CHARLES CHESTER McCracken, A. M.,
Dean of Normal College.
Pedagogics and Methodology.

JOHN GAMBLE PARK, A. M.,
English Grammar, Analysis, Logic.

LEAH ASCHAM, A. B.,
Algebra, Geometry.

JOHN LEVI MANAHAN, B. S., B. PED.,
Supervisor of Model School.
[Summer Term]

PAULINE BURKLEY,
Critic Teacher, Intermediate.
[Summer Term]

NELLIE ADELINE HOLT,
Critic Teacher, Primary.
[Summer Term]

THOMAS JEFFERSON SMULL, C. E., M. E.,
Dean of College of Engineering.
Civil Engineering.

MRS. EVA MAGLOTT, A. M., C. E.,
Mathematics.

ERNEST BERT THURSTON, E. E., M. E.,
Electrical and Mechanical Engineering.

CHARLES ADDISON MILLER, C. E.,
Mining and Municipal Engineering.

STRAWDER ARTHUR RINGER, B. C. S.,
Bookkeeping, Banking, Higher Accounting.

EMMET ELIJAH LONG, B. C. S.,
Commercial Arithmetic, Pennmanship.

GEORGE WILLIAM SCHEID, B. C. S.,
Business English, Stenography, Typewriting.

DAVID CHRISTIAN MOHLER, PHAR. G., PHAR. L.,
Dean of College of Pharmacy.
Pharmacy.

LENIX CRAIG SLEESMAN, PHAR. G., PHAR. C.,
Organic Chemistry, Pharmacy.

RUDOLPH HENRY RAABE, PHAR. G., PHAR. C.,
Practical Pharmacy, Demonstrator in Laboratory.
ROYAL DELANEY HUGHES, A. B.,
Dean of College of Music.
Voice, Harmony, Oratorio and Opera.

EDWIN LAWRENCE ALLEN, A. B.,
Organ.

BERNICE DORPHY MILLS, B. M.,
Piano.

GAIL WATSON,
Violin.

ALBERT AUGUSTUS CRECELIUS, B. L.,
Dean School of Expression.
Oratory, Dramatic Art.

S. RAE BERLET,
Drawing, Painting.

EDGAR CASNER RICHEY, B. S.,
Dean of College of Agriculture.

HELEN ARMS, B. S.,
Domestic Science.

LIEUT. WILLIAM S. NEELY, U. S. A.,
Commandant.
Military Science.

EARL F. ZEIGLER, A. B.,
Assistant in Physiology.

LORENZO ELLIS MCKINLEY, B. S.,
Assistant in English.

HARRY GLENN PORTS,
Assistant in Physics and Chemistry.

L. DELBERT MERRY, C. E.,
Assistant in Civil Engineering.

KARL MACEACHRON, E. E.,
Assistant in Electrical Engineering.

EDGAR CLARK CRAWFORD, C. E.,
Assistant in Surveying.

GEORGE ALBERT BOESGER,
Assistant in Mathematics.

PEARL AIDENE MAUD STAHL, B. EXP.,
Librarian.
Flo L. Cronbaugh,  
Stenographer.

Aaron Albin Thomas, A. B.,  
Financial Secretary.

Ralph Leroy Donnan,  
General Secretary Y. M. C. A.

Hiram Cornelius Coolidge,  
Custodian of Buildings.

Faculty Organization

Dr. A. E. Smith, Chairman.

Henry Whitworth, Secretary.

Alfa Holmes, Registrar.

Committees

Agriculture: Professors Richey, Huber, Wright, Smull.
Athletics: Professors Smull, Richey, Sleesman, Beer, Long, Cre-  
celius.

Catalogue: Professors Whitworth, Wright, Dr. Smith.

Editing: Professors Wright, Freeman, Miss Holmes.
Finance: Professor Wright, Miss Holmes, Dr. Smith.

Library: Professors Freeman, McCracken, Crecelius, Dice, Mrs.  
Maglott.

Literary Societies: Professors Ringer, Ascham, Ice.

Loan Fund: Professors Whitworth, Wright, Dr. Smith.

Military: Professors Dice, Schoonover, Freeman.

Standing and Graduation: Professors Whitworth, Freeman, Huber.

Student Publications: Professors Freeman, McCracken, Smull,  
Wright, Whitworth.

Summer School: Professors McCracken, Wright, Beer, Freeman.
THE OHIO NORTHERN UNIVERSITY

Historical Sketch

In the later "sixties," half a century ago, Henry S. Lehr, a young pedagogue from Eastern Ohio, found his way westward into the village of Ada, then known as Johnstown. He obtained employment as a teacher in the Union schools and subsequently taught a series of terms of "select" school. His spirit, enthusiasm and helpfulness, together with a keen appreciation of the practical in subjects and methods, attracted many "foreign" students and would-be teachers to his school. The dream of founding a great normal school in which plainness, practicalness and inexpensiveness were to be the main characteristics, became a master passion directing his thought, shaping his plans, and at last taking definite and actual form. In the year 1870-71 the first building, a three-story brick, was erected and on August 14, 1871, the Northwestern Ohio Normal School was formally opened "for the instruction and training of teachers in the science of education, the art of teaching and the best methods of governing schools."

In the fall of 1875 the Northwestern Normal School located at Fostoria, Ohio, was consolidated and incorporated with the Northwestern Ohio Normal School at Ada.

From the very start a limited number of special subjects were offered in the courses of instruction, but from time to time, as patronage demanded, department schools were organized as follows: Music, Commercial, Telegraphic, Fine Art, Stenography, Engineering, Military, Law, Pharmacy.

In 1888 the name was changed from Northwestern Ohio Normal School to Ohio Normal University, the plan and management remaining the same, and normal principles and methods marking the administration.

From its inception the school was under private management and control until, in September 1898, the owners sold to the Central Ohio Conference of the Methodist Episcopal Church the real estate and personal property belonging to the University.

Under the new administration, as fast as existing contracts permitted, came a change in the relations of the several departmental schools with the main school. These, heretofore semi-independent, were now reorganized under one management and
control, and the respective deans placed on salary instead of com-
mission. At the same time instruction in the main school was
made departmental, with the head-teacher in each department
director thereof.

In 1904-5 the institution was recharted under the name
Ohio Northern University.

Material Equipment

The University Campus lies in a resident portion of the vil-
lage, a few blocks south of the Pennsylvania Station. Here “Old
Glory” may be seen the year round, waving from the summit of
a hundred-foot steel staff a welcome to the chance visitor or pro-
spective student. On this Campus stands the old Normal Hall,
endared by many a cherished memory of the early struggling
days of the school; the Administration building, erected by the
citizens of Ada and leased to the original proprietors of this
school, but a few years ago deeded to the present owners; Dukes
Memorial, located on the south side of the Campus, devoted to
science, engineering and law; Brown Auditorium in the north-
east angle of the Campus, an assembly hall for gatherings of all
kinds, from sermon-lectures to basketball; the Pharmacy Build-
ing in the northwest angle, recently remodeled and newly equipp-
ed; and just outside, southwest of the quadrangle, Music Hall
with its assembly room, offices and private practice rooms cozy
and convenient. These buildings contain commodious rooms
well lighted and heated by the University’s central steam heating
and electrical lighting plant.

The Chemical and Physical Laboratories are equipped with
the latest conveniences and apparatus for individual instruction
and investigation. In the General Chemical Laboratory are one
hundred and twelve lockers provided with apparatus for general
work, while the Physical Laboratory has ample accommodation
for more than one hundred and fifty students.

The Biology Laboratories are equipped with a sufficient
number of compound Microscopes to enable each student to
work by himself. A projection lantern and a projection micro-
scope are used in the laboratory and lecture room for demonstra-
tions and interpretations. Lockers for individual apparatus are
provided free.

The Museum contains numerous specimens and collections
for illustrating geology and biological sciences. In the geological alcove are found all the common minerals and ores, many rare ones, meteorites, plant and animal fossils representing the chief orders of geological importance, the shells and skeletons of many living molluscs and vertebrates. The zoological alcove exhibits about 200 birds representing one or both sexes of nearly all of those common to this region, all animals native to Ohio, many kinds of snakes, and several hundred specimens of the orders of invertebrates preserved in jars. For illustration in anatomy a human skeleton and structural models of various organs are at hand. All persons interested in the cause of education are kindly invited to make donations of specimens—geological, mineralogical, zoological, botanical, historical, Indian relics, any kind whatever—to the University. Specimens labeled with the name of the donor will be placed on exhibition.

The Pharmaceutical and Dispensing Laboratories are supplied with ample apparatus and desk arrangement; the equipment affording every facility for thorough, practical, individual work.

The Library quarters in Normal Hall have recently been extended and renovated, and additions made to the University Library, which is open each day of the week for the convenience of students. The Society and Departmental Libraries supply a large amount of reading matter, literary and periodical. Current journals and magazines are to be found in the University Library and the Y. M. C. A. reading room.

The attention of the Alumni and all interested is called to the imperative necessity of increasing the library's efficiency. Any contributions of libraries and single volumes, practically serviceable in research work in any of the fields of knowledge, will be gratefully received and acknowledged.

Within four squares of the Campus, adjacent to the student rooming section of the town, lie the Athletic Grounds, owned and controlled by the University, on whose area of eight acres the Baseball Diamond, the Football Gridiron, the Running Tracks, the Lawn Tennis Courts, and the Military Parade and Contest Field are located.

The U. S. A. Government supplies a military equipment which at present is under the management of Lieut. William S. Neely, U. S. A.
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The University possesses a tract of land within a block and a half of the Campus, containing fifty acres of rich, productive soil under cultivation. Here the Agricultural buildings are to be erected and, in the near future, a well equipped College of Agriculture, already partly organized and giving instruction, will be devoted to the practical demonstration of farm methods and problems, and to the training of young men and women to stay by the land and to realize that independence, culture, social development and free life are to be attained in rural districts as well as in the city.

Degrees

The University is empowered to grant the customary scholastic degrees, but aims to bestow them on the deserving only. Such honors are not for sale, but must be earned and merited. The management accepts grades of equal value from other institutions of learning, yet the applicant for a degree, coming from another college or university, is required to spend at least forty weeks in residence. No diploma is granted on grades made wholly in other institutions.

Literary and Debating Societies

Three flourishing Literary Societies, chartered, and meeting in well furnished assembly rooms, are maintained by the students exclusively—the Franklin, Philomathean, and Adelphian. In addition to the advantages offered in public speaking, these organizations have been the conservators of enthusiastic energy, genuine social enjoyment and loyal devotion to the school.

Under the supervision of the societies numerous clubs are organized each term for practice in debate and extempore speaking.

Prizes

Through the good-will of Dr. H. S. Lehr, of Ada, a prize of $25 is awarded to the winner in the annual Oratorical Contest between the three Literary Societies. This contest is one of the attractive features of Commencement week.

Hon. I. N. Kuhn, of Waynesburg, Pa., an alumnus, has provided for two annual prizes of $15 and $10 to be given to the successful contestants in Franklin Literary Contest.
Miss Pearl A. M. Stahl offers $15 and $10 prizes annually to the two successful members of the Philomathean Society.

Dr. George W. Crile, of Cleveland, an alumnus of the Adelphian Literary Society, has permanently provided for $15 and $10 prizes for the winners in that Society.

Dr. A. E. Smith, the president, in each summer term, offers a prize of $10 to the winner in the Spelling Contest open to all students.

Mr. George F. Getty, '79, offers $15 and $10 prizes annually to the members of the Philomathean Society winning honors in debate.

**Government**

The opportunities and advantages of the University are offered to all sincerely desiring to develop the best in themselves, and aiming at a broad culture and a thorough preparation for useful service. Hence self-government is made the key-note in discipline. All are treated as ladies and gentlemen until they prove themselves otherwise. Incorrigible and morally corrupt persons are summarily dismissed from the institution. Every possible help is afforded in the formation of right habits, but those who cannot govern themselves are not wanted. This institution does not pose as a "reform school."

Regular attendance upon class work, prompt response to duty, and thoroughness in all assigned tasks are insisted on, not more for their bearing on scholarship than for their effect upon conduct and life.

**Rooming Houses for Women**

Young ladies coming from homes outside of Ada, will be required to room in houses kept exclusively for women. The University will assist in securing rooming places for all young ladies, and carefully superintend all things pertaining to their welfare.

**Moral and Religious Culture**

Mere intellectual and physical training apart from moral and religious culture results in deformity of character. Much attention, therefore, is given to awakening and fostering an inspiration to attain to the highest type of Christian manhood and womanhood.
While the University is the property of the Central Ohio Conference of the Methodist Episcopal Church and is denominational in its ownership and control, it is in no sense sectarian. Students of all religious denominations are received on equal terms and treated with equal consideration. They are urged to identify themselves with the work and participate regularly in the services of the church of their choice. The seven churches of the city cordially invite students to their religious and social meetings, and welcome them to church homes.

Convocations are held each school day from 8:00 to 8:30 a.m. The aim of which is not only to recognize the duty and privilege of daily devotions, but to foster a university spirit by bringing together into one assembly the students of the several Colleges to listen to practical addresses and talks from members of the faculty and others, and to be entertained by those connected with the College of Music and Expression.

Y. M. C. A. and Y. W. C. A.

The Young Men's and Young Women's Christian Associations have enthusiastic organizations in the University and wield a most wholesome influence on the lives and habits of the students.

The Young Men's Christian Association occupies a very prominent place in the University life. It is affiliated with the World's Christian Federation and is under the direction of the State and International Committees. The local Association employs a General Secretary who gives his entire time to the work and is at the service of every man wishing friendly and confidential talks over problems affecting the life of a college man.

The privileges of membership include the use of the exercise and bath rooms as well as a voice in shaping the policy of the organization.

The Young Women's Christian Association has a strong organization in the University, with a membership including about ninety per cent. of the young women in attendance at the school.

A devotional meeting open to all the University women is held weekly. At the beginning of each quarter Bible and Mission Study classes are organized under efficient teachers.

The Association is supporting a child in an orphanage in
India, and also contributes to the maintenance of a General Y. W. C. A. Secretary in India.

A parlor and rest room for the young women, with office and toilet room attached, has been fitted out in the administration building.

Both Y. M. C. A. and Y. W. C. A. Bible Study classes and religious meetings are open to all men and women enrolled in the University.

**Athletics**

Encouragement is given to Athletics, and college teams in baseball, football, basketball, and track athletics are maintained. Interdepartmental and interclass sports are also encouraged.

The department of Athletics is managed by a Board of Directors, comprised of the Faculty Committee on Athletics (appointed by the President of the University), the Athletic Director, and a student member for each college sport. The student members are elected by the Athletic Association, a student organization, to which any student of the University may belong.

**Athletic Fee**

By petition of the young men of the Institution, an Athletic Fee has been added to the regular tuition for the first three quarters of the year. $1.00 will be charged each quarter to be devoted to the support of the Athletics of the Institution. Young ladies may pay the fee at their option. No fee will be charged for the Summer Quarter. All paying $1.00 each a quarter will receive ticket of admittance to all athletic events free of charge.

**Military Drill Compulsory**

Every able-bodied male student intending to complete any of the University curriculums, or taking work necessitating two years or more of attendance, is required to drill and recite in this department three quarters and "go through contest."

**Aid to Students**

The Board of Education of the Methodist Episcopal Church lends money to members of that church taking a regular course in school, who have been in attendance long enough to merit a
recommendation from the Faculty. No interest is charged if the
debt is paid within five years from the time of leaving school,
but a payment of $5.00 each year must be made on the prin-
cipal. No security is required other than a recommendation
from a quarterly conference. Loans are made at the beginning of
each quarter. Application should be made two weeks before the
opening of the quarter and no applicant can be received later than
the close of the first week of the quarter. The maximum amount
that can be allowed to each applicant is $50 a year. Many of
the best students avail themselves of this advantage.

For further information, address The University.

Many students in the University make their entire expenses
by working as waiters, janitors, and at other occupations in the
town and vicinity, and, at the same time, carry full work in their
studies.

Rooms, Boarding and Home Comforts

The University has no dormitory, owns no boarding-house,
nor feeds its impecunious students in the basements of its build-
ings. The matter of rooming and boarding students is left to the
large number of families engaged in this business for a livelihood.
The competition is sharp, and good, substantial living is offered
at remarkably low cost.

Good board in private families costs from $1.65 to $2.75 a
week.

Furnished rooms, two in a room, 50 cents to $1.25 each a
week.

The town is lighted with electricity; coal is the chief fuel,
and many houses are heated by hot-air furnaces, gas, or with
hot water from the city heating plant.

The comfort and convenience of the student is looked after
by a kind people; when sick he is well cared for.

For cost of tuition, see "Expense" under the various schools
and colleges. Needful expenses are reduced to a minimum.

Reports to Parents and Guardians

Should any parent or guardian desire to acquaint himself
with his son's or ward's standing in the work of any quarter, a
report may be had by addressing a request to the president.
Such reports will be made out and sent only on request and at the close of a quarter's work.

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**Departments of the University**

I. The Preparatory School.
II. The College of Liberal Arts.
III. The Normal College.
IV. The College of Engineering.
V. The College of Commerce.
VI. The College of Law.
VII. The College of Pharmacy.
VIII. The College of Music.
IX. The School of Expression.
X. The School of Fine Arts.
XI. The College of Agriculture.
XII. The Department of Military Instruction.
THE PREPARATORY SCHOOL

Aim

The Preparatory School is organized for the purpose of (1) preparing students for college entrance, (2) affording an opportunity to any desiring to complete the work commonly required in first-class high schools.

The courses of study in the preparatory school are arranged to meet the usual requirements for college entrance, the minimum of which is fifteen units.

A unit is the amount of work done in a "first-class" high school in reciting previously prepared work once a day, five days a week, throughout a year of thirty-six weeks. Its time equivalent is 120 clock-hours.

The subjects, distributed by years and terms as shown in the schedules following, are to be taken, as far as possible, in the order indicated. No electives or substitutes others than those stated are allowed.

If a student on completing the preparatory curriculum, desires to enter college elsewhere, a certificate is issued, showing that the entrance work has been finished. This certificate is accepted in lieu of entrance examinations by the Ohio State University and other leading colleges, Ohio State Medical Board, and by the supreme Court of Ohio in lieu of the "preliminary" to the bar examinations.

Preparatory to Collegiate Courses for A.B. Degree

<table>
<thead>
<tr>
<th>FIRST YEAR</th>
<th>SECOND YEAR</th>
<th>THIRD YEAR</th>
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<tbody>
<tr>
<td>English Composition.</td>
<td>English Literature 2.</td>
<td>Greek 4, or German 4. or French 4.</td>
</tr>
<tr>
<td>English Literature 1.</td>
<td>Greek 1, or German 1, or French 1.</td>
<td>Greek 5, or German 5, or French 5.</td>
</tr>
<tr>
<td>Algebra 2.</td>
<td>American Literature.</td>
<td>Physics 2</td>
</tr>
<tr>
<td>Preparatory Rhetoric 1.</td>
<td>Greek 2, or German 2, or French 2.</td>
<td>English Literature 3.</td>
</tr>
</tbody>
</table>
Preparatory to Collegiate Courses for B. S., Ph. B. Degrees and Grad. Eng. Certificate

English, 31 units; mathematics, 2.2 units; science, 3.5 units; history, 2.2 units; Latin, 2.2 units; German, or French, or Spanish, 2.2 units; total units, 15.4.

<table>
<thead>
<tr>
<th>FIRST YEAR</th>
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</tr>
</thead>
<tbody>
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<td>English Composition</td>
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</tr>
<tr>
<td>English Literature 1.</td>
<td>German 1, or French 1, or Spanish 1.</td>
<td>German 5, or French 5, or Spanish 5.</td>
</tr>
<tr>
<td>Preparatory Rhetoric 1.</td>
<td>German 2, or French 2, or Spanish 2.</td>
<td>Preparatory Botany.</td>
</tr>
<tr>
<td>Algebra 3</td>
<td>Ancient History.</td>
<td>English History.</td>
</tr>
<tr>
<td>Preparatory Rhetoric 2.</td>
<td>German 3, or French 3, or Spanish 3.</td>
<td>English Literature 3.</td>
</tr>
<tr>
<td>Caesar 1.</td>
<td>Physics 3</td>
<td></td>
</tr>
</tbody>
</table>

DESCRIPTION OF COURSES

English

1. **English Composition.** (Hitchcock). This course includes a brief review of grammar, theme writing, paragraph writing, sentence structure, word study, capitalization, punctuation; the writing of letters, telegrams, business forms, etc. Some attention is given to versification. Stevenson’s Treasure Island is read. Short daily themes are required.

2. **Rhetoric I.** (Gardiner, Kittredge and Arnold). Narration and description. This course is closely co-ordinated with English literature. Dickens’ A Tale of Two Cities is carefully studied. The theme work is largely based upon the literature the student has studied. Three short themes are required each
week, and five long themes for the quarter. Prerequisite: Course 1.

3. Rhetoric II. (Gardiner, Kittredge and Arnold). Exposition and argumentation. The aim of this course is to teach the student to write clearly. The theme work is based upon physics, physiography, civics, history and literature. There is practice in brief making and debating. Macaulay’s Essays on Lord Clive and Warren Hastings are carefully studied. Prerequisite: Course 2.

4. English Literature I. This course is designed for those beginning the study of English literature. The following classics are read: Shakespeare’s The Merchant of Venice; Coleridge’s The Rime of the Ancient Mariner; Scott’s The Lady of the Lake; Goldsmith’s The Deserted Village; Goldsmith’s The Vicar of Wakefield; Gaspell’s Cranford; Gray’s Elegy. Attention is given to the biographies of the authors and to versification. Prerequisite: Course 1.

5. English Literature II. (Long). This course includes (1) a study of the History of English literature to the Age of Romanticism; and (2) the study of the following classics: Eliot’s Silas Marner; Browning’s Shorter Poems; Thackeray’s English Humorists; Palgrave’s Golden Treasury; Shakespeare’s Julius Caesar, and selections from Huxley. Prerequisite: Course 5.

6. American Literature. (Halleck). A brief survey of the history of American literature is given. The following classics are read: Selections from Lincoln; Irving’s Sketch Book; selected poems of Bryant, Longfellow, Whittier, Poe, Lowell, Lanier; Hawthorne’s The House of Seven Gables.

7. English Literature III. (Long). This course includes (1) the history of English literature beginning with the Age of Romanticism; and (2) the study of the following classics: Carlyle’s Essay on Burns; or Macaulay’s Life of Samuel Johnson; Burke’s Speech for Conciliation; or Washington’s Farewell Address and Webster’s First Bunker Hill Address; Shakespeare’s Macbeth; Milton’s Comus, L’Allegro, Il Penseroso. In each of the courses, 4, 5, 6, and 7, a number of short papers are required. Prerequisite. Course 6.

Mathematics

1. Algebra I. (Wentworth). Algebraic notation, simple
equations, positive and negative numbers, fundamental processes as applied to algebraic numbers, special rules, factoring, common factors and multiples.


3. **Algebra III.** (Wentworth). Imaginary expressions, quadratics, ratio and proportion, progressions, variables and limits, properties of series, binomial theorem, logarithms.

4. **Geometry I.** Plane. (Wentworth and Smith). Principles and definitions, demonstrations and theorems. Special stress is laid on original exercises and numerical problems.


**Science**

1. **Physics I.** Class work and individual laboratory work in motion, force, energy, machine, properties of matter and dynamics of fluids. Four hours a week the first half of the quarter and six hours a week the last half are spent in individual laboratory work by each student.

2. **Physics II.** Lectures and recitations on sound, heat and light. Each student spends sixty hours in individual laboratory work on these subjects.

3. **Physics III.** Lectures, recitations and demonstrations in magnetism and electricity. Sixty hours in experimental demonstrations, measurements and testing are required of each student.

4. **Physiology I. and II.** A course in Human Physiology for teachers and for students preparing for examinations. Students may enter the class at any time. The laboratory work covers the Harvard Entrance Requirements, and much of it can be adapted to schools where the teacher and pupils furnish all of the apparatus and materials. Many demonstrations are given by the instructor which are too difficult for the student to do alone. Students are assigned desk outfits, two at each table, for the purpose of assisting each other in manipulation and observation.

5. **Physical Geography.** A study of earth forms and processes and the geography of plants and animals. The work is
based upon Salisbury's Physiography, (briefer course) and due attention is given to laboratory and field work. This course or its full equivalent is required of all students for College Entrance.

6. Preparatory Botany. (Phanerogamic). A study of the germination, growth and reproduction of flowering plants, including plant structure, physiology and classification. The subject matter of this course is similar to the work of the best high schools that are well equipped and do a large amount of laboratory work. This course or its equivalent is required for college entrance.

History

1. Ancient History. (Myers). An introductory study of the early ancient nations, special reference to Greek and Roman history, and the chief events of the early Middle Ages, down to the death of Charlemagne (814).

2. Mediaeval and Modern History. (Myers). European history from the death of Charlemagne to the present time.

3. English History. (Cheyney). Instruction in this branch will show the development of the Anglo-Saxon race and civilization. The growth of the English constitution, judiciary system, and religious and civil liberty will be special features. Her social problems, her economic and commercial progress and the influence of the English people on the world's history will be carefully considered.

4. American History and Civics I. (History, Channing; Civics Guiteau). Early discoveries, explorations, and settlements in America; growth and development of the colonies; Revolutionary War; formation and adoption of the constitution; critical period.

5. American History and Civics II. Continuation of History I. A study of the trends of growth from the critical period to the present; attention given to preparation for teachers' examinations.

Latin

2. Caesar's Gallic War, three books, and prose composition. Five hours a week. Two quarters. Emphasis is laid on prose composition as a means of acquiring a working knowledge of Latin syntax. Walker's or any quantity-marked text, is used. Pearson's Prose Composition.

3. Cicero and prose composition; six orations, including the four against Catiline and the Manilian Law. Five hours a week. Two and one-half quarters. Allen and Greenough, or any quantity-marked text, is used. Pearson's Prose Composition.


Greek

1. First lesson based on White's "First Greek Book." Five hours a week. First quarter, lessons 1-27; second quarter, lessons 28-54; third quarter, lessons 55-80

2. Xenophon's Anabasis, four books. Goodwin's text. Five hours a week. Two quarters.

German

1. German I. Pronunciation, elements of grammar, easy reading, practice in speaking and writing German.

2. German II. Continuation of course I.

3. German III. Drill on Grammar, memorizing of colloquial sentences, readings, translations of colloquial praxis.

4. German IV. Continuation of course III.

5. German V. Reading and translation of masterpieces of representative German authors, study of syntax, prose composition, conversational praxis.

6. German VI. Study of German classics, prose composition.

French


2. French II. Continuation of course I.


4. French IV. Continuation of course III.

5. French V. Reading and translation of French masterpieces, studies in syntax, conversational praxis.


Review of Common Branches

Classes for review of the "common branches" are formed in the Normal School, to which students of the Preparatory School are admitted if they so desire.
COLLEGE OF LIBERAL ARTS

FACULTY

ALBERT EDWIN SMITH, D. D., PH. D.,
President.

HENRY WHITWORTH, A. B.,
Dean.
Latin.

MRS. EVA MAGLOTT, A. M.,
Mathematics.

SAMUEL PRESTON AXLINE, A. M., LL. D.,

RICHARD HOLMES SCHOONOVER, A. M., B. D.,
Greek, Hebrew, Biblical History.

FRANK BARTLETTE WILLIS, A. M.,
Civics, Economics, History.
(Absent on leave.)

WILLIAM GROTH, A. B.,
French, German, Spanish.

CHILDE HAROLD FREEMAN, B. S.,
Rhetoric, English, Literature.

CHARLES AMOS DICE, A. M.,
Psychology, Ethics, Philosophy.

JESSE BEER, B. S.,
Physics and Chemistry.

JOHN GAMBLE PARK, A. M.,
Logic.

FRANK LEWIS BERGER, A. B.,
Physics and Chemistry.

WILLIAM EDWARD ICE, A. M.,
History and Civics.

LEAH ASCHAM, A. B.,
Mathematics.

HARVEY EVERT HUBER, A. M.,
Biology, Geology.

HARRY GLENN PORTS,
Assistant in Chemistry and Physics.

EARL F. ZEIGLER, A. B.,
Assistant in Physiology.

LORENZO ELLIS MCKINLEY, B. S.,
Assistant in English.

ALFA HOLMES,
Registrar.
ADMISSION

General Remarks

Applicants for admission to courses in the College of Liberal Arts, leading to a degree, must have, in addition to the pre-academic or grammar-school studies, four years of high school preparation, or a full equivalent, including all subjects specifically required for the courses to be entered upon. Applicants must complete the required preparatory work, if their certificates from other schools show that this work has not been finished. All preparatory work must be finished before Junior credentials are issued.

Those not desiring to take a full regular curriculum may at any time enter any department and pursue the studies they choose, if, on consultation, the head of the department is satisfied that they have sufficient preparation to pursue the work successfully. Such applicants are classified as "Special Students." Should they later desire to graduate, they may do so, on condition of passing all the requirements, including the preparatory work.

Credits in the entrance subjects are accepted from "first class" High Schools, Academies or Preparatory Schools. No certificates for private work are accepted, and the Entrance Committee reserves the right to reject any or all grades from a second or third class High School. State life certificates receive recognition; county certificates only in the "common branches."

The applicant must present credentials duly made out and signed by the proper official of the school from which he comes, and showing in detail (1) the text book used in each subject, (2) the amount completed, (3) the number of weeks spent thereon, (4) the length in minutes of the recitation period, and (5) the mark or grade secured.

The applicant must see that the certificate is correct before presenting it, for credits not on the certificate will not be considered.

Scope of Preparatory Subjects

The Ohio Northern University recognizes the trend of opinion regarding a modification of the old-time high school curriculum, and is disposed to weigh credits in all work done in completing
ANNOUNCEMENTS

This issue of the Bulletin contains the courses of study for 1913-1914, certain information general and specific regarding tuition-rates, cost of board and rooming, conditions of entrance, calendar, roster of names for 1912-1913, and other matters of interest to prospective students.

Changes in Calendar

Attention is called to some changes in the calendar. Instead of five terms of ten weeks each, the year will hereafter be divided into four terms of twelve weeks each, to be designated respectively, Fall, Winter, Spring and Summer Quarters.

Note that the Fall Quarter begins on September 9, 1913, one week later than heretofore.

Time and Money Advantage at Ohio Northern

A school year at the Ohio Northern is forty-eight weeks in length. A three-year curriculum leading to the Bachelor's degree means 144 weeks of at least fifteen hours of recitations a week. This is the same time that is required elsewhere in four-year curriculums based on thirty-six weeks a year with a minimum of fifteen hours a week.

An Alumnus has figured that by completing a course in the Ohio Northern University, a student gains one year in time and one thousand dollars in money.

Seat of Ohio Northern

Ada, the seat of the Ohio Northern University, is an attractive little city in North Western Ohio, on the Pittsburgh, Fort Wayne & Chicago Branch of the Pennsylvania Railroad. It is
a "well-planned high school course," reserving however, the right to accept or reject any subject.

The following are the conventional entrance subjects, but all are not required of any one candidate.

**ENGLISH**

I. **Composition.** Ability to write good English with clearness and mechanical accuracy. This ability can be acquired only by abundant practice in description, narration, argumentation and exposition, under criticism by the teacher and with revision by the pupil.

II. **Rhetoric.** Formal instruction in the principles of rhetoric most likely to be of service in the practice of writing. The equivalent of Herrick and Damon's, Hart's, Scott and Denny's, or Lockwood and Emerson's elementary composition and rhetoric.

III. **English Classics for 1914.** (A) A thorough study resulting in the knowledge of the subject matter, form and structure of Shakespeare's Macbeth; either Milton's Lycidas, Comus, L'Allegro, II Penseroso, or Tennyson's Idylls of the King; either Burke's Speech on Conciliation with America, or Washington's Farewell address and Webster's First Bunker Hill Oration; Macaulay's Life of Johnson, or Carlyle's Essay on Burns.

(B) For general reading and composition work ten books selected from the following groups; Group 1, (two to be selected), Shakespeare's As You Like It, Julius Caesar, Merchant of Venice, Twelfth Night, Henry the Fifth. Group 2, (one to be selected), Bunyan's Pilgrim's Progress, Part I.; Bacon's Essays, The Sir Roger de Coverly Papers in The Spectator, Franklin's Autobiography. Group 3, (one to be selected), Chaucer's Prologue; selection from Spenser's Faerie Queen; Pope's Rape of the Lock; Goldsmith's Deserted Village; Palgrave's Golden Treasury, first series, books II. and III. with special attention to Dryden, Collins, Gray, Cowper and Burns. Group 4, (two to be selected), Hawthorne's House of Seven Gables; Thackeray's Henry Esmond; George Eliot's Silas Marner; Dickens' A Tale of Two Cities; Scott's Ivanhoe, Quentin Durward; Goldsmith's Vicar of Wakefield; Mrs. Gaskell's Cranford; Blackmore's Lorna Doone. Group 5, (two to be selected), Emerson's Essays (selected), Ruskin's Sesame and Lilies; Irving's Sketch Book; Carlyle's Hero as Poet, Man of Letters and as King; De Quincey's Joan of Arc and the English Mail Coach, Lamb's Essays of Elia. Group 6, (two to be selected), Palgrave's Golden Treasury, first series, book IV., with special attention to Wordsworth, Keats and Shelley; Coleridge's Ancient Mariner; Lowell's Vision of Sir Launfal; Scott's Lady of the Lake; Poe's Poems; Tennyson's Gareth and Lynette, Launcelot and Elaine, The Passing of Arthur; Arnold's Sohrab and Rustum; Byron's Mazeppa, The Prisoner of Chillon; Macaulay's Lays of Ancient Rome; and Browning's Cavalier Tunes, Lost Leader, How They Brought the Good News, Evelyn Hope, Home Thoughts from Abroad, Home Thoughts from the Sea, Incident of the French Camp, The Boy and the Angel, One Word More, Herve Riel, Pheidippides.
CATALOGUE FOR 1913-1914

MATHEMATICS
I. Algebra, through Quadratic Equations, including Radical Quantities and Simultaneous Quadratics, Binomial Theorem and Progressions
II. Plane Geometry.
III. Solid Geometry.
IV. Trigonometry.
V. Advanced Arithmetic.
VI. Advanced Algebra.

SCIENCE
I. Physical Geography.
II. Botany.
III. Physics.
IV. Chemistry.
V. Astronomy.
VI. Geology.
VII. Zoology.

HISTORY
I. Ancient History.
II. General History.
III. Modern History.
IV. English History.
V. United States History.
VI. Civil Government.
VII. Economics.

LATIN
I. First Year Latin.
II. Caesar's Gallic War, Books I.-IV.
III. Virgil's Æneid, Books I.-VI.
IV. Cicero, six orations, including Archias and Manilian Law.
V. Composition: translation of connected English passages into Latin prose.

GREEK
I. First Year Greek.
II. Xenophon's Anabasis, four books.
III. Homer's Iliad, three books; or Odyssey, four books.
IV. Composition: translation into Greek of English passages based on Xenophon.

GERMAN
I. Grammar; ability to translate a connected passage of English prose into idiomatic German; translation into good English of such works as Hauff's Das Kalte Herz, Storm's Immensee, Von Hillern's Hober als die Kirche.
II. Translation of such works as Bernhardt's Novelleten Bibliothek Schiller's Wilhelm Tell, Lessing's Minna Von Barnhelm.

FRENCH
I. Grammar; ability to render connected English passages into French; ability to translate into idiomatic English such works as Halevy's L'Abbe Constantine, Dumas' La Tulipe Noire, Enault's Le Chien du Capitaine.
II. Translation of such works as George Sand's La Petite Fadette, Feneliot's Le Roman d'un Jeune Homme Pauvre, Sandeau's Mile. de la Seigliere.
Entrance Requirements

A unit is the amount of work done in a "first-class" high school in reciting previously prepared work once a day, five days a week, throughout a year of thirty-six weeks. Its time equivalent is 120 clock-hours. Subjects pursued for a less time are given a proportionate value. At least fifteen such units are required for admission to collegiate rank.

1. For Admission to A. B. Courses

Candidates for admission to the courses leading to the degree of Bachelor of Arts must present of the list under "Scope of Preparatory Subjects:"

<table>
<thead>
<tr>
<th>Subject</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latin I., II., III., IV., V.</td>
<td>4</td>
</tr>
<tr>
<td>English I., II., III.</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics I., II.</td>
<td>2½</td>
</tr>
<tr>
<td>History I., II., III., or II., V., VI.</td>
<td>2</td>
</tr>
<tr>
<td>Science III.</td>
<td>1</td>
</tr>
</tbody>
</table>

Total: 12½ units

and one of the following groups:

A—Greek I., II., and Science I. or II.
B—German I., II., and Science I. or II.
C—French I., II., and Science I. or II.

Total: 2½ units

2. For Admission to Courses Leading to B. S. and Ph. B. Degrees and to Grad. Eng. Certificate.

Candidates for admission to courses leading to the degrees of Bachelor of Science and Bachelor of Philosophy and to the certificate of graduate in English must present:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>English I., II., III.</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics I., II.</td>
<td>2½</td>
</tr>
<tr>
<td>History I., II., III., or II., V., VI</td>
<td>2</td>
</tr>
<tr>
<td>Science I., II., III.</td>
<td>2</td>
</tr>
</tbody>
</table>

Total: 9½ units

and one of the following groups:

A—Latin I., II.
B—German I., II.
C—French I., II.

Total: 2 units

and, in addition, any 3½ units taken from the following list: Zoology, Geology, Astronomy, Chemistry, English History, Economics, Solid Geometry, Plane Trigonometry, Advanced Arithmetic, Latin, Modern Languages.

In place of some of the subjects just named, other academic subjects of equivalent value may be presented.

Students taking a part, or all, of the preparatory work here will follow the schedules set forth under "The Preparatory School."
Collegiate Courses

The regular courses of instruction offered in the College of Liberal Arts are classified in the following twelve Departments:

1. Agriculture.
5. English.
6. Greek and Hebrew.
7. History.
8. Latin.
10. Modern Languages.
12. Philosophy.

Curriculums

From the courses offered in the departments named above, three three-year curriculums are arranged, consisting of prescribed and elective courses and leading to the degrees of A. B., B. S., and Ph. B.

In addition, a two-year curriculum is arranged for students desiring to emphasize for a shorter time the study of mathematics, history and English language and literature. On the completion of this curriculum a certificate of graduation is granted.

These curriculums are arranged with regard to their general cultural value, which is the chief end of collegiate study leading to the bachelor degrees. A liberal number of electives is planned.

One hundred and eighty hours are required for graduation. Minimum, fifteen hours a quarter; maximum, twenty hours.

1. LEADING TO THE DEGREE OF BACHELOR OF ARTS.

First Year

FALL QUARTER—Prescribed, fifteen hours: College Latin (five hours); Greek or German or French (five hours); Solid Geometry (five hours).

WINTER QUARTER—Prescribed, fifteen hours: College Latin (five hours); Greek or German or French (five hours); Plane Trigonometry (five hours).

SPRING QUARTER—Prescribed, fourteen hours: College Latin (five hours);
hours); Greek or German or French (five hours); College Rhetoric I. (four hours).

Elective, one hour. (See Description of Courses).

SUMMER QUARTER—Prescribed, fourteen hours: Greek or German or French (five hours); College Rhetoric II. (four hours); English Bible I. (five hours).

Elective, one hour. (See Description of Courses).

Second Year

FALL QUARTER—Prescribed, sixteen hours: Advanced Literature (five hours); General Biology I. (five hours); Psychology I. (three hours); History of English People I. (three hours).

WINTER QUARTER—Prescribed, fifteen hours: General Biology II (five hours); Psychology II. (three hours); History of English People II. (three hours); Analytical Geometry I (four hours).

SPRING QUARTER—Prescribed, twelve hours: Psychology III. (three hours); Poetics (three hours); History of Philosophy I. (three hours); American Government and Politics (three hours).

Elective, two hours. (See Description of Courses).

SUMMER QUARTER—Prescribed, eleven hours: History of Philosophy II. (three hours); Political Economy I. (five hours); Western Europe (three hours).

Elective, four hours. (See Description of Courses).

Third Year

FALL QUARTER—Prescribed, eight hours: Sociology I. (three hours); English Bible II. (five hours).

Elective, seven hours. (See Description of Courses).

WINTER QUARTER—Prescribed, three hours: Sociology II. (three hours).

Elective, twelve hours. (See Description of Courses).

SPRING QUARTER—Prescribed, seven hours: Sociology III. (three hours); Literary Criticism (four hours).

Elective, eight hours. (See Description of Courses)

SUMMER QUARTER—Prescribed, six hours: Botany IV. (six hours).

Elective, nine hours. (See Description of Courses).

2. LEADING TO THE DEGREE OF BACHELOR OF SCIENCE.

First Year

FALL QUARTER—Prescribed, sixteen hours: College Rhetoric I (four hours); College Algebra I. (four hours); General Biology I. (five hours); American History I. (three hours).

WINTER QUARTER—Prescribed, sixteen hours: College Rhetoric II. (four hours); College Algebra II. (five hours); General Biology II. (five hours); American History II. (three hours).

SPRING QUARTER—Prescribed, thirteen hours: Solid Geometry (five hours); American Government and Politics (three hours); Chemistry I (five hours).

SUMMER QUARTER—Prescribed, fifteen hours: Plane Trigonometry (five hours); Chemistry II. (five hours); English Bible I. (five hours).
Second Year

FALL QUARTER—Prescribed, sixteen hours: Advanced Literature (five hours); Zoology I. (five hours); Psychology I. (three hours); History of English People I. (three hours).

WINTER QUARTER—Prescribed, fifteen hours: Zoology II. (five hours); Psychology II. (three hours); Analytical Geometry I. (four hours); History of English People II. (three hours).

SPRING QUARTER—Prescribed, nine hours: Psychology III. (three hours); Poetics (three hours); History of Philosophy I. (three hours).

Elective, five hours. (See Description of Courses).

SUMMER QUARTER—Prescribed, eleven hours: History of Philosophy II. (three hours); Political Economy I. (five hours); Western Europe (three hours).

Elective, four hours. (See Description of Courses).

Third Year

FALL QUARTER—Prescribed, thirteen hours: Political Economy II. (five hours); Sociology I. (three hours); English Bible II. (five hours).

Elective, two hours. (See Description of Courses).

WINTER QUARTER—Prescribed, three hours: Sociology II. (three hours).

Elective, twelve hours. (See Description of Courses).

SPRING QUARTER—Prescribed, seven hours: Sociology III. (three hours); Literary Criticism (four hours).

Elective, eight hours. (See Description of Courses)

SUMMER QUARTER—Elective, fifteen hours. (See Description of Courses).

3. Leading to the Degree of Bachelor of Philosophy.

FALL QUARTER—Prescribed, fifteen hours: College Rhetoric I. (four hours); General Biology I. (five hours); American History I. (three hours); History of English People I. (three hours).

WINTER QUARTER—Prescribed, fifteen hours: College Rhetoric II. (four hours); General Biology II. (five hours); American History II. (three hours); History of English People II. (three hours).

SPRING QUARTER—Prescribed, thirteen hours: Solid Geometry (five hours); Chemistry I. (five hours); American Government and Politics (three hours).

Elective, two hours. (See Description of Courses).

SUMMER QUARTER—Prescribed, fifteen hours: Plane Trigonometry (five hours); English Bible I. (five hours); Political Economy I. (five hours)

Second Year

FALL QUARTER—Prescribed, sixteen hours: Advanced Literature (five hours); Political Economy II. (five hours); Psychology I. (three hours); Sociology I. (three hours).

WINTER QUARTER—Prescribed, ten hours: Psychology II. (three) hours; Sociology II. (three hours); Analytical Geometry I (four hours).

Elective, four hours. (See Description of Courses).
SPRING QUARTER—Prescribed, twelve hours: Psychology III. (three hours); Sociology III. (three hours); History of Philosophy I. (three hours); Poetics (three hours).
   Elective, three hours. (See Description of Courses).
SUMMER QUARTER—Prescribed, twelve hours: History of Philosophy II. (three hours); Western Europe (three hours); Botany IV. (six hours).
   Elective, three hours. (See Description of Courses).

Third Year

FALL QUARTER—Prescribed, eleven hours: History of Philosophy III. (three hours); English Bible II. (five hours); Epistemology and Metaphysics I. (three hours).
   Elective, four hours. (See Description of Courses).
WINTER QUARTER—Prescribed, three hours: Epistemology and Metaphysics II. (three hours).
   Elective, twelve hours. (See description of Courses).
SPRING QUARTER—Prescribed, seven hours: Epistemology and Metaphysics III. (three hours); Literary Criticism (four hours).
   Elective, eight hours. (See Description of Courses).
SUMMER QUARTER—Prescribed, five hours: Ethics (five hours).
   Elective, ten hours. (See Description of Courses).

4. LEADING TO A CERTIFICATE OF GRADUATE IN ENGLISH.

First Year

FALL QUARTER—Prescribed, fifteen hours: College Rhetoric I. (four hours); General Biology I. (five hours); American History I. (three hours); History of English People I. (three hours).
   WINTER QUARTER—Prescribed, fifteen hours: College Rhetoric II. (four hours); General Biology II. (five hours); American History II. (three hours); History of English People II. (three hours).
   SPRING QUARTER—Prescribed, thirteen hours: Solid Geometry, (five hours); Chemistry I. (five hours); American Government and Politics (three hours).
   Elective two hours. (See Description of Courses.)
SUMMER QUARTER—Prescribed, fifteen hours: Plane Trigonometry (five hours); English Bible I. (five hours); Political Economy I. (five hours).

Second Year

FALL QUARTER—Prescribed, sixteen hours: Advanced Literature (five hours); Political Economy II. (five hours); Psychology I. (three hours); Sociology I. (three hours).
   WINTER QUARTER—Prescribed, ten hours: Psychology II. (three hours); Sociology II. (three hours); Analytic Geometry I. (four hours).
   Elective, four hours. (See Description of Courses).
SPRING QUARTER—Prescribed, nine hours: Psychology III. (three hours); Sociology III. (three hours); Poetics (three hours).
   Elective, six hours. (See Description of Courses).
SUMMER TERM—Prescribed, nine hours: Western Europe (three hours); Botany IV. (six hours).
   Elective, six hours. (See Description of Courses).
Partial Schedule of Electives

In addition to the courses herein offered, candidates for degrees are allowed to present credits from the Colleges of Commerce, Law and Music, the School of Oratory and the Biblical Department as follows.

Commercial Science—Theory of Bookkeeping, 5 hours; Commercial Law, Stenography (with typewriting), each 5 hours.
Law—Commercial Paper, Contracts, Constitutional Law, Evidence, Domestic Relations, Equity, each 5 hours.
Music—Harmony, 5 hours; History of Music, 5; Theory of Music, 5.
Oratory—Oratory, 10 hours.
Theology—Systematic Theology, 15 hours.

Examinations

Mid-term examinations are held at the discretion of each professor. Final examinations are held on Wednesday and Thursday of the last week of each quarter, except in the Spring Quarter, when they fall on Thursday and Friday of the eleventh week. Hours: 7:00 and 9:00 a.m., 1:00 and 3:00 p.m. Classes having recited at the “odd” hours are examined the first day; those having recited at “even” hours, the second day.

The following is the system of grades:

A. 90—100  D. conditioned.
B. 80—90  F. failed
C. 70—80

The letter D means that the grade has been withheld because the work of the course has not been fully completed.

F means that the student receives no credit whatever for the course.

Graduation

Diplomas are awarded at the close of any quarter to all those who have fully satisfied the requirements for the degrees sought. Commencement exercises are held but once a year, at the close of the Spring Quarter. It is expected that, as far as possible, those who have taken out diplomas during the year be present on that occasion. Those whose work, beyond question, will be finished by the close of the Summer Quarter are entitled to all the privileges of the graduating class, but the diplomas are not issued until the requirements are fully met. In order to have a seat and part in the class organization, credentials must be obtained from the Committee on Standing and Graduation.
Biblical Course

The Christian Ministry is calling to the young manhood of today to enter its sacred offices. The best equipment and the one to be obtained if possible, is a full classical and theological training. The call, however, comes to many in straightened circumstances and of limited means, who cannot see their way clear to get what they want or need. For the benefit of such, the University offers a Biblical Course of two years, embodying varied and thorough work in the subjects most needed.

The course is designed to relieve the young preacher from the burden of Annual Conference examination, since the grades given here will be accepted by the Annual Conference. Furthermore, the work done here will enable the student to take advanced standing if he decides to enter a theological school.

Those pursuing other courses in the College of Liberal Arts may without extra charge select from this course any studies they wish and receive credit therefor as substitutes for electives. Those making this their special course are charged the regular tuition fee of the College of Liberal Arts.

Classes in the studies of the Biblical Course are formed only when called for and with no fewer than five students. The preparatory work in the College of Liberal Arts is a prerequisite.

For further information address "The University."

First Year

Second Year
Greek (Epistle to the Romans), Introduction to the Scriptures. Systematic Theology, Homiletics, Greek (Epistle to the Hebrews) Church History. Hebrew (Psalms), Butler's Analogy. Hebrew (Prophetic Writings) Hermeneutics. Archaeology.

DESCRIPTION OF COURSES

Agriculture

Agriculture I. A general course in Agriculture designed for those wishing to teach Agriculture. It covers the important
points in agronomy, including the origin, adaptability and management of soils, the use of fertilizers and the treatment of various farm crops. It includes work in Entomology and Botanical Pathology covering insect and bacterial and fungous diseases together with their treatment. It includes work in Animal Husbandry, Rural Economics, Farm management and a study of Farm Literature and Agriculture Organizations and Publications. The course will include some laboratory demonstrations as facilities may permit and will also be extended by collateral reading. A demonstration plot is maintained on the University farm which will be used in season to demonstrate the different methods of fertilization and crop production. 3 hours; laboratory, 2 hours.

—Professor Richey.

Biblical Literature and Christian Religion

1. English Bible I. Early Hebrew History and Prophets. The aim of the course is a constructive view of the message of the different prophets to their own time. The study is based primarily on the English text. 5 hours. —Professor Dice.

2. English Bible II. Synoptic Gospels. This is a detailed study of Mark with comparisons of parallel passages in the other gospels. 5 hours. —Professor Dice.

3. English Bible III. The Epistles of Paul. This course includes a brief outline of the life of Paul, followed by an analytical and constructive study of the Epistles of Paul. 5 hours. —Professor Dice.


14. Evidences of Christianity. A study of the grounds of Christian belief and an inquiry into the great essentials of the Christian faith, both in its biblical and philosophical aspects. 5 hours. —Professor Schoonover.

15. History of Christianity. A survey of the origin, growth,
midway between the intersection of the Cincinnati, Hamilton & Dayton, the Detroit, Toledo & Ironton, and the Lake Erie & Western Railways at Lima, and the Big Four at Forest. Connection is made with the Hocking Valley at Upper Sandusky, thirty miles east, and with the Ohio Central Lines at Dunkirk, ten miles east.

Lying on the great watershed separating the waters tributary to the Ohio and Mississippi from those flowing into the Great Lakes, Ada has an elevation above sea-level as high as any in the State, with healthful climate, sanitary conditions well guarded, and an abundant supply of excellent water from drilled wells. The town is unsurpassed in healthfulness and freedom from epidemics. Numberless forest trees line avenues and adorn premises, affording a delightful retreat during the warm summer months. The paved streets, hot and cold water plants and electric light works evidence the wide-awakeness of the citizens in the matter of public utilities and city improvements. Exclusive of students the population is about three thousand. The people are especially kind and courteous to students, taking pains to make their stay at the University pleasant and home-like. For several years the saloons have been banished from Ada and now the entire county is “dry” under the Rose Local Option Law.

Object

The Ohio Northern University welcomes to her privileges the worthy of all classes, but extends a special invitation to self-dependent young men and women eager to secure the benefits of a liberal education. Her leading aim is to furnish thorough, practical instruction in all the departments at a minimum expense to the student. The entire regime has in view the creation and maintenance of an atmosphere inspirational and congenial to plucky young people of both sexes whose lot in life has taught them the worth of hard labor and close economy.

Uniqueness

In many features the Ohio Northern University is unique. Attention is respectfully called to a few characteristics.

The school year consists of forty-eight weeks, divided into four terms, designated quarters. Instead of measuring time and
spread and influence of Christianity on the nations of the world. 5 hours.

—Professor Schoonover.

Biological and Geological Sciences

Professor Huber and Assistant.

The courses develop most naturally if the sequence is followed as indicated. Should the student find it necessary to depart from this sequence as outlined for Botany and Zoology, the instructor in charge must first be consulted in regard to proposed changes. All laboratory periods are two hours each. A laboratory fee of two dollars is charged in all courses, which covers the use of compound microscope and accessories, reagents, materials and equipment.

1. General Biology I. A course introductory to all biological studies and consisting of lectures and laboratory exercises illustrating the general principles of biology from the standpoint of the animal kingdom. 5 hours.

2. General Biology II. A continuation of Course I. and similar in purpose to that course; attention being given to biological principles as evidenced in the plant kingdom. 5 hours.

3. Zoology I. Lower invertebrates. A lecture and laboratory course giving due attention to the comparative anatomy and life histories of the principal types. Economic importance, distribution and habits are considered. Prerequisite: General Biology I. or equivalent. 5 hours.

4. Zoology II. Higher invertebrates. A continuation of Zoology I. Lecture and laboratory course given to a study of the development, anatomy and relationships of worms, arthropods, molluscs and echinoderms. Prerequisite: Zoology I. 5 hours.

5. Zoology III. Vertebrates. Lecture and laboratory course illustrating the classification and comparative anatomy of representative vertebrates. Prerequisite Zoology II. 5 hours.

6. Botany I. Thallophytes. Lectures and laboratory exercises on some of the more important types of Algae and Fungi, emphasizing the morphology, development, reproduction and evolution of these groups. Prerequisite: General Biology II. or equivalent. 5 hours.

7. Botany II. Bryophytes and Pteridophytes. A continuation of Botany I. Lectures and laboratory exercises given to the
study of typical liverworts, mosses, lycophods, equisetales and ferns. 5 hours.

8. Botany III. Spermatophytes. A continuation of Botany II. A course comprising lectures, demonstrations and laboratory work illustrating the morphology and phylogenetic relationships of gymnosperms and angiosperms. 5 hours.

9. Botany IV. Ecology. Lectures, laboratory exercises and field trips. A study of plants in relation to their environment. Prerequisite: General Biology II. or equivalent. 6 hours.

10. Geology I. Dynamical and structural. A study of the earth's crust, dealing with rock form and structure, and the formation of mineral deposits and mountains, together with a study of the forces past and present which have brought the earth to its present condition. Prerequisite: Physical Geography, Chemistry and Physics. 3 hours.

11. Geology II. Historical. A lecture course supplemented by rock collections, fossils and lantern slides. The sequence and distribution of rock strata and the introduction and succession of past geologic life. Prerequisites: General Biology I. and II. or equivalents. 2 hours.

12. Mineralogy. A study of the appearance, structure and composition of the important rocks and minerals, and the methods of determination by physical characters and simple wet methods. Prerequisites: Physics, and Chemistry.

Economic and Social Sciences

1. Economics I. The elements, development, structure and processes of economic life. 5 hours. —Professor AxiLine.

2. Economics II. A continuation of Course I. 5 hours.

   —Professor AxiLine.

3. Sociology I. A survey of the social phenomena, aiming at a knowledge of the laws of cause and effect among social processes. 3 hours. —Professor Dice.

4. Sociology II. A continuation of Sociology I. including the study of modern efforts at social improvement. 3 hours.

   —Professor Dice.

5. Sociology III. Completion of the work pursued in Courses 3 and 4. 3 hours.

   —Professor Dice.
English

PROFESSOR FREEMAN AND ASSISTANT.

8. **College Rhetoric I.** (Scott and Denny). A thorough study of the paragraph, of the principles of exposition, narration, description, and argumentation. The aim of this course is to give the student a practical knowledge of the principles of rhetoric. Emphasis is placed on exposition and argumentation. Selections from the prose masters are carefully studied. Daily themes of 200 to 400 words, and five longer fortnightly themes are required: 4 hours.

9. **College Rhetoric II.** (Scott and Denny). This course requires the planning and writing of longer themes than Course 8. The emphasis is placed upon description and narration. The careful study of at least one novel and one drama is required. Prerequisite: Course 8. 4 hours.

10. **Argumentation.** (Foster). This course is a detailed study of the principles of argumentation and debating. There is practice in brief making and debating. Classic examples of persuasion are studied; five arguments are written. Prerequisite: Course 9.

11. **Narration.** (Maxey). This course provides for the careful study of the theory of narrative forms; however emphasis is placed upon the novel and the short story. There is ample practice in narrative writing. Prerequisite: Courses 8, 9, 12, 13. 3 hours.

12. **Advanced Literature.** (Crawshaw). A general course in English Literature in which the field is covered from an historical, biographical, and critical standpoint. The aim is: (1) to acquaint the student with the leading works of English writers; (2) to trace the development of English literature; (3) to prepare the student for a more intensive study of the great English writers. Prerequisite: Courses 8 and 9. 5 hours.

13. **Poetics.** (Matthews, Manley). This course includes (1) a study of the various forms of poetry, the epic, the lyric, the drama, and their various subdivisions; (2) the structure of poetry, including the stanza, the verse, accent, tone-color, quality pauses, alliteration, assonance, and rime; (3) a careful study is made of blank verse, the rimed couplet, the sonnet; and of the French forms, the triolet, the rondeau, the rondel, the ballade, etc. Prerequisite: Course 12. 3 hours.
14. Nineteenth Century Poetry with especial study of Tennyson and Browning. Rapid consideration will be given to Arnold, Morris, Swinburne, Rossetti. Prerequisites: Courses 12 and 13. 5 hours.

15. Shakespeare I. (Hudson). This course is intended: (1) to trace Shakespeare's part in the development of the drama of the Elizabethan age; (2) by reading a series of plays in chronological order to show Shakespeare's development as a dramatist, as a poet, and as an interpreter of human life. Considerable attention is paid to the technique of the drama as understood by Shakespeare. The following plays are read: Love's Labor Lost, Richard III., Romeo and Juliet, Much Ado About Nothing, Othello, Antony and Cleopatra, and A Winter's Tale. Five papers are required. Prerequisite: Courses 12 and 13. 5 hours.

16. Shakespeare II. This course includes most of those plays of the periods in which Shakespeare's genius reached its height. The following plays are studied: As You Like It, Hamlet, Macbeth, Julius Caesar, King Lear, Twelfth Night, Coriolanus and The Tempest. A number of papers are required. Prerequisite: Course 15. 5 hours.

17. Literary Criticism. (Winchester). A study of the principles of literary criticism as applied to the various forms of literary expression. A number of papers are required in this course. Prerequisites: Courses 8, 9, 12, 13. 4 hours.

18. Prose Fiction. (Perry). The development of the novel, and its place in literature are discussed. Some consideration is given to the short story. Five novels from among the following are read: The Vicar of Wakefield, The Bride of Lammermoor, David Copperfield, The Scarlet Letter, Henry Esmond, Middlemarch, Kidnapped. Prerequisites: Courses 8, 9, 12, 13. 4 hours.

19. Milton. The following works of the great Puritan writer are studied: The Minor Poems, Samson Agonistes, Areopagitica, On Education, The Commonwealth, and Paradise Lost. Prerequisites: Courses 8, 9, 12, 13. 4 hours.

20. Nineteenth Century Essayists, including Carlyle, Emerson, Arnold, Newman, Pater, Macauley and Stevenson. Prerequisites: Courses 8, 9, 12, 13. 5 hours.
Greek

Professor Schoonover.

I. Preparatory Courses.

1. The First Greek Book (White) .......... 5 hours, 3 quarters.
2. Xenophon, Anabasis, prose composition 5 hours, 3 quarters.

II. Advanced Courses.

1. Epic Poetry  Homer, Iliad .......... 5 hours, 2 quarters.
   Odyssey .......... 5 hours, 1 quarter.
2. Lyric Poetry  Selections from the Lyric Poets .......... 5 hours, 1 quarter.
3. Drama  Aeschylus, Prometheus
   Bound .......... 5 hours, 1 quarter.
   Sophocles, Antigone .......... 5 hours, 1 quarter.
   Euripides, Medea .......... 5 hours, 1 quarter.
4. History  Herodotus, Selections .......... 5 hours, 1 quarter.
   Thucydides, Selections .......... 5 hours, 1 quarter.
   Xenophon, Hellenica .......... 5 hours, 1 quarter.
5. Philosophy  Plato, Apology and Crito .......... 5 hours, 1 quarter.
   Phaedo .......... 5 hours, 1 quarter.
   Aristotle, Ethics .......... 5 hours, 1 quarter.
6. Oratory  Demosthenes, De Corona .......... 5 hours, 1 quarter.
   Lysias, Orations .......... 5 hours, 1 quarter.
   Isocrates, Panegyricus .......... 5 hours, 1 quarter.
7. Sacred Greek  New Testament, one of the Gospels .......... 5 hours, 1 quarter.
   Eusebius, Ecclesiastical History .......... 5 hours, 1 quarter.

Each of the advanced courses will be accompanied by a literary study of the period.

Hebrew

Professor Schoonover.

2. Judges or I. Samuel .......... 5 hours, 1 quarter.

Classes may continue exegetical and critical study of the other books of the Old Testament to as great an extent as desired.
History

Professor Ice

1. American History I. (1492—1783). This course deals with the discovery of America; the causes and motives influencing the English, French, Spanish and Dutch colonies; the colonial social and political institutions considered in their relation to England; the struggle for English supremacy finally triumphing in the seven years war; the political and economic causes of the Revolutionary War; the Declaration of Independence and subsequent events; French and Spanish intervention and the Treaty of Peace in 1783. 3 hours.

2. American History II. (1783—1861). Topics: Results of the Revolutionary War; Articles of Confederation; Ordinance of 1787; foreign trade and diplomacy; the framing of the constitution; the political struggles, measures, and changes down to the organization of the Republican party and the War of Secession. 3 hours.

3. American History III. (1861—1913). This course deals with the causes and results of the Civil War; political and economic changes since the Civil war; the social struggle; the growth of the United States as a world power. 3 hours.

4. Current History. This course, open to all history students and to teachers, discusses the present and passing events in the world's history and their relation to the past and future. One hour throughout the year.

5. American Government and Politics. This is an advanced course, treating of the origin and constitution of our government; the Federal system of government; the powers of the several divisions, executive, legislative and judicial; the evolution of national, state and municipal governments; the economic, political and social forces influencing the political life of the American nation. 3 hours.

6. History of the English People I. A study of the growth of the English people; their great character and institutions and the parliamentary evolution of the English nation. 3 hours.

7. History of the English People II. Completion of work begun in course 6. 3 hours.

8. The Governments of Europe. A comprehensive survey of all the governments of Europe; their evolution from monarchical
to liberal and democratic forms, and the growth and work of present political parties. The basis of the work is Oggs' “The Governments of Europe.” 5 hours.

9. Western Europe. This course surveys Roman foundations; the christianizing of the barbaric nations; the rise of the Papacy; feudalism; monasticism; mohammedanism and the crusades. The basis of the work is Robinson's Western Europe and Readings. 3 hours.

10. History of the Reformation. Europe from 1517 to 1648. The causes, events and results of the Reformation in Europe. 3 hours.

11. French Revolution and Era of Napoleon. The Old Regime, calling of the Estates General, National Assembly, Legislative Assembly, Convention, Red Democracy, Directory, Consulate, Empire, and the struggle between Napoleon and Europe. 3 hours.

12. Europe in the Nineteenth Century. (1815—1913). The great struggle of nationality; German and Italian unity; the dual system of Austria-Hungary; the Third French Republic, and the development of political parties. 3 hours.

13. History of Socialism. The history and development of socialism. 3 hours.

Latin

Professor Whitworth

It is the aim of this department to utilize as fully as possible the efficiency of Latin as an instrument of education and a means of culture. The student’s effort is directed, not only to a mastery of the structure and mechanism of the language, and to a faithful rendering into idiomatic English, but also to an appreciation of Roman writings as exhibiting the genius of the age in which they were written, and to a proper estimate of Rome’s place and part in the realm of literature. Attention is given to the history of the people, the biographies of the great men, their manners and customs, home life, religion and worship.

The college courses are to be selected with the advice and approval of the head of the department. Necessary class-adjustments partly determine the order which these courses are pursued.

5. Cicero's De Senectute and De Amicitia.
6. Ovid—Selections from the Metamorphoses.
7. Livy—Book I., or selections from Books XXI. and XXII.
9. Terence and Plautus—Selected plays from each.
10. Tacitus—Agricola and Germania.
11. Catulus, Tibullus and Propertius—Selections.
13. Cicero—De Officiis or De Oratore.
14. Quintillian—Institutes, Book X.
15. Juvenal or Persius—Satires.
16. Lucretius—De Rerum Natura.
17. Cicero—De Natura Deorum or Tuscanian Disputations.
19. Advanced Prose Composition.

Mathematics and Astronomy

Professor Eva Maglott

The courses in Mathematics are designed to meet the needs of students desiring to teach mathematics in high school or college; to do graduate work in the best universities; to pursue engineering or other technical courses.

1-3. Preparatory Algebra. (See description of courses in Preparatory School).

4-6. Geometry. (See description of courses in Preparatory School).

7. College Algebra I. Special stress is laid on factoring, radical quantities, fractional exponents, the solution of simple equations of one, two or more unknown quantities and the quadratic of one unknown. 4 hours.

8. College Algebra II. The large part of this course is a study of the quadratic equation, followed by the surds, the imaginaries, the binomial theorem and arithmetical, geometrical and harmonic series. 4 hours.


10. Trigonometry I. Plane. This course includes the theory
of the trigonometric functions and their application to the solution of right and oblique triangles; the use of tables; the solution of a large number of practical problems. 5 hours.

11. **Trigonometry II.** This course is designed for those who expect to make mathematics their major study and for the students in engineering. It gives attention to the solution of trigonometric identities, the solution of trigonometric equations and the theory and solutions of spherical triangles. 2½ hours.

12. **Analytical Geometry I.** The properties of the straight line, the graph of an equation, the discussion of the circle and the parabola. 4 hours.

13. **Analytical Geometry II.** The ellipse, the hyperbola, the general discussion of the conic and the higher plane curves and solid analytical geometry. 4 hours.

14. **Calculus I.** Differential Calculus. Differentiation of functions; application of the derivatives; maxima and minima of functions. Elective in the Liberal Arts curriculums. 4 hours.

15. **Calculus II.** Curve tracing; infinite series; integration of easy forms. Elective in the Liberal Arts curriculums. 4 hours.

16. **Calculus III.** Integral calculus. Indefinite integration, the application of integral calculus to the solution of practical problems. Elective in the Liberal Arts curriculums. 4 hours.

17. **Astronomy.** The work is based on Young’s Manual of Astronomy. In addition to the study of the text, the student is required to name and locate the important constellations and stars seen in this latitude. As prerequisite to this study, the student should have a knowledge of the elementary principles of chemistry and physics. He is required to have a knowledge of mathematics including trigonometry. 5 hours.

18. **Differential Equations.** Ordinary and partial and differential equations. Open to all students who have passed in Calculus III. 5 hours.

19. **Theory of Probability and Method of Least Squares.** This course consists partly of lectures and partly of recitations in which the fundamental principles that govern the method of adjustment of observations and numerous problems are solved, illustrating the process of adjustment, of computing the most probable values of the quantities, of determining the precision of computed results, and of the use of the empirical equation. 5 hours.
Modern Languages

Professor Groth.

1. **German I.** Pronunciation, elements of grammar, easy reading, practice in speaking and writing German. Reading: *Maerchen* and *Ersachlungen* (H. A. Guerber).

2. **German II.** Continuation of course I. Reading: Andersen's Fairy Tales, *Der Zerbrochene Krug* (Zschokke).

3. **German III.** Drill on Grammar, German conversation. Reading: *Germelshausen*, *Hohe als die Kirche*, *Traumereien*, Immensee.

4. **German IV.** Continuation of course III. Reading: Schiller's *Wilhelm Tell* and *Marie Stuart*. Conversation and composition.

5. **German V.** Reading and translation of masterpieces of representative German authors, study of syntax, prose composition.

6. **German VI.** Study of German classics, prose composition, conversational praxis.

7. **German VII.** Continued study of classics, lectures on German Literature, conversational praxis.

8. **German VIII.** History of German Literature.


10. **French II.** Continuation of course I. French reader.

11. **French III.** Grammar, oral exercises, composition, conversation. Reading: *La Mare au Diable* (Sand), L, Abbe Constantin.

12. **French IV.** Continuation of course III. Grammar, idioms, reading of classics.

13. **French V.** Reading and translation of French masterpieces, studies in syntax, conversational praxis.

14. **French VI.** Study of French classics, conversational praxis.

15. **French VII.** Continuation of course VI.

16. **Spanish I.** Elementary Spanish, easy reading.

17. **Spanish II.** Continuation of course I. Grammar, composition, conversation. Reading: *Cuentos Modernos*.

18. **Spanish III.** Conversation, composition. Reading: *Flores de Espana*. 
work by Freshman, Sophomore, Junior and Senior years of three terms each, credit is based on number of hours of class work done in each required or elected subject.

Students enter at any time (except in the College of Pharmacy), find their place where their certificates or examination credits rank them, pursue their studies as many terms as their plans and means allow, and are duly credited on the record books with the work done. On satisfactorily completing the required number of hours in the selected curriculum they receive the appropriate degree.

Jeans and broadcloth have equal chance. The atmosphere is thoroughly democratic, a leading characteristic being the marked sociability of the students, a majority of whom are young people relying mainly on their own pluck and push.

**What to Do on Arrival**

Persons intending to enter the University, and desiring to arrange beforehand in regard to course of study, board and room, will address “The University, Ada, Ohio.”

On arrival the newcomer is met by students ready to welcome and assist in securing a lodging place and boarding house. He is expected, however, to report at once at the University Office in the Administration Building, obtain a card of matriculation and arrange his work. After matriculation, on payment of the tuition fee, he is given with the receipt a “classification card” which, when presented to the instructor in charge of any class, admits him to that class.

Monday is Registration Day for new students, Tuesday for former students.

All students, former and new, will report to their instructors on Tuesday and be ready for Wednesday’s recitations and lectures.

***N. B.*** For catalogues and other information, address

**THE UNIVERSITY, ADA, O.**

To insure prompt attention, requests for credits, certificates of graduation, class standing, recommendations, etc., should be accompanied by a stamped self-addressed envelope.
19. Spanish IV. Continuation of course III. Grammar, composition, conversation, reading of best Spanish authors.

20. Spanish V. Reading and translation of Spanish classics, conversational praxis.

21. Spanish VI. Continuation of course V.

22. Spanish VII. Continuation of course VI.


Philosophy

1. Logic. Elements from the textbook. Practical training in detecting the more common fallacies and in illustrating the condition of proof and laws of evidence. 5 hours.
   —Professor Park.

2. Psychology I. This is an elementary course. The simpler mental processes receive most attention. There are lectures, experiments, recitations and written reports. 3 hours.
   —Professor Dice.

3. Psychology II. An advanced course. The work takes up especially the more complicated mental processes, the important theories in psychology and the relation of mind to body. Prerequisite: Psychology I. or an equivalent. 3 hours.
   —Professor Dice.

4. Psychology III. A completion of the work begun in course 3. 3 hours.
   —Professor Dice.

5. History of Philosophy I. This course covers the history of European philosophy from the time of the Ionian Greeks to the time of the Middle Ages. 3 hours.
   —Professor Dice.

6. History of Philosophy II. The history of European philosophy of the Medieval period. Special study is given to the influence of Greek philosophy on Christian philosophy. 3 hours.
   —Professor Dice.

7. History of Philosophy III. The modern period of philosophy. 3 hours.
   —Professor Dice.

8. Epistemology and Metaphysics I. Pragmatic, Realistic, and Idealist theories of cognition are considered with an attempt to give the outlines of a constructive theory. A study of the nature of reality, of the nature of the self, of the problem of evil, of th
problem of immortality and of theism. Prerequisites: Logic, Psychology I., History of Philosophy I. 3 hours.

—PROFESSOR DICE.

9. Epistemology and Metaphysics II. A continuation of the work begun in course 8. 3 hours.

—PROFESSOR DICE.

10. Epistemology and Metaphysics III. Completion of the study pursued in courses 8 and 9. 3 hours.

—PROFESSOR DICE.

11. Ethics. The theory of morals. The course is a study (1) of the nature of goodness, duty and freedom; (2) of the ethics of the family, society and state. 5 hours.

—PROFESSOR DICE.

12. Philosophy of Kant. This is a study of Kant’s Critique of Pure Reason in translation. An attempt is made to see Kant’s precise problem and his solution. Prerequisites: Logic, Psychology I., History of Philosophy I and II. —PROFESSOR DICE.

13. Psychology of Religion I. This course is an inquiry into the psychology of conversion, prayer, mysticism and other religious phenomena. The aim of the course is to show that the religious life is the really normal life. 2 hours.

—PROFESSOR DICE.

14. Psychology of Religion II. Completion of the study begun in course 13. 2 hours.

—PROFESSOR DICE.

15. General Psychology. The outlines of psychology. A general course for teachers. 5 hours.

—PROFESSOR DICE.

Physics

PROFESSORS BEER AND BERGER

1-3. Preparatory Physics. (See description of courses in Preparatory School).

4. Physics IV. (University Physics—Mechanics). Kinematics, kinetics, elasticity, mechanics of fluids, lectures, class exercises, and laboratory work. Text: Carhart’s University Physics. Prerequisites: Physics I., II. and III. and Calculus I.

6. **Physics VI.** (University Physics—Magnetism and Electricity). Electrical charges, potential capacity, electrolysis, Ohm's Law. Electrodynamics, electromagnetism, electro-magnetic induction, electric oscillations. Lectures, class exercises and laboratory work. Text: Carhart's University Physics. Prerequisites: Same as in Physics IV.

**Chemistry**

**Professors Beer, Berger, Sleesman and Mr. Portz**

1. **General Inorganic Chemistry (Elementary).** This course is intended for students who have not had preparatory chemistry. Text: McPherson and Henderson (Elementary). Prerequisite: Preparatory Physics.

2. **General Inorganic Chemistry (Non-metals).** Text: Smith or McPherson and Henderson (Advanced). Prerequisite: Course 1 and Preparatory Algebra I.

3. **General Inorganic Chemistry (Metals).** This is a continuation of course 2.

4. **Organic Chemistry.** A thorough study of the carbon compounds, the structure of these compounds and their constituents. Two days each week are spent in laboratory experimentation.

5. **Qualitative Analysis I.** Text: Strieglitz. Prerequisite: General Chemistry.

6. **Qualitative Analysis II.** This course is a continuation of course 5.

7. **Quantitative Analysis.** This work consists of volumetric and gravimetric analysis; the determination of acidity and alkalinity; the analysis of organic and inorganic salts, sugar, syrups, candies, baking powders, milk, urine, etc. A large amount of work is done which the food and drug act demands.

8. **Special Chemistry.** The special chemistry course includes three terms of work after the completion of the regular pharmacy course. This includes the chemistry of the pharmaceutical drugs and their preparation; the analysis of ores, clays, cements, coal and coke, soil, limestone and many other compounds.
EXPENSES

Matriculation

No matriculation, or entrance fee, is required to enter the University. Some schools advertise free tuition, but it will be found that entrance fees with them amount to more than tuition fees here, a fact not to be overlooked by those selecting a school thorough, yet inexpensive.

Tuition Fee

For one quarter, (12 weeks), in advance $14.00
For two quarters, in advance 27.00
For three quarters, in advance 40.00
For four quarters, in advance 52.00

All students paying the regular tuition fee are admitted to the general classes in Rudimental music without extra charge.

Tuition must be paid by Friday of the first week, otherwise one dollar additional will be charged.

Laboratory Fees

Fees to cover breakage and cost of chemicals and other materials used in the laboratories are charged each term as follows: Chemistry, $4.00; Physics, $2.00; Biology, Botany and Zoology, each, $2.00.

Graduation Fees

Beautiful and neatly executed diplomas are awarded to those who complete any regular course of study. In the English course the diploma fee is $3.00; in the Scientific, Philosophical and Classical courses, $5.00. Those preferring real parchment will be charged one dollar extra. Candidates for any degree are required to pay full tuition in graduation quarter.

Rooms and Boarding

Good board in private families, $1.65 to $2.75 a week.
Furnished rooms, two in a room, 50 cents to $1.25 each a week.

Refunding

No tuition will be refunded for the first half of the quarter. In case of protracted sickness of the student, tuition will be refunded for the unexpired time. If in school longer than a half-quarter, he will be charged at the weekly rates of the department in which he is enrolled. Fractional weeks are counted as full weeks. No tuition is refunded to students who have been suspended or expelled. Receipts are not transferable.
NORMAL COLLEGE

FACULTY

ALBERT EDWIN SMITH, D. D., Ph. D.,
President.

CHARLES CHESTER McCracken, A. M.,
Dean.

JOHN GAMBLE PARK, A. M.,
English, Grammar, Analysis.

HENRY WHITWORTH, A. B.,
Latin.

CHILDE HAROLD FREEMAN, B. S.,
English and American Literature.

JESSE BEER, B. S.,
Chemistry and Physics.

LEAH ASCHAM, A. B.,
Algebra, Geometry.

HARVEY EVERT HUBER, A. M.,
Biological and Geological Sciences.

ROYAL DELANEY HUGHES, A. B.,
Voice Training.

STRAWDER ARTHUR RINGER, B. C. S.,
Bookkeeping.

S. RAE BERLET,
Drawing.

EMMET ELIJAH LONG, B. C. S.,
Pennmanship.

ALBERT AUGUSTUS CRECELIUS, B. L.,
Oratory.

JOHN LEVI MANAHAN, B. S., B. Ped.,
Supervisor of Model School.
[Summer Term]

PAULINE BURKLEY,
Critic Teacher, Intermediate.
[Summer Term]

NELLIE ADELINE HOLT,
Critic Teacher, Primary.
[Summer Term]
Professional Training

The fact that teaching is rapidly becoming a recognized profession demands that those so engaged shall properly prepare themselves for this great work. No longer is the old statement that "anyone can teach" acknowledged as true. Some may not yet have realized the fact, but they must soon do so, or find themselves far in the rear of the onward march of progress. Society is placing more and more rigid conditions which the school must satisfy. These are not local, but nation-wide. Consequently, the most ordinary teacher, or the most gifted, must not disregard the demand for proper preparation.

Realizing these conditions, Ohio Northern University has thoroughly reorganized the Normal College. The old traditions of the school have been retained in so far as they do not conflict with modern trends in teaching. The provisions required by the state have been met and this Normal College is on the approved list of the State School Commissioner. This means that graduates from the shorter course may take the examinations under the Hawkins Law, leading to a life certificate for the elementary school; those graduating from the longer course, to a life certificate for the high school. Other features, not required by law or by the traditions of the institution, are being introduced that the field may be more completely covered. The experience and training of the Dean have been so extensive and thorough that he is able to appreciate the needs of teachers of all classes.

The school stands for the best professional spirit. Teachers from all sections of the country mingle, exchange ideas, and gain inspiration outside, as well as inside, of the classroom. The courses tend to broaden the man or woman so that the horizon of his field of labor is extended. Thus all tendencies are to advance teachers, whether experienced or inexperienced, to a higher plane of professional ability.

Function of the Normal College

The pre-eminent function of a Normal College is to fit prospective teachers for their specific work. This department of the University aims—

1. To furnish a thorough, practical, fundamental knowl-
ledge of the branches studied, whether for common, graded or high schools.

2. To beget correct habits of investigation.

3. To aid in forming clear and practical conceptions of the dignity and importance of the teacher's work.

4. To give an insight into the science and history of education and to establish the connection with modern theories of education and schemes of instruction.

5. To present in theory, and in practice, rational methods of teaching the branches.

6. To help to an understanding of child life in its various conditions.

7. To create a high professional standard among teachers.

The Normal College of the Ohio Northern University gives abundant opportunity to teachers, experienced or inexperienced, for broadening their attainments and extending their professional outlook. All the privileges and advantages attaching to a large school are proffered to those enrolled in the Normal College. To share in the prevailing enthusiasm alone will send the teacher back to his work keen, fresh, and determined to win.

Entrance Requirements

The "Hawkins" law prescribes as entrance requirements to the two-year and four-year curriculums specified therein "graduation from a high school of the first grade or its equivalent which shall be determined in such manner as the State Commissioner of Common Schools may direct."

Applicants, therefore, are required to present (1) a diploma from a first grade high school or (2) fifteen entrance units as described hereafter.

A unit of admission-credit means the work done in a good high school in five recitation periods a week for thirty-six weeks (120 clock hours), two laboratory periods being reckoned as the equivalent of one recitation period.

Applicants presenting a diploma from a first-class high school, if deficient in any of the prescribed subjects, must make them up prior to graduation.

For the accommodation of students desiring to take preparatory work at the Ohio Northern University, instruction is given in preparatory subjects as follows:
PREPARATORY TO BOTH CURRICULUMS—PRESCRIBED (12 UNITS.)

**English** (3 units)—Orthography, English Composition, Rhetoric I., Rhetoric II., English Literature I., English Literature II., American Literature, English Literature III.


**Science** (3 units)—Physics I., Physics II., Physics III., Preparatory Botany, Physical Geography, Physiology I., Physiology II.

**History** (2 units)—U. S. History and Civics I., U. S. History and Civics II., Ancient History, Medieval and Modern History.

**Foreign Languages** (2 units)—Latin, Greek, German or French.

**Art** (½ unit)—Rudiments of Music.

**ELECTIVE (3 UNITS.)**

In addition to the studies prescribed above, seven credits from the following subjects must be presented by the applicant:

**Mathematics**—Plane Trigonometry I.


**History**—Roman History, Grecian History, English History, Commercial Geography.

**Latin**—Cicero I. and prose composition, Cicero II. and prose composition, Cicero III. and Virgil I., Virgil II., Virgil III.

**Greek**—Greek I., Greek II., Greek III., Anabasis I., Anabasis II.

**German**—German I., German II., German III., German IV., German V.

**French**—French I., French II., French III., French IV., French V.

**Spanish**—Spanish I., Spanish II., Spanish III., Spanish IV., Spanish V.

The "Hawkins" Law

The Teachers’ Courses herein set forth will enable those having completed them to take advantage of the provisions of the "Hawkins" law, the Normal College of the Ohio Northern University being on the "approved" list of the State School Commissioner. These courses lead to life certificates from the State for elementary and secondary schools, respectively.

**“Two-year Curriculum”**

90 Credit Hours.

Certificate: Graduate in Pedagogy.

The required hours of work in the various subjects are as follows:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>14</td>
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<tr>
<td>Science</td>
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<tr>
<td>History</td>
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<tr>
<td>Drawing</td>
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</tr>
<tr>
<td>Professional</td>
<td>45</td>
</tr>
<tr>
<td>Electives</td>
<td>10</td>
</tr>
</tbody>
</table>
"Four-year" Curriculum
180 Credit Hours.

Degree: Bachelor of Pedagogy.

The required hours of work in the various subjects are as follows:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>25</td>
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<tr>
<td>Science</td>
<td>15</td>
</tr>
<tr>
<td>Mathematics</td>
<td>10</td>
</tr>
<tr>
<td>History</td>
<td>10</td>
</tr>
<tr>
<td>Drawing</td>
<td>5</td>
</tr>
<tr>
<td>Professional</td>
<td>45</td>
</tr>
<tr>
<td>Elective</td>
<td>70</td>
</tr>
</tbody>
</table>

The choice of electives will depend upon the special work for which one is preparing.

Educational Library

An Educational Library has been formed for the use of teachers only. This library contains many volumes setting forth the best and most modern ideas bearing on the art and profession of teaching. In connection with this there is also available an exhibit of common school text-books, valuable for comparing the old with the new, and showing the evolution of school-book writing and making.

Common School Course

This course is offered to students moderately well acquainted with the simple branches of the common school, but not sufficiently advanced to enter immediately upon higher courses. The instruction is in charge of experienced and skillful teachers, and pains is taken to have the student lay in these branches a careful foundation for future work in the various academic and collegiate courses.

Among the subjects taught in the course are grammar, analysis, practical arithmetic, descriptive geography, physiology, history and civics, orthography, penmanship.

SUMMER SCHOOL

The summer term of 1914 will open on June 2. Two schedules will be offered. The short term will be in session eight weeks, closing before the institutes open; the long term will be in ses-
sion the twelve weeks. A half-credit will be given for the com-
pletion of work in the short term. In addition to the regular
Faculty, special teachers will give class instruction. More spe-
cific information will be detailed in a bulletin to be issued about
January 1, 1914.

Besides regular classes in psychology, pedagogy, elementary
education and the like, there will be a class in training open to
all teachers. The chief discussion will center around the meth-
ods employed among teachers, with a view to selecting and em-
phasizing the best. No pet theories are to be memorized and
parrot recitations made, but the best thought of each member of
the class will be elicited. The practical will be in the fore-
ground.

The work in primary methods includes instruction in the
“new education”; the Ward and other special methods in read-
ing, nature study; numbers, language, geography and physical
training.

Methods of teaching in each grade of the elementary school
are studied, including the course of study, discipline, class in-
struction, preparation for the Patterson examination, and other
problems peculiar to the grades. In these classes a special study
of various problems of child life is made, such as normal and
abnormal, defective and diseased children, adolescence and meth-
ods of medical inspection.

A course in agriculture is offered to meet the needs of those
who teach this subject in high schools, and valuable to anyone
at all interested in up-to-date farm work or management.

Weekly conferences for round table discussion of current
school questions and problems are held in the evening. These
vary in nature to fit the needs of superintendents, principals, or
teachers, elementary or secondary.

The Summer Term affords an excellent opportunity for re-
view work, and anyone desiring to take up new or advanced
studies will find classes to suit, since all the departments of the
University will be in regular session.

Special advantages are offered to persons preparing to teach
the Natural Sciences in public high schools. The departments
of Physics, Chemistry and Natural Science have adequate labor-
atory equipments, and courses are offered especially adapted to
the needs of prospective science teachers.
BOARD OF TRUSTEES

Elected by the Conference

Initus                                            Exitus
1905 Rev. Earl S. Keller                   -  -  -  DeGraff, 1913
1905 Rev. Frank E. Higbie                   -  -  -  Toledo, 1913
1905 Hon. J. H. Clark                      -  -  -  Marion, 1913
1905 Hon. E. S. Neeley                      -  -  -  Alger, 1914
1905 Mr. E. J. Carey                        -  -  -  Kenton, 1914
1898 Rev. E. D. Whitlock, D. D.             -  -  -  Toledo, 1915
1905 Rev. David Bowers, D. D.               -  -  -  Prospect, 1915
1910 Mr. S. D. Hazlett                      -  -  -  Ada, 1915
1899 Hon. S. A. Hoskins, A. M.              -  -  -  Wapakoneta, 1916
1911 Mr. W. W. Edwards                      -  -  -  Leipsic, 1916
1911 Mr. George Whitney                     -  -  -  Marysville, 1916
1907 Mr. S. A. Bowman                       -  -  -  Celina, 1917
1912 Mr. Charles A. Kettenring              -  -  -  Defiance, 1917

Elected by the Alumni

1909 Hon. I. N. Kuhn                        -  -  -  Waynesburg, Pa., 1914
1910 Rev. J. Wesley Hill, D. D., LL.D.,     -  -  -  N. Y. City, 1915
1911 Rev. Wm. F. McKee                      -  -  -  Monongahela, Pa., 1916
1912 Mr. Walter Elliott                     -  -  -  Ada, O., 1917
1913 Supt. John Davison                     -  -  -  Lima, O., 1918

At Large, Elected by the Trustees

1911 Hon. Henry Clews, Ph. D., LL.D.,       -  -  -  N. Y. City, 1916
1911 Hon. Judge R. M. Wanamaker             -  -  -  Columbus, O., 1916

Officers

S. A. Hoskins, President.

E. J. Carey Secretary and Treasurer.

*Deceased.
Numerous calls come for qualified teachers of Latin and German. The University offers excellent facilities for the pursuit of these studies. The head of the Latin department has had an experience of twenty-four years as a public school man, and knows the requirements of public school work. The teacher of German brings to the classroom large experience in teaching his mother tongue.

The Summer School Lecture Course is one of the popular features of the term. This course is worth the entire expense of the term.

EMPLOYMENT BUREAU

This bureau is organized to assist O. N. U. students in securing good paying positions. Each succeeding year it becomes more popular and efficient. Though a large number were assisted last year through this agency, the demand far exceeds the supply. A thousand applicants are wanted on the lists this year. Calls will come for superintendents, high school principals and teachers, grade teachers, primary teachers, and teachers of special branches. The books are open; register at once, it may result in a better position and a higher salary. No charge is made for registration. Address “The University Employment Bureau.”

DESCRIPTION OF COURSES

Academic

For Academic and Collegiate subjects, see descriptions of courses in the Preparatory School and the College of Liberal Arts.

Professional

Administration. 2 hours. A study of contemporary school problems with especial attention to administrative features of public schools; a study of Ohio School Law and decisions of State Commissioner and Attorney General; of especial interest to High School Teachers, Principals and Superintendents.

—Professor McCracken.
Methods I. 3 hours. A study of the elements of the general methods of teaching. This includes a study of induction, apperception, interest and will, as applied to teaching.

—PROFESSOR McCracken.

Methods II. 3 hours. A study of special methods of teaching the various elementary school subjects, primary, intermediate and grammar. Class reports, lectures, round-table discussions.

—PROFESSOR McCracken.

History of Education I. 3 hours. A study of education from the early ages till the Reformation. The aim is to secure a basic knowledge of early forms of education as a means of grasping modern tendencies. Themes, discussions, outside reading.

—PROFESSOR McCracken.

History of Education II. 3 hours. Beginning with the Reformation period, develop modern tendencies and connect with present trend of education. Careful attention to most prominent educational reformers: Pestalozzi, Herbart, Froebel, Comenius, etc. Outside reading, themes, discussions.—PROFESSOR McCracken.

Paidology. 3 hours. A course in child psychology. The different periods of child life are studied in relation to schoolroom practices. Outside reading, class discussions.

—PROFESSOR McCracken.

Class Management. 2 hours. Routine factors in classroom management; judgement factors; technique of instruction and discipline. Class discussions. —PROFESSOR McCracken.

School Hygiene. 2 hours. The hygienic conditions necessary for best development of the child; home environment and its effects; study of modern buildings, heating, lighting, ventilating, etc. Questionnaires, discussions.

Principles of Education. 3 hours. The basic principles of education and their concrete application through numerous and varied exercises. Round-table discussions. Prerequisite: Psychology I.

—PROFESSOR McCracken.

Educational Psychology I. 2 hours. This is a composite course; one-half of the lectures on psychology by Professor Dice, the other half on education by Professor McCracken. The aim of the combined course is to enable the student to gain a general knowledge of each as related to the other.

—PROFESSORS DICE AND McCracken.
Educational Psychology II. 2 hours. This is a purely experimental course, to illustrate the working of psychological laws in regular school room practice. —Professor McCracken.

Secondary Education. 3 hours. A course in the principles and practice of high school teaching. Arrangements have been made by which the students are permitted to enter high schools of different communities and study their problems at first hand. —Professor McCracken.

Observation. 5 hours. Students observe the regular teachers at work in the Ada Public Schools, and are required to report closely on these observations. —Professor McCracken.

Practice Teaching. 5 hours. Arrangements have been made for cadet service in the Ada Public Schools under competent critics. —Professor McCracken.

Other subjects classed as professional are psychology, ethics and sociology. Courses in primary reading, primary number work, and primary nature study will be available during the summer term.

EXPENSES

Matriculation

No Matriculation or entrance fee is required to enter the Normal College. Some schools advertise free tuition, but usually entrance fees with them amount to more than tuition fees here, a fact not to be overlooked by those selecting a school thorough, yet inexpensive.

Tuition Fees

For one quarter (12 weeks) strictly in advance $14.00
For two quarters in advance 27.00
For three quarters in advance 40.00
For four quarters in advance 52.00
For less than a quarter, per week 1.50

All students paying the regular tuition-fee are admitted to the general class in Rudiments of Music without extra charge.

Tuition must be paid by Friday night of the first week, otherwise an additional dollar will be charged.
Graduation Fee

Beautiful and neatly executed diplomas are awarded to those who complete any regular course of study. In the Teachers’ Courses the diploma fee is $3. Those preferring real parchment are charged one dollar extra. Candidates for any degree are required to pay full tuition in graduation quarter.

Room and Board

Good board in private families costs $1.65 to $2.75.
Furnished rooms, two in a room, 50 cents to $1.25 cents a week.

Refunding

No tuition will be refunded for the first half of the quarter. In case of protracted sickness of the student, tuition is refunded for the unexpired time. If in school longer than a half quarter he will be charged at the weekly rate of the department in which he is enrolled. Fractional weeks are counted as full weeks. No tuition is refunded to students who have been suspended or expelled. Receipts are not transferable.
COLLEGE OF ENGINEERING

FACULTY

ALBERT EDWIN SMITH, D. D., Ph. D.,
President

CHARLES BYRON WRIGHT, G. S.,
Executive Secretary.

ALFA HOLMES,
Registrar.

THOMAS JEFFERSON SMULL, M. E., C. E.,
Dean.
Civil and Architectural Engineering.

ERNEST B. THURSTON, E. E.,
Electrical and Mechanical Engineering.

CHARLES ADDISON MILLER, C. E.,
Mining and Municipal Engineering.

MRS. EVA MAGLOTT, A. M., C. E.,
Higher Mathematics.

JESSE BEER, B. Sc.,
Physics and Chemistry.

Trigonometry and Astronomy.

LEAH ASCHAM, A. B.,
Algebra and Geometry.

S. RAE BERLET, B. F. A.,
Freehand and Perspective Drawing.

SAMUEL PRESTON AXLINE, LL. D.,
Contracts.

WILLIAM GROTH, A. B.,
Spanish, French, German.

HARVEY E. HUBER, B. S., A. M.,
Geology and Mineralogy.

LENVX C. SLEESMAN, Ph. G., Ph. C.
Metallurgy.

CHILDE HAROLD FREEMAN, B. Sc.,
English.

FRANK LEWIS BERGER, A. B.,
Chemistry and Physics.
(Absent on leave.)
L. Delbert Merry, C. E.,
Assistant in Civil Engineering.

Karl MacEachron, E. E.,
Assistant in Electrical Engineering.

Edgar Clark Crawford, C. E.,
Assistant in Surveying.

George S. Boesger,
Assistant in Mathematics.

Aim

The aim of the founders of the Engineering Department of the Ohio Northern University was to provide a school where an education in engineering could be obtained with the least possible expenditure of time and money. They found that about three-eighths of the time allotted to the Engineering Courses in other technical schools was devoted to the study of subjects having no direct bearing on Engineering and that, by omitting these subjects, the time could be shortened to about two and one-half years. The success of the experiment in the course of training thus offered is seen in the fact that a very large per cent. of the graduates are engaged in occupaions connected with Engineering. In thus reducing the length of the course, censure has been provoked on the claim that a thorough knowledge of Engineering is to be obtained only by pursuing a lengthy college course. It is sufficient reply to state that by omitting such subjects as have no direct bearing on Engineering, an Engineering Degree has been placed within the reach of thousands of worthy young men whose time and means will not permit them to spend the long period of four years in preparation for a profession.

The aim of the department is to lay a foundation of sound theory and at the same time to impart such a knowledge of the usual professional practice as shall make its students useful in any position to which they may be called. The technical branches are taught and directed by teachers of professional experience as well as of full scientific training.

The benefit of classical and literary culture can not be overestimated, and to accommodate those desiring this culture in addition to the thorough technical training, the College of Liberal Arts with its excellent curriculums and many advantages is open to all Engineering students free of extra tuition.
Admission

Students having a knowledge of the prerequisites for entrance into the respective courses herein set forth will be permitted to register as candidates for the corresponding Engineering Degrees. The prerequisites are mentioned in "Description of Courses." Preparatory work may be taken here, separately, or in connection with advanced work.

A liberal policy is pursued in giving credit for work done in other colleges. Some credit is given for practical experience in draughting and field work that has been pursued previous to matriculation, upon receipt of a satisfactory statement from the employer, stating the nature of the work and the length of service. Statements must include postoffice address as well as signature of employer.

Time to Enter

The large number of classes formed each quarter makes it possible for one to enter at almost any time in the year and find the work he desires. The best time to enter, however, is at the beginning of the quarter. See Calendar.

In view of the fact that every branch of study in the College of Engineering is presented from two to five times a year, students are given what they want, when they want it.

Options

With the advice and consent of the Professor-in-charge, certain subjects may be elected in the various courses to take the place of such as may not appeal to the student in his chosen profession. These are termed options and are mentioned in the schedules of the courses.

CIVIL ENGINEERING


The teaching is done through classroom exercises, field work,
practical drawing and designing. Much time is devoted to the study of steel construction, during which the student is made familiar with the computation of stresses, designing, detailing and drawing of roofs, bridges and steel structures of all kinds. Those wishing to do so may elect advanced work in Hydraulics and Sewerage, to supplant a portion of the structural work of this course. The subject of roads and pavements, railroad construction and maintenance and masonry structures are exhaustively treated. Special attention is given to Land, Topographical Stadia and City Surveying and Leveling. The aim is to fit men to act as county and city engineers, surveyors, railroad engineers, bridge engineers, structural engineers, hydraulic engineers, and government geodetic engineers. Besides the undergraduate work, special and more elaborate study is arranged for those wishing to prepare for particular positions.

The College is well equipped with high-grade Transits, Levels, Solar Compasses, Prismatic Compasses, Hand Levels, Aneroid Barometers, Stadia Outfits, Sight Poles, Level Rods, Chains, Tapes, Axes, Pins, Railroad Curves, Planimeters, Protractors Stereotomy and Descriptive Geometry Models, a collection of Photographs and Shop Drawings of Bridges and Buildings, a large modern Draughting Room, equipped with individual lockers, a complete Blue Printing Outfit and filing cases by which the student is familiarized with modern office methods, Projectoscope and numerous Engineering Slides and an excellent Scientific Library. This equipment is constantly enlarging through purchase and donation and by construction of students of the College.

Course of Study

<table>
<thead>
<tr>
<th>FIRST QUARTER</th>
<th></th>
<th>SIXTH QUARTER</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Algebra IV.</td>
<td>4</td>
<td>Astronomy</td>
<td>4</td>
</tr>
<tr>
<td>Trigonometry I.</td>
<td>5</td>
<td>Mechanical Mathematics I.</td>
<td>5</td>
</tr>
<tr>
<td>Mechanical Drawing I.</td>
<td>4</td>
<td>Stereotomy</td>
<td>4</td>
</tr>
<tr>
<td>Chemistry I.</td>
<td>5</td>
<td>Highway Engineering</td>
<td>2½</td>
</tr>
<tr>
<td>Business English</td>
<td>2½</td>
<td>Rail Road Surveying</td>
<td>5</td>
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<thead>
<tr>
<th>SECOND QUARTER</th>
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<th>SEVENTH QUARTER</th>
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<tbody>
<tr>
<td>Algebra V.</td>
<td>4</td>
<td>Field Astronomy</td>
<td>2½</td>
</tr>
<tr>
<td>Trigonometry II.</td>
<td>2½</td>
<td>Mechanical Mathematics II.</td>
<td>5</td>
</tr>
<tr>
<td>Mechanical Drawing II.</td>
<td>4</td>
<td>Stresses I.</td>
<td>5</td>
</tr>
<tr>
<td>Chemistry II.</td>
<td>5</td>
<td>Graphics I.</td>
<td>4</td>
</tr>
<tr>
<td>Analytical Geometry I.</td>
<td>4</td>
<td>R. R. Economics and Design</td>
<td>5</td>
</tr>
<tr>
<td>THIRD QUARTER</td>
<td>EIGHTH QUARTER</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Algebra VI.</td>
<td>Stresses II.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calculus I.</td>
<td>Graphics II.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanical Drawing III.</td>
<td>Masonry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analytical Geometry II.</td>
<td>Electric Railways</td>
<td>2 1/2</td>
<td></td>
</tr>
<tr>
<td>Physics VI.</td>
<td>Sewerage</td>
<td>2 1/2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Least Squares</td>
<td>2 1/2</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>FOURTH QUARTER</th>
<th>NINTH QUARTER</th>
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</thead>
<tbody>
<tr>
<td>Geology</td>
<td>Bridge Design I.</td>
</tr>
<tr>
<td>Calculus II.</td>
<td>Hydraulics I.</td>
</tr>
<tr>
<td>Descriptive Geometry I.</td>
<td>Higher Structures</td>
</tr>
<tr>
<td>Plane Surveying</td>
<td>Reinforced Concrete</td>
</tr>
<tr>
<td>Physics IV.</td>
<td>Geodesy</td>
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<td></td>
<td>Seminary</td>
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<thead>
<tr>
<th>FIFTH QUARTER</th>
<th>TENTH QUARTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analytical Mechanics</td>
<td>Bridge Design II.</td>
</tr>
<tr>
<td>Calculus III.</td>
<td>Hydraulics II.</td>
</tr>
<tr>
<td>Descriptive Geometry II.</td>
<td>Building Construction</td>
</tr>
<tr>
<td>Field Engineering</td>
<td>Estimates and Contracts</td>
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<tr>
<td>Physics V.</td>
<td>Seminary</td>
</tr>
<tr>
<td></td>
<td>THESIS</td>
</tr>
</tbody>
</table>

Note—200 credit hours required for graduation.
Note—Two hours field work constitutes one credit hour.
Maximum number of hours per week—25.
Minimum number of hours per week—15.

OPTIONS.

Machine Design, 4; Metallurgy, 2 1/2; Mineralogy, 4; Mine Surveying, 2 1/2; Electrical Machinery I, 5; Advanced English or Advanced German or other modern languages, 8.

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**ELECTRICAL ENGINEERING**

The courses offered in this Branch of Engineering require a thorough study of theoretical and applied electricity. The first half of the prescribed study is, in the main, the same as that in the Civil and Mechanical Engineering courses, including the fundamental engineering sciences, Mathematics, Drawing and Surveying.

The last half consists of courses of study in Stresses, Graphics, Strength of Materials, Hydraulics, Steam Engines, Advanced study in the Theory of Electricity, a large amount of Laboratory Research and Experiment, Shop Tests, Plant Testing, Meter Testing, Machine Drafting and designing, Power Plant and Wiring Layouts, and a thorough course in Electrical Machine Construction.

The theoretical work is thoroughly supplemented with practical application in the laboratory and in the design of electrical machinery. Throughout the course the student is drilled in the
Committees

Agriculture

Buildings and Grounds

Cabinet and Library

Degrees

Executive

Finance

Instruction

*Deceased.

CONFERENCE VISITOR FOR 1912-13
Rev. B. F. Reading, Delaware.
CALENDAR

1913

September 8, Monday ........................................ Registration
September 9, Tuesday ....................................... Fall Quarter Begins
September 30, Tuesday ...................................... College of Pharmacy Opens
November 26, Wednesday .................................. Fall Quarter Ends
November 26-December 2 ............................... Thanksgiving Recess
December 2, Tuesday ...................................... Winter Quarter Begins
December 19-January 5 ........................................ Christmas Vacation

1914

March 5, Friday ............................................... Winter Quarter Ends
March 10, Tuesday .......................................... Spring Quarter Begins
May 22, Friday, (8:00 P. M.) ......................... Commencement Recital
College of Music.
May 24, Sunday, (10:00 A. M.) ...................... Baccalaureate Sermon
May 24, Sunday, (8:00 P. M.) ...................... Annual Christian Association Address.
May 25, Monday, (1:30 P. M.) ......................... Field Sports
May 25, Monday, (8:00 P. M.) ......................... Lehr Oratorical Contest
May 26, Tuesday, (10:30 A. M.) .............. Meeting of the Board of Trustees
May 26, Tuesday, (2:00 P. M.) ......................... Athletic Sports
May 26, Tuesday, (8:00 P. M.) ...................... President's Reception
May 27, Wednesday, (8:00 A. M.) .............. Annual Meeting of the Alumni Association.
May 27, Wednesday, (9:00 A. M.) ................ Military Contest
May 27, Wednesday, (6:00 to 8:00 P. M.) Society Reunions and Receptions.
May 27, Wednesday, (8:00 P. M.) .............. Commencement Concert by Choral Society.
May 28, Thursday, (9:00 A. M.) ................ Class Day Exercises
May 28, Thursday, (2:00 P. M.) .............. Forty-third Annual Commencement.
May 28, Thursday, (8:00 P. M.) .............. Military Companies' Reception.
May 28, Thursday .......................................... Spring Quarter Ends
June 2, Tuesday ........................................... Summer Quarter Begins
June 2, Tuesday .......................................... Special Summer Term Begins
July 23, Thursday .......................................... Special Summer Term Ends
August 13, Thursday ........................................ Summer Quarter Ends

September 8, Tuesday .................................... Fall Quarter, 1914-15, Begins
FACULTY AND OFFICERS

HENRY SOLOMON LEHR, A. M., PH. D.
President Emeritus.

ALBERT EDWIN SMITH, D. D., PH. D.
President.

CHARLES BYRON WRIGHT, G. S.,
Executive Secretary.
Dean of College of Commerce.

ALFA HOLMES,
Registrar.

HENRY WHITWORTH, A. B.,
Dean of College of Liberal Arts.
Latin.

RICHARD HOLMES SCHOO NOVER, A. M., B. D.,
Greek, Hebrew, Biblical History.

FRANK BARTLETTE WILLIS, A. M., LL. B.,
Civics, Economics, Law.
(Absent on leave.)

WILLIAM GROTH, A. B.,
Modern Foreign Languages.

JESSE BEER, B. SC.,
Chemistry and Physics.

CHILDE HAROLD FREEMAN, B. S.,
Rhetoric and English Literature.

CHARLES AMOS DICE, A. M.,
Psychology, Ethics and Philosophy.

FRANK LEWIS BERGER, A. B.,
Chemistry and Physics.
(Absent on leave.)

WILLIAM EDWARD ICE, A. M.,
History, Civics.

HARVEY EVERT HUBER, A. M.,
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