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# UNIVERSITY OF CINCINNATI BULLETIN

ANNOUNCEMENT OF THE  
Graduate School of Arts and Sciences



1942-1943

PUBLISHED BY THE UNIVERSITY OF CINCINNATI  
VAN WORMER ADMINISTRATION BUILDING  
CINCINNATI, OHIO

## FINE ARTS

Head of Department: Professor W. H. Siple, The Cincinnati Art Museum  
Professor Nash

This Department does not recommend candidates for graduate degrees, but offers courses which may be taken for graduate credit by students in other fields of specialization.

## For Graduate and Advanced Undergraduate Students

101. Principles of Design in the Decorative Arts.—M., W., 11:00-12:00 at the Art Museum. Two credit hours each semester. Mr. Siple  
The development of furniture, textiles, and period styles from the Gothic to the present time. Attention is devoted to function and material and their effect on design.

120. The Potting of Greek Vases.—Two hours a week. Two credit hours each semester. Mr. Nash  
Experiments inquiring into materials and methods used by Greek potters in the production of their painted vases.

## GEOLOGY AND GEOGRAPHY

Head of Department: Professor J. L. Rich, Room 29, Old Tech Building  
Professor Emeritus Fenneman; Professors Barbour, Case; Associate Professors von Schlichten, Bergsmark; Assistant Professor Caster; Instructors Felts, Russell, Linehan

This Department offers work in geology leading to the degrees of Master of Arts, Master of Science, and Doctor of Philosophy, and work in geography leading to the degree of Master of Arts.

Not all students admitted to graduate courses are accepted as candidates for degrees. Personal acquaintance and preliminary examinations must first determine their aptitude for self-directed effort. With an adequate basis of undergraduate study it may be possible to finish the work for a master's degree in one year, but the requirement cannot be stated in terms of time or credits.

The thesis required for the master's degree may represent either original research or a compilation and analysis of the literature on the chosen subject, of such a nature as to demonstrate the student's ability to sum up existing knowledge and to organize and express it in an approved manner.

## For Graduate and Advanced Undergraduate Students

\*107. Mineralogy.—Tu., Th., 10:30-11:30; M., 1:10-4:10. Lectures and laboratory. Three credit hours each semester. 34 Old Tech. Mr. Felts  
Prerequisite: High-school or elementary college chemistry.

\*Supplementary work is required of graduate students electing these courses.



**\*108. Invertebrate Paleontology.**—Tu., Th., 11:30-12:30; F., 1:10-4:10. Lectures, laboratory, and conferences. Three credit hours each semester. 38 Old Tech.

Mr. Caster

Prerequisite: An elementary course in geology or zoology.

A systematic survey of invertebrate fossils with special emphasis on their zoological character and importance as index fossils.

**\*109. Historical Geology.**—Tu., Th., 8:30-9:30; S., 8:30-10:00. Lectures, laboratory, and conferences. Three credit hours each semester. 38 Old Tech.

Mr. Caster

The development of the earth and its life, with special emphasis on the geologic history of North America.

Prerequisite: Geology 1 or the equivalent.

**\*110a. Ancient Life: Animals of the Past.**—M., W., 10:30-11:30 and conferences. Three credit hours. 6 Old Tech.

Mr. Caster

A cultural survey of fossil animals from earliest times to the present, with emphasis on the fossil vertebrates along the evolutionary route toward mankind. Particular attention directed to organisms of the Cincinnati seas; dinosaurian evolution; mammalian responses to environmental factors and fossil man in the old and new world. Optional field excursions.

**\*11b. Principles of Geomorphology.**—Tu., Th., 10:30-11:30; F., 1:10-4:10. Three credit hours. 37 Old Tech.

Mr. Rich

The interpretation of landscapes, especially as governed by geologic conditions and climate. Reading of topographic maps and aerial photographs.

Prerequisite: Geology 1 or the equivalent.

**\*121b, \*122b, \*123b. Geologic Demonstration Trips.**—Three credit hours.

Mr. Caster

A two weeks' field excursion in the Appalachian highland followed by the preparation of a comprehensive report. The three numbers designate different routes followed in successive years.

Prerequisite: Geology 1 or the equivalent.

**125a. Structural Geology.**—M., W., 8:30-9:30; W., 1:10-4:10 and three additional hours of laboratory to be arranged. Four credit hours. 32 Old Tech.

Mr. Rich

Principles of rock deformation; geologic measurements, applications of descriptive geometry, methods of determination of structure in the field, including practice in field work.

Prerequisite: Geology 9 or the equivalent.

Courses 125a and 226b are given once in two years, beginning in September of the even-numbered years and alternating with Course 256.

\*Supplementary work is required of graduate students electing these courses.



**130b. Interpretation of Aerial Photographs.**—Lectures and laboratory. Hours to be arranged. Three credit hours. 37 Old Tech. Mr. Rich  
The geologic and geographic interpretation of aerial photographs, and their use in mapping.  
Prerequisites: Geology 1 and 11b, or the equivalent satisfactory to the instructor.

**\*148a. Common Minerals and Rocks.**—Tu., Th., 10:30-11:30; Th., 1:10-4:10. Three credit hours. 32 Old Tech. Mr. Russell  
Common minerals and rocks and their mode of occurrence. Identification by means of hand lens.  
Prerequisite: Geology 1 or the equivalent.

**157a. Sedimentation.**—Tu., Th., 9:30-10:30; F., 8:30-11:30. Lectures and laboratory. Three credit hours. 34 Old Tech. Mr. Felts  
Factors influencing the supply, transportation, and deposition of sediments.  
Prerequisite: Geology 1 or the equivalent.

**170. Seminar.**—Th., 4:10.  
Expected of all majors in geology or geography.

**\*161a. Geography of Latin America.**—W., 4:10-5:50 and conferences. Three credit hours. 6 Old Tech. Mr. Case  
Natural regions and political divisions are studied with regard to the social, political, and economic developments as related to geographic conditions.

**\*163a. Geography of Europe.**—Tu., 4:10-5:50 and conferences. Three credit hours. 6 Old Tech. Mr. Bergsmark  
Geographic aspects of European participation in world affairs and the relation between human life and natural environment in the various geographic regions and countries of Europe.

**\*164b. Geography of Asia.**—Tu., 4:10-5:50 and conferences. Three credit hours. 6 Old Tech. Mr. Bergsmark  
Problems and resources of Asia are studied in much the same manner as those of Europe in Course 163a.

**165a. International Struggle for Raw Materials.**—M., W., F., 10:30-11:30. Three credit hours. 26 Old Tech. Mr. Bergsmark  
Raw-material pattern of the commercial world; degree of self-sufficiency among nations.

**166b. Geography of World Trade.**—M., W., F., 10:30-11:30. Three credit hours. 26 Old Tech. Mr. Bergsmark  
Principles of international trade; analysis of current trends and problems, especially with regard to the foreign trade of the United States.

**\*167. Geography of North America.**—Th., 4:10-5:50 and conferences. Three credit hours each semester. 6 Old Tech. Mr. Case  
The natural regions of North America with regard to the present economic development and future possibilities as related to climate, relief, and resources. Students may enter in the second semester.

\*Supplementary work is required of graduate students electing these courses.



**168b. Political Geography.**—W., 4:10-5:50, and conferences. Three credit hours. 30 Old Tech. Mr. Case

The political pattern of the world as related to present and past adjustments to resources, land forms, and other factors of the natural environment; outstanding territorial problems; geographic aspects of current international issues.

This course is given every other year, alternating with Course 162b, Geography of Africa and Australia.

**172b. Climatology.**—Tu., Th., S., 10:30-11:30. Three credit hours. 30 Old Tech. Mr. Linehan

The major climatic regions of the world. Description, explanation, and distribution of each type.

**\*174b. Economic Geography.**—10:00-11:00. Two or three credit hours. 6 Old Tech. Mr. Bergsmark

A study of the economic products that are basic to modern industrial life and international relations, and the underlying factors affecting their production, distribution, and trade.

#### Primarily for Graduate Students

**212. Petrography.**—M., W., 9:30-10:30; M., 1:10-4:10, and three additional hours laboratory to be arranged. Four credit hours each semester. 32 Old Tech. Mr. von Schlichten

Principles of crystal optics. Rocks in thin sections; qualitative and quantitative classification.

Prerequisite: Geology 7 or the equivalent.

**213. Advanced Megascopic Paleontology.**—Hours to be arranged. Three credit hours each semester. 38 Old Tech. Mr. Caster

An intensive survey of the evolutionary and geologic history of nonmicroscopic fossil animals.

Although three years are required to complete the course, students may enter any semester with permission of the instructor. The particular phase of the course to be given any semester will be determined principally by the desires of the students seeking instruction. The six divisions of the course, each requiring a semester, are as follows:

- A. Fossil Arthropoda.
- B. Fossil Mollusca: Cephalopoda.
- C. Fossil Mollusca: Gastropoda, Pelecypoda.
- D. The Brachiopoda.
- E. Fossil Echinoderma.
- F. The Chordata.

Prerequisite: Introductory course in paleontology or zoology.

\*Supplementary work is required of graduate students electing this course.



216. **Advanced Physiography of the United States.**—W., 4:10-6:00; S., 10:30-11:30. Four credit hours each semester. 28 Old Tech. Mr. Fenneman  
Prerequisite: Geology 9 or the equivalent.

This course runs through two years, either of which may be taken independently.

226b. **Metamorphism.**—M.; W., 8:30-9:30; W., 1:10-4:10, and three additional hours of laboratory to be arranged. Four credit hours. 32 Old Tech.  
Prerequisite: Geology 12 or the equivalent. Mr. Felts

Courses 125a and 226b are given once in two years beginning in September of the even-numbered years and alternating with Course 256, Economic Geology.

251b. **Petrology of Igneous Rocks.**—Hours to be arranged. Three credit hours. 32 Old Tech. Mr. von Schlichten

The crystallization and differentiation of igneous magmas interpreted from equilibrium diagrams and field relations.

Prerequisite: Geology 12 or the equivalent.

This course is given once in two years, alternating with Course 249b, Advanced Crystallography.

257b. **Methods of Sedimentary Analysis.**—Tu., 9:30-10:30. Two laboratory periods to be arranged. Three credit hours. 34 Old Tech. Mr. Felts  
Lectures on, and practice in, the most useful methods of sedimentary analysis.  
Prerequisite: Geology 12 or the equivalent.

271. **Individual Work in Geology.**— Geology Staff

273. **Field Research in Geology.**—  
Summer work in the field under direction of the staff. One to six credit hours.

275. **Individual Work in Geography.**— Geography Staff

#### Courses Omitted in 1942-1943

The following courses, offered in alternate years or at longer intervals, will not be given in 1942-1943: 115, Stratigraphy; 118, World Physiography; 162b, Geography of Africa and Australia; s163b, Geography of Europe; s167, Geography of North America; 249b, Advanced Crystallography; 256, Economic Geology.

#### Courses Offered in the Summer Session of 1942

s174b. **Economic Geography.**— Mr. Bergsmark

s275. **Individual Work in Geography.**— Geography Staff

For further information, see Summer Session Announcement.



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BULLETIN

ANNOUNCEMENT OF THE

McMICKEN COLLEGE OF LIBERAL ARTS



1942-1943

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CINCINNATI, OHIO



220. **Main Currents in Literary Criticism.**—Tu., 4:00-6:30. 621 Library. Mr. Chandler  
Graduates only and by permission.

229. **English Literature and Thought, 1600-1800.** — F., 4:00-6:30. 2 McMicken. Mr. Shafer  
Graduates only and by permission. Training in methods of research, involving the completion of a substantial investigation.  
Prerequisites: Courses in seventeenth- and eighteenth-century literature.

290a. **Aims and Methods in Literary Scholarship.**—First semester, F., 3:10-4:10. 2 McMicken. Mr. Shafer  
A course of twelve lectures, attendance at which is required of all candidates for the degree of A.M. or Ph.D. in English. (No course credit.)

The following courses, regularly given, are omitted during 1942-1943: 9, Argumentation: The Forms of Public Address; 15, Advanced Composition; 8, Studies in Shakespeare; 34, English Comedy; 14, English Drama to 1642; 21, The Seventeenth Century and Milton; 27, Literature of the Restoration; 9a, Victorian Poetry; 41, Modern Prose; 43, Realism and Naturalism in Fiction; 11, Main Currents in Twentieth-Century Fiction; 28, New England Writers from Emerson to Frost; 99, American Romanticism; 260, Foreign Backgrounds of English Literature.

#### FINE ARTS

2. **Music Appreciation.**—M., W., 2:10-3:30. 5 Hanna. Miss Coops  
General approaches to music and study of musical form and expression; trends in musical art; selected musical literature.

For statements regarding credit for work in the Art Academy of Cincinnati, the Cincinnati Conservatory of Music, and the College of Music of Cincinnati, see page 42.

#### GEOLOGY AND GEOGRAPHY

Professors Fenneman\*, Rich, Case, Barbour; Associate Professors von Schlichten, Bergsmark; Assistant Professor Caster; Instructors Felts, Russell, Linehan; Curator Flower

*Fields of concentration*, leading to the degree of *Bachelor of Arts*, are offered in geology and in geography. A student wishing to major in geology must present Geology 1, including laboratory, or its equivalent. A student wishing to major in geography must present Geography 60 or its equivalent. Suggested sequences of courses following Geology 1 are:

\*Professor Emeritus in part-time service.

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- (a) For those interested in mineralogy and petrography: 48, 2a, 7, 12;
- (b) For those interested in historical geology and paleontology: 9 or 10, 8;
- (c) For those interested in geomorphology: 48, 11, 16, 30.

Among the bracketed courses recommended to students who will concentrate in geology are the following (preference depending in part on fields of concentration): Chemistry 1; Physics 1; Zoology 1, 5, and 7; Botany 1, 3, 20, 21; Geography 60 or 501; Mathematics A, 3, 2, 5; Astronomy 1, 2; German 1, 2; Economics 1; Philosophy 2.

Among the bracketed courses recommended to students who will concentrate in geography are the following: Geology 1; History 1 or 10; Economics 1, 24; Political Science 12; Botany 1, 3, 20, 21; Sociology 3, 5, 20.

*Five-year co-ordinated program in geology.*—Students looking toward a professional career in geology are urged to follow a special co-ordinated program (described on page 45) especially designed to meet their needs, particularly if they intend to seek work involving applications of geology to the search for oil and gas, to mining, or to engineering. In this program, a student receives training in geology, the fundamentals of mathematics through calculus, chemistry through quantitative analysis, physics, mechanics, mechanical drawing, and surveying. Some of the work will be chosen from the "Certificate" courses in engineering offered by the Evening College. All courses have been so scheduled as to provide a logical sequence of subjects and produce a uniformly distributed load. A certain latitude of choice is possible, but changes should be made only after consultation with the Head of the Department of Geology. On the satisfactory completion of four years' work, the student will receive the degree of *Bachelor of Science in Geology*, and after an additional year of study in the Graduate School he will receive the degree of Master of Science. (See also page 46.) Students contemplating entering this course should consult early the Head of the Department of Geology and Geography who serves as their adviser throughout the course.

### Geology

1. **Introduction to Earth Sciences.**—Lectures, M., W., F., 8:30-9:30. 6 Old Tech. Mr. Barbour

This course is designed primarily for freshmen. It is prerequisite to all other geology courses with the exception of Courses 7 and 10. It is not required for any geography courses.

With the permission of the instructor, students who do not offer geology as their required science may omit the laboratory course.

**Laboratory Exercises.**—Sec. I: M., W., 1:10-4:10; Secs. II and III: Tu., Th., 1:10-4:10. 24, 26 Old Tech. Mr. Barbour and assistants

(For special credit see footnote † below.)

†Any two of the following courses, when pursued simultaneously, count as three half-courses for a semester or as three courses for the year: 1, 12, 16, 25, 26, or 56. A similar rating is applied when any one of these is taken simultaneously with any other five-hour science course.



**2a. Geology of Mineral Resources.**—First semester, half-course, M., W., F., 9:30-10:30. Mr. Rich

A survey of the principal natural raw materials with emphasis on their mode of occurrence and distribution.

Prerequisite: Course 1 and high-school or college chemistry.

**5b. Topographic Mapping.**—Second semester, half-course, hours to be arranged. Mr. von Schlichten

Interpretation and making of topographic maps. Practice in the reading of topographic maps with particular emphasis on the military aspects; practice in topographic mapping with simple instruments.

**7. Mineralogy.**—Lectures and laboratory, Tu., Th., 10:30-11:30; M., 1:10-4:10. 34 Old Tech. Mr. Felts

Prerequisite: High-school or elementary college chemistry.

**8. Invertebrate Paleontology.** — Tu., Th., 11:30-12:30; F., 1:10-4:10. 38 Old Tech. Mr. Caster

A systematic survey of the important groups of invertebrate fossils with special emphasis on their zoological character and importance as index fossils.

Prerequisite: Course 1 or a course in zoology.

**9. Historical Geology.**—Tu., Th., 8:30-9:30; S., 8:30-10:00. 38 Old Tech.

Mr. Caster

The development of the earth and its life during approximately two and a half billion years, with particular emphasis on the geologic history of North America.

Prerequisite: Course 1.

**10a. Ancient Life: Animals of the Past.**—First semester, half-course, M., W., 10:30-11:30 and conferences. 6 Old Tech. Mr. Caster

A nontechnical cultural survey of fossil animals from earliest times to the present, with emphasis on the fossil vertebrates along the evolutionary route toward mankind. Particular attention directed to organisms of the Cincinnati seas; dinosaurian evolution; mammalian responses to environmental factors and fossil man in the old and new world. Optional field excursions.

**11b. Principles of Geomorphology.**—Second semester, half-course, Tu., Th., 10:30-11:30; F., 1:10-4:10. 37 Old Tech. Mr. Rich

The interpretation of landscapes, especially as governed by geologic conditions and climate. Reading of topographic maps and aerial photographs.

Prerequisite: Course 1.

**21b, 22b, 23b. Geologic Demonstration Trips.**—Second semester, half-course. Mr. Caster

A two-week field excursion in the Appalachian highland devoted to a study of important geologic features along the route, and followed by the preparation of a comprehensive report. Given at close of second semester. Special



work required for graduate credit. The three numbers designate different routes followed in successive years.

Prerequisite: Course 1 or equivalent.

12. Petrography.—M., W., 9:30-10:30; M., 1:10-4:10 and three additional hours of laboratory to be arranged. 32 Old Tech. Mr. von Schlichten  
Principles of crystal optics. Rocks in thin sections; qualitative and quantitative classification.

Prerequisite: Course 7 or equivalent.

(For credit see footnote † below.)

13. Advanced Megascopic Paleontology.—Three hours a week to be arranged. 38 Old Tech. Mr. Caster  
An intensive survey of the evolutionary and geologic history of nonmicroscopic fossil animals.

Although three years are required to complete the course, a student may enter any semester with permission of the instructor. The particular phase of the course to be given any semester will be determined principally by the desires of the students seeking instruction.

The six divisions of the course, each requiring a semester, are as follows:

- A. *Fossil Arthropoda*
- B. *Fossil Mollusca: Cephalopoda*
- C. *Fossil Mollusca: Gastropoda and Pelecypoda*
- D. *The Brachiopoda*
- E. *Fossil Echinoderma*
- F. *The Chordata*

Prerequisite: Course 8, or a course in zoology (with permission).

16. Advanced Physiography of the United States.—W., 4:10-6:10; S., 10:30-12:00. 28 Old Tech. Mr. Fenneman

Prerequisites: Courses 1 and 9.

Runs through two years. Either year may be taken independently.

(For credit see footnote † below.)

25a. Structural Geology.—First semester, half-course, M., W., 8:30-9:30; W., 1:10-4:10 and three additional hours of laboratory to be arranged. 32 Old Tech. Mr. Rich

Principles of rock deformation; geologic measurements, applications of descriptive geometry, methods of determination of structures in the field, including practice in field work. This course is given once in two years, beginning in September of the even-numbered years.

Prerequisite: Course 9.

(For credit see footnote † below.)

†Any two of the following courses, when pursued simultaneously, count as three half-courses for a semester or as three courses for the year: 1, 12, 16, 25, 26, or 56. A similar rating is applied when any one of these is taken simultaneously with any other five-hour science course.



**26b. Metamorphism.**—Second semester, half-course, M., W., 8:30-9:30; W., 1:10-4:10 and three additional hours of laboratory to be arranged. 32 Old Tech. Mr. Felts

A study of the changes produced in rocks through weathering and metamorphism, including laboratory practice in the microscopic study of metamorphic rocks. This course is given once in two years, beginning in February of the odd-numbered years.

Prerequisite: Course 12 or equivalent.

(For credit see footnote † below.)

**30b. Interpretation of Aerial Photographs.**—Second semester, half-course. Lectures and laboratory. Hours to be arranged. 37 Old Tech. Mr. Rich

The geologic and geographic interpretation of aerial photographs, and their use in mapping.

Prerequisites: Courses 1 and 11b, or equivalent satisfactory to instructor.

**48a. Common Minerals and Rocks.**—First semester, half-course, Tu., Th., 10:30-11:30; Th., 1:10-4:10. 32 Old Tech. Mr. Russell

Common minerals and rocks and their mode of occurrence. Identification by means of hand lens. Primarily a cultural study for nonprofessional students.

Prerequisite: Course 1.

**51b. Petrology of Igneous Rocks.**—Second semester, half-course. 32 Old Tech. Mr. von Schlichten

The crystallization and differentiation of igneous magmas interpreted from equilibrium diagrams and field relations. This course is given once in two years, alternating with Course 49b.

Prerequisite: Course 12 or equivalent.

**57a. Sedimentation.**—First semester, half-course. Lectures and laboratory. Tu., Th., 9:30-10:30; F., 8:30-11:30. 34 Old Tech. Mr. Felts

Factors influencing the supply, transportation, and deposition of sediments.

Prerequisite: Course 1 or equivalent.

**57b. Methods of Sedimentary Analysis.**—Second semester, half-course, Tu., 9:30-10:30 and two laboratory periods to be arranged. 34 Old Tech. Mr. Felts

Lectures on, and practice in, the most useful methods of sedimentary analysis.

Prerequisite: Course 12 or equivalent.

**50. Readings for Seniors.**—

Required of all seniors majoring in geology; not open to other students.

†Any two of the following courses, when pursued simultaneously, count as three half-courses for a semester or as three courses for the year: 1, 12, 16, 25, 26, or 56. A similar rating is applied when any one of these is taken simultaneously with any other five-hour science course.



**70. Seminar.—Th., 4:10.**

Expected of all majors in geology or geography.

**71. Individual Work in Geology.—Credit depends on the amount of work done.**

This course may be entered in February by students who secure the instructor's permission.

The following courses, regularly given, are omitted during 1942-1943: 6, Geology of Cincinnati; 15, Stratigraphy: Principles and Regional; 18, World Physiography; 49b, Advanced Crystallography; 56, Economic Geology.

**Geography****60. Elements of World Geography.—M., W., F., two sections, 11:30-12:30 and 1:10-2:10. 6, 30 Old Tech.**

Messrs. Case, Bergsmark

A general survey of climate, relief, soils, and other resources and their effects on industry, commerce, and culture.

This course may be entered in February by students who secure the instructor's permission.

**NOT OPEN TO FRESHMEN****61a. Geography of Latin America.—First semester, half-course, W., 4:10-5:50 and conferences. 6 Old Tech.**

Mr. Case

The natural regions and political divisions are studied with regard to the social, political, and economic developments as related to geographic conditions.

**63a. Geography of Europe.—First semester, half-course, Tu., 4:10-5:50 and conferences. 6 Old Tech.**

Mr. Bergsmark

Geographic aspects of European participation in world affairs and the relation between human life and natural environment in the various geographic regions and countries of Europe.

**64b. Geography of Asia.—Second semester, half-course, Tu., 4:10-5:50 and conferences. 6 Old Tech.**

Mr. Bergsmark

Problems and resources of Asia are studied in much the same manner as in the course on Europe.

**65a. International Struggle for Raw Materials.—First semester, half-course, M., W., F., 10:30-11:30. 26 Old Tech.**

Mr. Bergsmark

Raw material pattern of the commercial world; degree of self-sufficiency among nations.

**66b. Geography of World Trade.—Second semester, half-course, M., W., F., 10:30-11:30. 26 Old Tech.**

Mr. Bergsmark

Principles of international trade; analysis of current trends and problems especially with regard to the foreign trade of the United States.