

FOUNDED BY CHARLES McMICKEN

1894							1895													
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
<b>JANUARY.</b>							<b>JULY.</b>							<b>JANUARY.</b>						
..	1	2	3	4	5	6	1	2	3	4	5	6	7	..	..	1	2	3	4	5
7	8	9	10	11	12	13	8	9	10	11	12	13	14	6	7	8	9	10	11	12
14	15	16	17	18	19	20	15	16	17	18	19	20	21	13	14	15	16	17	18	19
21	22	23	24	25	26	27	22	23	24	25	26	27	28	20	21	22	23	24	25	26
28	29	30	31	..	..	..	29	30	31	..	..	..	..	27	28	29	30	31	..	..
<b>FEBRUARY.</b>							<b>AUGUST.</b>							<b>FEBRUARY.</b>						
..	..	..	..	1	2	3	..	..	..	1	2	3	4	..	..	..	..	..	1	2
4	5	6	7	8	9	10	5	6	7	8	9	10	11	3	4	5	6	7	8	9
11	12	13	14	15	16	17	12	13	14	15	16	17	18	10	11	12	13	14	15	16
18	19	20	21	22	23	24	19	20	21	22	23	24	25	17	18	19	20	21	22	23
25	26	27	28	..	..	..	26	27	28	29	30	31	..	24	25	26	27	28	..	..
<b>MARCH.</b>							<b>SEPTEMBER.</b>							<b>MARCH.</b>						
..	..	..	..	1	2	3	..	..	..	..	..	..	1	..	..	..	..	..	1	2
4	5	6	7	8	9	10	2	3	4	5	6	7	8	3	4	5	6	7	8	9
11	12	13	14	15	16	17	9	10	11	12	13	14	15	10	11	12	13	14	15	16
18	19	20	21	22	23	24	16	17	18	19	20	21	22	17	18	19	20	21	22	23
25	26	27	28	29	30	31	23	24	25	26	27	28	29	24	25	26	27	28	29	30
..	..	..	..	..	..	..	30	..	..	..	..	..	..	31	..	..	..	..	..	..
<b>APRIL.</b>							<b>OCTOBER.</b>							<b>APRIL.</b>						
1	2	3	4	5	6	7	..	1	2	3	4	5	6	..	1	2	3	4	5	6
8	9	10	11	12	13	14	7	8	9	10	11	12	13	7	8	9	10	11	12	13
15	16	17	18	19	20	21	14	15	16	17	18	19	20	14	15	16	17	18	19	20
22	23	24	25	26	27	28	21	22	23	24	25	26	27	21	22	23	24	25	26	27
29	30	..	..	..	..	..	28	29	30	31	..	..	..	28	29	30	..	..	..	..
<b>MAY.</b>							<b>NOVEMBER.</b>							<b>MAY.</b>						
..	..	1	2	3	4	5	..	..	..	..	1	2	3	..	..	..	1	2	3	4
6	7	8	9	10	11	12	4	5	6	7	8	9	10	5	6	7	8	9	10	11
13	14	15	16	17	18	19	11	12	13	14	15	16	17	12	13	14	15	16	17	18
20	21	22	23	24	25	26	18	19	20	21	22	23	24	19	20	21	22	23	24	25
27	28	29	30	31	..	..	25	26	27	28	29	30	..	26	27	28	29	30	31	..
<b>JUNE.</b>							<b>DECEMBER.</b>							<b>JUNE.</b>						
..	..	..	..	..	1	2	..	..	..	..	..	..	1	..	..	..	..	..	..	1
3	4	5	6	7	8	9	2	3	4	5	6	7	8	2	3	4	5	6	7	8
10	11	12	13	14	15	16	9	10	11	12	13	14	15	9	10	11	12	13	14	15
17	18	19	20	21	22	23	16	17	18	19	20	21	22	16	17	18	19	20	21	22
24	25	26	27	28	29	30	23	24	25	26	27	28	29	23	24	25	26	27	28	29
..	..	..	..	..	..	..	30	31	..	..	..	..	..	30	..	..	..	..	..	..

# University of Cincinnati

## CATALOGUE

OF THE

## Academic Department

1894-95

CINCINNATI, OHIO:  
 PUBLISHED BY THE UNIVERSITY OF CINCINNATI.  
 1895

THOMAS HERBERT NORTON, PH. D., PROFESSOR OF CHEMISTRY,  
Loraine and Brookline Avenues, Clifton.

A. B., Hamilton College, N. Y., 1873; Student in the Universities of Heidelberg, Berlin, and Paris, 1873-78; A. M. and Ph. D., University of Heidelberg, 1875; Assistant in the Chemical Laboratory of the University of Berlin, 1876-77; Research Chemist and Superintendent of Manufacture, *Campagne Générale des Cyanures*, Paris, 1878-83; Professor of Chemistry, University of Cincinnati, 1883.

JERMAIN GILDERSLEEVE PORTER, PH. D., DIRECTOR OF THE  
OBSERVATORY AND PROFESSOR OF ASTRONOMY, Station C.

A. B., Hamilton College, N. Y., 1873; A. M., Hamilton College, 1876; Ph. D., Hamilton College, 1888; Assistant Professor of Astronomy, Hamilton College, 1875-78; Computer in the U. S. Coast and Geodetic Survey, 1878-81; Astronomer at the Observatory of the University of Cincinnati, 1881.

EDWARD MILES BROWN, PH. D., PROFESSOR OF THE ENGLISH LAN-  
GUAGE AND LITERATURE, Ridgeway Avenue, Avondale.

Ph. B., University of Michigan, 1880; Student at the Universities of Strassburg, Berlin, Halle, Goettingen, 1886-1889; A. M. and Ph. D., Goettingen, 1890; Principal of the City High School, Laporte, Ind., 1890-92, and 1894-96; Assistant Professor of English, Cornell University, 1889-90; Professor of Modern Languages, University of Cincinnati, 1890; Professor of the English Language and Literature, University of Cincinnati, 1892.

PHILIP VAN NESS MYERS, L. H. D., PROFESSOR OF HISTORY AND  
POLITICAL ECONOMY, College Hill.

A. B., Williams College, 1871; A. M., Williams College, 1874; LL. B., Yale University, 1890; LL. D., Belmont College, 1891; L. H. D., Miami University, 1891; President of Belmont College, 1879-91; Professor of History and Political Economy, University of Cincinnati, 1891.

WARD BALDWIN, M. S., PROFESSOR OF CIVIL ENGINEERING, AND  
REGISTRAR, 42 East Auburn Avenue.

C. E., University of Cincinnati, 1879; M. S., University of Cincinnati, 1880; Resident Engineer of Chattahoochee R. R., 1879; Principal Assistant Engineer, Cincinnati Southern Railway and Associated Roads, 1880-1891; Professor of Civil Engineering, University of Cincinnati, 1891.

CHARLES FREDERICK SEYBOLD, A. B., PROFESSOR OF FRENCH  
AND GERMAN, AND SECRETARY OF THE FACULTY,  
East Ridgeway Avenue, Walnut Hills.

A. B., Harvard University, 1871; LL. B., Cincinnati Law School, 1873; Professor of Languages, Cincinnati Wesleyan College, 1880-82; Assistant Professor of Modern Languages, University of Cincinnati, 1882; Professor of French and German, University of Cincinnati, 1892.

FREDERICK LEOPOLD SCHOENLE, PH. D., PROFESSOR OF GREEK  
AND COMPARATIVE PHILOLOGY, AND LIBRARIAN,  
Bigelow Avenue, Mt. Auburn.

Graduate of the Gymnasium of Barmen, Germany, 1886; Student at the Universities of Tuebingen, Wuerttemberg, and Bonn, 1886-89; A. M., and Ph. D., Tuebingen, 1890; Professor of Modern Languages, Louisville Male High School, 1889; Professor of Greek and Comparative Philology, University of Cincinnati, 1894.

CHARLES LINCOLN EDWARDS, PH. D., PROFESSOR OF BIOLOGY,  
Loraine Avenue, Clifton.

B. S., Lombard University, 1881; B. S., Indiana University, 1886; M. A., Indiana University, 1887; Student at Johns Hopkins University, and at the University of Leipzig, 1887-90; Ph. D., Leipzig, 1890; Fellow in Clark University, Mass., 1890-1892; In charge of the School of Biology, University of Texas, 1892-94; Professor of Biology, University of Cincinnati, 1894.

PAUL FRANCIS WALKER, LL. B., INSTRUCTOR IN SPANISH AND  
ITALIAN, Forestville, Ohio.

LL. B., Cincinnati Law School, 1892; Instructor, Colegio Civil, Monterey, Mexico, 1887-89; Instructor in Spanish, University of Cincinnati, 1891; Instructor in Spanish and Italian, University of Cincinnati, 1894.

HERMAN ELIJAH NEWMAN, PH. D., INSTRUCTOR IN CHEMISTRY,  
261 Central Avenue.

B. S., University of Cincinnati, 1889; A. M., and Ph. D., University of Berlin, 1891; Instructor in Chemistry, University of Cincinnati, 1892; Professor of Chemistry at Cincinnati College of Medicine and Surgery, 1893.

ELLIS GUY KINKEAD, A. M., INSTRUCTOR IN LATIN, 57 Gest Street.

A. B., University of Cincinnati, 1889; A. M., University of Cincinnati, 1894; LL. B., Cincinnati Law School, 1891; Instructor in Latin, University of Cincinnati, 1893.

WILLIAM OSGOOD MUSSEY, A. M., INSTRUCTOR IN ENGLISH,  
Westwood, Ohio.

A. B., University of Cincinnati, 1887; A. M., University of New York, 1892; Head-master of Hogsett Academy, Ky., 1892; Instructor in English, University of Cincinnati, 1893.

PHILLIPS ISHAM, B. S., ASSISTANT IN ASTRONOMY, Mt. Lookout.

B. S., University of Cincinnati, 1893; Assistant at the Observatory of Cincinnati, 1893.

LOUIS EDWARD BOGEN, C. E., INSTRUCTOR IN PHYSICS,  
Kerper Avenue, Walnut Hills.

C. E., University of Cincinnati, 1894; Assistant in Civil Engineering and in Physics, University of Cincinnati, 1893; Instructor in Physics, University of Cincinnati, 1894.

PHILO ATWOOD ORTON, C. E., INSTRUCTOR IN MATHEMATICS,  
456 West Ninth Street.

C. E., University of Cincinnati, 1891; Instructor in Mathematics, University of Cincinnati, 1891.

JOSEPH BAERMAN STRAUSS, C. E.,\* INSTRUCTOR IN CIVIL ENGINEERING,  
360 West Ninth Street.

C. E., University of Cincinnati, 1892; Draughtsman with the New Jersey Steel and Iron Co., Trenton, N. J., 1892-94; Instructor in Civil Engineering, University of Cincinnati, 1894.

HARRY WILLIAM CURTH, B. L., INSTRUCTOR IN GERMAN AND ENGLISH,  
1159 Vine Street.

B. L., University of Cincinnati, 1891; Instructor in German and English, University of Cincinnati, 1894.

CLARA LANGENBECK, INSTRUCTOR IN BIOLOGY,  
Ninth and Race Streets.

Assistant in Biology, 1893; Instructor in Biology, 1894.

MARY LOUISE DELUCE, B. L., ASSISTANT LIBRARIAN, Price Hill.

B. L., University of Cincinnati, 1894; Assistant Librarian, University of Cincinnati, 1894.

\*Charles Washington Siebenthaler, C. E., was appointed Instructor in Civil Engineering upon his graduation in 1894, and held that position till his death, December 12, 1894. Joseph B. Strauss has been appointed Instructor for the remainder of the Academic year, 1894-95.

## Introductory Statement.

The University of Cincinnati owes its existence to the generosity of Charles McMicken, a native of Pennsylvania, who came to Cincinnati in 1803, accumulated a large fortune, and died here in 1858. By the terms of his will he bequeathed to the city of Cincinnati property\* worth over \$1,000,000, to found an institution of learning in which students should "receive the benefit of a sound, thorough and practical English education, and such as might fit them for the active duties of life, as well as instruction in the higher branches of knowledge, except denominational theology, to the extent that the same are now or may hereafter be taught in any of the secular colleges or universities of the highest grade in the country."

In April, 1870, the General Assembly of Ohio passed an act, "to enable cities of the first class to aid and promote education," under which the city of Cincinnati accepted the bequest of Charles McMicken, and proceeded to establish the University of Cincinnati. Academic instruction was begun in 1873 in the Woodward High School building by the teachers of that school; and the University was formally organized in 1874 by the appointment of a professor of Mathematics and Civil Engineering, a professor of Latin and Greek, and a professor of Physics and Chemistry. During the academic year 1874-5, instruction was given by these professors in the building of the Third Intermediate School on Franklin Street. At the beginning of the year 1875-6, possession was taken of the new building, erected on the grounds of the McMicken homestead, where the institution is still located.

\*A large portion of this bequest consisting of land, valued at nearly \$500,000, and located in Louisiana, was taken possession of by the government of that State, which refused to recognize the validity of bequests of real estate to institutions not situated within its borders.

### Baccalaureate Degrees.

The University offers nine groups of studies, each extending over four years, and leading to the following degrees:

1. Bachelor of Arts.
2. Bachelor of Letters.
3. Bachelor of Science.
4. Bachelor of Science in Mathematics.
5. Bachelor of Science in Physics.
6. Bachelor of Science in Chemistry.
7. Bachelor of Science in Biology.
8. Bachelor of Science in Civil Engineering.
9. Bachelor of Science in Astronomy.

### Graduate Degrees.

The Faculty will recommend for a Master's degree in Arts, in Letters, or in Science, any candidate on the following conditions:

1. He shall have received the corresponding baccalaureate degree.

NOTE.—If he has not received the corresponding baccalaureate degree he shall make up all deficiencies in the studies leading to this degree, or offer substitutes that are satisfactory to the Faculty.

2. He shall have pursued at this University, for not less than one year, a course of study embracing one major and one or more minor subjects, under the direction of the Faculty.

NOTE.—Any student not in residence at the University will be required to take at least two years to complete the work.

3. He shall have passed a satisfactory examination upon the studies pursued.

4. He shall have presented a satisfactory thesis.

**Civil Engineer.**—The Faculty will recommend for the degree of Civil Engineer any Bachelor of Science in Civil Engineering of this University who, in the practice of his profession, shall have given satisfactory evidence of his ability to design and direct engineering work of importance, and who shall have presented a satisfactory thesis.

### GENERAL REQUIREMENTS FOR ADMISSION.

All candidates for admission will be examined in the following subjects:

ENGLISH: \*

NOTE.—No candidate will be accepted in English whose work is notably deficient in point of spelling, punctuation, idiom, or division into paragraphs.

1. *Reading and Practice.*—A limited number of books will be set for reading. The candidate will be required to present evidence of a general knowledge of the subject-matter, and to answer simple questions on the lives of the authors. The form of examination will usually be the writing of a paragraph or two on each of several topics, to be chosen by the candidate from a considerable number—perhaps ten or fifteen—set before him in the examination paper. The treatment of these topics is designed to test the candidate's power of clear and accurate expression, and will call for only a general knowledge of the substance of the books. In place of a part or the whole of this test, the candidate may be allowed to present an exercise book, properly certified by his instructor, containing compositions or other written work done in connection with the reading of the books.

The books set for this part of the examination will be:

1895: Shakspeare's Twelfth Night; The Sir Roger de Coverley Papers in The Spectator; Irving's Sketch Book; Scott's Abbot; Webster's First Bunker Hill Oration; Macaulay's Essay on Milton; Longfellow's Evangeline.

1896: Shakspeare's Midsummer-Night's Dream; Defoe's History of the Plague in London; Irving's Tales of a Traveller; Scott's Woodstock; Macaulay's Essay on Milton; Longfellow's Evangeline; George Eliot's Silas Marner.

\*The University has adopted the report of a Conference on Entrance Requirements in English, consisting of a committee of ten appointed by the Association of Colleges and Preparatory Schools of the Middle States and Maryland, a committee of three appointed by the Commission of Colleges in New England on Admission Examinations, and a committee of two from the New England Association of Colleges and Preparatory Schools. The meeting was held in Philadelphia, May 17, 18 and 19, 1894.

JUNIOR YEAR.			
Course.		Hours per week each Semester.	
		I.	II.
English, . . . . .	4 . . . . .	2	2
Biology, . . . . .	4 . . . . .	6	6
Electives, . . . . .	. . . . .	6	6

SENIOR YEAR.			
Course.		Hours per week each Semester.	
		I.	II.
Biology, . . . . .	5 . . . . .	6	6
Geology, . . . . .	. . . . .	2	..
Astronomy, . . . . .	3 . . . . .	..	2
Electives, . . . . .	. . . . .	6	6

### GROUP IN CIVIL ENGINEERING.

#### FRESHMAN YEAR.

(SEE PAGE 22.)

#### SOPHOMORE YEAR.

Course.		Hours per week each Semester.	
		I.	II.
Engineering, . . . . .	2, 3, and 4, . . . . .	4	4
English, . . . . .	2 . . . . .	1	1
Physics, . . . . .	2 and 3 . . . . .	4	4
Mathematics, . . . . .	3 and 4 . . . . .	7	7

#### JUNIOR YEAR.

Engineering, . . . . .	5, 6, and 7, . . . . .	9	8
Physics, . . . . .	4 . . . . .	2	2
Mathematics, . . . . .	8 and 9, . . . . .	2	3
Electives, . . . . .	. . . . .	1	1

#### SENIOR YEAR.

Engineering, . . . . .	8, 9, 10, and 11, . . . . .	7	7
Mathematics, . . . . .	11 . . . . .	2	2
Electives, . . . . .	. . . . .	5	5

Preparation of thesis for graduation.

### GROUP IN ASTRONOMY.

#### FRESHMAN YEAR.

(SEE PAGE 22.)

#### SOPHOMORE YEAR.

Course.		Hours per week each Semester.	
		I.	II.
Engineering, . . . . .	2 and 3, . . . . .	3	3
English, . . . . .	2 . . . . .	1	1
Physics, . . . . .	2 . . . . .	3	3
Mathematics, . . . . .	3 and 4, . . . . .	7	7
French, . . . . .	3 . . . . .	1	1
German, . . . . .	3 . . . . .	1	1

#### JUNIOR YEAR.

Mathematics, . . . . .	8 and 9, . . . . .	2	3
Astronomy, . . . . .	1 . . . . .	6	6
Electives, . . . . .	. . . . .	6	5

#### SENIOR YEAR.

Mathematics, . . . . .	11 and 14, . . . . .	4	4
Geology, . . . . .	. . . . .	2	..
Astronomy, . . . . .	2 . . . . .	6	6
Electives, . . . . .	. . . . .	2	4

Preparation of thesis for graduation.



### THE JONES PRIZE.

This Prize, founded in 1893, by Frank J. Jones, and consisting of forty dollars, is awarded to that member of the Senior Class who shall write and pronounce an English oration in the best manner. The subjects are chosen by the Dean of the Faculty, and the Chairman of the Board of Directors. A committee, consisting of three citizens of Cincinnati, shall be appointed by the Chairman of the Board of Directors to award the prize.

**GEOLOGY.**

PROFESSOR EDWARDS.

GENERAL GEOLOGY.—The text-books of LeConte, Geike and Credner serve as the basis of the Course, which is illustrated by specimens from the University collections, and by excursions in the field. [*First Semester, Mon., Fri., 10.30.*]

**CIVIL ENGINEERING.**

THE THOMS CHAIR OF CIVIL ENGINEERING.

PROFESSOR BALDWIN AND INSTRUCTOR STRAUSS.

The group of studies, leading to the degree of Bachelor of Science in Civil Engineering, is given in outline on page 26.

The instruction in engineering studies is given by means of models, lectures, recitations, practice in field-work, drafting, and visits to works of engineering interest; the special aim being to give the student not only a sound knowledge of general principles, but also a clear perception of their relation to practical problems.

The following courses are given in this department:

1. FREE-HAND DRAWING.—The aim of this course is to acquaint the student with correct methods of sketching, both in designing and in drawing from objects. [*Mon., 9.30.*]

2. LAND SURVEYING AND TOPOGRAPHY.—This course includes a study of the methods of land, hydrographic, mining, and city surveying, with practice in the computation of earth-work, and in the use of the Slide-rule, Planimeter, Compass, Transit, Level, Plane-table, Solar Compass, and Sextant (Johnson). [*Tues., Thurs., 9.30; Wed., 8.30, First Semester.*]

3. RAILROAD SURVEYING.—This course includes a study of the methods of making preliminary surveys, locations, and esti-

mates, with field practice in location and cross-sectioning, and practice in platting maps and turnouts (Searles, Wellington). [*Tues., Thurs., 9.30; Wed., 8.30, Second Semester.*]

4. ARCHITECTURAL DRAFTING.—The object of this course is to give the student a knowledge of the "Five Orders," and of the elementary principles of architectural design, together with practice in lettering, tracing, and blue-printing. [*Fri., 9.30.*]

5. STRESSES AND STRAINS.—Mechanics of Solids (Church). Modern Framed Structures (Johnson). [*Mon., Fri., 10.30; Tues., Thurs., 8.30.*]

6. MUNICIPAL AND RAILWAY ENGINEERING.—This course consists of a series of lectures on Masonry Structures, Water Supply, Sewage Disposal, the Construction of Roads, Streets, and Railways; also laboratory tests of the physical properties of cements and mortars. [*Mon., Fri., 8.30, First Semester; Fri., 8.30, Second Semester.*]

7. DRAFTING.—Lectures on Topography, Shades and Shadows, Perspective, and Stereotomy. [*Tues., Thurs., 9.30; Wed., 8.30.*]

8. DYNAMICS AND HYDRAULICS.—Mechanics of Engineering (Church). [*Mon., Tues., Thurs., Fri., 11.30, First Semester.*]

9. PRIME MOVERS.—Books of reference: Holme's Steam Engine; Cotterill's Steam Engine; Whitlam's Steam Engine Design; Zeuner's Treatise on Valve-Gears. [*Mon., Tues., Thurs., Fri., 11.30, Second Semester.*]

10. STRUCTURES.—This course comprises the study, both analytically and graphically, of the Continuous Girder, Arch, Cantilever, and Suspension Bridge. (Greene, Bender.) [*Mon., Fri., 8.30.*]

11. DRAFTING.—This course consists of the drawing of Structural Designs, Valve Diagrams, and Map Projections. [*Wed., 11.30.*]

12. GEODESY.—(Johnson.) Books of reference: Gore's Elements of Geodesy; Merriman's Geodetic Surveying. This course is optional. [*Tues., Thurs., 10.30, First Semester.*]

13. MACHINE DESIGN.—Lectures. This course is optional. [*Tues., Thurs., 10.30, Second Semester.*]

**EQUIPMENT.**

The department has a well-lighted drafting room furnished with convenient drafting tables, a cement-testing laboratory, provided with the most approved appliances, including a Riehle machine of 2,000 pounds capacity, and a room provided with an outfit for making prints of drawings. The instrumental equipment includes a full set of engineering field instruments of the finest construction, drafting instruments, slide rules, and models of masonry structures.

The working library of the department contains a growing collection of standard works of reference, files of technical periodicals, construction-drawings, and maps.

**ASTRONOMY.****CINCINNATI OBSERVATORY.**

PROFESSOR PORTER AND ASSISTANT ISHAM.

The Observatory of the University of Cincinnati is located at Mount Lookout, six miles north-east of the center of the city. The grounds comprise four acres on the summit of the hill. The building is of brick. In the center rises the massive masonry pier, which supports the great equatorial of eleven inches aperture and sixteen feet focal length. It is protected by a new iron dome, which can be revolved with great rapidity and ease. The shutter is operated by an endless rope, the opening in the dome being four feet in width, and extending from the horizon to the zenith.

In the western wing is placed the new meridian circle by Fauth & Co. This instrument has an aperture of five inches and a focal length of seventy inches, and is supplied with all modern improvements. The circle is divided to five minutes of arc, and read by four microscopes to single seconds. The

sidereal clock, by Molyneux, is also in this wing. The eastern wing is used as a library and computing room. The Observatory possesses also a four-inch equatorial, by Clark, a sidereal chronometer and chronograph, by Bond, and a mean-time clock, by Ritchie. The library contains about 2,000 volumes, including most of the star catalogues, and many valuable works of reference.

The scientific activity of the Observatory has been uninterrupted since its removal, in 1873, to the present site. During this period twelve numbers of the regular publication have been issued, containing over one thousand pages of astronomical observation and research. In addition, numerous memoirs are published every year in the astronomical journals. For some years especial prominence has been given to stellar astronomy, and many important discoveries have been made in this field. The meridian circle has been chiefly employed in this work and in the determination of the solar parallax. Observations of planets, comets, nebulae, double stars, occultations, and eclipses have been made with the equatorial.

**INSTRUCTION.**

The group of studies leading to the degree of Bachelor of Science in Astronomy, is given in outline on page 27.

In addition to the regular scientific work, the Observatory is organized with a view of providing a practical course of training for students of the University wishing to make a specialty of Astronomy. Those taking this group of studies are expected to be thoroughly prepared in mathematics before commencing the special astronomical studies of the third and fourth years. During these two years students will spend a portion of their time at the Observatory.

1. **SPHERICAL ASTRONOMY.**—This includes the Theory of Interpolation, Definite Integrals, the Method of Least Squares, also the theory and use of astronomical instruments. (Chauvenet's Spherical and Practical Astronomy, Brünnow's Spherical Astronomy.) [*Six times a week.*]

- Samuel George Heckmann, . . . B. A.  
Graduate of the Yale Divinity School,  
1894. Pastor of the Rutland Street  
Congregational Church, Watertown,  
New York, 1894—.
- Charles Judson Herrick, (Biol.) B. S.  
Professor of Natural Science, Ottawa  
University, 1892-1894. Editor of the  
Journal of Comparative Neurology,  
1891—. Fellow in Neurology, Deni-  
son University, Granville, Ohio, 1894—.
- Samuel Hirschberg, . . . . . B. L.  
Rabbi, 134 West Berry St., Fort Wayne,  
Indiana, 1891—.
- Israel Joseph, . . . . . B. A.  
Rabbi, Wilkesbarre, Pa., 1891—.
- Margaret Elinor Layman, . . . B. A.  
Teacher in Woodward High School,  
1892—. Res. 43 Crown St., Walnut Hills.
- Alexander Lyons, . . . . . B. L.  
Rabbi, Terre Haute, Ind., 1891—.
- Irving McAvoy, . . . . . C. E.  
Civil Engineer, 72 Johnston Building.
- Alice Emily Murray-Noonan, . B. L.  
The San Rafael, 341 West Fourth St.
- Nellie Passel, . . . . . B. L.  
Teacher. Res. North Fairmount.
- Isaac Pichel, . . . . . B. L.  
Reporter on the Staff of the Cincinnati  
Enquirer, 1891—. Res. 121 W. Seventh St.
- Charles Aaron Rubenstein, . . B. L.  
Rabbi, Little Rock, Ark., 1891—.
- Alice May Schloff, . . . . . B. L.  
Ph. M., University of Michigan, 1892.  
Teacher in the High School, Moorhead,  
Minn., 1894—.
- Howard Andrews Sutton, . . . B. L.  
LL. B., Cin. Law School, 1892. Attorney,  
59 West Fourth St. Res. The Norfolk,  
Cor. Eighth and Elm Sts.
- William Robert Todd, . . . . . B. A.  
Clerk in the Merchants' National Bank,  
1891—. Res. Southern Av., Mt. Auburn.
- Charles Henry Turner, (Biol.) B. S.  
M. S., Univ. of Cin., 1892. Assistant in  
Biology in same, 1892-1893. Professor of  
Natural Science in Clark Univ.,  
South Atlanta, Ga., 1893—.
- Bruce Stevens Weeks, . . . . . B. A.  
LL. B., Cin. Law School, 1888. Attorney,  
32 Johnston Bldg. Res. Winton Place.
- Everett Irving Yowell, . . . . . C. E.  
M. S., Univ. of Cin., 1893. Instructor in  
Mathematics in same, 1891-94. Gradu-  
ate Student of Mathematics, Univer-  
sity of Tübingen, Germany, 1894—.

## 1892.

- Clement Aubrey Barbour, . . . B. A.  
LL. B., Cin. Law School, 1891. Attorney,  
Res. 225 E. Sixth St., Newport, Ky.
- Daniel Brownlee, . . . . . B. A.  
Student in the Western Theological  
Seminary, Allegheny, Pa., 1892—.
- Frederick Theophilus Des Brisay, B. A.  
LL. B., Cin. Law School, 1893. Attorney,  
35 W. Fourth St. Res. Wyoming, O.
- Harold Fowler, . . . . . C. E.  
Assistant Engineer, Altamont and Man-  
chester RR., Altamont, Ky., 1893—.
- Leo Morris Franklin, . . . . . B. L.  
Rabbi, 1921 Dodge St., Omaha, 1892—.
- Abram Gideon, . . . . . B. L.  
Student of Philosophy, University of  
Marburg, Germany, 1894—.
- Esther Kleinen Hagen, . . . . . B. S.  
Private Teacher. Res. 296 Richmond St.
- Daniel Young Hayden, . . . . . B. L.  
M. L., Univ. of Cin., 1894. Teacher,  
Thayer, Ind., 1894—.
- Anne Hastings King, . . . . . B. L.  
Teacher in the Public Schools, 1894—.  
Res. 58 Morris Place.
- Jennie Mannheimer, . . . . . B. L.  
B. H., Hebrew Union Col., Cin., 1888.  
Principal of the Cincinnati School of  
Expression, Y. M. C. A. Building,  
1894—. Res. 489 W. Court St.
- Estella May Riley, . . . . . B. L.  
Student in the Woman's Medical College  
of the Presbyterian Church, 1892—.  
Res. 402 W. Seventh St.
- Frank Williamson Stevenson, B. L.  
Salesman with Moore, Warren & Co.,  
Cotton Factors, Cin., 1893—. Res. Hart-  
well, O.
- Joseph Baerman Strauss, . . . C. E.  
Instructor in Civil Engineering, Univ.  
of Cin., 1894—. Res. 340 W. Ninth St.
- William Mayo Venable, (Phys.) B. S.  
M. S., Univ. of Cin., 1893. Electrical  
Engineer, 154 W. Fifth St., 1893—. Res.  
Tusculum.

## 1893.

- George Burnham Beaman, . . . B. A.  
Student of Philology, University of  
Leipzig, Germany, 1894—.
- William Arnold Christian, . . . C. E.  
Engineer in the office of the U. S. Engi-  
neer, Cincinnati, 1894—. Res. 306  
Kemper Lane, Walnut Hills.

- Emilie Esselborn, . . . . . B. L.  
Graduate Student, Univ. of Cin., 1891—.  
Res. Portsmouth, O.
- Charles Fleischer, . . . . . B. L.  
Rabbi, 38 St. Botolph St., Boston, 1894—.
- Aaron Friedman, . . . . . B. L.  
Rabbi, 907 Third Ave., Minneapolis,  
1893—.
- Julius Fryer, . . . . . B. L.  
Rabbi, Meridian, Miss., 1893—.
- John Bruce Hayden, . . . . . C. E.  
Draughtsman, with the King Bridge  
Co., Cleveland, O., 1891—.
- Lewis William Hoffman, . . . B. L.  
Analytical Chemist, 1893—. Cor. Oak St.  
and Bellevue Ave. Res. Hackberry  
and Clay Sts., Walnut Hills.
- Phillips Isham, . . . . . (Astron.) B. S.  
Assistant at the Observatory of the Uni-  
versity of Cincinnati, 1893—. Res. Mt.  
Lookout.
- Emma Britomarte Kinney, . . . B. L.  
Res. Hyde Park, Cincinnati.
- William Gustav Langenheim, C. E.  
Asst. Engineer with the New Jersey  
Steel and Iron Co., Trenton, New  
Jersey, 1891—.
- Elliot Barton Palmer, . . . (Biol.) B. S.  
Student of Medicine, Med. Col. of Ohio,  
1893—. Res. Main and Forest Avenues,  
Avondale.
- James Francis Chalfant Robinson, B. L.  
Principal of the High School, Napoleon,  
O., 1893—.
- Marcus Salzman, . . . . . B. A.  
Rabbi, Charleston, W. Va., 1893—.
- Michael Gabriel Solomon, . . . B. L.  
Rabbi, Youngstown, O., 1893—.
- Charles Henry Williamson,  
(Biol.) B. S.  
Student of Medicine, Med. Col. of Ohio,  
1893—. Res. 118 Front Street, New-  
port, Ky.
- 1894.
- Paul Victor Christopher Baur, B. L.  
Student of Philology, University of  
Tübingen, 1891—.
- Louis Edward Bogen, . . . . . C. E.  
Instructor in Physics, Univ. of Cin.,  
1891—. Res. Kerper Av., Walnut Hills.
- Frank Sanford Brown, . . . . . B. L.  
Student in the Cin. Law School, 1891—.  
Res. 17 McCormick Place, Mt. Auburn.
- Frederick Cohn, . . . . . B. A.  
Graduate Student, Univ. of Cin. Res.  
296 Richmond Street.
- Harry William Curth, . . . . . B. L.  
Instructor in German and English,  
Univ. of Cin., 1894—. Res. 1159 Vine St.
- Mary Louise De Luce, . . . . . B. L.  
Asst. Librarian, Univ. of Cin., 1894—.  
Res. Grand and Murdock Avenues,  
Price Hill.
- Alma Beatrix Diserens, . . . . . B. L.  
2711 Price Avenue, Price Hill.
- Alma Sophia Fick, . . . . . B. A.  
Teacher in the Agassiz School, 1894—.  
Res. 420 E. Chicago Avenue, Chicago.
- Bennett Grad, . . . . . B. A.  
Rabbi, Harrisburg, Pa., 1894—.
- Bert Rankin Haile . . . (Chem.) B. S.  
Student, Med. Col. of Ohio, 1891—. Res.  
96 Broadway.
- Philip Hillkowitz, . . . (Biol.) B. S.  
Student, Med. Col. of Ohio, 1894—. Res.  
269 Seventh Street.
- William Rice Kemper, . . . . . B. A.  
Grandview Avenue, Walnut Hills.
- Lucy Myra Lambdin, . . . . . B. L.  
Graduate Student, Univ. of Cin. Res.  
45 Crown Street, Walnut Hills.
- Daniel Latrence, . . . (Biol.) B. S.  
Student, Med. Col. of Ohio, 1894—. Res.  
Reading, Ohio.
- Maria Adelaide McReynolds, B. A.  
Teacher of Classics and Mathematics  
at Willard Hall, College Hill, 1894—.  
Res. 90 Clinton Street.
- Isaac Edward Marcuson, . . . B. L.  
Rabbi, Macon, Ga., 1891—.
- David Marx, . . . . . B. L.  
Rabbi, Birmingham, Ala., 1894—.
- Willard Stoums Mattox, . . . . . B. L.  
2 Crescent Place, Walnut Hills.
- May Sally Miles, . . . (Biol.) B. S.  
Graduate Student, Univ. of Cin. Res.  
206 Dayton Street.
- Jerusalem Moses, . . . . . B. A.  
Rabbi, Port Gibson, Miss., 1894—.
- Alfred Kuno Nippert, . . . . . B. L.  
Student, Cin. Law School, 1891—. Res.  
207 Fairfax Avenue.
- Jane Sarkotisch O'Hara, . . . . . B. L.  
527 West Seventh Street.

# Hours of Lectures

TIME.	MONDAY.	TUESDAY.
A. M.	Greek..... 3 English..... 7 German (b)..... 1 Philosophy..... 2 Mathematics..... 4 Civil Engineer'g (1st Sem.) 6 Civil Engineering..... 10	Latin..... 2 English (B. S.)..... 1 Philosophy..... 3 History..... 2 Mathematics (a)..... 2 Mathematics..... 4 Civil Engineering..... 5
8:30		
9:30	Latin..... 4 Greek..... 1 English..... 3 German..... 6 Philosophy..... 1 Political Economy..... 1 Mathematics..... 1 Civil Engineering..... 1	Greek..... 1 French..... 6 Philosophy..... 2 Mathematics..... 1 Biology..... 3 Civil Engineering... 2 and 3 Civil Engineering..... 7
10:30	Latin..... 7 English..... 4 German (a)..... 1 History..... 1 Mathematics (b)..... 2 Mathematics..... 3 Astronomy (2d Sem.)..... 3 Geology (1st Sem.)..... 1 Civil Engineering..... 5	Latin..... 3 English..... 5 German (a)..... 1 German..... 8 History..... 1 Mathematics (b)..... 2 Mathematics..... 6 and 8 Civ. Engineer'g (1st Sem.), 12 Civ. Engineer'g (2d Sem.), 13
11:30	Latin..... 1 Greek..... 2 French..... 4 Mathematics (2d Sem)..... 9 Mathematics..... 10 Physics..... 2 Biology..... 1 Civil Engineering... 8 and 9	Latin..... 1 Greek..... 2 German..... 4 Spanish..... 2 History..... 3 Mathematics..... 3 Physics..... 1 Civil Engineering... 8 and 9
P. M.	Latin (2d Sem.)..... 5 French..... 1 History..... 3 Mathematics..... 5 Mathematics..... 7	English..... 6 French..... 1 German (b)..... 1 Mathematics (c)..... 2 Mathematics..... 10 Physics..... 4
12:30		
1:30	Biology..... 1	Biology..... 1
2:00	Chemistry (2d Sem.)..... 3	Chemistry (2d Sem.)..... 3 English..... 9

NOTE.—The numerals refer to the Courses enumerated in the Department

# and Recitations.

WEDNESDAY.	THURSDAY.	FRIDAY.
English (B. L.)..... 1 English..... 7 German..... 2 History..... 3 Mathematics..... 11 Civil Engin'rg... 2 and 3 Civil Engineering... 7	Latin..... 2 German (a)..... 1 Philosophy..... 3 Mathematics (a)..... 2 Mathematics..... 4 Civil Engineering... 5	Greek..... 4 English (B. A.)..... 1 Philosophy..... 2 Mathematics..... 5 Civil Engineering... 6 Civil Engineering... 10
German..... 3 Philosophy..... 1 Political Economy... 1 Mathematics..... 7	Latin..... 6 Greek..... 1 English..... 5 French..... 6 Mathematics..... 1 Biology..... 3 Civil Engineering, 2 & 3 Civil Engineering... 7	Greek..... 1 English..... 3 German..... 6 Philosophy..... 1 Political Economy... 1 Mathematics..... 1 Civil Engineering... 4
Bible.	Latin..... 3 English..... 2 French..... 7 German (b)..... 1 Philosophy..... 4 Mathematics (c)..... 2 Mathematics... 6 and 8 Civil Eng. (1st Sem.), 12 Civil Eng. (2d Sem.)... 13	Arabic..... 1 English..... 4 German (a)..... 1 History..... 1 Mathematics (a)..... 2 Mathematics..... 3 Astronomy (2d Sem.)... 3 Geology (1st Sem.)... 1 Civil Engineering... 5
French..... 2 Philosophy..... 4 Physics..... 2 Biology..... 2 Civil Engineering... 11	Latin..... 1 Greek..... 2 English..... 6 German..... 4 Spanish..... 2 Mathematics..... 3 Physics..... 1 Biology..... 5 Civil Engineering, 8 & 9	Latin..... 1 Comp. Philology..... 1 French..... 4 Mathematics..... 10 Physics..... 2 Civil Engineering, 8 & 9
French..... 3 Spanish..... 1 History..... 2	French..... 1 Spanish..... 1 Mathematics (b)..... 2 Mathematics..... 10 Physics..... 4	Latin..... 2 French..... 1 German (b)..... 1 History..... 3 Mathematics (c)..... 2 Mathematics..... 11
Biology..... 2	Biology..... 2	
Chemistry..... 1	Chemistry..... 1	

ments of Instruction, pages 28-54.