of Zoology and Botany combined, of which not less than 22 semester hours must be in courses listed under the department of Zoology. He must also receive not less than 40 credit points in biological work, 30 of which must have been gained in courses in Zoology. Of the 124 credit hours required for graduation, the amount not provided for in the preceding group requirements is open to election, in conference with the adviser.

C. FOR THE DEGREE OF BACHELOR OF PHILOSOPHY.

The applicant for this degree must select some one foreign language, ancient or modern, and pursue it through two consecutive years (16 semester units), and previous to graduation must elect not less than 8 additional units of foreign language work, in consultation with his Group Adviser. When two or more years of modern language is presented for entrance, this requirement may be reduced at the rate of one college year for two years of the entrance work accepted. Further common requirements of all groups for the degree are: English, courses 1-4, Mathematics 1-2 or 1b-2b, and six credit hours in the department of Education and Philosophy.

Eight groups, designated C1, C2, etc., lead to this degree, emphasizing respectively the departments of Latin, Romance Languages, German, English, History, Mathematics, Theory of

Music, and Education.

GROUP CI. LATIN. ADVISER, PROFESSOR W. H. JOHNSON.

Freshman Year.—English 1-2, Latin 1-2, Mathematics 1-2 or 1b-2b. Election, four to six hours each semester.

Sophomore Year.—Latin 3-4, a Modern Language, History 1-2 or a Science. Free election, three to six hours each semester.

Junior Year.—English 3-4, a Modern Language or a Science; Latin, Logic or History. Free election, sufficient to make sixteen hours each semester.

Senior Year.—Philosophy or Education, six credit hours; Latin, History or Political Science; a Romance Language. Free election, sufficient to make sixteen hours each semester.

GROUP C2. ROMANCE LANGUAGES. ADVISER, PROFESSOR M'KIBBEN.

Freshman Year.—English 1-2, Mathematics 1-2, French, four hours. Elective, four or five hours each semester from departments of Mathematics, Science, or Ancient Languages.

Sophomore Year.—French four hours, German four hours, the remainder of the time to be filled by election from Ancient Languages, Science, Mathematics or History. Junior Year.—First semester, English 3, Spanish 1, Anglo-Saxon, French two hours. Possible election, three to five hours. Second semester, English 4, Spanish 2, Italian 2, French two hours. Possible election, four to six hours.

Senior Year.—Philosophy or Education, six credit hours; Italian 3, French two hours each semester. Election, sufficient to make sixteen hours each semester.

GROUP C3. GERMAN. ADVISER, PROFESSOR CHAMBERLIN.

This group requires 28 credit hours of German (with reduction if German is offered for entrance) and sixteen hours in other foreign language courses.

Freshman Year.—German 1-2, or 3-4 if two units of German are offered for entrance, English 1-2, Mathematics 1-2, ancient or modern language 8 hours. Elective, two or three hours each semester.

Sophomore Year.—German 3-4, other foreign language 8 hours, History 1-2. Elective, five or six hours each semester.

Junior Year.—German 5-6, or 9-10, English 3-4. Elective, nine or ten hours each semester.

Senior Year.—German 7-8, Philosophy or Education six hours. Elective, nine or ten hours each semester.

GROUP C4. ENGLISH. ADVISER, ASSOCIATE PROFESSOR PENCE.

Freshman Year.—English 1-2, Latin 1-2, Mathematics 1-2, French or German. Election, two or three hours.

Sophomore Year.—English 9-10, two Modern Languages. Election, four to eight hours.

Junior Year.—English 3-4, 5a-6, and 11a; a Modern Language. Election, sufficient to make sixteen hours each semester.

Senior Year.—English 13 and 15; a Modern Language; Philosophy or Education, six credit hours. Election, sufficient to make sixteen hours each semester.

GROUP C5. HISTORY AND POLITICAL SCIENCE. ADVISERS, PROFESSOR
GOODELL AND ASSISTANT PROFESSOR KULL.

In addition to the general requirements for all groups leading to the B.Ph. degree, at least thirty hours of History and Political Science will be required for the completion of this group.

Students majoring in Political Science must take History 8 and Political Science 1-2. Those majoring in History must take History 1-2, 7-8, and Political Science 1-2. Students in this group must also take at least twelve credit hours of Science. Professor Goodell will act as adviser to students majoring in Political Science; Assistant Professor Kull to those in History.

GROUP CO. MATHEMATICS. ADVISER, PROFESSOR WILEY.

In addition to the common requirements for all groups leading to the degree of Bachelor of Philosophy, page 84, the student in this group must complete one course in Mathematics each semester of his four college years. Physics 7 and 8, Astronomy 6, 9 and 10, and Civil Engineering 7 and 8 will be construed as Mathematics in meeting this requirement. Before the close of the Junior year, one of the three sequences of couses (1, 2, 3, 4, 5, or 1b, 2b, 3b, 4b, or 1, 2, 3, 3b, 4b) must be completed. The second sequence is urged. The student will elect, in conference with the adviser, additional courses sufficient to make up the 124 units required for the degree.

GROUP C7. THEORY OF MUSIC. ADVISER, ASSISTANT PROFESSOR ESCHMAN.

In addition to the general requirements for the degree, the following courses are required for this group:

Freshman Year .- Music 1-2.

Sophomore Year .- Music 7-8, History 1-2.

Junior Year .- Music 9-10.

Senior Year.- Music 13-14.

Music 5-6, 11-12, 17, and Italian 2-3 are also required, but

not in any specific year.

A certain minimum of musical technique is requisite in the theoretical courses in advance of Music 2, and a student with no practical knowledge of music may be required to pursue the study of the pianoforte not less than two semesters. The course in Sight Reading and Ear Training is also required of Freshmen in this group. The completion of the foregoing group does not entitle the student to the regular Conservatory Diploma, the requirements for which are stated elsewhere.

GROUP CS. EDUCATION. ADVISER, PROFESSOR LEWIS.

In addition to the common requirements of all groups leading to the degree of Bachelor of Philosophy, this group includes the courses offered in Education and such courses in other subjects as are accepted by the Ohio state school authorities in fulfillment of the requirements of the new school code. Of the 124 credit hours required for graduation, the amount not thus provided for is open to election, in conference with the adviser.

Shepardson College

HISTORICAL STATEMENT.

For several years prior to 1900, under joint agreement of the authorities of the two colleges, the facilities of Denison University, including instruction, were largely accessible to the students of Shepardson College. The practical working of this arrangement gradually pointed the way to a still closer union. making it possible to offer to both daughters and sons of the patrons of the two schools an education in all respects equal, and receiving equal recognition upon completion.

In June, 1900, following these indications of practical experience, such a union was effected. The courses of Denison University, its class rooms, its material equipment and its degrees, were opened to the students of Shepardson College on exactly the same terms as to young men. While Shepardson College thus became a department of the University, co-ordinate in all scholastic matters with Granville College, it still retains its legal identity.

As the Boards of Trustees, Officers of Instruction and Government, and the courses of instruction are now the same for Granville College and Shepardson College they are not here repeated. A detailed statement of studies offered in the various departments of instruction, with conspectus of courses leading to the several degrees, will be found on pages 37-87.

ROOMS AND BOARD.

Non-resident students board and room in the College. order to secure a room in advance, a retaining fee of five dollars must be deposited by each student with the Treasurer of the College. No room is regarded as engaged until this fee is in the Treasurer's hands. This sum will be applied on the bills of the first semester, unless the student fails to take the room, in which case it is forfeited. Engagement of rooms in advance is understood to be for the year, unless otherwise stipulated.

Students must take not less than thirteen hours a week of college credit work in order to room in the dormitories.

Students who cannot be accommodated in the dormitories at the beginning of the fall term, live in the village in rooms recommended by the college authorities, and are under college regulations and supervision. Their names are entered upon a waiting list according to the date of their application, and they are expected to move into dormitory rooms as fast as vacancies occur. They have the privilege of boarding in the college dining-hall while they are on the waiting list.

Rooms engaged by students of the preceding year will not be held later than July 1, unless the retaining fee has been paid.

Freshmen are expected to vacate their rooms before Commencement week.

ADMISSION.

Shepardson College does not maintain a preparatory department, and grants admission only to students of college grade. The requirements for entrance to the Freshman year are identical with those of Granville College, a full statement of which will be found on pages 31-33.

DISCIPLINE.

Only such regulations are imposed as are necessary to maintain conditions of life favorable to the college work. It is the endeavor of the college to develop self-knowledge and self-control. The Student Government Association co-operates with the Dean in maintaining a government that is educational rather than restrictive.

EXPENSES.

All necessary information concerning expenses in Shepardson College will be found in detail on pages 120-124.

MORAL AND INTELLECTUAL INFLUENCES.

Without placing any restraint upon the denominational preferences of its pupils, the College aims to surround them with salutary Christian influences. Attendance on the daily Chapel exercises is required, but no restriction is placed upon the pupil's choice of a regular place of worship on Sundays. Students and teachers unite in the Young Women's Christian Association, and in classes organized for systematic Bible study.

There are three literary societies for students in Shepardson College, the Euterpean, Philomathean, and Thalian.

The Marsh Memorial Library in King Hall, established by Dr. and Mrs. Shepardson in memory of their daughter, Mrs. Lide Shepardson-Marsh, contains a valuable collection of books for Bible and missionary study; also dictionaries, encyclopedias, and other helps for general study. This library is constantly being increased by gifts from the family and friends of Mrs. Marsh.

The Reading Rooms in Burton Hall and Stone Hall are supplied with current literature, and in addition to the University Library a special Reference Library is maintained on the Shepardson College grounds, for the convenience of its students and teachers.

PHYSICAL TRAINING.

MISS BRADSTREET.

The physical training for young women is under the personal instruction of the physical director and consists of graded class work in gymnastics for two and one-half years. This work is required for graduation except for those who are excused from gymnastics by a physician. A special physical training class is offered for those who are intending to do advanced work in this line. Instruction in swimming, tennis, basket ball, and archery is free to all. A physical examination is given to every woman who enters the college by the director before she can begin the gymnasium work, and if necessary corrective exercises are prescribed to meet her special needs. The aim throughout is to meet the individual physical needs of the students.

Students not candidates for a degree are required to take gymnasium work unless specially excused by the Dean.

SCHOLARSHIPS.

A number of scholarships are available for the use of students in case of necessity, provided they maintain an honorable standing in classes.

It is understood that pupils holding scholarships, if called upon, will render some service to the college. Such service, however, will in no way conflict with the pursuance of regular duties.

Doane Academy

FACULTY.

H. RHODES HUNDLEY, A. M., Sc.D., Dean, History, German,

BUNYAN SPENCER, A.M., Greek.

August Odebrecht, A.M., French.

HENRY H. TILBE, A.B., Ph.D., Latin.

LILY BELL SEFTON, B.S., Chemistry.

CHARLES W. HENDERSON, B.S., Physics.

RUTH ORCUTT, M.S., Physiology, Botany.

Francis F. Patrick, Ph.B., English.

HAROLD W. EMSWILER, Mathematics.

BUNYAN SPENCER, A.M., Registrar, August Odebrecht, A.M., Secretary.

HISTORY OF DOANE ACADEMY.

This school was organized in 1831, as a preparatory department of the Granville Literary and Theological Institution. As the latter developed first into Granville College and later into Denison University, the preparatory department remained a fundamental part of the institution. In 1887 it was organized as a separate school, with increased efficiency, under the name of

Granville Academy. In 1894, Dr. William Howard Doane, of Cincinnati, presented the school with a beautiful and commodious building, and in recognition of this gift the Board of Trustees in 1895 changed the name to "Doane Academy."

AIM.

It is the special aim of the Academy to bestow the best quality of instruction preparatory to College. In addition to the preparatory work, however, the curriculum has been so arranged as to furnish to those not intending to pursue a course in College a first-class Academic education.

ADVANTAGES OF LOCATION.

The school is located in Granville, Licking County, Ohio, a village noted for beauty of surrounding scenery, healthfulness of climate, and intelligence and high moral character in its citizens. The quiet of the place is highly conducive to earnest study. The absence of saloons and all places for gambling and vice makes Granville an ideal place for young people. The social atmosphere is pure and elevating and offers to young men an opportunity for the cultivation of those graces which will enable them to appear well in good society.

CONNECTION WITH DENISON UNIVERSITY.

The Academy enjoys peculiar advantages by reason of connection with Denison University. The general comforts and conveniences of a plant more extensive and costly than a preparatory school might afford, are open without discrimination to students of the Academy. The Library of the University, the privilege of Cleveland Hall, and the equipment of the Scientific Departments are examples of these exceptional advantages. Besides these, the intellectual stimulus of association with the Faculty and the mature students of the College; unusual social privileges; opportunities in the way of lectures and entertainments; the courses of the Conservatory of Music and of the Art Department, are further illustrations of the advantage that accrues to the Academy through union with the greater institution.

ROOMS FOR STUDENTS.

Within certain limitations, the rooms in the college dormitories are available for Academy students.

The rooms are arranged in suites, each suite consisting of a study 12 by 15 feet, a bed-room 8 by 11 feet, and two small closets. Each suite is designed for two students.

The rooms have been recently refitted and provided with all necessary furniture. They are lighted with electric light and heated with hot water radiators, connected with the central heating and lighting plant. There are lavatories with hot and cold water, shower baths, etc., on every floor.

If any student prefers to room elsewhere, or if at any time he finds all the rooms in the dormitories assigned to others, he can always obtain pleasant rooms in the village, either furnished or unfurnished, at moderate cost.

GIRLS IN THE ACADEMY.

Since the discontinuance of Shepardson Preparatory, the girls have been admitted to Doane Academy; Dormitory accommodation for this purpose is limited, however, and parents interested should make inquiry a reasonable time in advance.

Courses of Study

There are three regular courses of study, the Classical, the Scientific, and the Philosophical, each extending through four years and leading to corresponding courses in the College. The holder of a diploma from the Academy is admitted to the Freshman Class of Granville College without examination on the payment of a matriculation fee.

Although these courses have been arranged with special reference to the curricula of the University, they will be found quite sufficient to prepare for entrance into any American college. An examination of the detailed scheme of these courses, found on following pages, will show that outside the required work suf-



ficient electives are offered to insure conformity to individual needs.

ELECTIVE STUDIES.

When the reason seems to be sufficient, students are allowed to make a judicious choice of elective studies, but this choice is never permitted to interfere with the work of the regular classes

Outline of Work

ENGLISH.

The aim of the work in this department is to insure a thorough knowledge of English Grammar; give careful grounding in the fundamental principles of Composition and Rhetoric, supplemented by extensive practice in writing; meet the "College Entrance Requirements" in English Classics; and take an outline survey of English literature.

MATHEMATICS.

The work in Mathematics covers three years, five hours a week, divided equally between Algebra and Geometry. Algebra is given in the first year, five hours a week and extends through Quadratics. Algebra II is given five hours a week throughout the second semester of the fourth year, and in addition to a thorough review, carries the subject through the progressions. An entire year is devoted to Plane Geometry, giving time for extensive work in original exercises. One semester is given to Solid Geometry.

HISTORY.

A course in General History is offered in the first year. English History is given three hours a week throughout the second year, and Mediaeval and Modern History three hours a week throughout the Junior year.

LATIN.

The first year in this subject is devoted to a thorough mastery of the forms and underlying principles of the syntax of the language. In the second, four books of Cæsar or the equivalent are read, and a text-book course in prose composition is given. In the third year, Cicero's orations against Catiline and his Manilian Law, Archias and Marcellus are read, accompanied by a continuation of the course in prose composition. Six books of Virgil's Æneid are read in the fourth year, supplemented by Ovid and courses in Mythology and prose composition.

GREEK.

The regular course in this subject includes two years, five hours a week, covering the ordinary first year of Greek, the usual amount of the Anabasis, and prose composition. For those preparing for colleges requiring more Greek for entrance, provision is made for taking the additional amount in connection with the Freshman Class in Granville College.

For the benefit of those who enter the advanced courses in the Academy or who enter the Freshman Class in the College desiring to take the Classical Course but lacking Greek, a socalled "Doublers" class is organized which completes two years in one. Only students of tried ability and earnestness are allowed in this class, and a decline of grade below 80 per cent immediately debats the delinquent from the class.

MODERN LANGUAGES.

Two years of French and two of German constitute the work of this department. French or German may be substituted for Latin in the last two years of the Scientific Course, and a similar substitution of French, German, or Greek will hereafter be allowed in the last year of the Philosophical Course; and while no work in this department is required, at present, in the Classical Course, it is hoped that no student will complete that course without at least one year of either French or German.



SCIENCE.

Four full years of Science are offered. Each course requires the conventional proportion of laboratory work. In the first semester of the second year, Physiology is given, and in the second semester, Botany. Laboratory and note-book work is required in both these courses. In the third year, strong courses in Chemistry and Physical Geography are given. Both consist of text-book, lecture and laboratory work. In Physical Geography, field work is also required. In the Senior year, the subject of Physics is given, with regular weekly laboratory work throughout the year.

All the science work is done under the direct supervision of the heads of the respective departments in Granville College, and this fact, together with the exceptional equipment afforded by the connection of the Academy with Denison University, guarantees superior advantages in our Science Department.

Admission of Students

Although students are admitted at any time, they enter to the best advantage at the beginning of the school year. Those who desire to enter after the school year has begun should, by correspondence with the Dean, ascertain before-hand, as nearly as possible, the progress that has been made by the class which they propose to enter.

The requirements for admission to the First Year Class are the usual eight grades of public school work, or the equivalent; and to advanced standing, the studies previously pursued by the class which the applicant desires to enter.

No student will be admitted who is not fitted to do well the work of the first year.

An applicant not personally known to some member of the Faculty must furnish testimonials of good character, and, if from another institution, he must present a certificate of honorable dismission.

COURSE OF INSTRUCTION BY YEARS.

The following scheme of the studies of each course by years exhibits the work required for graduation in each together with the electives offered. In most cases four years will be absolutely necessary to complete the work required for graduation, but exceptionally earnest, mature and capable students may in four years complete all the Academy work and more or less of the Freshman year in College. The work of the Academy is so articulated with that of the College as to make this plan feasible, and in this way it may be possible frequently to shorten the combined work of the Academy and College courses by at least a year.



	CLASSICAL Hours Per Week	SCIENTIFIC Hours Per Week	PHILOSOPHICAL Per Week
FIRST YEAR	Latin I (1st Book)	Latin I. 5 Algebra I. 5 History I. 5 English I. 4	Latin I
SECOND YEAR	Latin II (2d Latin Book) Cæsar and prose composition	Latin II	Latin II Science I, or French I, or Ger. I English II History II
THIRD	Latin III (7 of Cicero's Orations and Prose Composition)	Latin III or French I or Ger. I 5	Two of Latin III or Greek I, or French or German or Science II. Plane Geometry. English III. (History III, Med. and Mod.)
FOURTH YEAR	Latin IV (Virgil and Prose Comp.) 5 Greek II (Anabasis and Prose Composition) 5 Chemistry or Physical Geography, or Physics, or Algebra II, 1st semester; and Solid Geometry, \$2 5 English IV (Literature) 4		Two of Latin IV, or French I or II! Or Greek II, or German I or II! Chem. or Phys. Geog., or Physics, or Algebra II, 1st Semester, and Solid Geometry 2d English IV

Class Work

REGULARITY AND PUNCTUALITY.

Every student, unless excused for special reasons, is expected to attend at least three recitations each school day. His attendance on these and on the special or public exercises of the class or of the Academy must be punctual.

Parents are especially urged to encourage students to be present at the opening of the session, and to remain at their work till its close. Absence from the duties of the school whether occasioned by absence from town or by the entertainment of friends, is subversive of the highest good of the student. His pleasure, or that of his friends, should never be permitted to interfere with his daily duties.

RECITATION PERIODS AND UNITS OF CREDIT.

The recitation periods are one hour in length, and a unit of credit is made by five hours of recitation a week throughout a year. Fractions of units are determined upon this basis.

It will be seen from the "Course of Studies by Years," exhibited on page 101, that fifteen units are required for graduation, but a student desiring to do so may increase this number of units to a considerable extent. This opportunity affords a special advantage to those who need to adjust their preparatory work to the entrance requirements of other colleges; while those who expect to enter Denison may, in general, secure 50 per cent college credit for all such additional work.

EXAMINATIONS.

Examinations are held at the close of each semester, and at intervals during the semester, at the discretion of the instructor. If a student's grade for a given semester in a given class falls below seven-tenths of the maximum, he forfeits his right to continue as a member of the class. In determining his grade, his examination mark has half the power of the average of his term marks. Regularity in work, good conduct, spelling and diction are considered as elements in making up the student's standing.



REPORTS.

At the close of each semester of study the Secretary of the Faculty mails to the parents or guardian of each student in the Academy a report of the standing attained by such student in each study pursued during the semester, together with a record of his absences and deportment.

Reports concerning individual students will also be furnished by the Dean at any time upon the request of the parent or guardian.

ALPHA DELTA TAU AND KAPPA ZETA.

In the Spring of 1910 Doane Academy was honored by being granted the Theta Chapter of Alpha Delta Tau, the honorary fraternity for preparatory schools corresponding to Phi Beta Kappa in colleges. From the upper fifth of each graduating class a certain number are elected to the society each year, and the distinction which such an election confers provides an important stimulus to excellence in scholarship, as well as an appropriate reward for such excellence.

Through the generosity of an alumnus of Denison, two scholarship prizes have been offered. These prizes consist of Alpha Delta Tau badges, emblems of the Honorary Society, to which the valedictorian and salutatorian, the two graduates who are highest in scholarship, are elected each year.

The Kappa Zeta honorary society for girls also has a chapter here and the Kappa Zeta key is given each year to the girl graduating from Doane Academy with highest rank in scholarship.

IRVING-CICERO LITERARY PRIZE CONTEST.

For several years a spirited and friendly rivalry has existed between the two literary societies of the Academy. As a result of this the societies held for several years a public coutest with no reward in view except that of the honor of being victor.

To stimulate the desire for honor and to encourage faithful work in societies, the Faculty of the University adopted the following resolutions: That the contest be held between the holiday recess and the close of the first semester of each year.

2 That the winners of the contest in Declamation and Essay be granted each a scholarship for the first semester of the next

school year.

3 That the winners of the contest in Oration and Debate be granted each a scholarship for the two successive semesters following that in which the contest is held.

SHERWIN PRIZES.

H. A. Sherwin, Esq., of Cleveland, has established in the Academy a first and second prize of \$50 and \$25, respectively. These prizes are unique in their terms. The conditions of award are changed every year, and are announced only at the close of the year. Excellence in general scholarship with personal merit, excellence in Greek, excellence in Latin, and acquaintance with matters of current interest have been made the basis of award in the different years since the prizes were established.

THE EWART BIBLE ESSAY PRIZES.

The Rev. George C. Ewart offers three prizes for essays on Bible subjects, of \$15, \$10, and \$5, to members of the Junior and Senior classes in the Academy, to be known as the Ewart Bible Essay Prizes.

ATHLETICS.

Besides holding membership in the general athletic association of the University entitling them to all the privileges of that organization, the students of the Academy have their own athletic association and maintain their own teams in the various branches of sport. Their athletics are supervised by a board of athletic control and a graduate manager. Contests in football, basket ball, and baseball are held with the more important high schools in this section of the State.

Graduation Appointments

THE HONOR MEN.

The member of the graduating class whose average standing in the studies of the Junior Year and the first semester of the Senior Year is highest, is the last speaker on the programme of Graduation Day, and is called the Valedictorian. To the member of the class whose rank is next highest, is given first place on the programme with the title of Salutatorian. No student who has not recited with the classes of the Academy in at least eight full studies during these three semesters can receive either of these appointments.

OTHER SPEAKERS.

Every student who is eligible to the Diploma of the Academy writes an oration, and, having signed it with a fictitious name, hands it to the Dean of the Academy before April 15. The orations thus prepared are read to a committee whose members are ignorant of the authorship of the production, and those four that are considered best are selected as the orations to be presented at the graduating exercises of the Academy.

Miscellaneous

GOVERNMENT.

It is the desire to establish and maintain a relation of confidence between teacher and pupil, and to stimulate those sentiments which mature into Christian manhood. Students are encouraged in self-government, and to this end the greatest possible freedom is accorded them; but they are continually taught the difference between liberty and license, and the duty of practicing that self-denial which is necessary to the highest good both of themselves and their fellows. While it is the aim of this school to do all the good possible to every student, it is in

no sense a reform school, and no student whose influence is found to be injurious will be suffered to remain.

MORAL AND RELIGIOUS INFLUENCES.

The whole life and administration of the school, without being sectarian, are pronounced and positive in favor of the Christian religion. The exercises of each day include Scripture reading and prayer in the Chapel. This service the students are required to attend. They are also expected to attend Church twice each Sunday. Two regular weekly prayer meetings are sustained by the students. Members of the Academy are made welcome in the various Sunday Schools of the village. In the Baptist Sunday School, several classes, taught by College and Academy Instructors, are intended expressly for students

VOLUNTARY SOCIETIES.

There are three literary societies connected with the Academy and conducted by the students,—the Ciceronian and the Irving for young men, the Adelphian for young women. Each society has its own hall, which is neatly and tastefully furnished, and in which it holds its weekly meetings.

The students of the Academy are also admitted to membership in the Denison University branch of the College Y. M. C. A., in the Scientific Association and in the Athletic Association

of Denison University.

PUBLIC EXERCISES.

During the year the Literary Societies each hold three special public meetings—an "Extra," at about the time of the Thanksgiving recess, an "Annual" during the Winter, and a "Commencement" toward the close of the year. The graduating exercises of the Academy are held during the Commencement week of Denison University. Members of the class completing the work of the Academy participate in the programme. The diploma of the Academy is given to each student who completes in a satisfactory manner any of the regular courses of study.

DISMISSION.

No student who leaves the school before the close of a semester will be considered as having honorably severed his connection with the Academy unless he has been duly dismissed by the Dean.

Any further information may be obtained by communicating with the Dean of the Academy.

EXPENSES.

The following is a summary of the principal necessary penses during the Academic year:	ex-
Tuition, \$22.50 each semester	45.00
Room rent, including furnishing, lighting, heating and care, \$17.50	
to \$25.00, according to location\$35.00 to	50.00
Incidentals, including Gymnasium, Athletic, and Library fees, \$22.50	
	45,00
Books	12.00
	90.00
	12.00
Incidentals	10.00

Total\$249.00 to \$264.00

The Laboratory fee for students in *Physics, Physiology* and *Botany* is \$2.00 per semester; for *Chemistry*, \$3.00, and for *Physical Geography*, \$1.00.

The fee for Diploma at Graduation is two dollars.

Fee for late registration, \$1.00 after the second day.

Board in Clubs costs from \$2.35 to \$2.75 per week; in families, \$3.00 to \$4.50. When board costs over \$2.35 per week, the excess must be added to the estimate given above.

Rooms in the village are to be had at prices ranging from 50 cents per week up. The really necessary expenses, exclusive of clothes and traveling, are about \$250 per year.

SCHOLARSHIPS.

By a vote of the Board of Trustees, the President of Denison University may remit the tuition of a limited number of

students in cases of necessity. A few scholarships surrendered by the original purchasers, are under the control of the Faculty, and are assigned by them at the beginning of each year.

HONORS AND PRIZES FOR 1915.

Class Honors.

BOYS.

First Honor-J. Oscar White. Second Honor-F. Morris Cochran.

GIRLS.

First Honor-Florence Odebrecht.

Alpha Delta Tau Scholarship Badge—J. Oscar White. Kappa Zeta Scholarship Key—Florence Odebrecht.

Alpha Delta Tau Membership-

J. O. White.

F. M. Cochran.

J. W. Hundley.

Kappa Zeta Membership— Florence Odebrecht. Anna Mae Beers.

Competitive Oration— Elmer D. Closman,

Sherwin Prizes, based on "Application of Golden Rule as a Principle of Conduct":

First Prize—Harold Phillips. Second Prize—Erasmus Davis.

Cicero-Irving Contest:

Debate—H. C. Phillips.

Oration—Stuart Collet.

Essay—F. S. Barrett.

Declamation—I. S. McGruer.

SCHEDULE OF RECITATIONS

		7:30-8:30	8:30-9:80	9:30-10:80	10:30-11:30	1:30-2:30	2:30-3:80		
FIRST YEAR.		Latin I. 5	Algebra I. 5	History I. 5		(Latin I. 5)	English I. 4		
SECOND	YEAR.	History II. 3	Latin II. 5	(German I)	English II. 4	(Laboratory 2)	Physiology 5 1st sem. Botany 5 2nd sem.		
THIRD YEAR.	CLASSICAL	Geometry 5	Greek I. 5		Latin III. 5 (Hist. III. 3)	English III. 3 M., W., & F.			
	THIRD YEAR.	SCIENTIFIC	Geometry 5	(French I)	(German I)	(Latin III. 5) (Hist. III. 3)	(German I) English III. 3 (Laboratory 2) (French I)	Physical Geography 5 Chemistry 5	
	PHILOSOPHICAL	Geometry 5	(French I)		(Latin III. 5) (Hist. III. 3)	English III. 3 (Laboratory 2)	Phys. Geog. 5 (Chemistry)		
FOURTH YEAR.	CLASSICAL	(Laboratory 2)	English IV. 4 (Physics 1st sem. 21/2)	Doublers' Greek 5 (Greek III)	Greek II.	Algebra II. 5 1st sem. 5 Solid Geom. 2d sem.	Latin IV. 5		
	Scientific	(Laboratory 2)	English IV. 4 Physics 5 Lab. Tu. & Th. Rec. M., W., F.	(German II. 5)		(French II) Algebra II. 5 1st sem. Solid Geom. 5 2nd sem.	(Latin IV. 5		
	PHILOSOPHICAL	(Laboratory 2)	English IV. 4 (Physics 1st sem. 21/2)	(D's Greek 5) (Greek III. 4) German II. 5		Algebra II. 1st sem. 5 and Solid Geom. 5 2nd sem.	(Latin IV. 5		

The Conservatory of Music

Music in some form has always been taught in the educational institutions of Granville. For many years the work was of a semi-private character, but growing larger and more important, was taken under the management of Shepardson College for women. The rapid progress of the work led in 1894 to the organization of a Conservatory, the acquisition of a suitable building for teaching and practicing, and the building of Recital Hall adjoining. In 1900, the College and University were united, and the Conservatory of Music became a co-ordinate part of Denison University.

Denison University grants college credit for work in the theoretical courses of the Conservatory, on an equal footing with other elective studies, and under the group system there is one group, leading to the degree of B.Ph., with the Theory of Music as its major subject. Thus students working for the diploma of the Conservatory may at the same time apply the theoretical part of their course toward a Bachelor's degree from the University. It has been the aim of the Conservatory steadily to strengthen its courses and broaden the requirements for graduation, so as to maintain a standard as high as that of any other school in the state in the same lines of work. Information not contained in the following pages may be obtained by addressing Karl H. Eschman, A.M., Director, Granville, Ohio.

FACULTY.

KARL H. ESCHMAN, A.M., DIRECTOR AND ASSISTANT PROFESSOR OF MUSIC.

Theory and History of Music.

Graduate of the Denison Conservatory in Piano and Organ. Graduate student, 1911-1912, under Professor Walter R. Spalding and Edward Burlingame Hill, Harvard University. Studied Composition under Hugo Kaun and Piano under Victor Heinze in Berlin, 1912-1913.

FANNIE JUDSON FARRAR, Head of Piano Department.

Pupil in Piano of J. Emil Ecker, Toledo, Ohio; Constantin Sternberg, Philadelphia; Bertrand Roth, Dresden; Tobias Matthay, F.R.A.M., and Claude F. Pollard, A.R.A.M., London. Student in Vienna in 1894. Pupil in Musical Kindergarten of Mrs. Fannie Church Parsons, Chicago.

GRACE JEANNETTE BROOKS, Head of Voice Department.

Pupil of Dr. Wm. Hennings, Cleveland; for three years, pupil of Prof. August Iffert in charge of Higher Vocal Department, Royal Conservatory, Vienna, Soloist in New York Presbyterian Church, New York City.

LEILA C. BROWN, Organ and Piano.

Graduate of New England Conservatory of Music, 1907. Post Graduate 1909. For two years, teacher in Normal Department of New England Conservatory. Two and a half years' course at Peabody Institute, Baltimore, Md. Pupil of Ernest Hutchison of Berlin, Germany; F. Addison Porter, Boston; and Harold Phillips, Baltimore.

HENRY PRESTON, A.M.,

Voice.

A.B., Western Reserve; A.M., Harvard. Pupil in Voice of Prof. Arthur, Cleveland; Max Heinrich, and Emma Read, Boston, and Harry Brown Turpin. Public School Music Methods at O. S. U.

GAYLE INGRAHAM SMITH,

Violin.

Pupil of A. P. Bunker of the New England Conservatory of Music, and Luigi von Kunitz, former Concert-meister of the Pittsburg Symphony Orchestra. Artist graduate of the Cincinnati Conservatory under Signor Piero Adolpho Tirindelli, violin, and Edgar Stillman Kelly, Theory.

CLARENCE D. COONS, M.S., The Physical Basis of Music. Professor of Physics in Denison University.

Departments of Instruction

A THEORY AND HISTORY.

In the Theoretical classes the object is not so much to develop the latent powers of possible composers, although this is provided for, as to educate all in the intelligent appreciation and enjoyment of music. To this end, besides the strictly technical courses more general ones are offered, as in History and in Appreciation, requiring no previous musical training. Emphasis is laid on technical study and original work, as the best preparation for study of the works of the masters.

In the technical classes the laboratory method mainly is pursued. The students work out exercises on the board, subject to criticism and discussion by the instructor and the class, while original expression of musical ideas is constantly sought for.

College credit may be obtained for any of the numbered courses. Those who intend to complete the Theoretical course are advised to take courses 2, 7-8, 9-10, and 13-14 in consecutive years. See also the schedule of Group C7 on page 89. The following courses in this department, except 17, are taught by Assistant Professor Eschman.

1. The Approxiation of Music.

A non-technical course, open to all students of the University. The object is to point out the structural principles of musical art and to show what constitutes real merit in any field of lateral reading, and critical reports of current recitals. Two

musical activity. The work embraces lectures and analyses, collateral reading and critical reports of current recitals. Two hours, first semester, Monday and Wednesday, 2:30 P. M.

2. Elementary Theory.

This course or its equivalent is prerequisite to all higher courses. It embraces a summary of the elements of music, a detailed study of the modern system of musical notation, the analysis of rhythms, practice in scale writing, transposition and the use of all the clefs, with the notation peculiar to various instruments. The work concludes with an elementary study of intervals and triads, preparatory to the course in Harmony. Two hours, second semester, as in course 1.

5-6. History of Music.

A literary course, requiring no special musical training. The work consists largely of assigned reading, with written reports, tests and theses. Far-reaching causes and effects are studied, with the inter-relation of different periods in the evolution of the art. A collection of primitive instruments serves to illustrate the early stages of music, and typical music of the successive periods is rendered in class so far as possible. Three credits, both semesters, Tuesday, Thursday and Friday, 1:30 p. m.

7-8. Harmony.

Review of intervals and triads; dominant and secondary chords; suspensions; augmented and altered chords; modulations; organ-point; the harmonization of given melodies in bass or soprano, mostly in four parts, and the composition of simple original pieces. Demonstration at the key-board is demanded of the pupil as far as practicable. Solfeggio and elementary theory are prerequisite, with knowledge of the pianoforte sufficient at least to play an ordinary hymn-tune at sight. Three credits, both semesters, Monday, Tuesday and Thursday, 10:30 A. M.

9-10. Counterpoint.

The principles of harmony applied to the melodious treatment of two or more voice parts in combination. Free harmonization of choral melodies; two, three and four part counterpoint in the several orders; contrapuntal and imitative treatment of subjects in different voices for organ or strings. Courses 7-8 are prerequisite and some proficiency in piano playing is required. Three credits, both semesters, Monday, Tuesday and Thursday, 9:30 A. M.

11-12. Musical Form.

Study of thematic construction and elements of composition, through analyses of the principal instrumental forms, as illustrated in the works of classic and modern composers. The ultimate aim is an intelligent appreciation of music and a wide acquaintance with the best of it, as well as insight into the technique of composition. Practice is given in construction of the smaller musical forms, such as hymn-tunes, and the dance forms of the classic suite. Courses 7-8 must ordinarily precede this work, but by special permission may be taken in the same year. Two credits, Wednesday and Friday, 9:30 A. M.

13-14. Strict Composition.

Analysis and composition of the advanced forms of polyphonic music. This is a necessary preparation for the larger and freer forms of composition. Courses 7-10 are prerequisite, with some proficiency in pianoforte or organ playing. Two credits, both semesters, Monday and Wednesday, 1:30 p. m.

15-16. Free Composition.

First semester, original vocal settings of selected texts; analysis of standard choral works and songs; composition of short pieces for men's or women's voices, and for mixed chorus, unaccompanied. Later, types of accompaniment figures are studied and settings made with piano or other accompaniment. Second semester, analysis and composition of vocal and instrumental music in the larger forms, with writing for orchestral instruments; practice in reading from vocal and orchestral scores. Prerequisite, courses 9-14. Two credits, both semesters, Wednesday and Friday, 10:30 A. M.

17. The Physical Basis of Music. Professor Coons.

The fundamental laws of acoustics, governing the production and character of musical tones, are demonstrated by apparatus from the Physics department of the University. A lecture course, without prerequisites in music or science. Two credits, first semester, Monday and Wednesday, 2:30 p. m.

B. COURSE IN PIANO.

It is difficult to specify a set course adapted to the needs of all pupils, so it has seemed best to suit the work to individual requirements.

Great care is taken that the foundation work be thorough, the understanding of the action of the instrument coming first, then tone production through the natural laws that govern it, followed by technical facility and velocity.

A good technique is essential to satisfactory piano playing, but as a means to an end, not an end in itself. The effort is always toward artistic interpretation, which is impossible without an adequate technique.

The course includes the music of both Classic and Romantic composers, and to this is added the principles of expression, which, in connection with a good tone production, constitutes the secret of playing with expression, so far as this can be taught.

Recognizing the study of the piano and its literature as an effective and important instrument of mental development and cultivation, the department makes every effort to teach the subject not merely from the professional point of view, but from the cultural as well.

C. COURSE IN VOICE.

The object of this course is the correct placing of the voice, so that the tones are even and firm throughout the entire range. Stress is laid on control of the breath, rhythm, and phrasing, together with enunciation and stage presence. The exercises and songs used are selected according to the requirements of the individual for continuous development in technical power and interpretation. Use is made of the classic song literature of all schools, especially the German, and from our own American song writers. Advanced pupils study Schumann, Schubert, Franz, Brahms, Beethoven, and arias from the standard oratorios and

operas. Candidates for graduation must have at least two semesters of serious piano study, and at least two semesters' training in the Chorus.

D. COURSE IN ORGAN.

A certain facility at the piano and in sight-reading is necessary and this must be proved to the satisfaction of the instructor, who may prescribe such additional work as may seem advisable in preparation. A good organ touch, comprising legato and staccato playing, steadiness and smoothness of style, are the objective aims.

Rink's Organ School, Buck's Studies in Phrasing and Bach's Little Preludes and Fugues compose the ground work of study. This is followed by sonatas by Mendelssohn, Merkel, Guilmant, selections by Widor, Dubois, Boellman, Lemare, Best, Hollins, Buck and Parker. Special attention is given to hymn playing, accompanying and registration to meet the practical needs of church work.

E. COURSE IN VIOLIN.

Good tone production and clear intonation receive a large share of attention, followed by studies and special exercises to meet the needs of the individual. As the student becomes more proficient, pieces, sonatas, and concertos by classic and modern masters will be studied.

It is the purpose to work not only for technical proficiency, but also for the higher and broader plane of artistic conception and interpretation. At least two semesters of piano study are

required of candidates for graduation.

Students are encouraged in ensemble playing, and those sufficiently advanced are admitted to the University Orchestra. The experience thus gained is not the least valuable part of the training, and is required of candidates for graduation.

F. ENSEMBLE CLASSES.

(a) Solfeggio.

One hour per week, both semesters. This work, or a satisfactory equivalent, is required of candidates for graduation in any department of the Conservatory.

The course is provided to meet the needs of all who are in any degree deficient in the fundamental principles of music, such as rhythm, intervals, scales, etc., or who are unable to read vocal or instrumental music readily at sight. It includes both eartraining and sight-singing. The pupils are trained to write, in correct notation, musical phrases which are played or sung to them, beginning with the simplest phrase in the major mode, and progressing until difficult melodies in either major or minor can be notated with facility. The sight-singing course begins with the simplest intervals and rhythms, progressing by easy stages until it includes the most difficult passages to be found in modern vocal music.

(b) Public School Music.

One hour per week, both semesters, or two hours per week, one semester. Time to be arranged.

The aim is to give an equipment for successful work in teaching public school music. A knowledge of the fundamental facts to be taught is presupposed. The effort is to develop clearly and thoroughly the principles of pedagogy and psychology that apply to such teaching, and to show by actual demonstration the manner in which to apply these general principles to the special problems of the several grades. The work of the course is based upon the Normal Music Course and the Modern Music Series used so successfully in the Boston and Brookline schools.

(c) Normal Class.-MISS FARRAR.

This course is offered at the request of piano students, but includes nothing not of advantage to any music student who intends to teach, since the study of the piano is the foundation for the teacher of any branch of music.

The course presents the best methods of teaching notation, rhythm, and elementary theory, as well as the relation of psychology to music, the principles of expression for interpretation, applicable to the rendition of all music, and the principles of tone-production on the piano.

The class meets one hour a week both semesters. One semester of Theory or Solfeggio is required for entrance.

(d) Piano Classes .- MISS FARRAR.

Ensemble classes are maintained in piano, both duet and quartette work being done. The classes are free, and this work is required of all pupils sufficiently advanced.

(e) String Classes.-Miss Smith.

As far as material offers practice is held in trio and quartette work, with performances in public on suitable occasions. Advanced pupils are coached in ensemble with piano.

(f) Organ Methods.-Miss Brown.

Instruction in concert and church methods for advanced pupils in the Organ Department. The playing of hymns at sight, transposition, modulation, accompaniment, church services, and improvisation.

MUSICAL ORGANIZATIONS.

(a) The Engineerson Choral Society. - Mr. Eschman, Director.

Membership is open to all who can read music sufficiently well. The dues are fifty cents each semester. Two principal concerts are given each year, with notable artists assisting. According to the present custom, Handel's "Messiah" is sung each year at Christmas, while Geibel's "Nativity," Rossini's "Stabat Mater," Mendelssohn's "Hymn of Praise," "Elijah" and "St. Paul," Brams' "Song of Fate," Bruch's "Fair Ellen," Ware's "Sir Oluf," Debussy's "Blessed Damozel," Haydn's "Creation" and St. Saens' "Sampson and Delilah" are other works recently given. Rehearsals are held on Monday evenings throughout the college year.

(b) The Denison Orchestra.-Mr. Eschman, Director.

Membership is not limited to students in the University, but offers to anyone of sufficient ability the opportunity of playing classical and modern composition under suitable direction. The Orchestra assists the Choral Society in presenting some of its oratorios, besides giving at least one concert independently in the spring. Regular rehearsals are held on Thursday evenings

throughout the college year. Membership is free to those admitted.

(c) The Denison Glee Club.

This is an organization of twenty young men chosen by annual competitive examination from the men of the University community. About twenty concerts are given each year, engagements being filled in Ohio, Pennsylvania, New York, Michigan, Indiana, and Illinois. The programmes are made up of classical numbers, popular glees, and college songs.

(d) The Shepardson Glee Club.

This club consists of twenty-four girls, and with the exception of the officers is reorganized each Fall by competitive examination. An annual concert is given in May. The club comprises the best voices of Shepardson College and the Denison Conservatory.

(e) The Sinfonia Fraternity.—In June, 1912, a chapter of Phi Mu Alpha (Sinfonia) was installed at Denison, for the purpose of uniting the men of musical interests.

Requirements for Graduation

MUSICAL STUDIES.

Candidates for graduation must select one branch of applied music and pursue it to the satisfaction of the head of that department. No fixed course is set, and no definite time can be given for the satisfactory completion of this part of the work, but ample opportunity is given for gauging the candidate's progress by means of Student Recitals, public and private.

In the Voice and Violin Departments candidates must pursue the study of the piano sufficiently (two semesters at a minimum) to enable them to play easy accompaniments at sight. All candidates for graduation must sing in the Chorus or play in the Orchestra for at least two semesters.

Theoretical work required in all departments comprises two semesters each of Solfeggio, Appreciation, Elementary Theory, History, Harmony, Counterpoint, Form, Strict Composition, and Physical Basis as described above.

LITERARY STUDIES.

In addition to the musical studies required, candidates for graduation must satisfy the full requirements for entrance to the Freshman Class of Demson University, and complete one year of French, German, or Italian, and one year of English equivalent to that of the Freshman year in Denison University. Evidence that this work has been completed elsewhere will be accepted upon the same terms as in the Colleges.

DIPLOMAS AND CERTIFICATES

The Conservatory Diploma is granted on recommendation of the Conservatory Faculty to students who have completed the prescribed course of study in any of its departments, together with the general requirements described above. Each candidate for the diploma must give a public recital during the Senior year. To students substituting a certain amount of work in Normal Training, or Public School music for the graduating recital, and giving promise of aptitude for teaching, a Certificate is granted instead of the Diploma. Students completing satisfactorily any integral part of the work offered in the various departments of the Conservatory, involving not less than a year's study, may obtain an officially signed statement to that effect, together with a copy of the Registrar's record.

General Information

There are no formal entrance requirements beyond the evidence of ability to profit by the instruction offered. The work of the year is divided into two semesters (see the University Calendar on page 4), and students may best enter the Conservatory at the beginning of a semester, although private lessons may be taken up at any time. No registrations are accepted, however, for less than the remainder of the semester.

The Sheet Music Library furnishes the necessary music for students, including a selection of symphonies, sonatas, etc., in duplicate for analysis by the classes in theory. The fee for the use of this music is included in the tuition fee. A Music Store is maintained by the Conservatory, through which students can purchase text-books, music, etc., at discount prices.

The music branch of the University Library, consisting of over seven hundred volumes of literature and music, is housed at the Conservatory, and is available on the same terms as the main library. There is also a collection of primitive musical instruments of great interest, most of which have been presented by Denison alumni.

The Conservatory is equipped with practice pianos of the highest grade. Hours and rooms for practice should be engaged at the time of registering, and no other use of instruments or rooms is allowed without special permission.

Semi-private Student Recitals take place frequently throughout the year, and students are expected to attend. A public recital is given by the more advanced students near the end of each semester. All students are under obligations to perform at recitals when so directed by their instructor. Students are not allowed to perform in public without the knowledge and consent of the instructor.

At the end of each semester a report of each student's work is sent home. Fuller information of this kind will be gladly furnished at any time by the instructors or by the Director.

Besides the festivals of the Choral Society and various other concerts, a number of Faculty Recitals are given during the year, and several Artist Recitals, most of which are free to Conservatory students. Each year a historical series of recitals is given, presenting informally the music of individual composers or periods. An operetta is given each spring by students in the voice department and others.

The following artists have appeared in Granville and Newark during the past few years, some of them more than once: Sopranos—Grace Bonner Williams, Lucile Stevenson, Edith Sage MacDonald, Millicent Brennan, Caroline Hudson-Alexander, Lorene Rogers-Wells. Contraltos-Maude Wentz MacDonald, Elsa Hirshberg, Ernestine Schumann-Heink, Elizabeth Thompson Wilson, Jane Lang Graninger. Tenors-Cecil James, Charles Hargreaves, Joseph Schenke, George Harris, Ir., Walter Earnest, Claude Saner. Baritones-Cecil Fanning, Arthur Leroy Tebbs, Henry Irving Fisher, Walter Bentley Ball. Bassos-Oley Speaks, Ernest Gamble, Julian Walker, William Harper, Marcus Kellerman, Giuseppe Campanari. Pianists-William Sherwood. Hans Richard, Iulian Pascal, Edith Haines-Kuester, Pianist-Lecturers -Harry Brown Turpin, Edward Baxter Perry, Theodor Bohlmann. Violinists-Sol Marcosson, Otto Mever, Francis Mac-Millan, Emil Sturmer, Violincellists-Charles Heydler, Hans Kronold. The Cleveland Philharmonic, the Spiering, and the Olive Mead String Quartettes. The Marcosson-Heydler Trio. The Cincinnati, the Columbus, and the St. Paul Symphony Orchestras.

Expenses.—The tuition charges and other fees for the various courses of instruction will be found on page 123.

Tuition fees include such incidentals as the use of the reference and sheet music libraries, and admission to one Artist concert each semester.

An annual scholarship, the gift of Mrs. E. S. Shepardson, of Boston, is at the disposal of the Conservatory Faculty.

Expenses

Semester Bills. In Granville College for Men, the semester bills are \$47.50; in Shepardson College for Women, \$45.00.

In Doane Academy the semester bills are \$45.00 for men and \$42.50 for women.

All bills are payable each semester in advance.

Matriculation fees for Granville College and Shepardson Colleges are as follows: For students entering as Freshmen, \$2.00; as Sophomores, \$3.00; as Juniors, \$4.00; as Seniors, \$5.00. Students holding Doane Academy diplomas are not required to pay this fee.

Excess Registration. College students taking more than eighteen hours of class-room work per week will be charged \$1.00 per semester for each additional hour.

Partial Registration. Students taking less than ten hours per week will be charged as follows: In Granville College, \$4.75 per semester hour; in Shepardson College, \$4.50; in Doane Academy, \$4.50 for men and \$4.25 for women.

Students in Granville and Shepardson Colleges taking part of their work in Doane Academy pay no extra charge for that work unless it makes the total number of hours exceed 18 per week.

Doane Academy students taking one or more studies in college will pay regular college semester bills.

Late Registration. An extra fee of \$1.00 will be charged to all students who have not completed their registration by the close of Thursday, the first day of the first semester, and Monday, the first day of the second.

Special Examinations. A fee of \$2.00 will be charged for special examinations caused by absence from the regular examination, or for a re-examination in any study.

Laboratory Fees. In connection with scientific studies, will be found on page 124.

Refunding Semester Bills. All registrations are for an entire semester and no money is refunded to a student who leaves before the end of the semester, with the following exceptions:

A college student leaving during the first half of the semester, and regularly dismissed, will pay for the time of his actual enrollment at the rate of \$5.00 per week; an Academy student at the rate of \$4.75. The remainder of the semester charges will be refunded. The time of enrollment in such cases will be calculated from the first of the semester to the date when the student is dismissed by the Registrar of the University or the Dean of the Academy.

Men's Dormitories. Rooms for men in Marsh and Talbot Halls may be secured on application to the Treasurer, by paying a retaining fee of \$5.00 on or before August 1. If the room is occupied, this fee is credited on the room rent; otherwise it is

forfeited. The room rent ranges from \$17.50 to \$25.00 per semester for each student.

No room can be secured for a shorter time than one semester. If a room is vacated for any cause before December 1 of the first semester, or before April 15 of the second, only onethird of the room rent will be refunded. No rent will be refunded after these dates.

Rooms are in suites comprising sitting-room and bed-room (except single rooms for one person) and are supplied with dresser, book-case and chairs, single iron bedstead, mattresses and springs. Bed-clothing and towels are provided by the student. The rooms are lighted by electricity and heated by hot water, and are in close proximity to lavatories on the same floor, where shower baths are provided, with hot and cold water.

Women's Dormitories. Shepardson College provides five dormitories for the accommodation of its students, King Hall, Burton Hall, Stone Hall, South Cottage, and Domestic Science Hall. Rooms may be secured in these halls by paying a retaining fee of \$5.00 before July 1. This fee is credited on the room rent if the room is occupied; otherwise it is forfeited.

Ample lavatories are provided on each floor and have baths with hot and cold water. Single iron bedsteads, mattress, springs and rugs are provided in all rooms. All rooms and halls are lighted by electricity and heated by hot water. All bedding and toilet appliances are furnished by the students. All the dormitories are provided with fire escapes.

Dormitory Charges. Young women rooming on the Shepardson College campus are charged \$105 per semester, which includes room rent and board in the Shepardson Dining Hall.

All meals sent to rooms are charged extra.

Special arrangements must be made by students desiring to room in Domestic Science Hall.

Refunding of Charges. Ordinarily no rebate can be made in room rent, but to students leaving on regular dismissal before December 1 of the first semester, or April 15 of the second, a rebate is granted of \$3.00 per week on board for the remainder of the semester. No rebate is granted after these dates.

Breakage or other damage to furniture of rooms is charged to the occupants.

Charges in Conservatory of Music, Per Semester.

- TUITION—in Pianoforte, Voice, Violin or Organ, two private lessons per week \$30.00 one private lesson per week \$17.00
- TUITION—in Pianoforte and Voice, under Head of Department, two private lessons per week \$40.00 one private lesson per week \$22.00
- TUITION—in Harmony, Counterpoint, or History of Music class lessons, three hours per week \$12.00
- TUITION—in Form, Canon and Fugue, Composition, Counterpoint, Elementary Theory—Appreciation, class lessons, two hours per week \$8.00
- TUITION—in Solfeggio, Public School Music or Normal Training, class lessons, one hour per week \$4.00

Rent of piano for practice, per semester-hour (i. e one hour a week for a semester) \$1.00

Rent of Pipe Organ for practice \$0.15 an hour

All private lessons are one-half hour in length. All class lessons are one hour.

Students taking full time in Piano, Organ, or Violin, and less than ten hours per week in college, will be charged at the rate of \$4.50 per semester hour for college studies.

Rebate. Students dropping music before the middle of the semester must make arrangement for rebate with the Director of the Conservatory.

Charges in Household Economics Department, Per Semester.

Cooking	\$ 15.00
Sewing	12.00
Basketry	12.00

Half time in the above will be at the rate of \$8.00 for Cooking, \$7.00 for Sewing and Basketry.

EXTRA CHARGES FOR CERTAIN COURSES

The fees indicated below are in all cases for a single semester.

Astronomy-	Course	damana.	\$1.00 2	\$1.00
			Acres	2.00
Botany-	Course	1	2.50 2	2.50
		3	3.004	3.00
		5	3.00 6	3.00
		7	3.00 8	3.00
		9	1.0010	1.00
		11	2.0012	2.00
		17	1.0018	1.00
Chemistry-	Course	1	4.00 2	4.00
		3	4.004	4.00
		5	4.00 6	4.00
		9	4.0010	4.00
		11	4.0012	4.00
		13	4.0014	4.00
Civil Engineering-	Course	1	1.00, 2	1.00
		3	1.00 4	2.00
		5	2.00	
		9	1.0010	1.00
		11	2.0012	2.00
Geology-	Course	1a	1.00 2b	1.00
Household Economic	-Course	Larmer	6.00 2	6.00
Physics-	Course	A	2.00 4	2.00
		5	2.00 6	2.00
		9	2.0010	2.00
Zoology-	Course	1	2.50 2	2.50
		3	3.00 4	3.00
		5b	3.00 6b	3.00
		7h	3.00 8b	3.00
	1	1b	1.0014b	4.00
		alkananana	4.0016b	3.00
		17	1.0018	1.00

IN DOANE ACADEMY.

Botany	\$2.00	each	semester
Chemistry	3.00	41	**
Physical Geography	1.00		u
Physics	2.00		**
Physiology	2 00	**	

Society of the Alumni

The Society of the Alumni of Denison University was organized in 1859. All graduates of the University in honorable standing, without regard to sex, are considered as members. Former students who did not graduate are admitted as associate members. In 1907 the Society prepared a volume of nearly three hundred pages, containing a general catalogue or alumni together with much historical material covering the origin of the college and its development during the three-quarters of a century ending with the Commencement of June, 1906. Since that date an annual bulletin has been published, giving changes in addresses and occupations and other important information concerning the Alumni. The Society also issues a Quarterly Bulletin, devoted to the general interests of the University, and published from Chicago, under the editorial management of Samuel B. Brierly, class of '75, President of the Society.

Phi Beta Kappa

In 1910, the Senate and Council of Phi Beta Kappa granted a charter for the organization of a chapter of the Society in Denison University, to be known as the Theta Chapter of Ohio. The Chapter was duly installed, and the charter delivered, by the National President of the Society, Dr. Edwin A. Grosvenor, on the eighteenth of January, 1911. This society was established, early in the history of American college life, for the express purpose of recognizing and fostering high scholarly attainment in college work. Election to membership is confined to Seniors and

Juniors who have shown themselves qualified for such an honor on that basis. The elections for the current year are as follows:

MEMBERS OF THE SENIOR CLASS.

CLYDE STEWART ADAMS.
A. LOWELL JOHNSON, (Elected in Junior Year).
HARRY MOSIER WOOD.
NELLIE BALLOU, (Elected in Junior Year).
IMOGEN ADAMS HAMBLEN, (Elected in Junior Year).
HELEN OLNEY.

MEMBERS OF THE JUNIOR CLASS.

GRACE BURTWIN SINSABAUGH. MARIE FRANCES TILBE. SPENCER GEORGE WEBER.

Denison University Summer School

The fifth session of the Denison University Summer School will begin June 19, 1916, and close July 28.

FACULTY.

The faculty for the coming year will be considerably enlarged over that of former years, and will be strengthened by the addition of some of the leading educators of the Middle West.

AIM.

The Summer School aims to provide for the following classes of students: Those seeking to prepare for a life certificate in the teaching profession; those who desire merely to broaden and strengthen their professional training; those who wish to prepare to enter college, and college students seeking credits towards an academic degree.

COURSES OF INSTRUCTION.

Practically all the subjects required for admission into Denison University will be offered in the Summer term. In addition to this, the equivalent of nearly two years of college work will be offered.

NORMAL DEPARTMENT.

The Normal Department will provide a wide range of subjects not included in the above statement.

PRIMARY TEACHERS will find the Observation, Practice Teaching, and Model Lessons in the Training School of the highest order, under able teachers of broad experience and training. The courses in Primary Methods will be equal to the best.

Grammar Grade Teachers will find the courses in Observation, Practice Teaching, Model Lessons, Grammar Grade Methods, Special Methods, Elementary Course of Study, Nature Study, Agriculture, etc., planned by those who know just what Grammar Grade teachers need.

Teachers of Ungraded or Graded Rural Schools will be shown special consideration. Many courses offered to teachers of our rural schools have not been suited to the needs of such teachers. This state of affairs has been due chiefly to two things: The rural school needs have not been studied as thoroughly as they deserve by many of the schools it, which said courses were offered, and in the second place many of these courses have been taught by instructors out of sympathy with rural school conditions and needs. These defects have been remedied by securing the services of several men who are acknowledged as authorities on Rural Sociology, the Rural Course of Study, and Rural School Organization and Methods.

HIGH SCHOOL TEACHERS will find courses in the High School Curriculum, High School Methods, and special courses in high school subjects.

Superintendents, Principals and Supervisors will find at Denison one of the strongest departments of School Administration to be found in Ohio. Village, district and county school executives often feel the need of instruction and help of a professional character such as few schools are able to give. To an already strong faculty have been added to this department two men who are known throughout the country as specialists in School Administration.

Dr. W. E. Chancellor, of the College of Wooster, is perhaps the best known writer on this subject. He has had many years' experience in supervision, and has written a number of books on School Administration. His text-book, "Our Schools and Their Administration," is used in many of the leading teachers' colleges.

Dr. Henry G. Williams, formerly Dean of the State Normal College at Athens, will teach four courses in School Administration, Rural School Supervision, the Elementary Course of

Study, and School Management and School Law.

A Graded Training School.—Each day throughout the session the Graded Training School will be in session, in which teachers and prospective teachers may witness expert teaching and where ample opportunity will be offered for teaching to those who are qualified to take a course in Practice Teaching.

A RURAL TRAINING SCHOOL will also be in session, where all who wish to study concretely the problems of the rural and multigraded school may have excellent advantage in this particular. The Rural Training School is on the traction line just outside the village of Granville, and students will be saved long, hot walks to and from the school.

Expenses.—The necessary expenses of those attending the Denison University Summer School have been reduced to the minimum. The college dormitories furnish ample accommodations for a large number, both of men and women. These rooms are the coolest and most comfortable in town. They are provided with baths, hot and cold water, and lighted with electricity. They rent at one dollar a week for each person. The Shepardson Commons are now open to men and women alike during the Summer School. Board is furnished at the Shepardson Commons at the rate of \$3.00 per week.

Those who expect to attend Summer School this year should write at once for a bulletin containing full information concern-

ing the course of study, etc., at Denison,

C. E. Goodell,

Dean of Summer School,

Granville, Ohio.

Degrees Conferred in 1915

MASTER OF SCIENCE.
HAMILTON FRANCIS HOLTON.

BACHELOR OF ARTS.

WALTER BUCKLEY ROACH, ERI JAY SHUMAKER, WILLIAM EARLEN YATES, HELEN GILMORE,

PHEBE ALICE JOHNSON, RUTH ELIZABETH SHAFFER, LOUISE MAY SPIVEY, IRENE SUSAN TULLOSS.

BACHELOR OF PHILOSOPHY.

STROTHER ANDERSON CAMPBELL, EVAN HOWARD DAVIES, ROY BURTON DEER, CLARENCE LUTHER FOX. NEIL ESBURN HANSEN, JOSEPH REASON HOY. JOHN BUDD LONG, JR., ROBERT STEPHEN MORRIS, ASBURY LEONCE ODEBRECHT, RANDOLPH RECTOR, DAVID EDWARD REESE. GEORGE MILTON ROUDEBUSH. HERVEY ALDRICH TRIBOLET, ARTHUR CONSAUL WICKENDEN. ROBERT WILLIAM WORST, EDITH MARIE BEARD. HAZEL EDNA BOLIN.

MARGARET BOYER, ALICE ELIZABETH DIETER. ALICE BELL EISWALD, HELEN MARGARET ENGLAND, FLORENCE DOVE FOSTER. OLIVE MARGARET GRAYBURN. WINIFRED LOUISE HAMILTON, JOSEPHINE EULALIA HILLIARD, VIOLA MAY JOHNSON, GRACE CYRILLA JONES, VIVIAN BERTHA PERRY. MARJORIE RETTIG, EDNA MARY SCHROPP, LUCILE SUMMERS, SUSAN JULIETTE THRESHER, AUGUSTA FILIMORA WILGUSH, EVA LUCILE WRIGHT.

BACHELOR OF SCIENCE.

HOMER BURTON ADKINS, HENRY DEMING HOPKINS, LEONARD GEORGE HOWELL, RALPH JONES, ORLAND BETHEL KIRK, JACOB HENRY KNAPP, JR., CAREY PITT MOORE, ERNEST HENRY MORRIS, EDGAR WESLEY OWEN, CHARLES WILSON PRINE, HENRY SANFORD STOUT,
FRANK HENRY VENN,
JOHN ST. CLAIR WARD,
RUSSELL HILL WILLIAMS,
PAUL VERN WOOLEY,
MARGARET MINERVA ALLEN,
LILIAN BISHOP BOGGS,
VIRGINIA MARTHA PUTNAM,
ABIGAIL EMMA ROWLEY,
HARRIETT LAURA STODDARD.

Diplomas and Certificates

Conservatory Diploma in Piano: Constance Day Cheney.

MAREL MARGARET METZ.
Conservatory Diploma in Organ Eva Lucile Wright.

Certificate in Art. ETHEL MARIE LYON, RUTH PENCE, BLANCHE PUTNAM.

Certificate in Home Economics - Hazel Olive Dewitt, Hazel Emma Fairbanks, Helen Olivia Longsworth, Dobothy Emma McCann, Harriett Laura Stoddard

Honors and Prizes Awarded in 1915

Special Honors in English Abagait Emma Rowley, IRENE SUSAN TULLOSS.

Special Honors in Germon- IBENE SUSAN TULLOSS.

The Lewis Prize Contest Debate, Donald B. Atwell, Calliopean; Oration, Emerald B. Wilson, Franklin; Essay, Quincy A. Cheadle, Calliopean; Declamation, Frank O. Kruh, Franklin.

The Samson Talbot Bible Reading Prize: First Prize, Roy Burron

DEER; Second Prize, WILLIAM EARLEN YATES.

The Gilpatrick Alumni Scholarship in Mathematics: A. LOWELL JOHNSON.

Students in Granville College Classes

GRADUATE STUDENTS.

Annaeell Bradstreet, English, Hartwell.
CHARLES WOOD HENDERSON, Physics and Mathematics, Granville.
Francis F. Patrick, English, Granville.

SENIOR CLASS.

CLYDE STEWART ADAMS, Sc., JOHN SAMUEL BARRINGTON, Sc., HORACE ROBERT BIGGS, Ph., JOHN LEANDER BJELKE, Ph., GORDON JACOB BURRER, Sc., FREDERIC LATIMER CHASE, Sc., OUINCY ADAMS CHEADLE, Cl., HENRY DONALD DAWSON, Sc., JAMES WILLIAM GAINFORT, Ph., HORACE LONGIA GRILLY, Sc., CALVIN FINLEY HAMILTON, CL., SAUL HOUNCHELL, Cl., ARTHUR LOWELL JOHNSON, Cl., GEORGE MCREDDIE JONES, Sc. HAROLD L. KIER, Ph., FRANK OSWALD KRUH, Sc., DONALD MCKINLEY LADD, Sc., STUART LEFEVRE LAPP, Sc., LEE HARRISON LYMAN, Sc., GEORGE MARSHALL LYON, Sc., EARL ROSENDALE MARSH, Ph., WILLIAM CONWAY MARTIN, Sc., EDWARD PULLMAN MILLS. Ph., BRYANT CHARLES MORRIS, Sc., HOWARD CARTWRIGHT NELLES, Sc., EDWIN AUBREY OLDHAM, Ph., WAYNE CONVERSE OVERTURF, Ph., DELBERT RANDALL PRATT. Sc., ALLEN THOMAS PRICE, Ph., THOMAS HUGH REES, Sc., RAYMOND CHESTER SMART, Ph., GLOVD THOMAS STANKARD, Sc., CHARLES CALVIN STARRETT, Ph.,

Newark. Granville. Granville. Wellsville. Sunbury. Newark. Newark. Haskins. Wexford, Ireland Cincinnati. McKeesport, Pa. Manchester, Ky. Granville. Newark. Granville. Sterling, N. Y. Bowling Green. Granville. Elvria. Huntington, W. Va Bowling Green. Paris Crossing, Ind. Ashtabula. Troy. Toledo. Granville. Newark. Granville. Morgan Park, III Girard. Sidney. Toledo. Newark.

IRVIN LEVI SWANSON, SC.,
EDWARD MILAN TAYLOR, Ph.,
CARL LOUIS THIELE, JR., Sc.,
KENNETH LYON ULLMAN, Ph.,
ROBERT PAXON VICKERS, Sc.,
JUDSON BLAKE WALKER, Sc.,
RUSSELL ELDREINE WEST, SC.,
CHARLES SOMMERVILLE WILLIS, Ph.,
HARRY MOZIER WOOD, SC.,
SABURO YASCMUERA, Ph.,
WAYNE ADDISON YOAKAM, SC.,

Golaghat, Assam, India. Marion. Dayton. Granville. Salem. Toledo. East Orange, N. J. Washington C. H. Mt. Gilead. Morioka, Japan. Homer.

JUNIOR CLASS.

HENRY R. ARNOLD, Ph., DONALD BLISS ATWELL, Ph., OREN HULING BAKER, Ph., JAMES WERTER BALLARD, Sc., EDWARD COREY BOGGS, Sc., HARRY BROCK, Ph., FRANK RICHARD CLARY, Sc., WILFORD WELLS COSSUM, Ph., HAROLD WINFIELD EMSWILER, Ph., LLOYD THOMAS HICKMAN, Ph., ALMONTE CHARLES HOWELL, CL. DAVID HIRAM JONES Sc., EDWIN HAMILTON KINNEY, Sc., RAYMOND S. KNAPP, Sc., ALBERT HARROLDE LARGE, Ph., JAMES MACPHERSON, Sc., CARL HARVEY MASTELLER, Sc., EDWARD WATKINS PUTNAM, Ph., HARLAN CADY REYNOLDS, Sc., DORMAN EMMOR RICHARDSON, Sc., LELAND DURWOOD SCHOCK, Sc., CLAUDE HAMILTON SMITH, Sc., CLARENCE GARTON SWAIN, Sc., FRANK BIRD WARD, Ph. SPENCER GEORGE WERER, Sc., WAYNE WILLIAMS WINE, SC., WILFRED COLE WOODYARD, Ph. RALPH YOST, Sc.,

Mt. Vernon. Zanesville. East Bank, W. Va. Washington C. H. Granville. Dayton. Cambridge. Chicago, Ill. Granville. St. Paul, Minn. Guantanamo, Cuba. Granville. Topeka, Kansas, Norwalk. East Liverpool. Granville. Mt. Vernon, Granville. Farmington, Ill. Toledo. Norwalk. Roseville. Roseville. Cincinnati. Toledo. Zanesville. Guadalajara, Mexico. Thornville.

SOPHOMORE CLASS.

JOHN THOMAS ALLISON, Sc., EDWARD EVERETT ALWARD, Ph., JOSEPH NEIL ABMSTRONG, Ph., Tarentum, Pa. Pataskala. Newark.

PAUL HENRY ASKIN, Sc., OSCAR LEO ATCHLEY, Ph., GALE WYETH BALDWIN, Sc., JAY GROVER BASH, Ph., STANLEY STEPHENS BASH, Ph., ALBERT VAN BEACH, Sc., CLARENCE LLEWELLYN BEACHLER, Ph., ARTHUR J. BEATTIE, Sc., GEORGE MARTIN BOWMAN, Sc., FLOYD GILMORE BROWNE, Sc., EWART GLADSTONE CARNEY, Sc., HERBERT ASKREN CARR, Ph., BELFORD PICKERING CHEADLE, Ph., KARL EMMETT CRILLY, Ph., PAUL WICKES CURTIS, Ph., RALPH DAVID DAVIES, Ph., FISHER NOEL DAVIS. Ph., CURTIS DELTON DECKER, Sc., HERBERT DODD EMSWILER, Ph., MAURICE BURGIT FINCH, Cl., BURROWS HOLCOMB FRASCH, Sc., ROBERT CLINTON GILMORE, Cl., FREDERIC C. HALL. Sc., CHARLES HERBERT HASKINS, Sc., WILLIAM EDWARD HAYDEN, Ph., GEORGE WILLIAM HAZLETT, Cl., PHILIP GERALD HORTON, Sc., GAVOTTE JUSTUS IRWIN, Sc., ARTHUR RAYMOND JEWELL, Ph., ALFRED JANNEY JOHNSON, Cl., HAROLD WILLIAMSON JONES, Ph., J. BENJAMIN KNIFFIN, Ph., RALPH GRANT KOONTZ, Sc., ROBERT HUFFMAN LADD, Sc., FRANK ANDERSON LOGAN, Sc., JOHN WHITE McCAMMON, Sc., JOHN McCOWEN MARTIN, Ph., JESSIE KIRK MEARS, Cl., CHARLES A. METCALF, JR., Ph., WILLIS WILKINSON MYERS, Ph., JEROME BUCKINGHAM NORPELL, Sc., CHARLES STANLEY PEASE, Sc., STUART HAMILTON PRESCOTT, Sc., OWEN NEWTON PRICE, Sc., JAMES LESLIE PUTNAM, Ph.,

Wilmerding, Pa. Madisonville. Marysville. Utica. Utica. Cambridge. Dayton. Norwalk. Gambier. Haskins. Granville. Cable. Newark. Newark. North Fairfield. Newport, Ky. Gallipolis. Defiance. Kirkersville. Beaver Dam. Wis. Bremen. Granville. Newark. Granville. Granville. Newark. Newark. Sunbury. Delaware. Granville. Middletown. Stryker. St. Louisville. Toledo. Zanesville. Toledo. Granville. Gilbert. Elvria. Kenton. Newark. Van Atta. Cleveland. Morgan Park, Ill. Merrill, Wis.

PERCIVAL GEORGE READ, Sc., ARTHUR HIET REVNOLDS, Sc., PHILIP LEONARD RHODES, Sc., CARLYLE JONES ROBERTS, Sc., DARWIN LOWER RUMMEL, Sc., GROVER CLEVELAND SAYRE, Sc., LEWIS DUDLEY SCOTT, Sc., GORDON STIFLER SEAGRAVE, CL. ROWLAND ALFRED SHEETS, CL. ALLEN FIELD SMITH, Ph. EDWARD DARE SPERRY SC., ANDREW SPISIAK, Sc. JOHN HOBART SUTTON, Ph., EDGAR WILLIAM THOMPSON, Sc., ERENEZER SANDERS THRESHER, Sc., JOHN ALLING WARD, Ph., JOSEPH KENNARD WEDDELL, CL. MAURICE RECHT WIEDEMER. Sc. ROBERT LAW WILKINSON, Ph., EMERALD REERS WILSON, Ph. LESLIE HAINES WINANS, Sc., HERBERT CONDON WRIGHT, Sc., COLER ARTHUR YOAKAM, Sc. HERBERT ROBINSON YOUNG, Ph., WAYLAND ZWAYER Ph.

Xenia. Granville. Newark. Toledo. Newport, Ky. Granville. Granville. Rangoon, Burma Kankakee, III. Hinsdale, Ill. Toledo. Granville. Attica. Clermont, Fla. Kansas City, Mo. Newark. Woodbury, N. J. Norwood. San Antonio, Texas Middletown. Toulon, Ill. Granville. Homer. Toledo. Patton, Pa.

FRESHMAN CLASS.

BERNARD DAVID ADAMS, Sc., ALBERT EARL ALER, Sc., GERALD BROWNE ATREY, Sc., LAWRENCE FERDINAND ATHY, Sc. IRWIN HALL BACON, Ph., CARL FOWARD BAHNSEN, Sc., MARSHALL LUTHER BARKER, Sc., GEORGE EVAN BERB. Sc., ERNEST BODENWEDER, Ph., RALPH WARNER BOWYER, Sc., RAIPH OWEN BRATTAIN, Sc., HERBERT DANIEL BUKER, Sc. CHARLES THEODORE BUMER, Sc., FRANK FERGUSON BURNWORTH, Sc., CHARLES DONALD BURNS, Sc., DONALD MACK BUTLER, Ph., KENNETH MALCOLM CHAPPER, Sc., HERVEY DOYLE CHANDLER, Sc.,

Newton Centre, Mass. Zanesville. Dayton. Bryan. Cleveland. Gypsum. Dayton. DeGraff. Cleveland. Mason Antwerp. Zanesville. Girard. Girard. Sistersville, W. Va Toledo. Chicago, III. Cadiz.

ALVIN ELIJAH CHEYNEY, Sc., HAROLD LINGLE CLARK, Sc.,

WILLIS ROBINSON CLARK, Sc., HERBERT H. CLEMM, Sc., FRIEND MORRIS COCHRAN, Sc., SIDNEY WIXFORTH COLLIER, Sc., THOMAS ALBERT COOK, JR., Sc., ARTHUR RAYMOND CRAWMER, Ph., ASTOR DEPEW CREECH, Sc., GEORGE BABCOCK CRESSEY, Ph., TIMOTHY EARL CRITZ, Ph., CARY EUGENE CULLISON, Sc., RUSSELL ASHMORE CURRIN, Sc., RAY LAW DARNOLD, Ph., BLANCHARD PAUL DAVIS, Ph., JOHN ANTRAM DENNY, Sc., FREDERICK GERMAN DETWEILER, Cl., HOWARD WILLIAM EARNSHAW, Sc., FRANK WILSON EDWARDS, Ph., HORACE HARRIES FEIGHT, Sc., RODGER DERUYTER FERRIS, Sc., WILLIAM CARLETON FORBES, Sc., KARL FREDERICK FRIEND, Ph., EARL MARTIN FUTERER, Sc., CHARLES LAURENCE GOODELL, Sc., Ross Ely Gorsuch, Ph., EARL CULBERTSON GREGG, Sc., RUSSELL MORSE GRIFFETH, Sc., CHARLES BELZORA GROOMES, Ph., JAMES STEVENS HAMMOND, Cl., WILLIS JESSE HANDEL, Sc., FOWLER VINCENT HARPER, Cl., GEORGE MATTHEWS HAYDEN, Sc., BENJAMIN F. HERSHEY, JR., Ph., THOMAS JOHN HETHERINGTON, Sc., JOHN WALKER HUNDLEY, Sc., SIDNEY JENKINS, Sc., ELLIS BURTON JOHNSON, Sc., CLARK PHILLIPS KELLEY, Ph., CHARLES EDWARD KEMPTON, Ph., EDGAR PEARCE KING, Sc., WILLIAM RODNEY KUHNS, Ph., GORDON ROMAINE LANG, Sc., RICHARD CARLYLE LARCOMB, Sc.,

Stryker. Ikoko, Congo Belge, Africa.

Mt. Sterling. Fredericktown. Granville. Van Wert. Stamford, Conn. Newark. Ingersoll, Okla. Los Angeles, Cal. Seville. Newark. Kenton. Granville. Sullivan, Ind. Wilmington. Granville. Sandusky. Canton. Dayton. Columbus. Union City, Pa. Pleasantville. Granville. Granville. Toledo. Zanesville. Granville. New Haven, Conn. Canandaigua, N. Y. Newark. Hanover. Newark. Dayton. Pittsburgh, Pa. Granville. Cambridge. Niles. Granville. Sunbury. Oklahoma City, Okla. Toledo. Ashtabula. Columbus.

JAMES IRVING LEMON, Ph., WALTER BARTLETT LISTER, Ph., PAUL REVERE LYNE, Ph., GEORGE CARLTON McCONNAUGHEY. Ph., ARTHUR GEORGE McQUATE, Ph., CLIFFORD BENJAMIN MARSHALL, Sc., HERRICK STUART MASSIE, Sc., BLAINE EWING MATTHEWS. Sc., RALPH WILLIAM MEAD, Sc., WILLIAM FOREST MEREDITH, Ph., FREDERICK ALLEN MERIDITH, Sc., WALTER ISAAC MERRIAM, Ph., PARKER JAMES MONTAGUE, Sc., BERNARD O. Moss, Ph., THEODORIC CHARLES NEAL, Sc., MILLER J. NEWTON, Sc., PAUL EUGENE PENDLETON, Ph., JOEL BIGELOW PETERSON, Sc., JOHN ELLIS PUTNAM, Sc., HERMAN WARD QUARTEL, Ph., EDGAR EUGENE RICE, Sc., ALPHEUS WAYNE ROGERS, Sc., JOHN LAWYER ROSE, Ph., JOHN LIEWELLYN ROSENSTEEL, Ph., NELSON GADD RUPP, Sc., DEAN W. SAGE, Sc. CHARLES ARTHUR SCOTT, Ph., GEORGE HERBERT SHORNEY, Sc., EMORY HAROLD SHREVE, Sc., BLAUN WILLS STELER, Sc., ALTHA ELMER SIMMONS, Ph., EARL McCALL SMITH, Sc., MARK BRYAN SMITH, Sc., HAL FRANK SNYDER, Sc., DAVID HAROLD SPEICHER, Sc., FRANK WINEGARNER SPENCER, Ph., HERMAN GEAR SPENCER, Ph., PAUL BURNSIDE STAGER, Sc., DEAN NORMAN STALKER, Sc., ROY MATTHEWS STEVENS, Sc., CHRISTOPHER PITMAN STIVERS, Ph., LEE RUSSELL THRAILKILL, Ph., PARKER HENRY TILBE, Sc., VIRGIL HAROLD TRAXLER, Sc., JAMES PRIME TURNER, Sc.,

Blue Island, Ill. Twinsburg. Cambridge. Hillsboro. Litchfield. Pittsburgh, Pa. Edinburg, Va. Jackson. Dayton. Cambridge. Newark. Columbus, Wis. Toledo. Cambridge. Newark. Maineville. Granville. Chicago, Ill. Warren. Dayton. Roseville. Toledo. Granville. Springfield. Port Clinton. Granville. Cambridge. Oak Park, Ill. Union City, Pa. Richmond Dale. East Liverpool. Bucyrus. Chicago, Ill. Cambridge. Granville. Newark. Granville. Alexandria. Toledo. Niles. Manchester, Ky. Mt. Vernon. Granville. Butler. Coshocton.

KARL BETHEL WEAVER, Ph.,
HELMER LEWIS WEBB, Sc.,
JAMES OSCAR WHITE, Ph.,
ROBERT EDWARD WILKIN, Sc.,
HAROLD WRIGHT WOODROW, Sc.,
PAUL COCANOUR WRIGHT, Sc.,
OSCAR EDWARD WYNNE, Sc.,
LEWIS RAYNOLDS ZOLLARS, JR., Sc.,

Zanesville.
Philadelphia, Pa.
Sabina.
Newark.
West Jefferson.
Fredericktown.
Alexandria.
Canton.

SPECIAL STUDENTS.

LLOYD LARUE ANDERSON,
ERNEST EUGENE ERICKSON,
JOHN TERUYUKI MATSUOKA,
FREDERICK CARL MILLER,
RODERICK PERLEY MILLER,
WILKIE OSGOOD MOODY,
HAROLD HALL RHOADES,
ROBERT MITCHELL RODGERS,
ROBERT ROBINSON ROUSH,
RALPH ELLSWORTH RUSSELL,
CLIFFORD CLARE SHERBURNE,
HANS CARL STEGER,
HERSCHEL SPALDING STEPHAN,
GLENN TOMPKINS,
ARTHUR CLARENCE WYSE.

Kane, Pa.
Norwalk.
Matsuyama, Japan.
Port Clinton.
Newark.
Granville.
Brooklyn, N. Y.
Blue Island, Ill.
East Liverpool.
Ashtabula.
Newark.
Stryker.
Newark.
Utica.
Fayette.



Students in Shepardson College Classes

SENIOR CLASS.

NELLIE BALLOU, CL. EUNICE ESTELLA BARNES, CL. ALMA LOUISE BRUMBACK, Sc., ELEANOR JOY CARMAN, Ph., MARY FRANCES DEAN, Ph., EDITH IONE DEMING, Sc., EMMA LENA GEIS, CL. IMOGEN ADAMS HAMBLEN, Ph., LAURA CORNELIA HARRIS, Ph., MAREL MEAD JONES, Ph., DOBOTHEA JESSIE LAPP, Ph., BERNICE CATHERYN LEMOI, Ph., ALICE TRENE LONGNECKER, Sc., ETHEL GENDELL McDANEL, Ph., ETHEL NEFF MORRIS, Ph., BEULAH AGNES NOTT, Ph., HELEN OLNEY, Sc., KATHERINE OLNEY, Ph., FLORENCE HELEN REES, Ph., VERNA TALITHA SALISBURY, Ph., ALICE BREEN TIFFT, Ph., MARGARET ETHEL TIPTON, Ph., DOROTHY VAN WINKLE, Sc., SARAH ELIZABETH WALKER, CL., Newark. Monroeville. Granville. Marietta. Coshocton. Newark. Myitkyina, Burma Granville. Manlius, N. Y. Granville. Granville. Evanston, III. Dayton. Covington, Ky. Omaha, Neb. Marietta. East Cleveland, East Cleveland. Pemberville. Mt. Vernon. Wauwatosa, Wis. Gallipolis. Cheyenne, Wyo. Newark.

IUNIOR CLASS.

MARY EUGENIA ANDERSON, Ph.,
MARGARET McQUISTON BALL, Ph.,
JESSIE VEATRICE BURNS, Ph.,
HELEN LAURA CORD, Ph.,
HILEN MARGARET DICKINSON, Ph.,
FLORENCE MARY FISHBURN, Ph.,
ALICE MAY GEORGE, Ph.,
MARGARET CATHERINE GIVEN, Ph.,
EDITH MAY GRAVES, Ph.,
EMELYN ELIZABETH GROVE, Ph.,
SELMA LOUISE HAMAUN, Ph.,

Newark.
Portsmouth.
Piqua.
Norwood.
Mt. Gilead.
Bellefontaine.
Mt. Vernon.
Aurora, Ill.
Granville.
New Londom.
Toledo.
Newark.

SARA BARBOUR HOLMES, Ph., GRACE FRANCES JOHNSON, Ph., MARY VASHTI JONES, Ph., LOIS LALLA LANGSTAFF, Ph., KATHERINE BITNER LONG. Cl. MARY FRANCES McDonald, Ph., MARY BELLE McLAIN, Cl., ESTHER LEE MARTIN, Sc., JESSIE RUTH MILLS. Cl., SELMA VIOLA RUSSELL, Cl., GRACE RUSSELL SEAGRAVE, Sc., GRACE BURTWIN SINSABAUGH, Ph., ESTHER VICTORIA SMYTH, Ph., SARA L. TAYLOR, Ph., MARIE FRANCES TILBE, Cl., MARY FRANCES WALSH, Ph., MARGARETHE WELLWOOD, Ph.,

LOUISE LANE WILLIAMS, Sc., ABBY LOIS WOOD, Ph., KATHERINE FINLEY WOOD, Ph.,

Augusta, Kv. Norwich, N. Y. Zanesville. Richwood. Newark. Dayton. Newark. Seattle, Wash. Omaha, Neb. Pekin, Ill. Rangoon, Burma. Granville. Dayton. Toledo. Granville. Cedar Springs, Mich. Ning Yuan Fu. West China.

Granville. Coshocton. Williamsburg, Ky

SOPHOMORE CLASS.

RUTH HARRIET ATWELL, Ph., JULIET AMOS BARKER, Ph., ALICE EVANGELINE BEERS, Sc., MARJORIE PICKARD BENOY, Sc., OPAL MARIE BOWMAN, Ph., DOROTHY BURNS, Ph., MARIE ANTOINETTE CARROLL, Ph. EVELYN MAE CATHCART, Cl., FLORENCE SARAH CHUBBUCK. Ph., FREDA JULIA CLAUSE, Ph., ETHEL ELLEN COLLETT, Ph., LILLIAN VIOLA CONGLETON. Ph., CLARA LORINE COULTER, Ph., MYRIEL EDITH DELZELL, Ph., ROWENA MAUD DITMARS, Ph., ANN McCune Doster, Ph., INA ROBINSON DOYLE, Ph., RUTH ANDERSON ELDRIDGE, Ph., BERTHA ELIZABETH FRANK, Ph., DORIS RUTH FREDERICKSON, Ph., MARY ELIZABETH FULLER, Ph., EMILY FULLERTON, Ph.,

Zanesville. Cambridge. Granville. Mt. Vernon. Wauseon. Hamilton, N. Y. Newark. Cleveland. Cleveland. East Liverpool. Dayton. Holland, Mich. Newark. Hersey, Mick. Granville. Harveysburg. Cambridge. Franklin. Granville. Granville. Newark. Greenfield.

FLORENCE GILL. Sc., MARGARET MARIE HEINRICHS, Ph., LILLIAN MARGARET HICKEY, Ph., EMMA JEANNE HUMPHREVILLE, Ph., GRACE E. JEFFERSON, Sc., LAURA ELIZABETH JOHNSON, CL. RACHEL HUBBARD KENDALL, Sc., FLOSSIE LOCKE Ph., HELEN OLIVIA LONGSWORTH, Ph., FLEANOR LOUISE MACK, Sc., HELEN MARY MELBY, Ph., AMY ERLE MONTGOMERY, Cl., RUTH APOLLONIA NICKEL, Sc., LORA FREDERICA PALMER, Ph., RUTH ELEANOR PALMER, Ph., LUCILE PENCE, Ph., HELEN WAKEMAN ROBINSON, Sc., MARY ADELE ROWLEY, Ph., MILDRED OLIVIA SARGENT, Sc., EDNA CLARA SHUMAKER, Sc., LUCILLE CLARE TILBE, CL. ALTA IRENE WALKER, Ph., RUTH WICKENDEN, Sc., MYRA WOOD, Ph.,

Millersport. Ramapatnam, India. Clay Lick. Newark. Norwalk. Meade, Neb. Amarillo, Texas. Wilmington. Lima Erie, Pa. Momence, Ill. Newark. Norwood. Zanesville. Mayville, N. Y. West Jefferson. Bellevue, Pa. Chester, W. Va. Evanston, Ill. Bowling Green. Granville. Toledo. Toledo. Wilmington.

FRESHMAN CLASS.

DOROTHY ATWELL, Ph., RUBY WINONA BARNES. HAZEL BELLE BARRE, Ph., MARTHA GENEVIEVE BATES, Sc., HELEN MARY BELL, Ph. JESSIE IRENE BISHOP, Sc., GERTRUDE BOESEL, Ph., JULIA ANN BRUCE, Ph., LUCILLE BUMGARDNER. FRANCES ISABELLE CARNEY, Sc., KATHRYN KIRKER CARRACI, Ph., LOIS MILLER CARTER, Ph., GENEVIEVE HOLMES CATHCART, IMOGENE FLORENCE CHRISTMAN, Ph., LETA GRACE CLARK, Ph., HELEN MAR CLEPHANE, Sc., LOUISE WILLS COBB, Ph., MARY MARGARET COLEMAN, Ph., MARGARET BANCROFT COLWELL, Ph.,

Zanesville. Brink Haven. Centerburg. Madison. Pittsburgh, Pa. Ottumwa, Iowa. New Bremen. Garrettsville. Mechanicsburg. Granville. Wellston. Duncan's Falls. Cleveland. Toledo. Mansfield. Madisonville. Franklin, Va. Urbana. Granville.

RUTH CONANT, Ph., ERMINA STEWART COX, Ph., MELVA ELIZABETH DAUB, Cl., JENNIE LEONE DAVIS, Ph., FLORENCE MARIE DRAKE, Ph., HELEN MILDRED DYE, Ph., MADELINE EDGERLY, Ph., HELEN WERNER EVANS, Ph., MARGARET ANN FIFE, Ph., MARJORIE FLEMING, Ph., ETHEL GARLAND, Sc., GERTRUDE CAROLINE GIBBONS, Ph., MARJORIE BERNICE HAMILTON, Ph., LOU ELLA HAWKINS, Ph., WILMA AILEEN HEATH, Ph., SUSANNA HELBING, Ph., ULA GRAY HESS, Cl., BERNICE OLIVE JACKSON, Ph., MABEL AGNES KARNS, Ph., GRACE ELIZABETH KILLWORTH, Ph., MILDRED WOODRUFF McCAIN, Ph., LENORE KESLER McCutcheon, Ph., FRANCES LEWIS MCGEE, Sc., ANNA JAMES MCNAUGHTEN, Ph., MARY ELIZABETH MCNAUGHTEN, Ph., MARY HITT MARTIN, Ph., SOPHIA EMILY MESSENGER, Ph., LILIAS ALDA MILLER, Ph., DOROTHY ELIZABETH MONTGOMERY, Ph., HELEN ELIZABETH MYERS, Sc., ELMA ALWILDA OLDHAM, Sc., CATHERINE MARY PEASE, Ph., RUTH MARIE PHILLIPS, Sc., EDNA FAY PINE, Ph., MARY PRICE, Ph., HELEN MARY RANDLEY. HELEN DRURY RAY, Ph., MARY RUTH SANFORD, Ph., MARGARET SEDGWICK, Ph., RUTH MARIE SEDGWICK, Ph., LAURA KASSANDRA SELLERS, Ph., EDITH RUTH SLAGHT, Sc., WINIFRED CARRIE SMITH, Sc., GERTRUDE SMITHBERGER, Ph., ERMA ANNA SPENCE, Ph.,

Granville. Proctorville. Dayton. Cherry Fork. Norwalk. Mt. Vernon. Ottumwa, Iowa. Zanesville. Canton. Granville. Pomeroy. Cleveland. Kankankee, Ill. Newark. Bellaire. Toledo. Newark. Newark. West Milton. Newark. Newark. Franklin, Va. Avalon, Pa. Pleasantville. Pleasantville. Grand Junction, Colo. Xenia. Port Clinton. Newark. Kenton. Xenia. Berwyn, Ill. Newark. Newark. Plain City. Evanston, Ill. Granville. Stryker. Martin's Ferry. Martin's Ferry. Granville. Dayton. Norwalk. Lorain. Martin's Ferry.

EDITH EMILY STARRATT, Ph.,
MARY WOOD STASEL, Ph.,
GRACE ELEANOR ST. CLAIR, Ph.,
HARRIET THOMPSON SWETLAND, Ph.,
RUTH LOUELLEN TIPTON, Ph.,
BARBARA TOURTELLOT, Ph.,
MARJORIE FAGE TREAT, Ph.,
VIRGINIA MAY TRUMPER,
RUBY TYLER, Ph.,
KATHLEEN WELLWOOD, Ph.,

MARIE LOUISE WERTZ, Ph.,
MARY EVA WILSON, Ph.,
MARGARET JANE WOOD, Ph.,
MILDRED BETH WOODWORD, Ph.,
HARRIET CRANDALL WOODWORTH, Sc.,
ETHEL LILLA YOUNG, Sc.,

Chicago, Ill. Newark. Newark. Mt. Vernon. Gallipolis. Morgan Park, III Union City, Pa. Louisville, Ky. Alexandria. Ning Yuan Fu, West China. Kankakee, Ill. Granville. Girard. Newark. Portland, Ore. Kengtung, Burma

SPECIAL STUDENTS.

LAFERN ASHEROOK,
BERTHA MAUD BOGUS,
GRAVE ADELE BOND,
MARY FLORENCE CARNEY,
MAUD IRENE COCHEAN,
MRS E. E. FINLEY,
MARY SUSAN FLEMING,
FLORA G. HOOVER,
GRACE BOSOMEO MOODY,
GLADYS MAY RIGGS,
SUSIE IRENE SELBY,
FLORENCE FLORERTON STUCY,

Granville.
Granville.
Granville.
Granville.
Granville.
Granville.
Granville.
Granville.
Indianapolis.
Ind.
Granville.
Utica.
Chicago, Ill.

Students in Doane Academy

SENIOR CLASS.

LLOYD LARUE ANDERSON, FLOYD SAM BARRETT. ARTHUR TALBOT BAWDEN, MARSHALL COOLEY BUCK. KEMP ROUDEBUSH CATLETT. ERASTUS DAVIS. JOHN QUINCY DIETZ. ROGER DERUYTER FERRIS, WILLIAM KANE FIGLEY. CHARLES LAWRENCE GOODELL. RUSSELL MORSE GRIFFETH. JAMES STEVENS HAMMOND. GEORGE MATTHEWS HAYDEN. BENJAMIN F. HERSEEY. WALTER CLARENCE LAIBLIN HILSCHER, FRANK EARL KESLER. EDGAR PEARCE KING. WALTER HIGGINS KULL. THOMAS FRANCIS MCMAHON. RODERICK PERLEY MILLER. CHARLES HOMER NIXON, HAROLD COOK PHILLIPS. HAROLD HALL RHOADES, JOHN SOCACH. FRANK WINEGARNER SPENCER, CHRISTOPHER PITMAN STIVERS, CHARLIE SUVOONG. GLEN TOMPKINS. RALPH WINTHROP WHITE. GEORGE STEWART WOLFF, ARTHUR CLARENCE WYSE, HELEN ARMSTRONG, MARY FLORENCE CARNEY, LOUISE ELIZABETH HAMBLEN, WILMA HUFFMAN, FLORENCE ELIZABETH HUNT, DOROTHY GRACE MARTIN.

Kane, Pa. Sciotoville. Granville. Burlington, N. Ca. Fairmount, Ill. Garman's Mills, Pa. Rupert, W. Va. Toledo. Canton. Granville. Granville. Canandaigua, N. Y. Newark. Dayton. Canton. Farmington, Ill. Oklahoma City, Okla. Beloit, Wis. Farmington, Ill. Newark. Granville. Sav-la-Mar, Jamacia. Brooklyn, N. Y. Kurtics, Hungary. Newark. Manchester, Ky. Shanghai, China. Utica. Lynn, Mass. Quebec, Canada. Fayette. Cincinnati. Granville. Granville. Blue Rock. Mechanicsburg. Ongole, India.

GRACE ROSOMRO MOODY, MARGARET FLIZABETH SPEICHER,

JUNIOR CLASS.

CHARLES GARNER ASHBROOK, MILAN FORREST ASHBROOK, EDWARD LYONS BEENEY, CARL H. BIEFIELD. STANLEY KENT CHEESEMAN, FLMER EDWARD FULLER. ROBERT TAYLOR GOODELL, LEROY TRUMBULL GROSE, ALBERT HARRIS. WILLIAM DRENNAN HETHERINGTON, HERLUIN GATES HOPKINS. HUBERT ROCERS HOPKINS. JOSHUA RUSSELL KECKLEY. CHESTER LEROY KLEIN, DONALD CARLOS McCOLLUM, MORRIS AUGUSTUS THOMAS. JOSEPHINE DARROW. ELEANOR FISHER, FRANCES ELMA HASKINS, BERTHA HOUNCHELL. GRACE FIGERTON McCUNE, BERTHA MAREL PLANSON,

SECOND YEAR.

HARRY HERRO'K RAWDEN, KENNETH HAROLD BECK, JOSEPH JOHN BOLEA. ALFRED DAVID ROSTICK, STANCE CATANA. HARRY PAUL CLAUSE, GEORGE HERMAN GLEISS, ELDA ALBERT HERR RAYMOND McCLELLAND HUNT, ARTHUR DICKSON INGLIS, ERNEST LEON LAME. STEPHEN HOPKINS LAPP. JAMES SIMPSON MCGRUER. ALBERT WILSON MOMEYER, KENNETH EMANUEL REIGHARD, JAMES HARDY VAWTER, WILLIAM ARTHUR VOGEL, SARA LOUISE CONANT.

Granville. Granville.

Granville. Granville. Newark. Granville. Wyoming. Dunbridge. Cranville. Canton. Granville. Pittsburgh, Pa. Chicago, Ill. Chicago, Ill. Newark. Sandusky. Granville. Lima. Granville Chillicothe. Granville. Oneida, Ky. Cincinnati. Stryker.

Granville. Piqua. Cioroiu Nou, Roumania. Canton. Galicia Mare, Roumania. East Liverpool. Carrick, Pa. Acme, Mich. Oakmont, Pa. Granville. Memphis, Texas. Norwood. Glasgow, Scotland. New Matamoras. Akron. Indianapolis, Ind. Granville. Granville.

FIRST YEAR.

EDGAR WINFIELD BLOOMQUIST,
FOSTER MCAMEND CASS,
DAVID ALBERT CHAMBERS,
CHARLES SHERMAN CONN,
MELVIN ANDREW MEYERS,
HENRY RAYMOND MOHLER,
SHERMAN SALVERSON,
ETHEL ANNA FLEMING,
LAURA BLANCHE FORNEY,
EUDORA GERTRUDE MCCOLLUM,
FRANCES HURLBUT RAY.

Kane, Pa.
Kane, Pa.
Granville.
Zanesville.
Kane, Pa.
Summit.
Waupaca, Wis.
Steubenville.
Bird's Run.
Granville.
Granville.

ELECTIVE.

RAIPH OWEN BRATTAIN,
WILLIAM EDWARD HAYDEN,
GEORGE WILLIAM HAZLETT,
LLOYD THOMAS HICKMAN,
JOHN TERUYUKI MATSUOKA,
NORMAN POMEROY,
PAUL BURNSIDE STAGER,
MARY ANTOINETTE CARROLL,
FLORENCE MARIE DRAKE,
PAULINE VICTORIA ENTERLINE,
MARGARET ANN FIFE,
SUSANNA HELBING,
AMY E. MONTGOMERY,
IRENE SELBY,
MARY W. STASEL.

Antwerp.
Richwood.
Newark.
St. Paul, Minn.
Matsuyama, Japan.
Auburndale, Mass.
Alexandria.
Newark.
Norwalk.
Massillon.
Canton.
Toledo.
Newark.
Utica.
Newark.

Students in the Denison Conservatory of Music

DIPLOMAS CONFERRED JUNE 1915.

CONSTANCE DAY CHENEY, Piano.

MABEL MARGARET METZ, Piano.

EDITH RUTH SHREVE, Voice.

EVA LOCILLE WRIGHT, Organ.

GRADUATE STUDENTS.

MABEL MARGARET METZ, Piano. Eva Lucille Wright, Organ and Piano.

SENIORS

GLADYS IRENE BONSHIRE, Piano, IMOGEN ADAMS HAMBLEN, Voice, MABEL MEAD JONES, Piano,

Newark. Granville. Nito, Japan.

UNCLASSIFIED.

JULIET BARRER, RUBY WINONA BARNES, HULDAH LOUISE BEUTENMILLER, JOHN LEANDER BIELKE, ERNEST BODENWEBER. JESSIE VEATRICE BURNS, LOLA M. BUXTON. LOIS MILLER CARTER, GENEVIEVE HOLMES CATHCART, JOHN CHAMBERLAIN. MARGARET CHAMBERLAIN, STUART CHAMBERLAIN, BELFORD PICKERING CHEADLE, BESSIE BEATRICE CLARK, HELEN MAR CLEPHANE, MARION COLLINS. RUTH CONANT, HELEN CONWAY, HELEN LAURA CORD, KARL EMMETT CRILLY,

Cambridge. Brink Haven Coshocton. Wellsville. Cleveland. Piqua. Johnstown. Duncan Falls Cleveland. Granville. Granville. Granville. Newark. Alexandria. Madisonville. Newark. Dayton. Newark. Cincinnati

Newark.

PAUL CURTIS. SARA JOSEPHINE DARROW. FISHER NOEL DAVIS. LAURA ALICE DENZER. MRS. F. G. DETWEILER. JOHN QUINCY DIETZ, EMMA LOU DUDLEY. MADELEINE EDGERLY. RUTH ANDERSON ELDRIDGE. ELIZABETH EVANS. ANNA ETHEL FLEMING. MARJORIE FLEMING, RUTH FLEMING. LAURA BLANCHE FORNEY, LILA FREDERICKSON, FRANCES FRY. EMILY FULLERTON. EMMA L. GEIS. GERTRUDE GIBBONS. HELEN GILMORE. JESSIE GRANDSTAFF. MARIORIE BERNICE HAMILTON. ADRIA AUGUSTA HARRISON. FLORENCE HOLLER. SARA BARBOUR HOLMES. HELEN GRACE HOOVER. ROBERT ELMER HOPKINS. CLOTILDE HOWARD. ALMONTE C. HOWELL, NEVA HULSHIZER. RAYMOND McCLELLAND HUNT. BERENICE JACKSON. GRACE E. JEFFERSON, LAURA ELIZABETH JOHNSON. MARY VASHTI JONES. ELMA I. KING. ESTHER LUCILLE KISSANE. MARY HITT MARTIN. LENORE KESLER MCCUTCHEON. MARY FRANCES McDonald, MARY MCKANE. GOLDIE MCLAIN. MINER MITCHELL, ETHEL MORRIS. WAYNE CONVERSE OVERTURE,

Fairfield. Granville. Gallipolis. Coshocton. Granville. Rupert, W. Va. Meiktila, Burma, Ottumwa, Iowa, Franklin. Granville Steubenville. Marysville. Granville. Bird's Run. Granville. Walhonding. Greenfield. Granville. Cleveland. Granville. Alexandria. Kankakee, Ill. Newark. Utica. Augusta, Kv. Johnstown. Granville. Newark. El Cristo, Cuba. Newark. Pittsburg, Pa. Newark. Norwalk. Mead, Neb. Zanesville. Granville. Newark. Grand Junction, Colo. Franklin, Va. Dayton. Newark. Utica. Newark. Omaha, Neb.

Newark.

BERTHA PLANSON, MARY PRICE. JAMES LESLIE PUTNAM. FRANCES HURLBUT RAY, HELEN RAY. JOHN MILLARD ROCKWOOD, MAE RODEBACK. GROVER SAYRE, LAURA KASSANDRA SELLERS, BLAUN WILLS SIGLER, CHARLES V. SLANE. WINIPRED CARRIE SMITH. MARY STASEL, JANET STEADMAN. RALPH STOWELL, FLORENCE EDGERTON STUCEY. HARRIETT THOMPSON SWETLAND, GENE THOMPSON. RUTH TIPTON, MARJORIE PAGE TREAT, MARY TRIMMER, JAMES PRIME TURNER. KENNETH LYON ULLMAN, WILLIAM ARTHUR VOGEL. JOSEPH KENNARD WEDDELL, MARY LOUISE WERTZ, MAURICE WIEDEMER. MARY EVA WILSON, RUTH WILSON, MYRA WOOD, HERBERT R. YOUNG,

Stryker. Plain City. Merril, Wis. Granville. Granville. Granville. Johnstown, Granville. Granville. Richmond Dale. Athens. Norwalk. Newark. Morioka, Japan. Newark Chicago, Ill. Mt. Vernon. Newark. Gallipolis. Union City, Pa. Condit. Coshocton. Granville. Granville. Woodbury, N. J. Kankakee, Ill. Norwood. Granville. Webb Summit. Wilmington. Toledo.

Students in Summer School

UNA MARGARETE ACKLEY, DOROTHY ACKLEY, HERMAN WILLIAM ACTON. LOUISE AFRICA. ROBERT HUNTER ALEXANDER. LENA M. ANDERSON, CHARLES WESLEY ANDREWS, FRED D. ANSPACH. HELEN ARMSTRONG. BYRON EUGENE ASHBROOK. BONNIE LEAH BAKER, MARY MARGERY BARBER. GAYLAND BARBER. HARRIET AMELIA BARRINGTON. JOHN SAMUEL BARRINGTON, RUTH ANN BARRINGTON. PEARL L. BAUGHMAN. GRACE M. BEAVER. ORVILLE B. BELT. MARY BILLETT. INA ISABEL BISHOP. EDWARD COREY BOGGS, MARTHA ELIZABETH BOND, ORLIE E. BRENNEMAN. BERNICE BROWN. LILLIAN ALVERETTA BROWN. ANNA MARGUERITE BURKETT, GEORGE HOY BURNS. GORDON JACOB BURRER. GLADYS MARIE BUXTON, CLARENCE FRANCIS CANTLEBARY. EWART GLADSTONE CARNEY, FRANCES ISABELLE CARNEY, ESTHER CARPENTER, QUINCY ADAMS CHEADLE. FLORENCE SARAH CHUBBUCK, FAYE LOVING CLEVELAND. BEULAH L. COCHRAN. EMMA GRACE COCHRAN,

Granville. Granville. Richmond Dale Newark. Zanesville. Newark. Pleasantville. Thornville Dayton. Granville. Marengo. Mt. Vernon. Marengo. Granville. Granville. Granville. Johnstown. Mt. Vernon. Baltimore. Marengo. Newark. Granville. Granville. Lexington. Granville. Monroeville. Thornville. Marengo. Sunbury. Alexandria. Marengo. Granville. Granville. Alexandria. Newark. East Cleveland. Erie, Pa. Hanover. Nashport.

STUART COLLETT, FOREST ROSE CROUSE. LETTIE CROUSE. BESSIE L. CROWE. PAUL WICKES CURTIS. EVANGELINE DAVIES. LOUIS HENRY DENMAN. MRS. L. H. DENMAN. THOMAS WILLIAM DENNIS. LUELLA DENTY. BESSIE MAY DIEBL. ROWENA MAUD DITMARS, HARRY JOSEPH DOTSON. MARY ELMETTA DOWDS. MAREL CECILIA DRAPER. CLINTON FORD DRESBACK GOLDA A. DUMBAULD. MARY S. DUNDY, LOLO MARIE DUNLAP. BESSIE A. DUSTHIMEN. CLELL EARLY. EDWIN THOMAS EDWARDS. VINA TRENE EPPLY. ELIZABETH EVANS. NEVA MERLE EWERS. ROY LABON FAIRALL. EMMA ELIZABETH FALLER, GLENNA VIDETTE FERG. SON. MAURICE BURGIT FINCH. MARY SUSAN FLEMING, HELEN FORD, MARIE FOWLER. BERTHA ELIZABETH FRANK, RUTH FRESHOUR. PHOESE PHAME FRIEL, KARL FREDERICK FRIEND. VERIE M. FRYE. CLEMENT F. FRYEMUTE, HOMER LYLE GANO. RUSSELL WILSON GARDNER, HAZEL HELENE GAUMER. CLARICE MAE GEIGER, DAVID BRYAN GEIGER, GUY LEE GEIGER. MARY ADRIAN GRIGER.

London, England. Newark Johnstown. Croton. North Fairfield Granville. Granville. Granville. Newark. Croton. Pataskala. Granville. Newark. Utica. Granville. Johnstown. Johnstown. Granville. Pataskala. Newark. Mt. Gilead. Ironton. Johnstown. St. Louisville. Predericktown. Frazeysburg. Thornville. Newark. Beaver Dam, Wis. Granville. Kingston. Coshocton. Granville. Kingston. L'tica. Pleasantville. Johnstown. Jacksontown. Granville. Fulton. Coshocton. Pataskala. Hebron. Pataskala.

Hebron.

STANLEY LAMAR GINGERY. GENEVA GIVEN. EVA GLEASON. FLOYD WILLIARD GLEASON. CHARLES LAURENCE GOODELL. ROBERT TAYLOR GOODELL. EDITH GORDON. HELEN SELLERS GORSUCH. MARIE GRAHAM, IRMA GRUBBS. ANNA ROSE GUMBISH. SUE GUTHRIE. AGATHA CATHERINE HALE, BLANCHE MARIE HALLMAN, IMOGEN ADAMS HAMBLEN. LOUISE ELIZABETH HAMBLEN, ETHEL HARRIS. ARTHUR MELVIN HARSHBARGER. ALMA ADELAIDE HAWKE. NELLIE MAY HAWKE, WILLIAM EDWARD HAYDEN, CLOYSE FREDERICK HAYS. LOLA MAE HELSER, OSCAR F. HELSER. BENJAMIN F. HERSHEY, FREDERICK EARNSHAW HERSHEY. WILLIAM DRENNAN HETHERINGTON, SAMUEL C. HEWITT, CHARLES CASE HICKSON. WALTER CLARENCE LAIBLIN HILSCHER, HELEN RUTH HIRST. MINNIE HITE. GERTRUDE LOUISE HOFFMAN. ADA JULIA BAYNE HOLLAR. RUTH SUSAN HOLLAR, LIZZIE M. HOSKINSON, JEANETTE HOWARD, MILDRED HUNT. MARY IDE. LUCY PAULINE IRELAND, CHARLES NES IRVINE, BESSIE JAMES, ELEANOR JAMES. OLIVE ANN JENKINS. THOMAS LEE JOHNSON,

Nevada. Granville. Sunbury. Johnstown. Granville Granville. Mt. Gilead. Mt. Vernon. Newark. Zanesfield Granville. Newark. Granville. Chesterville. Granville. Granville. New Philadelphia. Hebron. St. Louisville. St. Louisville. Granville. Utica. Thornville. Thornville. Dayton. Dayton. Pittsburgh, Pa. Pataskala. Mt. Gilead Canton. Newark. Granville. Chicago Junction. Newark. Newark. Newark. Marengo. Granville. Hanover Van Wert South Zanesville. Granville. Granville. Chicago Junction. Johnstown.

CURTIS N. JONES, DOROTHY MARGARET JONES, EDITH VIOLA JONES. JOY LOUISE KASSON. CLARK PHILLIPS KELLEY. FLORA E. KETTE, EDGAR EARL KIDWELL, HAROLD L. KIER, JENNIE KIRBY. ESTHER LUCILLE KISSANE. RALPH GRANT KOONTZ, ANNETTE ELIZABETH KUMLER. LEON LAKE. FLORICE ANNA JOSEPHINE LANC ADELENE LEVERING. AGNES LEVERING. MELBA BARRINGTON LEVERING ALICE LIGGETT. ALMA REBECCA LIGHTFOOT. ADA LINDENMAYER, WILLIAM DALE LLOYD. GEORGE EMMETT LOCKE, HELEN COCHEAN LOCKHART, EVA LOCKWOOD. OMA E. LOCKWOOD. KATHERINE BITNER LONG. LUCILLE LOYD. JAMES BURDETTE LYDIC. IVA ALWILDA LYNN. IVEN LOY LYNN, WILLIAM FOSTER MCBRIDE, EMMA LUCILE MCCULIOUGH, CLEO McDEVITT. MARIE McLEESE. ALICE L. MACMAHON, RAY CLEVELAND MCMILLAN. JAMES MACPHERSON, HAZLE LILLIAN MARTIN, CLARA G. MASHETER, ANNA FLORENCE MASON, OLLIE BLANCHE MASON, KATHERINE MAST. THELMA GLADYS MILLER, VERNA ALTETH MILLER. HELEN MILLIKIN.

Granville. Granville. Vanatta Johnstown. Granville. New Matamoras. Mt. Gilead. Granville. Johnstown. Newark. St. Louisville. Baltimore. Johnstown. Pleasantville. Marengo. . Marengo. St. Marys. Marengo. Wheeling, W. Va. Gahanna. Marengo. St. Louisville. Granville. Johnstown. Johnstown. Newark. Utica. Hebron. Thornville. Johnstown. Nevada. Pataskala. Utica. Utica. Newark. Richmond Dale. Granville. Hebron. Thurston. Newark. Newark. Newark. Newark. Jacksontown. Plain City.

ENID GERALDINE MITCHELL, NELLIE MITCHELL, BERNICE ERMA MOORE. JOHN HARRIS MOORE. MAZIE ALBERTA MYERS, ALTA MAY NEIGHBARGER. EDYTHE MARIE NETHERS. BEATRICE ELIZABETH O'NEAL, NELLA BURTON ORR. THELMA OVERTURE. NEVA MAE PAYNE. PAUL EUGENE PENDLETON. BERTHA PLANSON. MABEL INEZ PRATT. JOHN I. PRICE. ROSA ALICE PUGH, VIRGIL LEE RALSTON, WALTER VERNE RANDOLPH, HAZEL REED, NOLEN PERRY RICHMOND. ELLA RITTER. RUTH ESTHER ROCKWOOD, HAROLD LEE ROGERS. JULIA IRENE ROGERS, EDRIS LUCILE ROSE, HARMON AVERY RUNNELS, EDSON COLDREN RUPP. ETHEL RUTLEDGE, VERNA TALITHA SALISBURY. LEWIS DUDLEY SCOTT, CHARLES GUY SHAMBAUGH, VIRTUE SHANNON, AGNES LEOTA SHAW, CLARA EMILY SHELDON, CLIFFORD CLARE SHERBURNE, ROY FRANCIS SHINN. BLAUN WILLS SIGLER, VERNA M. SINES. CHARLES VINCENT SLANE, BEATRICE D. SMITH, JESSIE MARIE SPANGLER, CORNELIA SPENCER, PETRANA STAMENOVA, SUNIE PRESTON STEELE. MABEL STEWART,

New Matamoras. Mt. Sterling. Johnstown. Pataskala. Marengo. St. Louisville. St. Louisville. Kenton. Brownsville. Johnstown. Croton. Granville. Strvker. Granville. Granville. Newark. Marengo. Marengo. Coshocton. Marengo. Newark. Granville. Newark. Granville. Granville. Johnstown. Troy. Newark. Mt. Vernon. Granville. Shauck. Newark. Hebron. Granville. Newark. Maplewood. Richmond Dale. Blacklick. Cambridge. Johnstown. Thornville. Granville. Cleveland. Georgetown, Ky. Pataskala.



JAMES STINCHCOMB, DENNIS STRAIT. GERTRUDE LOUISE SUTTON. IRVIN LEVI SWANSON. MARK SWISHER. FLOYD R. THOMPSON. LULU AUGUSTA TIPPETT. MARGARET ETHEL TIPTON, OLIVE MAY TROUT. KENNETH LYON ULLMAN. RACHEL VAN DYKE, DONALD ELLIS VAN WINKLE. ROY FRANKLIN VERMILION. ESTHER WARNER, JUDSON BLAKE WALKER. ELIZABETH WATEIN, EMILY WEAVER. HELMER LEWIS WEBB. LETTIE L. WILDMAN. AUGUSTA FILIMORA WILGUSH, JAMES B. WILLIAMS. MARIE WILLIAMS. NELLIE E. WILLIAMS. CHAUNCEY ELSWORTH WILSON, LELA MARY WILSON. MARY MYRTLE WILSON, ISEL ALMEDA WISE. HELEN WOLCOTT, GEORGE EDWARD WOOD, HELEN GRACE WOODRUFF. ROBERT WILLIAM WORST. EVELYN BELLE WRIGHT, FLOYD DALE WRIGHT. GEORGIA REBECCA WRIGHT, PAUL COCANOUR WRIGHT, EDITH MARIE YOUNG. SAMUEL ZOLLER,

New Lexington. Kingston. Johnstown. Granville. Urbana. Johnstown. Johnstown. Gallipolis. Centerburg. Granville. Thornville. Granville. Newark. Granville. Toledo. Newark. Hanover. Philadelphia, Pa Newark. Medina. Granville. Granville. Radnor. Johnstown. Chesterville. Mt. Gilead. New Lexington Conover. Pleasantville. Pataskala. Waverly. Fredericksburg. Johnstown. New Lexington. Frederickstown. Granville. Zanesville.

Sum	mary of	Sti	ıdı	en	t.	A	te	nd	ar	ice			
Graduate Students				,		,							
Seniors, Granville	College .	-					+					44	
Shepards	on College			+						+		24	
Landan Committee	C-11											-	6
Inniors, Granville													
Shepardse	on College	*						-				. 32	
Sophomores, Granv	ille College											73	6
Shepardson Colle													
Chep	aruson comes	, .		,	*	+		*				310	11
Freshmen, Granville College												115	
Shepardson Colleg												80	
												_	19
Special Students, (15	
	Shepardson	Col	leg	e	-			+	4	à	4	12	
													2
Doane Academy, S.		4.	*		4.							39	
	unior Year						16			1+	*	22	
	econd Year						*		*			18	
	irst Year							*	1	4		11	
S	pecial Stude	nts		2	+				-	4		15	

Enrollment in Summer School of 1915

ANNUAL CATALOGUE

Schedule of Courses by Hours

All odd numbered courses belong to the first semester, even numbered courses to the second. Laboratory courses, extending over two hour periods, are listed under both hours and marked with a star.

A. CLASSES MEETING AT 7:30 A. M.

- (1) Mon., Tues., Wed., Thurs. Latin 1-2, section 1 Spanish 1-2 German 1-2, section 1 Civil Engineering, 5, 11
- (3) Tues., Wed., Thurs. *Botany 11-12
- (5) Mon., Fri. *Botany 7-8

7-8 *Physics 1a-2a Mathematics 3b-4b, Monday to Friday inclusive. Political Science 5, Monday to Friday inclusive.

(2) Mon., Wed., Fri.
Mathematics 1-2, section 1
History 3-4
Political Science 8-10
French 5-6
German 5-6
Physics 1-2
*Chemistry 11-12
(4) Tues., Thurs.
English 5a-6
*Chemistry 3-4, 13-14
*Civil Engineering 1-2, 12

Geography 7-8
*Physics 1a-2a

B. CLASSES MEETING AT 8:30 A. M.

- (1) Mon., Tues., Wed., Thurs. Mathematics 3-4 Greek 1-2 French 1-2, section 1 German 3-4, section 1 *Civil Engineering 5, 11
- (3) Tues., Thurs.
 History 9-10
 English 16a
 *Chemistry 3-4, 13-14
 *Civil Engineering 1-2, 12
 Geography 1, 6
 *Zoology 13b-14b
 *Botany 11-12
 *Physics 1a-2a
- (2) Mon., Wed., Fri.
 Education 1-2
 Mathematics 1-2, section 2
 History 7-8
 Political Science 1-2
 English 1-2, section 1
 English 2-4, section 1
 Greek E-F
 German 7-8
 Physics 7-8
 *Chemistry 11-12
 Civil Engineering 15-16
 Geography 4, 5
 Zoology 7b-8b
- (4) Mon., Fri. *Botany 7-8

C. CLASSES MEETING AT 9:30 A. M.

- (1) Tues., Wed., Thurs., Fri. Mathematics 5, 8 Greek 3-4 Latin 1-2, section 2 *Physics 3-4, section 1 *Chemistry 1-2, 1a-2a *Civil Engineering 3 *Zoology 3-4
- (3) Wed., Fri. English 13-14 French 7-8 Geology 4b *Botany 3-4, 5-6 Music 11-12 Philosophy 4

- (2) Mon., Tues., Thurs. Philosophy 1-2 Mathematics 10 History 1-2, section 1 English 1-2, section 2 English 3-4, section 2 Civil Engineering 6 Music 9-10
- (4) Tues., Thurs. *Zoology 5b-6b

D. CLASSES MEETING AT 10:30 A. M.

Mathematics 1b-2b every day.

- (1) Tues., Wed., Thurs., Fri.
 Mathematics 11, 13
 Greek 5
 Latin 3-4
 Italian 2-3
 German 3-4, section 2
 *Physics 3-4, section 1
 *Civil Engineering 3, 8
 Astronomy 3-4
 *Botany 3-4, 5-6
- (3) Wed., Fri. English 9-10 Physics 9-10 *Chemistry 1-2 Geology 1a-2b *Zoology 3-4 Music 15-16

- (2) Mon., Tues., Thurs.
 Philosophy 1-2
 Mathematics 1-2, section 3
 Mathematics 12, 16
 Political Science 3-4a
 Geography 2, 3, section 1
 English 8
 *Zoology 11b
 Music 7-8
 Public Speaking 1-2, section 1
- (4) Tues., Thurs. *Chemistry 1a-2a

E. CLASSES MEETING AT 1:30 P. M.

(1) Mon., Tues., Wed., Thurs. French 1-2, section 2 German 1-2, section 2 *Physics 3-4, section 2

*Chemistry 9-10

*Civil Engineering 4, 7

(2) Tues., Thurs., Fri. Education 5-6

Latin 5-6, 7-8 Greek 6 German 9-10

Physics 5-6

*Chemistry 5-6, (5a-6a Monday)

*Household Economics 1-2 Geography 2, 3, section 2

*Zoology 1-2 *Botany 1-2 Music 5-6

Public Speaking 3a-4a

(3) Mon., Wed. Latin 9-10, 11-12

*Astronomy 1-2

*Botany 9-10 (Monday 2:30)

Music 13-14

Botany 16b and Zoology 16b (identical) Monday 1:30 and two lab. hours to be arranged.

F. CLASSES MEETING AT 2:30 P. M.

(1) Mon., Tues., Wed., Thurs. French 3-4

*Physics 3-4, section 2

*Civil Engineering 4

(2) Tues., Thurs., Fri.

Philosophy 6-7

Mathematics 1-2, section 4

History 1-2, section 2

Greek 8 Greek G-H

English 1-2, section 3 and 4

*Physics 5-6 *Chemistry 5-6

Public Speaking 1-2, section 2

(4) Tues., Thurs. Civil Engineering 13

(5) Tues.

*Botany 1-2, section 1

*Zoology 1-2, section 1

Geology 5a-6b Civil Engineering 9-10 Music 1-2, 17 Public Speaking 5-6

(a) Mon, Wed.

English 15

Physics 12 *Chemistry 9-10

Household Economics 1-2, Tues., Fri. at 2:30.

Botany-Zoology 1-2, a second laboratory section, Tues., 3:30-5:30.

Index of Faculty and Officers

Autrogge, Mrs. C. M
Biefeld, Professor P 8, 11, 51, 62
Bradstreet, Miss A
Brooks, Miss G. J
Brown, Miss L. C
Brumback, Professor A. M. 8 11 56 81
Carney, Professor F
Chamberlain, President C. W
Chamberlin, Professor W. A 8, 11, 30, 51, 85
Colwell, Professor R. S 8, 11, 12, 45, 78
Coons, Professor C. D
Emswiler, H. W
Enswiler, H. W
Farrar, Miss F. J 9, 109, 115, 116
Finley, Mrs. E. E
rish, Acting Professor H. D 8. 11. 65. 83
Goodell, Professor C. E 8, 11, 12, 41, 43, 79, 85, 126
Henderson, C. W
Herrick, Mrs. A. K
Hines, Mrs. K. S
Hopkins, E. E
Hopkins, Miss R. I
Howland, Miss C. M.
Hundley, Professor, H. R
Hunt, Miss M. H
Johnson, Professor T. S 8, 11, 57, 81
Johnson, Professor W. H 8, 11, 12, 46, 78, 84, 125
Johnston, Acting Assistant Professor E. P 9, 11, 74
Kull, Assistant Professor I. S 9, 41, 79, 85
Lewis, Professor T. A 8, 11, 36, 87
Livingston, Director W
McKibben, Professor G. F 8, 11, 50, 84
Odebrecht, Associate Professor A 9, 11, 50, 92
Orcutt, Miss R 9, 70, 92
Patrick, F. F
Peckham, Associate Professor A. B
Pence, Associate Professor R. W
Powell, Acting Professor L 9, 11, 12, 46
D . TY
Preston, H

DENISON UNIVERSITY

Schoonmaker, Miss II E				9, 39
Sefton, Miss L. B.				9. 56. 92
Smith, Miss G. I.				10 109 116
Spencer, Associate Professor B.				9, 11, 36, 92
Stickney, Professor M. E				8 11 70 81
Thomson, Miss V. H				19
Tilbe, H. H.				9 99
Vickers, R. P.				
Whittlesey, Acting Assistant Pro	farene	n c		10
The state of the s	ressor	D. S.		9, 11, 41
Wiley, Professor F. B	4 .		8, 11,	39, 80, 82, 86
Williams, Professor C L .		4 4		8, 11, 48, 80

Index of Students

ADAMS, B. D., 134. ADAMS, C. S., 131. ALER, A. E., 134. ALLISON, J. T., 132. ALWARD, E. E., 132. ANDERSON, L. L., 137, 143, ANDERSON, M. E., 138. ARMSTRONG, H., 143. ARMSTRONG, J. N., 132. ARNOLD, H. R., 132. ASHBROOK, C. G., 144. Аѕнвкоок, L., 142. Аѕнвкоок, М. F., 144. ASKIN, P. H., 133. ATCHLEY, O. L., 133. ATHEY, G. B., 134. ATHY, L. F., 134. ATWELL, D., 140. ATWELL, D. B., 132. ATWELL, R. H., 139.

BACON, I. H., 134. BAHNSEN, C. E., 134. BAKER, O. H., 132. BALDWIN, G. W., 133. BALL, M. M., 138. BALLARD, J. W., 132. BALLOU, N., 138. BARKER, J. A., 139, 146. BARKER, M. L., 134. BARNES, E. E., 138. BARNES, R. W., 140, 146. BARRE, H. B., 140. BARRETT, F. S., 143. BARRINGTON, J. S., 131. BASH, J. G., 133. BASH, S. S., 133. BATES, M. G., 140. BAWDEN, A. T., 143. BAWDEN, H. H., 144.

BEACH, A. V., 133. BEACHLER, C. L., 133. BEATTIE, A. J., 133. Вевв, G. Е., 134. Веск, К. Н., 244. BEENEY, E. L., 144. BEERS, A. E., 139. BELL, H. M., 140. BENEY, M. P., 139. BENOY, M. P., 139. BEUTENMILLER, H. L., 146. BIEFIELD, C. H., 144. Biggs, H. R., 131. Вівнор, J. I., 140. BJELKE, J. L., 131, 146. BLOOMQUIST, E. W., 145. BODENWEBER, E., 134, 146. BOESEL, G., 140. Boggs, B. M., 142. Boggs, E. C., 132. BOLEA, J. J., 144. BOND, G. A., 142. BONSHIRE, G. I., 146. Возтіск, А. Д., 144. BOWMAN, G. M., 133. BOWMAN, O. M., 139. BOWYER, R. W., 134. BRADSTREET, A., 131. BRATTAIN, R. O., 134, 145. Вкоск, Н., 132. BROWNE, F. G., 133. BRUCE, J. A., 140. BRUMBACK, A. L., 138. BUCK, M. C., 143. BUKER, H. D., 134. BUMER, C. T., 134. BUMGARDNER, L., 140. BURNWORTH, F. F., 134. BURNS, C. D., 134,



Burns, D., 139 Burns, J. V., 13, 140 Burns, G. J., 131 Burns, D. M., 134 Burns, L. M., 146

CARMAN, E. J. LIN CORNEY E. G., 171 CARNEY, F. L. 140. CARNEY, M. F. 148, 148. CARR. H. A. 1 ... CARRACO, K. K., 140. CARROLL, M. A., 170, 145. CARTER, L. M., 140, 140 Cass, F. M., 145 CATANA, 5., 144. CATHCART, F. M. 139. CATHCART, G. 11, 140, 146. CATLETT, K. R., 141. CHAFFEE, K. M. 134 CHAMBERLAIN, J., 146. CHAMBERLAIN, M., 140 CHAMBERLAIN, S. 146. CHAMIERS, D. A., 145. CHANDER, H. D. 184 CHASE, F. L., 111. CHEADLE, B. P., 123, 146. CHEADLE, Q. A., 131. CHEESEMAN, S. K., 141. CHEYNEY, A. F., 134. CHRISTMAN, I. F., 140. CHURINGR, F. S., 130. CLARK, B. B., 146. CLARK, H L., 135 CLARK, L. G. 140. CLARK, W. R., 125 CLARY, F. L., 132 CLAUSE, F. J., 130. CLAUSE, H. P., 144. CLEMM, H. H., 185. CLEPHANE, H. M., 140, 148. COBB. L. W., 140. COCHRAN, F. M., 135. COCHRAN, M. L. 142 COLEMAN, M. M., 140.

CHIEFT, E. E., 139. COLUER, S. W., 115. COLLENS, M., 146. Cownia, M. B., 140. CONANT. R., 141, 146. CONAST, S. L., 144. CONCLETON, L. V., 139. LOSN, C S., 145. LOSWAY, H., 146. Cook, T. A., 135. Com. H L, 138, 146, CHRUM, W. W., 132 Carrier, C. L., 1296 Cox, E. S., 141. CECWTORD, I. M., 138. CRAWMER, A. R., 135. Casaca, A. D., 135. Caresay, G B., 135. CMILV. K. E., 133, 146. Corr, T. E., 135. CULLISON, C. E., 135. CURREN, R. A., 135. CCRTIS, P. W. 133, 147.

DERNOLD, R. L., 135. DARROW, J., 144, 147. DAUB, M. E., 141. DAVIES, R. D., 133. DAVIS, B. P., 135. DAVIS, E., 143. DAVIS, F. N., 133, 147. DAVIS, J. L., 141. Dawson, H. D., 131. DEAN, M. F., 138. DECKER, C. D. 133. DELZELL, M. E., 139. DEMING, E. L., 138. DENNY, J. A., 135. DENZER, L. A., 147. DETWEILER, F. G., 135. DETWELLER, MRS. F. G., 147. DICKINSON, H. M., 138. DIETZ, J. O., 143 ,147. DITMARS, R. M., 139. DOSTER A. M., 139.

DOYLE, I. R., 139. DRAKE, F. M., 141, 145. DUDLEY, E. L., 147. DYE, H. M., 141.

EARNSHAW, H. W., 135, EDGERLY, M., 141, 147, EDWARDS, F. W., 135, ELDRIDGE, R. A., 139, 147, EMSWILER, H. D., 133, EMSWILER, H. W., 132, EXTERLINE, P. V., 145, ERICKSON, E. E., 137, EVANS, E., 147, EVANS, H. W., 141,

FEIGHT, H. H., 135. FERRIS, R. D., 135, 143. FIFE, M. A., 141, 145. FIGLEY, W. K., 143. FINCH, M. B., 133. FINLEY, MRS. E. E., 142. FISHBURN, F. M., 138. FISHER, E., 144. FLEMING, E. A., 145, 147. FLEMING, M., 141, 147. FLEMING, M. S., 142. FLEMING, R., 147. FORRES, W. C., 135. FORNEY, L. B., 145, 147. FRANK, B. E., 139. FRASCH, B. H., 133. FREDERICKSON, D. R., 139. FREDERICKSON, L., 147. FRIEND, K. F., 135. FRY, F., 147. FULLER, E. E., 144. FULLER, M. E., 139. FULLERTON, E., 139, 147. FUTERER, E. M., 135.

GAINFORT, J. W., 131. GARLAND, E., 141. GEIS, E. L., 138, 147. GEORGE, A. M., 138. GIBBONS, G. C., 141, 147.

GILL, F., 140. GILMORE, H., 147. GILMORE, R. C., 133. GIVEN, M. C., 138. GLEISS, G .H., 144. GOODELL, C. L., 135, 143. GOODELL, R. T., 144. GORSUCH, R. E., 135. GRANDSTAFF, J., 147. GRAVES, E. M., 138. GREGG, R. C., 135. GRIFFETH, R. M., 135, 143. GRILEY, H. L., 131. GROOMES, C. B., 135. GROSE, L. T., 144. GROVE, E. E., 138.

HALL, F. C., 133. HAMAUN, S. L., 138. HAMBLEN, I. A., 138, 146. HAMBLEN, L. E., 143, HAMILTON, C. F., 131. HAMILTON, M. B., 141, 147. HAMMOND, J. S., 135, 143. HANDEL, W. J., 135. HARPER, F. V., 135. HARRIS, A., 144. HARRIS, L. C., 138. HARRISON, A. A., 147. HASKINS, C. H., 133. HASKINS, F. E., 144. HAWKINS, L. E., 141. HAYDEN, G. M., 135, 143. HAYDEN, W. E., 133, 145. HAZLETT, G. W., 133, 145. HEATH, W. A., 141. HEINRICHS, M. M., 140. HELRING, S., 141, 145. HENDERSON, C. W., 131. HERR, E. A., 144. HERSHEY, B. F., 135, 143. HESS, U. G., 141. HETHERINGTON, T. J., 135. HETHERINGTON, W. D., 144. HICKEY, L. M., 140.

HICKMAN, L. T., 132 145. HILSCHER, W. C. L., 143. HOLLER, F., 147. HOLMES, S. B., 139, 147. HOOVER, F. G., 142. HOOVER, H. G. 147. HOPKINS, H. G., 144. HOPKINS, H. R., 144. HOPKINS, R. E., 147, HORTON, P. G., 133. HOUNCHELL, B., 144. HOUNCHELL, S 131 HOWARD, C. 147. Howell A. C., 152, 147. HUFFMAN, W., 143. HULSHIZER, N., 147 HUMPHREVILLE, E. J., 140. HUNDLEY, J. W., 135. HUNT, F. E., 143. HUNT, R. M., 144, 147. INGLIS, A. D., 144. IRWIN, G J., 183. JACKSON, B. O., 141, 147. JEFFERSON, G. E., 140, 147. JENKINS, S., 135. JEWELL, A. R., 133. JOHNSON, A. J., 133. Johnson, A. L., 131. JOHNSON, E. B., 135 Johnson, G. F., 139. JOHNSON, L. E., 140, 147. JONES, D. H., 132. JONES, G. M. 131. JONES, H. W., 133. JONES, M. M., 138, 146. JONES, M. V., 139, 147. KARNS, M. A., 141. KECKLEY, J. R., 144. KELLY, C. P., 135. KEMPTON, C. E., 135. KENDALI., R. H., 140. KESLER, F. E., 143. KIER, H. L., 131. KILLWORTH, G. E., 141.

KING, E. L. 147.
KING, E. P., 135, 143.
KINNEY, E. H., 132.
KINNEY, E. L., 147.
KLEIN, C. L., 144.
KNAPP, R. S., 132.
KNIPFIN, J. B., 133.
KOONTZ, R. G., 133.
KOONTZ, R. G., 133.
KULL, F. O., 131.
KULL, W. H., 143.

LADD, D. M., 131. LADD, R. H., 133. LAMB, E. L., 144. LANG, G. R., 135. LANGSTAFF, L. L., 139. LAPP. D. J., 138. LAPP, S. H., 144. LAPP, S. L., 131. LARCOMB, R. C., 135. LARUE, A. H., 132. LEMOI, B. C., 138. LEMON, J. L. 135. LISTER, W. B., 136. LOCKE, F., 140. LOGAN, F. A., 133. Long, K. B., 139. LONGNECKER, A. I., 138. LONGSWORTH, H. O., 140. LYMAN, L. H., 131. LYNE, P. R., 136. Lyon, G. M., 131.

MACK, E. L., 140.
MACPHERSON, J., 132.
MARSH, E. R., 131.
MARSHALL, C. B., 136.
MARTIN, D. G., 143.
MARTIN, E. L., 139.
MARTIN, J. M., 133.
MARTIN, M. H., 141, 147.
MARTIN, W. C., 131.
MASSIE, H. S., 136.
MASSELLAR, C. H., 132.

MATSUOKA, J. T., 137, 145. MATTHEWS, B. E., 136. McCAIN, M. W., 141. McCammon, J. W., 133. McCollum, D. G., 144. McCollum, E. G., 145. McConnaughey, G. C., 136. McCutcheon, L. K., 141, 147. McCune, G. E., 144. McDanel, E. C., 138. McDonald, M. F., 139, 147. McGEE, F .L., 141. McGRUER, J. S., 144. McKANE, M., 147. McLAIN, G., 147. McLAIN, M. B., 139. McMahon, T. F., 143. McNaughten, A. J., 141. McNaughten, M. E., 141. McQUATE, A. G., 136. MEAD, R. W., 136. MEARS, J. K., 133. MELBY, H. M., 140. MERIDITH, F. A., 136. MEREDITH, W. F., 136. MERRIAM, W. I., 136. MESSENGER, S. E., 141. METCALF, C. A., 133. METZ, M. M., 146. MEYERS, M. A., 145. MILLER, F. C., 137. MILLER, L. A., 141. MILLER, R. P., 137, 143. MILLS, E. P., 131. MILLS, J. R., 139. MITCHELL, M., 147. MOHLER, H. R., 145. MOMEYER, A. W., 144. MONTAGUE, P. J., 136. MONTGOMERY, A. E., 140, 145. MONTGOMERY, D. E., 141. Moody, G. B., 142, 144. Moony, W. O., 137. MORRIS, B. C., 131.

Morris, E. N., 138, 147. Moss, B. O., 136. MYERS, H. E., 141. MYERS, W. W., 133. NEAL, T. C., 136. NELLIS, H. C., 131. NEWTON, M. J., 136. NICKEL, R. A., 140. NIXON, C. H., 143. NORPELL, J. B., 133. NOTT, B. A., 138. OLDHAM, E. A., 131. OLDHAM, E. A., 141. OLNEY, H., 138. OLNEY, K., 138. OVERTURF, W. C., 131, 147. PALMER, L. F., 140. PALMER, R. E., 140. PATRICK, F. F., 131. PEASE, C. M., 141. PEASE, C. S., 133. PENCE, L., 140. PENDLETON, P. E., 136. PETERSON, J. B., 136. PHILLIPS, H. C., 143. PHILLIPS, R. M., 141. PINE, E. F., 141. PLANSON, B. M., 144, 148. POMEROY, N., 145. PRATT, D. R., 131. PRESCOTT, S. H., 133. PRICE, A. T., 131. PRICE, M., 141, 148. PRICE, O. N., 133. PUTNAM, E. W., 132. PUTNAM, J. E., 136. PUTNAM, J.L., 133, 148. QUARTEL, H. W., 136. RANDLEV, H. M., 141. RAY, H. D., 141, 148. RAY, F. H., 145, 148. READ, P. G., 133. REES, F. H., 138.

REES, T. H., 131. REIGHARD, K. E. 144. REYNOLDS, A. H., 134 REYNOLIS, H. C., 182 RHOADES, H. H., 187, 143 RHODES, P. L., 134. RICE, E. F., 136. RICHARDSON, D. F. 132 Riccs, G. M., 142 ROBERTS, C J., 114 ROBINSON, H. W., 140. ROCKWOOD, J. M., 148 RODERACE, M., 148. RODGERS, R. M., 137 ROGERS A. W. 136 Rose, J. L., 136. ROSENSTEEL J L. 136. Raush, R. R., 137. ROWLEY, M. A. 140 RUMMED D L. 134 RIPP, N. G., 136. RUSSELL R F. 137 Russell, S. V., 139.

SACE, D. W., 136. SALISBURY, V. T. 138 SALVERSON, S., 145. SANFORD, M. R., 141. SARGENT, M A. 140. SAYRE, G. C., 134, 148 SCHOCK, L. D., 132. Scott, C A., 136. Scott. L. D., 134. SEACRAVE, G. R., 139. SEAGRAVE, G. S. 134. SEDGWICK, M., 141 SEDGWICK, R. M., 141 SELBY, S. I., 142, 145. SELLERS, L. K., 141, 148. SHEETS, R. A., 134. SHERBURNE, C. C., 137. SHORNEY, G. H., 136. SHREVE, E. H., 136. SHUMAKER, E. C., 140. SIGLER, B. W., 136, 148.

SIM MONS, A. E., 136. SINSABAUGH, G. B., 139. SLAGHT, E. R., 141. SLANE, C. V., 148. SMART, R. C., 131. SMITH, A. F., 134. SMITH, C. H., 132. SMITH, E. M., 136. SMITH, M. R., 136. SMITH, W. C., 141, 148. SMITHBERGER, G., 141. SMYTH, E. V., 139. SNYDER, H. F., 136. SOCACH, J., 143. SPEICHER, D. H., 136. SPEICHER, M. E., 144. SPENCE, E. A., 141. SPENCER, F. W., 136, 143. SPENCER, H. G., 136. SPERRY, E. D., 134. SPISIAK, A., 134. STAGER, P. B., 136, 145. STALKER, D. N., 136. STANKARD, G. T., 131. STARBATT, E. E., 142. STARRETT, C. C., 131. STASEL, M. W., 142, 145, 148. ST CLAIR, G. E., 142. STEADMAN, J., 148. STEGER, H. C., 137. STEPHAN, H. S., 137. STEVENS, R. M., 136. STIVERS, C. P., 136, 143. STOWELL, R., 148, STUCY, F. E., 142, 148. SUTTON, J. H., 134. Suvoong, C., 143. SWAIN, C. G., 132. SWANSON, I. L., 131. SWETLAND, H. T., 142, 148. TAYLOR, E. M., 131. TAYLOR, S. L., 139.

THIELE, C. L., 132.

THOMAS, M. A., 144.

THOMPSON, E. W., 134. THOMPSON, G., 148. THRAILKILL, L. R., 136. THRESHER, E. S., 134. TIFFT, A. B., 138. TILBE, L. C., 140. TILBE, M. F., 139. TILBE, P. H., 136. TIPTON, M. E., 138. TIPTON, R. L., 142, 148. TOMPKINS, G., 137, 143. TOURTELLOT, B., 142. TRAXLER, V. H., 136. TREAT, M. P., 142, 148. TRIMMER, M., 148. TRUMPER, V. M., 142. TURNER, J. P., 136, 148. TYLER, R., 142.

ULLMAN, K. L., 132, 148.

VANWINKLE, D., 138. VAWTER, J. H., 144. VICKERS, R. P., 132. VOGEL, W. A., 144, 148.

WALKER, A. I., 140.
WALKER, J. B., 132.
WALKER, S. E., 138.
WALSH. M. F., 139.
WARD, F. B., 132.
WARD, J. A., 134.
WEAVER, K. B., 137.
WEBER, H. L., 137.
WEBER, S. G., 132.
WEDDELL, J. K., 134, 148.
WELLWOOD, K., 142.
WELLWOOD, M., 139.
WEKTZ, M. L., 142, 148.

WEST, R. E., 132. WHITE, J. O., 137. WHITE, R. W., 143. WICKENDEN, R., 140. WIEDEMER, M. B., 134, 148. WILKIN, R. E., 137. WILKINSON, R. L., 134. WILLIAMS, L. L., 139. WILLIS, C. S., 132. WILSON, E. B., 134. WILSON, M. E., 142, 148. WILSON, R., 148. WINANS, L .H., 134. WINE, W. W., 132. WOLFF, G. S., 143. Wood, A. L., 139. Wood, H. M., 132. WOOD, K. F., 139. Wood, M., 140, 148. Wood, M. J., 142. WOODROW, H. W., 137. WOODWARD, M. B., 142. WOODWORTH, H. C., 142. WOODYARD, W. C., 132. WRIGHT, E. L., 146. WRIGHT, H. C., 134. WRIGHT, P. C., 137. WYNNE, O. E., 137. WYSE, A. C., 137, 143.

YASUMURA, S., 132. YOAKAM, C. A., 134. YOAKAM, W. A., 132 YOST, R., 132. YOUNG, E. L., 142. YOUNG, H. R., 134, 148 ZOLLARS, L. R., 137. ZWAYER, W., 134.

Subject Index

Academy, Doane, 92.
Admission—
Granville College, 31-36.
Shepardson College, 31-36.
Doane Academy, 97.
Alumni, Society of, 125.
Astronomical Observatory, 46.
Astronomy, 19, 62.
Athletics, 24, 102.

Biology, 65, 70.
Board and Rooms—
For young men, 13, 94, 105, 121122
For young women, 14, 88, 122.
Botany, 19, 70.
Botany group, 81.
Buildings, 13-17.
Ruilletin of Laboratories, 21.

Calendar, 4.
Chemical Society, 22.
Chemistry, 18, 56.
Chemistry Group, 81.
Christian Associations, 15, 24, 90
Civil Engineering, 18, 57.
Civ. Engineering Group, 81.
Committees of Board, 7.
Committees of Faculty, 11.
Courses of Study—
Classical, 78.
Scientific, 80.
Philosophical, 84.

Degrees— First, 29. Second, 29. Degrees conferred in 1915, 129. Dismission, 36, 105. Doane Academy, 92-107. Economics, 44.
Education, 38.
Saducation Group, 87.
English, 48.
English Groups, 80, 85.
Entrance Requirements, 32.
Examinations, 26, 100.
Expenses, 120-124.

Forestry, 72. French, 50.

Genetics Club, 23. Geography, 61. Geological Society, 22. Geology, 17, 60. Geology Group, 82. German, 51. German Group, 85. Granville College, 31-87. Greek, 45. Greek, 45. Group System, 77.

History, 41. History Groups, 79, 85. Hist. & Polit. Sci. Ass'n, 23. Honors, Special Study for, 26. Household Economics, 57, 76.

International Law, 44. Italian, 51.

Latin, 46. Latin Groups, 78-80, 84. Library, 14, 21. Literary Societies, 23, 90, 101, 104. Logic, 37.

Mathematics, 39.

Mathematics Groups, 80, 82, 86. Music, Conservatory of, 108-120. Music, Credit Courses, 74, 110-112. Music Group, 86.

Observatory, 16. Oratorical Association, 23.

Phi Beta Kappa, 125. Philosophy, 37. Physical Training, 75, 90. Physics, 17, 54. Physics Group, 83. Political Science, 43. Prizes, 27, 101, 106. Psychology, 37. Public Speaking, 74.

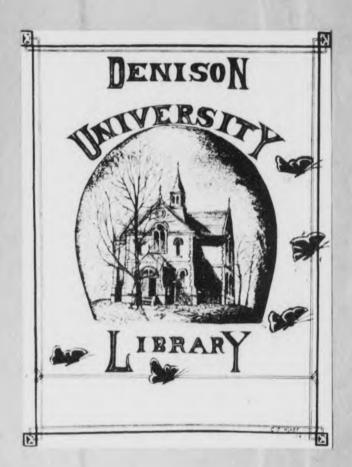
Registration, 33. Romance Languages, 50. Romance Group, 84. Rooms, 13-14, 88, 94, 105, 121-122.

Schedule of Recitations, 156. Scholarships, 28, 91, 102, 105. Scientific Association, 21, 22. Scientific Equipment, 17-21. Scientific Publications, 21. Shepardson College, 88-91. Spanish, 51. Student Lists, 131-154. Summary of Attendance, 155. Summer School, 126.

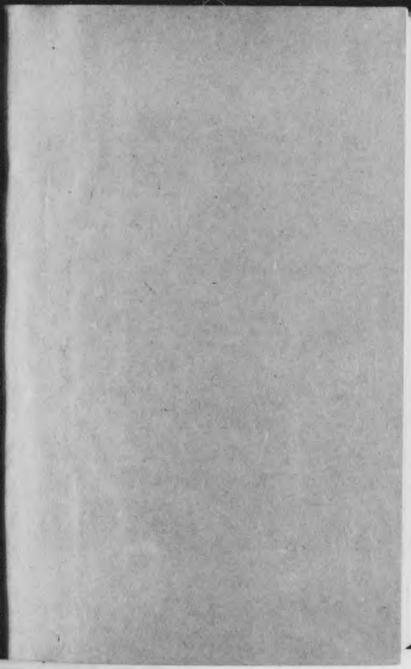
Y. M. C. A., 15, 24, 104, Y. W. C. A., 24, 90.

Zoology, 19, 65. Zoology Group, 83.









Sul

Admission, 28, 84 Alumni, Society of, 104 Astronomy, 19, 36 Athletics, 23, 71, 85

Bible Study, 39
Biology, 40
Board and Rooms—
For men, 14, 100
For Women, 14, 83, 101
Botany, 19, 39
Buildings, 14
Bulletin of Laboratories, 20

Calendar, 3 Chemical Society, 21 Chemistry, 18, 42 Civil Engineering, 18, 45 Committees of Board, 6 Committees of Faculty, 11 Courses of Study, 11-35, 36-81

Degrees, 31-35 Degrees Conferred in 1918, 106 Dismission, 31

Economics, 61 Education, 68 English, 48 Entrance Requirements, 29 Expenses, 99

Forestry, 41 French, 76 Genetics Club, 21 Geography, 52 Geological Society, 21 Geology, 17, 48 German, 51 Granville College, 28 Greek, 56