

UNIVERSITY OF CINCINNATI  
BULLETIN

ANNOUNCEMENT OF THE

*Graduate School of Arts and  
Sciences*



1957-1958

PUBLISHED BY THE UNIVERSITY OF CINCINNATI  
VAN WORMER ADMINISTRATION BUILDING  
CINCINNATI 21, OHIO

O. W. Holmes. 4 gr. cr. each semester. Th 4:00. Mr. Clark.  
(14-001-951, 952)

ENGL. 901, 902. RESEARCH. Credit according to the amount of  
work elected. Staff. (14-001-901, 902)

*Courses Omitted in 1957-58*

The following courses, offered in alternate years or at longer intervals, will not be given in 1957-58: 313-4, Main Currents in Literary Criticism; 343-4, New England Writers from Emerson to Frost; 351-2, American Romanticism; 361-2, Twentieth-Century American Literature; 421-2, Sixteenth-Century English Prose; 423-4, Sixteenth-Century Poetry; 428-9, Renaissance English Poetry and Prose; 433-4, English Comedy; 439, Spenser; 443-4, Studies in Shakespeare; 471-2, Literature of the Restoration; 481-2, Eighteenth-Century Literature; 485-6, Johnson and His Circle; 503-4, Poetry and Critical Prose of the Romantic Period; 532-3, Nineteenth-Century Prose and Poetry; 561, The Poetry of the Irish Literary Revival; 571-2, Modern Prose; 573-4, Twentieth-Century Fiction; 576, Twentieth-Century English Poetry; 911-2, Foreign Backgrounds of English Literature.

*Courses Offered in the Summer School in 1957*

- ENGL. 319. PROBLEMS IN CRITICAL READING. Mr. Payne.  
ENGL. 330. THE SHORT STORY. Mr. Boyce.  
ENGL. 357. STUDIES IN AMERICAN LITERATURE. Mr. Maclean.  
ENGL. 380. POETRY AND PROSE OF T. S. ELIOT. Mr. Boyce.  
ENGL. 424. ELIZABETHAN SONGS AND SONNETS. Mr. Rothwell.  
ENGL. 459. FOUR METAPHYSICAL POETS. Mr. Maclean.  
ENGL. 901, 902. RESEARCH IN ENGLISH. Staff.

For further information, see the Announcement of the Summer School.

GEOLOGY AND GEOGRAPHY

Head of Department: Professor WILLIAM F. JENKS (20 Old Tech); Professors BARBOUR (137 McMicken), COULTER (8 Old Tech), CASTER (2-C Old Tech); Associate Professor SUNDERMAN (31 Old Tech); Assistant Professors DURRELL (35 Old Tech), LARSEN (33 Old Tech); Instructors L. G. WOLF (23 Old Tech), HODGKINS (7 Old Tech), W. SANDERS (1 Old Tech).

In geology this Department offers work leading to the degrees of Master of Science and Doctor of Philosophy. In geography the Department offers work leading to the degree of Master of Arts.

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A student admitted to graduate work in geology is expected to have satisfactorily passed one-year courses in physics and chemistry, and an approved course in calculus or statistics. Biology is advised as preparation for graduate work chiefly in paleontology. Attention is called to undergraduate courses Geology 301-2 (Mineralogy), 310 (Geologic Field Techniques), 319 (Geologic Demonstration Trip), 321-2 (Historical Geology), and 469 (Common Rocks). Applicants for graduate study in geology are urged to take the Graduate Record Examination as well as the aptitude and advanced test in geology. A graduate student with inadequate background may be required to take one or more of these courses or basic courses in related sciences, usually without credit toward the graduate degree. Not all students accepted for graduate work are accepted as candidates for degrees. Personal acquaintance and examinations are required in order to 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. All graduate students will be required to participate in an annual fall four-day field trip.

The University Museum, in the same building as the Department, provides extensive research collections particularly with respect to the Paleozoic faunas of the Cincinnati region. The Departmental library contains 13,000 volumes on geology or geography, including the Depository Library of the Association of American Geographers.

## GEOLOGY

*For Advanced Undergraduate and Graduate Students\**

GEOL. 330. ADVANCED GEOLOGY FIELD TRIP. A two weeks' field excursion immediately after spring examinations and before Summer School. Main emphasis on historical and regional geology. Conferences and comprehensive report during following semester. 3 gr. cr. Mr. Caster. (15-040-330)  
Prerequisites: Geol. 317, 318, or 319 and 321-2 or equivalents.

GEOL. 425, 426. INVERTEBRATE PALEONTOLOGY. A systematic survey of the important groups of invertebrate fossils with special emphasis on their zoological character and geologic significance. 4 gr. cr. each semester. Lecture, T Th 9:30; laboratory, T Th 1:30-4:30. Mr. Caster. (15-040-425, 426)  
Prerequisites: Geol. 101-2, 111-2 or equivalents; or a course in biology, zoology, or botany.

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

- GEOL. 448. WORLD PHYSIOGRAPHY. Study of selected regions in geomorphic terms. (Alternates with Geol. 444.) 3 gr. cr. Second semester, M 1:00-4:00. Mr. Barbour. (15-040-448)  
Prerequisite: Geol. 101-2, 111-2 or equivalents.
- GEOL. 449. PRINCIPLES OF GEOMORPHOLOGY. The interpretation of landscapes, especially as governed by geologic and climatic conditions. (Alternates with Geol. 445.) 3 gr. cr. First semester, M 1:00-4:00. Mr. Barbour. (15-040-449)  
Prerequisites: Geol. 101-2, 111-2 or equivalents.
- GEOL. 470. BASIC SEDIMENTOLOGY. Principles governing the origin, transportation, deposition, and subsequent alteration of sediments, with particular emphasis on the physical and chemical environments of accumulation. 3 gr. cr. First semester, M F 9:00; W 9:00-12:00. Mr. ————. (15-040-470)  
Prerequisites: Geol. 301-2, 469 or equivalents.
- GEOL. 472. PRINCIPLES OF STRATIGRAPHY. Stratigraphic and biostratigraphic principles and methods, with emphasis on geochronology, paleoecology, and paleogeography. 3 gr. cr. Second semester, M F 9:00; W 9:00-12:00. Mr. ————. (15-040-472)  
Prerequisites: Geol. 301-2, 425-6, 470 or equivalents.
- GEOL. 474. OPTICAL MINERALOGY. Crystal optics; use of the petrographic microscope for recognition of transparent minerals in immersion media. 4 gr. cr. Second semester, M W 8:00; M W 1:00-4:00. Mr. Sunderman. (15-040-474)  
Prerequisites: Geol. 301-2, 469.
- GEOL. 481. GLACIAL GEOLOGY. Principles of glacial geology, with field work in the Cincinnati area. 3 gr. cr. First semester, M W 8:00; F 1:00-4:00. Mr. Durrell. (15-040-481)  
Prerequisites: Geol. 301-2, 321-2.
- GEOL. 503, 504. GEOLOGY SEMINAR. Required of all graduate students in geology. 1 gr. cr. each semester. W 4:00. Staff. (15-040-503, 504)
- GEOL. 551. PETROGRAPHY AND PETROLOGY OF IGNEOUS ROCKS. 4 gr. cr. First semester, M F 10:00; T Th 8:00-11:00. Mr. Larsen. (15-040-551)  
Prerequisites: Geol. 301-2, 469, 474 or equivalents.
- GEOL. 552. PETROGRAPHY AND PETROLOGY OF SEDIMENTARY AND METAMORPHIC ROCKS. 4 gr. cr. Second semester, MF 10:00; T Th 8:00-11:00. Mr. Larsen. (15-040-552)  
Prerequisites: Geol. 301-2, 469, 474 or equivalents.

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GEOL. 563. PRINCIPLES OF ECONOMIC GEOLOGY. Physical and chemical processes producing economic concentration in mineral deposits. 3 gr. cr. First semester, T Th 11:00; W 1:00-4:00. Mr. Jenks. (15-040-563)

Prerequisites: Geol. 301-2, 589.

GEOL. 564. GEOLOGY OF ORE DEPOSITS. (Alternates with Geol. 566.) 4 gr. cr. Second semester, T Th 11:00; M W 1:00-4:00. Mr. Jenks. (15-040-564)

Prerequisite: Geol. 563.

GEOL. 589. STRUCTURAL GEOLOGY. Principles of rock deformation; applications of descriptive geometry; methods of determination of structure in the field. 3 gr. cr. Second semester, T Th 8:00; F 1:00-4:00. Mr. Sunderman. (15-040-589)

Prerequisite: Geol. 301-2 or equivalent.

*Primarily for Graduate Students*

GEOL. 925, 926. ADVANCED MEGASCOPIC PALEONTOLOGY. By the instructor's permission. Three graduate credits each semester. T Th 4:30. Mr. Caster. (14-040-925, 926)

Prerequisite: Geol. 425-6 or a course in zoology.

GEOL. 971, 972. INDIVIDUAL WORK IN GEOLOGY. Credit depends on amount of work done. Geology Staff. (14-040-971, 972)

GEOL. 973. FIELD RESEARCH IN GEOLOGY. Work in the field under direction of the staff. 1-6 gr. cr. (14-040-973)

GEOGRAPHY

*For Advanced Undergraduate and Graduate Students\**

GEOG. 332. URBAN GEOGRAPHY. Geographical factors related to the origin, structure, and functions of urban centers. 3 gr. cr. Second semester, T Th 9:30. Mr. Sanders. (15-041-332)

GEOG. 346. SOVIET UNION. A geographical appraisal of the basis of Soviet strength and weakness; a regional analysis of population distribution and industrial and agricultural developments as related to the natural environment. 3 gr. cr. Second semester, M W F 10:00. Mr. Hodgkins. (15-041-346)

GEOG. 351. EUROPE. A regional study of Europe stressing occupations and culture as related to the natural environment. 3 gr. cr. First semester, M W F 1:00. Mr. Coulter. (15-041-351)

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

GEOG. 597, 598. RESEARCH IN GEOGRAPHY. Credit variable.  
Staff. (15-041-597, 598)

*Courses Omitted in 1957-58*

The following geology courses, offered in alternate years or at longer intervals, will not be given in 1957-58: 443, Physiography of Eastern U. S.; 444, Physiography of Western U. S.; 480, Interpretation of Aerial Photographs; 565, Nonmetallic Mineral Deposits; 566, Petroleum Geology; 909, Metamorphic Geology; 910, Advanced Mineralogy; 921-2, Stratigraphic Geology; 924, Micropaleontology; 960, Ground Water; and 963-4, Advanced Sedimentology. The following geography course will not be given in 1957-58: 356, Geography of Africa.

*Courses Offered in the Summer School in 1957*

\*GEOG. 315. UNITED STATES. Mr. Case.

\*GEOG. 347. GEOGRAPHY OF AFRICA. Mr. Hodgkins.

GEOG. 577, 578. SPECIAL PROBLEMS IN GEOGRAPHY. Messrs. Case, Hodgkins.

GEOL. 973, 974. FIELD RESEARCH IN GEOLOGY. Mr. Jenks.

GEOG. 977, 978. RESEARCH IN GEOGRAPHY. Messrs. Case, Hodgkins.

For further information, see the Announcement of the Summer School.

GERMANIC LANGUAGES AND LITERATURES

Head of Department: Professor EDWIN H. ZEYDEL (228 McMicken); Professor MERKEL (229 McMicken).

This 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. German 301-2 and 421-2 in the McMicken College of Arts and Sciences, or their equivalents, are required.

*For Advanced Undergraduate and Graduate Students*

GERMAN 421, 422. HISTORY OF GERMAN LITERATURE TO THE NINETEENTH CENTURY. Required for students who have not taken this course or its equivalent as undergraduates. A survey

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

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CINCINNATI 21, OHIO

667-8. MUSIC IN THE FINE ARTS. Music in relation to such movements as romanticism, impressionism, and realism; aspects of music related to line, color, and design in the visual arts and to description, imagery, and general style in literature; readings from European and American writers, visits to art galleries, listening to music. For graduates and advanced undergraduates. Th 4:10-5:50. 2 crs. each sem. Mr. Singleton. (Code: 18-225)

The following courses in the history of art are offered in the Department of Classics: Classical Civilization 247-8 (The Near East and Greece); 443 (Greek Architecture); 442 (Roman Art). See p. 51.

For statements regarding credit for work in the Art Academy of Cincinnati or the College-Conservatory of Music of Cincinnati, see page 36.

### GEOLOGY AND GEOGRAPHY

Professors JENKS (*Head of Department*, 20 Old Tech), BARBOUR (137 McMicken), COULTER (8 Old Tech), CASTER (2-C Old Tech); Associate Professor SUNDERMAN (31 Old Tech); Assistant Professors DURRELL (35 Old Tech), LARSEN (35 Old Tech); Instructors WOLF (25 Old Tech), HODGKINS (7 Old Tech), SANDERS (1 Old Tech), \_\_\_\_\_.

The student may choose a concentration leading to the B.A. or B.S. in Geology, or to the B.A. in Geography.

#### GEOLOGY

15-040

Geol. 101-2 and 111-2 taken together are the basic preliminary courses to all advanced courses in geology except Geol. 301-2.

To qualify for the B.S. degree with a major in geology a student shall have completed Geol. 301-2, 317 (318, 319), 321-2, 425-6, 501, 503-4; Chem. 101-2, 111-2; Phys. 101-2, 111-2; or Zool. 101-2, 111-2; and Math. 221-2. Additional advanced courses in geology must be selected as electives. A reading knowledge of German or French is required by the end of the junior year.

To qualify for the B.A. degree in geology a student shall have completed Geol. 301-2, 317 (318, 319), 321-2, 425-6, 501, 503-4, at least 18 hours in related fields (chemistry, physics, zoology, botany), and 6 hours in mathematics.

Both the B.S. and B.A. majors may lead to graduate work in geology. Typical programs may be obtained from the Head of the Department.

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For all students planning geology as a profession, a five- or eight-week summer field course is strongly recommended. Alternative acceptable field training may be obtained by summer work with one of the geological surveys or by summer field employment by a mining or oil company.

Each autumn all students majoring in geology are expected to attend a four-day field trip.

Students looking toward a professional career in geology may wish to follow a *Five-Year Program* leading to the B.S. and M.S. degrees (see p. 34). In this program a student receives training in geology, mathematics through calculus, chemistry, and physics. The program should be started in the freshman year, and must be planned as early as possible in consultation with the Head of the Department, who serves as adviser throughout the course. The program provides for little latitude of choice except in the final year, and changes may be made only with the permission of the adviser.

101-2. INTRODUCTION TO GEOLOGY. Prerequisite to all other geology courses except Geol. 103-4 and 301-2. It is not prerequisite to any geography courses, but is required of geography majors. With Geol. 111-2, it satisfies the science requirement. Geol. 101-2 and 111-2 form two parts of a single ten-credit course. With the instructor's permission, however, students who do not offer geology in fulfillment of the science requirement may take 101-2 alone. Lecture, MWF 9:00. Mr. Durrell.

111-2. INTRODUCTION TO GEOLOGY LABORATORY. A laboratory course to accompany Geol. 101-2. With the instructor's permission, transfer students and other qualified students may take the course without the lectures (101-2). MW 1:00-4:00; TTh 1:30-4:30. 2 crs. each sem. Mr. Durrell and assistants.

103-4. GENERAL GEOLOGY. An elementary course for general students not expecting to do further work in the subject; fulfills the science requirement only if taken in combination with an elementary course in another science. TTh 8:30; F 1:00-4:00. 3 crs. each sem. Mr. Barbour.

301-2. MINERALOGY. Crystallography; introduction to crystal chemistry and atomic structures; occurrence, properties and uses of the important minerals; blowpipe and chemical tests. Prerequisite: High-school or elementary college chemistry. TTh 1:00; TTh 2:00-5:00. 4 crs. each sem. Mr. Larsen.

310. (2nd sem.) GEOLOGIC FIELD TECHNIQUES. Topographic mapping; geologic mapping; measurement of sections; use of instruments. S 8:00-12:00 and hours to be arranged. Mr. Jenks.

317. GEOLOGIC DEMONSTRATION TRIP. A two weeks' field excursion in May and June 1957; the excursion is generally in the Appalachians. One-hour conference weekly during the first half of the following semester and a report to be submitted at the end of the semester. (Alternates with Geol. 318 and 319; each number designates a different route.) Conferences, M 10:00. Mr. Durrell.
- 321-2. PRINCIPLES OF HISTORICAL GEOLOGY. An introduction to the study of the physical and biological history of the earth with particular emphasis on North America. TTh 8:00; W 1:00-4:00; S 9:00-12:00. 4 crs. each sem. Mr. Caster.
330. ADVANCED GEOLOGY FIELD TRIP. A two weeks' field excursion immediately after spring examinations and before Summer School. Main emphasis on historical and regional geology. Conferences and comprehensive report during following semester. Prerequisites: Geol. 317, 318, or 319 and 321-2. Mr. Caster.
- 425-6. INVERTEBRATE PALEONTOLOGY. A systematic survey of the important groups of invertebrate fossils with special emphasis on their zoological character and geologic significance. Prerequisite: Geol. 101-2, 111-2 or equivalent, or a course in biology, zoology, or botany. TTh 9:30; TTh 1:30-4:30. 4 crs. each sem. Mr. Caster.
448. (2nd sem.) WORLD PHYSIOGRAPHY. Study of selected regions in geomorphic terms. (Alternates with Geol. 444.) Prerequisite: Geol. 101-2, 111-2 or equivalent. M 1:00-4:00. Mr. Barbour.
449. (1st sem.) PRINCIPLES OF GEOMORPHOLOGY. The interpretation of landscapes, especially as governed by geologic and climatic conditions. (Alternates with Geol. 443.) Prerequisite: Geol. 101-2, 111-2 or equivalent. M 1:00-4:00. Mr. Barbour.
469. (1st sem.) COMMON ROCKS. Use of megascopic characteristics to identify igneous, sedimentary, and metamorphic rocks and to interpret their conditions of origin and subsequent alteration. Prerequisite: Geol. 301-2 or equivalent. TTh 8:00; F 1:00-4:00. 3 crs. Mr. Sunderman.
470. (1st sem.) BASIC SEDIMENTOLOGY. Principles governing the origin, transportation, deposition, and subsequent alteration of sediments, with particular emphasis on the physical and chemical environments of accumulation. Prerequisites: Geol. 301-2 and 469 or equivalents. MF 9:00; W 9:00-12:00. Mr.

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472. (2nd sem.) PRINCIPLES OF STRATIGRAPHY. Stratigraphic and biostratigraphic principles and methods, with emphasis on geochronology, paleoecology, and paleogeography. Prerequisites: Geol. 301-2, 425-6, and 470 or equivalents. MF 9:00; W 9:00-12:00. Mr. \_\_\_\_\_.
474. (2nd sem.) OPTICAL MINERALOGY. Crystal optics; use of the petrographic microscope for recognition of transparent mineral in immersion media. Prerequisites: Geol. 301-2, 469. MW 8:00; MW 1:00-4:00. 4 crs. Mr. Sunderman.
481. (1st sem.) GLACIAL GEOLOGY. Principles of glacial geology, with field work in the Cincinnati area. Prerequisites: Geol. 301-2, 321-2. MW 8:00; F 1:00-4:00. Mr. Durrell.
501. (1st sem.) READINGS FOR SENIORS. Required of all seniors majoring in geology. Not open to other students.
- 503-4. GEOLOGY SEMINAR. Required of all juniors and seniors majoring in geology. No additional credit except during second semester of senior year, when students will actively participate and receive 1 credit. W 4:00.
551. (1st sem.) PETROGRAPHY AND PETROLOGY OF IGNEOUS ROCKS. Prerequisites: Geol. 301-2, 469, and 474 or equivalents. MF 10:00; TTh 8:00-11:00. 4 crs. Mr. Larsen.
552. (2nd sem.) PETROGRAPHY AND PETROLOGY OF SEDIMENTARY AND METAMORPHIC ROCKS. Prerequisites: Geol. 301-2, 469, and 474 or equivalents. MF 10:00; TTh 8:00-11:00. 4 crs. Mr. Larsen.
563. (1st sem.) PRINCIPLES OF ECONOMIC GEOLOGY. Physical and chemical processes producing economic concentration in mineral deposits. Prerequisites: Geol. 301-2 and 589. TTh 11:00; W 1:00-4:00. Mr. Jenks.
564. (2nd sem.) GEOLOGY OF ORE DEPOSITS. (Alternates with Geol. 566.) Prerequisite: Geol. 563. TTh 11:00; MW 1:00-4:00. 4 crs. Mr. Jenks.
- 571-2. INDIVIDUAL WORK IN GEOLOGY. Credit depends on amount of work done. May be entered either semester. Geology Staff.
589. (2nd sem.) STRUCTURAL GEOLOGY. Principles of rock deformation; applications of descriptive geometry; methods of determination of structure in the field. Prerequisites: Geol. 301-2 and 321-2 or equivalents. TTh 8:00; F 1:00-4:00. Mr. Sunderman.

925-6. ADVANCED MEGASCOPIIC PALEONTOLOGY. By the instructor's permission. Prerequisite: Geol. 425-6 or a course in zoology. TTh 4:30. Mr. Caster. (Code: 14-040)

Omitted during 1957-58: 443, Physiography of Eastern U. S.; 444, Physiography of Western U. S.; 480, Interpretation of Aerial Photographs; 565, Nonmetallic Mineral Deposits; 566, Petroleum Geology; 909, Metamorphic Geology; 910, Advanced Mineralogy; 921-2, Stratigraphic Geology; 924, Micropaleontology; 960, Ground Water; 963-4, Advanced Sedimentology.

#### GEOGRAPHY

15-041

Students majoring in geography shall present Geog. 101-2 or its equivalent, Geog. 205-6, 211, and 495-6. The student should aim toward a balanced program of regional and systematic courses in geography and a wide selection of electives in related subjects, in consultation with the adviser in geography. The science requirement is to be satisfied by Geol. 101-2, 111-2, or its equivalent. A reading knowledge of a foreign language is required by the end of the junior year. A course in statistics is strongly recommended.

Nongeographical courses recommended to students majoring in geography are in the Departments of Sociology, Political Science, Geology, Economics, and History.

101-2. PRINCIPLES OF HUMAN GEOGRAPHY. A regional analysis of the earth as the home of man, with special reference to the spatial environments and resources of the earth. MWF 11:00; MWF 1:00. Mr. Hodgkins.

205. (1st sem.) WEATHER AND CLIMATE. Distribution of weather elements; precipitation, temperature, pressure, winds, and solar radiation. Observation and prediction techniques. Relationships to human activity. MWF 1:00. Mr. Hodgkins.

206. (2nd sem.) CLIMATOLOGY. Regional climatic patterns of the world. Analyses of causal factors, techniques of climatic classification; man's relationships to his climatic environment. MWF 1:00. Mr. Hodgkins.

211. (1st sem.) INTRODUCTORY CARTOGRAPHY. An introduction to map design, compilation, projection, and drafting. Maps as a research and teaching tool in the natural and social sciences. MF 2:00; W 1:00-4:00. Mr. Wolf.

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