

UNIVERSITY OF CINCINNATI BULLETIN

ANNOUNCEMENT OF THE
Graduate School of Arts and Sciences



1941-1942

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

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.

*108. Invertebrate Palaeontology.—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 its 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.

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

111b. 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 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 its equivalent.

*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 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 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.

*162b. Geography of Africa and Australia.—W., 4:10-5:50 and conferences. Three credit hours. 6 Old Tech. Mr. Case

Alternates with Geology 168, Political Geography.

*163a, *s163. Geography of Europe.—Tu., 4:10-5:50 and conferences. Three credit hours. 6 Old Tech. Mr. Bergsmark

This course, as s163, will be given in the second term of the Summer Session by Mr. Linehan.

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 in the course on Europe.

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

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.

Primarily for Graduate Students

212. Petrography.—M., W., 9:30-10:30; W., 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 equivalent.

213. Advanced Megascopic Paleontology.—M., 3:10-4:10; W., 3:10-5:10. Conferences. Three credit hours each semester. 38 Old Tech. Mr. Caster

An intensive survey of the evolutionary and geological history of non-microscopic, 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.

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

Prerequisite: Geology 9 or its equivalent.

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

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

249b. Advanced Crystallography.—Three credit hours. 32 Old Tech.

Mr. von Schlichten

Crystal morphology. Systematic derivation of crystal classes on basis of symmetry. Introduction to derivation of space groups. Crystal structure of important silicate minerals.

Prerequisite: Geology 12 or equivalent.

This course is given once in two years, alternating with Geology 251b, Petrology of Igneous Rocks.

256. Economic Geology.—M., W., 8:30-9:30; M., 1:10-4:10, and three additional hours laboratory to be arranged. Two weeks' field trip during spring recess. Four credit hours. 32 Old Tech.

Mr. Rich

Mineral fuels, useful non-metallics, and ore deposits.

Prerequisite: Geology 12 or equivalent.

This course is given once in two years, beginning in September of the odd-numbered years and alternating with Geology 125a, Structural Geology, and 226b, Metamorphism.

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 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 1941-1942

The following courses, offered in alternate years, or at longer intervals, will not be given in 1941-1942: 115, Stratigraphy; 118, World Physiography; 25a, Structural Geology; 130, Interpretation of Aerial Photographs; s167, Geography of North America; 168, Political Geography; 226b, Metamorphism; 51b, Petrology of Igneous Rocks.

GERMAN

Head of Department: Professor E. H. Zeydel, Room 29, McMicken Hall

Professor Lotspeich; Assistant Professor Palmer;

Instructors Fehlau, Planitz

The German Department offers work leading to the degrees of Master of Arts and Doctor of Philosophy.

Students electing work in this Department should have completed an undergraduate major in German, or its equivalent. Courses 4 and 5 in the College of Liberal Arts, or their equivalents, are strongly recommended.

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UNIVERSITY OF CINCINNATI BULLETIN

ANNOUNCEMENT OF THE
McMICKEN COLLEGE OF LIBERAL ARTS



1941-1942

PUBLISHED BY THE UNIVERSITY OF CINCINNATI
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CINCINNATI, OHIO

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 1941-1942: 9, Argumentation: The Forms of Public Address; 15, Advanced Composition; 51, Elizabethan Non-Dramatic Literature; 34, English Comedy; 14, English Drama to 1642; 21, The Seventeenth Century and Milton; 27, Literature of the Restoration; 41, Modern Prose; 16, The Romantic Period; 43, Realism and Naturalism in Fiction; 11, Main Currents in Twentieth-Century Fiction; 18, American Literature before 1900; 28, New England Writers from Emerson to Frost; 220, Main Currents in Literary Criticism.

FINE ARTS

2. Music.—M., W., 2:10-3:30. 5 Hanna.

Miss Coops

Musical form, expression, and composition; trends in musical art; selected musical literature. For statements regarding credit for work in art and in music, see page 40.

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

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.

*Professor Emeritus in part-time service.

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.

Students looking toward a professional career in geology or geography should consult the Head of the Department early in their 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 7 and 10. It is not required for any geography courses.

By agreement with the instructor in charge, students who do not wish to 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.)

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.

Invertebrate Paleontology. — Tu., Th., 11:30-12:30; F., 1:10-4:10. 6 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 non-technical 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.

†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, 25, 26, or 56. A similar rating is applied when any one of these is taken simultaneously with any other five-hour science course.

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; W., 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. — M., 3:10-4:10; W., 3:10-5:10; conferences. 38 Old Tech. Mr. Caster

An intensive survey of the evolutionary and geologic history of non-microscopic 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., 10:30-11:30. 28 Old Tech. Mr. Fenneman

Prerequisites: Courses 1 and 9.

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

†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, 25, 26, or 56. A similar rating is applied when any one of these is taken simultaneously with any other five-hour science course.

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 non-professional students. Prerequisite: Course 1.

49b. Advanced Crystallography. — Second semester, half-course. 32 Old Tech. Mr. von Schlichten

Crystal morphology. Systematic derivation of crystal classes on basis of symmetry. Introduction to derivation of space groups. Crystal structure of important silicate minerals.

Prerequisite: Course 12 or equivalent.

This course is given once in two years, alternating with Course 51, Petrology of Igneous Rocks.

56. Economic Geology.—M., W., 8:30-9:30; M., 1:10-4:10, and three additional hours of laboratory to be arranged. Two weeks' field trip during spring recess. 32 Old Tech. Mr. Rich

Mineral fuels, useful non-metallics, and ore deposits.

Prerequisite: Course 12 or equivalent.

This course is given once in two years, beginning in September of the odd-numbered years and alternating with Course 25, Structural Geology, and Course 26, Metamorphism.

(credit see footnote † below.)

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.

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.

†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, 25, 26, or 56. A similar rating is applied when any one of these is taken simultaneously with any other five-hour science course.

The following courses, regularly given, are omitted during 1941-1942: 6, Geology of Cincinnati; 15, Stratigraphy: Principles and Regional; 18, World Physiography; 25, Structural Geology; 26, Metamorphism; 30, Interpretation of Aerial Photographs; 51, Petrology of the Igneous Rocks.

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.

62b. Geography of Africa and Australia.—Second semester, half-course, W., 4:10-5:50 and conferences. 6 Old Tech. Mr. Case

This course alternates with Course 68, Political Geography.

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.