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UNIVERSITY OF CINCINNATI BULLETIN

Announcement

of



The Graduate School

Published by the University of Cincinnati
Van Wormer Administration Building
Cincinnati, Ohio 45221
Telephone: 475-4335

1966-1967

Geology

Head of Department: Professor William F. Jenks (20A, Old Tech); Professor Caster (4A, Old Tech); Associate Professors Durrell (33 Old Tech), Koucky* (10B, Old Tech), Larsen (11B, Old Tech), Pryor (35 Old Tech), Sunderman (31 Old Tech); Assistant Professors Huff (36 Old Tech), Warren (9A, Old Tech).

This Department offers work leading to the degrees of Master of Science and Doctor of Philosophy.

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 recommended as preparation for graduate work chiefly in paleontology. A summer field course in geology or its equivalent, such as a summer at a marine biological station for paleontology majors, is required before admission or early in the graduate program.

Interviews and early exploratory conferences are required to help determine the student's prior training and aptitude for advanced studies and independent research.

Laboratories for research in paleontology, mineralogy, petrology, geochemistry, and sedimentology afford modern facilities for study. The Geological Museum provides extensive research collections particularly with respect to Paleozoic faunas.

By agreement between the Secretary of the Smithsonian Institution and the President of the University of Cincinnati, graduate students in paleontology may apply for summer internships at the United States National Museum, to work with specialists there on subjects of mutual interest. Such work is commonly related to the subject of the student's dissertation. Academic year fellowships at the Smithsonian are available to outstanding advanced students when the Language and Qualifying examinations at the University are satisfactorily completed. This affords the student opportunity to work under the joint supervision of University and Smithsonian paleontologists. Satisfactory research work under this program carries University graduate credit.

For Advanced Undergraduate and Graduate Students

15-040-037,038,039. *Geology Seminar*. Required of all graduate students majoring in geology. No credit. Th 12:00-1:00. Staff.

15-040-521,522,523. *Invertebrate Paleontology*. Paleobiology of common invertebrate fossils. 3 gr. cr. each Quarter. TTh 9:30; W 1:00-4:00. Mr. Warren. Prerequisite: Geol. 101,2,3, 111,2,3, or equivalents, or a full course in biology, zoology, or botany.

15-040-531,532,533. *Stratigraphy and Sedimentation*. Principles of stratigraphy and sedimentation. Physical and biological processes, environmental interpretation, facies analysis, correlation, stratigraphic analysis, basin analysis, and tectonics. Prerequisite: Geol. 301,2,3; 321,2,3. 3 gr. cr. each Quarter. MWF 11:00. Mr. Pryor.

15-040-547,548. *Structural Geology*. 3 gr. cr. each Quarter. Autumn and Winter Quarters. MW 8:00; F 8:00-11:00. Mr. Jenks.

*Absent on leave, winter and spring quarters 1967.

15-040-561,562. *Interpre*
3 gr. cr. each Quarter. A
Durrell.

15-040-577. *Advanced G*
summer of 1966. Histori
Quarter. 3 gr. cr. Au
instructor.

15-040-578. *World Phys*
Durrell.

15-040-641,642. *Optical*
for recognition of transp
gr. cr. each Quarter. W
Sunderman. Prerequisite

15-040-671. *Geohydrolo*
hydrologic principles to
Mr. Pryor.

15-040-675. *Geology of*
11:00. Mr. Jenks.

Primarily for Graduate

14-040-701,702,703. *A*
processes: dynamic relat
in continental, eolian, m
4 gr. cr. each Quarter.

14-040-711,712,713. *M*
the study of microfossi
Warren. Prerequisite:

14-040-771. *Research*
Quarter. Staff.

14-040-774. *Regional*

14-040-811. *Advanced*
mineral analysis: X-ra
3 gr. cr. Autumn Quarte
Mr. Koucky.

14-040-821,822,823. *S*
German and French de
MWF 9:00. Mr. Caste

14-040-873. *Principles*
economic concentratio
Mr. Jenks.

14-040-875,876,877. *A*
petrology of igneous
W 1:00-4:00; F 8:00-

14-040-971. *Research*
each Quarter. Staff.

Geology

15-040-561,562. *Interpretation of Aerial Photographs*. Prerequisite: Geol. 321,2,3. 3 gr. cr. each Quarter. Autumn and Winter Quarters. MW 10:00; F 1:00-4:00. Mr. Durrell.

15-040-577 *Advanced Geology Field Trip*. A two weeks' field excursion during the summer of 1966. Historical and regional geology. Conferences and report in Autumn Quarter. 3 gr. cr. Autumn Quarter. Mr. Caster. Prerequisite: Permission of instructor.

15-040-578. *World Physiography*. 3 gr. cr. Autumn Quarter. MWF 1:00-2:00. Mr. Durrell.

15-040-641,642. *Optical Mineralogy*. Crystal optics, use of the polarizing microscope for recognition of transparent substances in immersion media and thin sections. 4 gr. cr. each Quarter. Winter and Spring Quarters. MW 9:00; Th 2:00-5:00. Mr. Sunderman. Prerequisite: Geol. 401.

15-040-671. *Geohydrology*. Examination of the hydrologic cycle and application of hydrologic principles to geological problems. Spring Quarter. 3 gr. cr. MWF 4:00. Mr. Pryor.

15-040-675. *Geology of Ore Deposits*. 3 gr. cr. Spring Quarter. MW 8:00; F 8:00-11:00. Mr. Jenks.

Primarily for Graduate Students

14-040-701,702,703. *Advanced Sedimentation*. Laws and principles of sedimentary processes; dynamic relations between sedimentary processes and the resulting sediments in continental, eolian, marginal marine, shallow marine and deep marine environments. 4 gr. cr. each Quarter. TTh 8:00; F 1:00-4:00. Mr. Pryor.

14-040-711,712,713. *Micropaleontology*. Basic principles, concepts and methods in the study of microfossils. 3 gr. cr. each Quarter. MW 8:00, Th 2:00-5:00. Mr. Warren. Prerequisite: Geol. 521-2-3 or equivalent.

14-040-771. *Research on Special Problems*. Credit to be arranged. Offered each Quarter. Staff.

14-040-774. *Regional Tectonics*. 3 gr. cr. Winter Quarter. MWF 4:00. Mr. Jenks.

14-040-811. *Advanced Mineralogy II*. Advanced theory and techniques in rock and mineral analysis; X-ray fluorescence, flame photometry, electron microscopy, etc. 3 gr. cr. Autumn Quarter. TTh 9:30-11:00 and three laboratory hours to be arranged. Mr. Koucky.

14-040-821,822,823. *Seminar in Megascopic Paleontology*. Reading knowledge of German and French desirable. By the instructor's permission. 3 gr. cr. each Quarter. MWF 9:00. Mr. Caster.

14-040-873. *Principles of Ore Deposition*. Physical and chemical processes producing economic concentration in ore deposits. 3 gr. cr. Autumn Quarter. MWF 4:00. Mr. Jenks.

14-040-875,876,877. *Advanced Petrology*. Theory, advanced methods of study, and petrology of igneous and metamorphic rocks. 4 gr. cr. each Quarter. MW 10:00; W 1:00-4:00; F 8:00-11:00. Mr. Larsen.

14-040-971. *Research*. By adviser's permission. Credits to be arranged. Offered each Quarter. Staff.

Courses Omitted in 1966-1967: 541,2, Principles of Geomorphology; 574, Glacial Geology; 575 and 576, Alternate Advanced Geology Field Trips; 801,2,3, Advanced Mineralogy I; 814, 815, 816, Advanced Sedimentary Petrology; 817,8,9, Seminar in Petrology; 874, Universal Stage Microscope Studies.

Germanic Languages and Literatures

Head of Department: Professor Guy Stern (228 McMicken); Professor Merkel (229 McMicken); Associate Professors Syring* (230 McMicken), Slessarev (231 McMicken); Assistant Professor Rudowski (226 Calhoun St.); Visiting Lecturer Schelle (231 McMicken).

This Department offers work leading to the Degrees of Master of Arts and Doctor of Philosophy in Germanic languages and literatures.

Students electing work in this Department should have completed an undergraduate major in German or its equivalent. All candidates for any graduate degree are required to take Germanic Languages 801-2-3, Methods and Bibliography 901,2,3 and Advanced Stylistics 631,2,3; all candidates for the doctorate are required to take Early Germanic Philology, Old High German, and Middle High German. The successful completion of a reading course in a second Germanic language is strongly urged by the Department and will satisfy simultaneously The Graduate School's requirement of a second foreign language for the doctorate.† (See page 41.)

For Advanced Undergraduate and Graduate Students

15-010-571,572,573. *Methods and Linguistics.* A descriptive analysis of the German language and the practical applicability of linguistics to modern methods of language learning and teaching. Especially recommended for prospective high school and college teachers in modern languages. Lectures in English. 573 is identical to Educ. 303. 4 gr. cr. each Quarter. Th 6:40-9:10. Mr. Rudowski.

15-010-581,582,583. *The Literature of Romanticism.* A study of its philosophical basis, its themes and forms. MWF 10:00. Mrs. Slessarev.

15-011-601,602,603. *Elementary and Intermediate Swedish.* To be offered in 1967-1968. No gr. cr.

15-010-651,652,653. *Wieland and his Times.* A close study of Wieland's works and of his role as a mediator. In the nature of a Seminar. 4 gr. cr. each Quarter. WF 4:00-5:30. Mr. Schelle.

Primarily for Graduate Students

14-010-737,738,739. *Literature in Exile (1933-1948).* An examination of the works of Germany's exiled authors and the distinctiveness of "exile literature." 4 gr. cr. each Quarter. Th 4:00-6:00. Mr. Stern.

14-010-801,802,803. *History of the German Language.* 4 gr. cr. each Quarter. M 4:00-6:00. Mr. Merkel.

14-010-901,902,903. *Bibliography and Literary Methods.* In the nature of a Proseminar. 4 gr. cr. each Quarter. Tu 4:00-6:00. Mr. Schelle.

*Absent on leave, spring quarter 1967.

†See Evening College course 30-011-241,242. Intermediate Swedish. Wed. 6:40-8:20. 3 ug. cr. each Semester. Mrs. Mosher. Registration for this course must be made at the Evening College.

UNIVERSITY OF CINCINNATI BULLETIN

Announcement

of



McMicken College of Arts and Sciences

Summer School Terms (3 1/4 weeks each)

First..... Mon., June 19-Tues., July 11
Second..... Wed., July 12-Thurs., Aug. 3
Third..... Fri., Aug. 4-Fri., Aug. 25

Summer Quarter-Term (dates same as Summer Quarter)

* Additional calendar items relating to a specific college or school will be found in Part 2 of the Bulletin of that college.
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Published by the University of Cincinnati
Van Wormer Administration Building
Cincinnati, Ohio 45221
Telephone: 513-475-2431

1966-1967

14-041-785. *Urban-Economic Geography: Accessibility.* Geographic location theory; transport networks, nodes, and trade areas at varied scales. 3 ug. cr. Winter Quarter. MWF 10:00. Mr. McNee.

14-041-786. *Urban-Economic Geography: Production.* Theoretical interpretations of the changing patterns of primary, secondary, and tertiary production at varied scales. 3 ug. cr. Spring Quarter. MWF 10:00. Mr. McNee.

14-041-787. *Seminar: Geography and Economic Development.* Interpretation of differences in economic development among countries and within countries. 3 ug. cr. Spring Quarter. TTh 11:00-12:30. Mr. Roder.

14-041-788. *Seminar: Geography of Manufacturing.* Geographic location theory in relation to secondary production. Prerequisite or corequisite: Geog. 785. 3 ug. cr. Spring Quarter. MWF 1:00. Mr. Stafford.

14-041-791. *The Regional Concept and Area Analysis.* The regional concept from Nineteenth Century French regionalism to today, including the ekistics school. Values and pitfalls in regionalism. 3 ug. cr. Winter Quarter. MWF 1:00. Mr. Roder.

14-041-792. *Geographic Methods: Research Models.* The construction and use of spatial models in current geographic literature. Prerequisite: Math. 207-8-9 or Geog. 680 or permission of instructor. 3 ug. cr. Winter Quarter. TTh 11:00-12:30. Mr. Stafford.

Courses Omitted in 1966-1967: 576, Resources Conservation; 677, Greater Cincinnati Region; 782, Historical Geography of the U.S.

Geology

Professors Jenks (Head of Department, 20 Old Tech), Caster (4A Old Tech); Associate Professors Durrell (33 Old Tech), Koucky* (B10 Old Tech), Larsen (B11 Old Tech), Pryor (35 Old Tech), Sunderman (31 Old Tech); Assistant Professors Huff (36 Old Tech), Warren (9A Old Tech).

The student may choose a concentration leading to the B.A. or B.S. in geology.

Geology 101-2-3 and 111-2-3 taken together are preliminary to all advanced courses in geology except 301-2-3 and 521-2-3. Students who have completed 104-5-6 and wish to major in geology must take 111-2-3.

To qualify for the B.A. degree in geology a student shall have completed Geol. 037-8-9, 301-2-3, 281 (or 282 or 283), 321-2-3, 437-8-9, and 9 additional credits in geology, plus at least 27 credits in three of the following disciplines: chemistry, physics, zoology, botany, and mathematics.

To qualify for the B.S. degree with a major in geology a student shall include in his program Geol. 037-8-9, 301-2-3, 281 (or 282 or 283), 321-2-3, 437-8-9; Chem. 101-2-3, 111-2-3, 9 to 14 credits of Calculus and 9 to 15 credits of physics or zoology. In addition to the basic core of geology courses listed above, 18 credits in advanced courses in geology must be elected. A reading knowledge of German, French, or Russian is required prior to the senior year.

Both the B.A. and the B.S. majors may lead to graduate work in geology, usually considered essential for a professional career. A properly planned program may lead to the M.S. degree one year after obtaining the B.S. Typical programs may be obtained from the adviser.

*Absent on leave, winter and spring quarters 1967.

For all B.S. c
a six to eight weeks
tive acceptable field
biological station or
ployment by a mini

Each autumn
four-day field trip a

15-040-101,102,103.
it satisfies the science
instructor's permission

15-040-111,112,113.
accompany 101-2-3.
Mr. Huff and assistan

15-040-104,105,106.
and teachers not exp
requirements when t
ea. Qtr. Lecture, MW
Tu 9:00-12:00. Mr.
Lecture, MW 12:00;
Quarter, Lecture, MW

15-040-283. *Geologic*
and Georgia during S
Quarter and a report
ferences, M 10:00. M

15-040-301,302,303.
tures, geochemistry, i
chemistry or permis
Mr. Koucky and Staff

15-040-321,322,323.
earth with particular
101-2-3, 111-2-3 or 1
Mr. Caster.

15-040-401,402,403.
Winter, Spring: Occu
and sedimentary rock
301-2-3 or permission
Messrs. Larsen, Sunde

15-040-437,438,439.
not open to other stu
Quarter.

15-040-487,488,489.
done. May be enter

15-040-037,038,039.
in geology. No credit

15-040-521,522,523.
fossils. Prerequisite:
biology, zoology, or b

For all B.S. candidates and all students planning geology as a profession, a six to eight weeks' summer field course or its equivalent is required. Alternative acceptable field training may be obtained by summer work at a marine biological station or with one of the geological surveys, or by summer field employment by a mining or oil company, with the approval of the adviser.

Each autumn all students majoring in geology are expected to attend a four-day field trip and should anticipate the cost, about \$35.

15-040-101,102,103. Introduction to Geology. Corequisite: Geol. 111-2-3 with which it satisfies the science requirement. Geol. 101-2-3 may be taken alone only with the instructor's permission. 3 ug. cr. ea. Qtr. TTh 9:30-11:00. Mr. Huff.

15-040-111,112,113. Introduction to Geology Laboratory. A laboratory course to accompany 101-2-3. 2 ug. cr. ea. Qtr. Sections I, MW 1:00-4:00; II, TTh 2:00-5:00. Mr. Huff and assistants.

15-040-104,105,106. General Geology. An elementary course for general students and teachers not expecting to major in earth sciences. Designed to fulfill the science requirements when taken with an elementary course in another science. 3 ug. cr. ea. Qtr. Lecture, MW 8:00; laboratory, Sections, I, M 1:00-4:00; II, W 1:00-4:00; III, Tu 9:00-12:00. Mr. Huff and staff. Geol. 104 will be repeated in Winter Quarter, Lecture, MW 12:00; laboratory, F 12:00-2:00. Geol. 105 will be repeated in Spring Quarter, Lecture, MW 12:00; laboratory, F 12:00-2:00.

15-040-283. Geologic Demonstration Trip. A two weeks' field excursion to Tennessee and Georgia during September 1966. One-hour conference weekly during the Autumn Quarter and a report at the end of the Quarter. 3 ug. cr. Autumn Quarter. Conferences, M 10:00. Mr. Koucky.

15-040-301,302,303. Mineralogy. Crystallography, crystal chemistry, atomic structures, geochemistry, and systematics of the common minerals. Prerequisite: College chemistry or permission of instructor. 3 ug. cr. ea. Qtr. TTh 11:00; Th 2:00-5:00. Mr. Koucky and Staff.

15-040-321,322,323. Historical Geology. The physical and biological history of the earth with particular emphasis on North America. Field trips. Prerequisite: Geol. 101-2-3, 111-2-3 or 104-5-6. 4 ug. cr. ea. Qtr. TTh 8:00; Tu 2:00-5:00; S 9:00-12:00. Mr. Caster.

15-040-401,402,403. Elementary Petrology. Autumn: Microscopic methods of study. Winter, Spring: Occurrence, genesis and alteration of common igneous, metamorphic and sedimentary rocks. Hand specimen and thin section studies. Prerequisite: Geol. 301-2-3 or permission of instructor. 4 ug. cr. ea. Qtr. TTh 11:00, TTh 2:00-5:00. Messrs. Larsen, Sunderman.

15-040-437,438,439. Readings for Seniors. Required for seniors majoring in geology; not open to other students. 2 ug. cr. ea. Qtr. Senior thesis to be written in Spring Quarter.

15-040-487,488,489. Individual Work in Geology. Credit depends on amount of work done. May be entered any Quarter. Staff.

15-040-037,038,039. Geology Seminar. Required of all juniors and seniors majoring in geology. No credit. Th 12:00. Staff.

15-040-521,522,523. Invertebrate Paleontology. Paleobiology of common invertebrate fossils. Prerequisite: Geol. 101-2-3, Geol. 111-2-3 or equivalents, or a full course in biology, zoology, or botany. 3 ug. cr. ea. Qtr. TTh 9:30; W 1:00-4:00. Mr. Warren.

Geology

location theory;
Winter Quarter.

interpretations of
at varied scales.

pretation of dif-
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Mr. Roder.

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321-2-3, 437-

15 credits of
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rk in geology,
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B.S. Typical

15-040-531,532,533. *Stratigraphy and Sedimentation*. Principles of stratigraphy and sedimentation. Physical and biological processes, environmental interpretation, facies analysis, correlation, stratigraphic analysis, basin analysis, and tectonics. Prerequisite: Geol. 301-2-3; 321-2-3. 3 ug. cr. ea. Qtr. MWF 11:00. Mr. Pryor.

15-040-547,548. *Structural Geology*. Prerequisite: Geol. 301-2-3, 321-2-3. 3 ug. cr. Autumn and Winter Quarters. MW 8:00; F 8:00-11:00. Mr. Jenks.

15-040-561,562. *Interpretation of Aerial Photographs*. Prerequisite: Geol. 321-2-3. 3 ug. cr. ea. Qtr. Autumn and Winter Quarters. MW 10:00, F 1:00-4:00. Mr. Durrell.

15-040-577. *Advanced Geology Field Trip*. A two weeks' field excursion during summer of 1966. Historical and regional geology. Prerequisite: Permission of instructor. 3 ug. cr. Autumn Quarter. Mr. Caster.

15-040-578. *World Physiography*. 3 ug. cr. Autumn Quarter. MWF 1:00. Mr. Durrell.

15-040-641,642. *Advanced Optical Mineralogy*. Crystal optics, use of the polarizing microscope and universal stage for recognition of transparent substances in immersion media and thin sections. Prerequisite: Geol. 401 or permission of the instructor. 4 ug. cr. Winter and Spring Quarters. MW 9:00; TTh 2:00-5:00. Mr. Sunderman.

15-040-671. *Geohydrology*. Examination of the hydrologic cycle and application of hydrologic principles to geological problems. Spring Quarter. MWF 4:00. Mr. Pryor.

15-040-675. *Geology of Ore Deposits*. Prerequisite: Geol. 301-2-3, 547, 548. 3 ug. cr. Spring Quarter. MW 8:00; F 8:00-11:00. Mr. Jenks.

Courses Omitted in 1966-1967: 171, Geology of the Cincinnati Region; 281 and 282, Alternate Routes, Geologic Demonstration Trip; 541 and 542, Principles of Geomorphology; 574, Glacial Geology; 575 and 576, Alternate Routes, Advanced Geology Field Trip.

Germanic Languages and Literatures

Professors Stern (Head of Department, 228 McMicken), Merkel (229 McMicken); Associate Professors H. Slessarev (231 McMicken), Syring* (230 McMicken); Assistant Professor Rudowski (226 Calhoun St.); Visiting Lecturer Schelle (231 McMicken); Instructor Scott (228 McMicken).

German 101-2-3, 104-5-6, 201-2-3, and 204-5-6 will not count toward a major in German. German 231-2-3, 401-2-3, 437-8-9 and 501-2-3 shall be offered as a part of the requirement toward a major in German. In addition, German majors are expected to select German 171-2-3 as one of their elective courses in preparation for Part I (German Culture) of their Comprehensive Examinations.

All courses in German, except Senior Readings (437-8-9), may be entered at the beginning of the Winter or Spring Quarter, with the instructor's permission. To enter 100- and 200- level courses after the Autumn Quarter, students must obtain permission of the Department Head.

15-001-221,222,223. *World Literature*. For description, see page 45.

*Absent on leave, spring quarter 1967.

Note: The language course requiring one or more years of German 101-5-6 (3 hours per year) requires two years of German language skill in German for fulfillment of the requirement. The emphasis is placed on

A placement test in the language course is required. If the student has completed two or more years of German language study, a placement test may be given for no credit, or

15-010-101,102,103, 204-5-6, will satisfy the requirement. The language course is offered 10:00; MWF 12:00; and Staff.

15-010-104,105,106. The language course requires laboratory. 5 ug. cr. MTWThF 11:00; M

15-010-201,202,203. German literature, completed German courses have successfully completed the B.S. degree or the language laboratory. 3:00. Mrs. Slessarev

15-010-204,205,206. German scientific papers. Fully completed German courses who have successfully completed the B.S. degree. MWF 1:00. Mr. Syring

15-010-231,232,233. and 201-2-3 (204-5-6) Qtr. TTh 9:30-11:00

15-010-171. *A Survey of Germanic Tribes*. Many has made to political thought, and German and American German affairs. N

15-010-172. *A Survey of Germanic Tribes*. Contribution to the First World War. Slessarev.