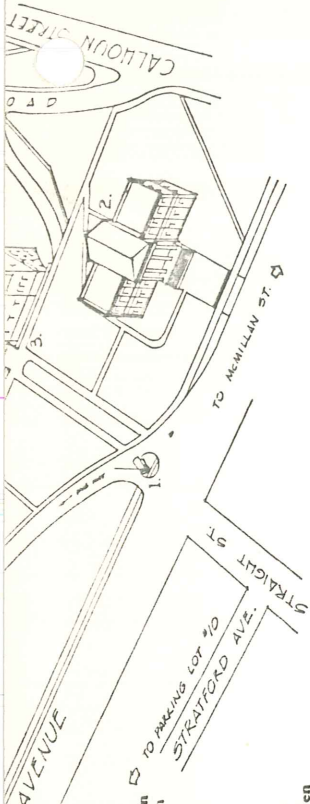


OF CINCINNATI



- 29. Aero Lab.
- 30. Garage
- 31. Carson Field
- 32. Nippert Stadium
- 33. Reed Shank Pavilion
- 34. Women's Gymnasium
- 35. Memorial Residence Hall for Women
- 36. Y.M.C.A. Building
- 37. Practice Field
- 38. Baseball Field
- 39. Armory Fieldhouse
- 40. Laurence Hall
- 41-42. French & Dobson Residence Halls for Men

- 15. Applied Science Lab.
- 16. Health Service
- 17. Old Tech Building
- 18. Tanners' Council Lab.
- 19. Union Building
- 20. Swift Hall
- 21. Baldwin Hall
- 22. Chemistry Building
- 23. Physics-Math. Building
- 24. Wilson Memorial Hall
- 25. College of Design, Architecture, & Art
- 26. Simrall Hall
- 27. Service Building
- 28. Power Plant

- 1. Entrance Building
- 2. Alphonso Tait Hall
- 3. Library
- 4. College of Education & Home Economics
- 5. College of Pharmacy
- 6. Amphitheater
- 7. Hockey Field
- 8. Tennis Courts
- 9. Biology Building
- 10. Administration Bldg.
- 11. Administration Hall
- 12. Cunningham Hall
- 13. McMichie Hall
- 14. Hanna Hall

UNIVERSITY OF CINCINNATI BULLETIN

Announcement

of



# The Graduate School

Transition Year from Semester and Term Calendars to the Quarter Calendar

Published by the University of Cincinnati  
Van Wormer Administration Building  
Cincinnati 21, Ohio

1963-1964

Geology

Head of Department: Professor William F. Jenks (20 Old Tech); Professor Caster (4A Old Tech); Associate Professors Durrell\* (35 Old Tech), Larsen (B11 Old Tech), Sunderman (31 Old Tech); Assistant Professors Hofmann (36 Old Tech), Koucky (33 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 in order to determine the student's prior training and aptitude for advanced studies and independent research.

New laboratories for research in mineralogy, petrology, geochemistry, and sedimentology afford modern facilities for study.

The Geological Museum, in the same building, provides extensive research collections particularly with respect to the Paleozoic faunas of the Cincinnati region. The combined library of geology and geography contains more than 22,000 volumes.

For Advanced Undergraduate and Graduate Students

14-040-037(-038,-039). *Geology Seminar*. Required of all graduate students majoring in geology. No credit. Tu 12:00-1:00. Staff. ✓

14-040-521(-522,-523). *Invertebrate Paleontology*. Paleobiology of common invertebrate fossils. 3 gr. cr. each Quarter. TTh 9:30; W 1:00-4:00. Mr. Caster. Prerequisites: Geol. 101-2-3, 111-2-3, or equivalents, or a full course in biology, zoology, or botany. ✓

14-040-541(-542). *Principles of Geomorphology*. 3 gr. cr. Autumn and Winter Quarters. MW 10:00; F 1:00-4:00. Mr. Durrell. ✓

14-040-547(-548). *Structural Geology*. 3 gr. cr. Autumn and Winter Quarters. MW 8:00; F 8:00-11:00. Mr. Jenks. ✓

14-040-574. *Glacial Geology*. 3 gr. cr. Spring Quarter. MW 10:00; F 1:00-4:00. Mr. Durrell. ✓

14-040-575(or -576, or -577). *Advanced Geology Field Trip*. A two weeks' field excursion between spring examinations and Summer School. Historical and regional geology. Conferences and report in Autumn Quarter. Each number refers to a specific route. 3 gr. cr. Autumn Quarter. Mr. Caster. Prerequisite: Permission of instructor. ✓

14-040-581. *Principles of Petrology*. 4 gr. cr. Autumn Quarter. TTh 11:00; MF 1:00-4:00. Mr. Larsen. Prerequisite: Geol. 301-2-3 or equivalent. ✓

14-040-582. *Petrology: Igneous Rocks*. 4 gr. cr. Winter Quarter. TTh 11:00; MF 1:00-4:00. Mr. Larsen. Prerequisite: Geol. 301-2-3 or equivalent. ✓

\*Absent on leave, March 30-June 13, 1964.

March 30 to Dec 15, 1964

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14-040-583. *Petrology: Sedimentary and Metamorphic Rocks.* 4 gr. cr. Spring Quarter. TTh 11:00; MF 1:00-4:00. Mr. Larsen. Prerequisite: Geol. 301-2-3 or equivalent.

531(-532-533) together { 14-040-584. *Basic Sedimentology.* Principles governing the origin, transportation, deposition of sediments and subsequent changes leading to the formation of sedimentary rocks. 3 gr. cr. Autumn Quarter. MW 11:00 and 3 additional hours. Mr. Hofmann. Prerequisites: 301-2-3, 321-2-3, 479.

14-040-585. *Principles of Stratigraphy.* Stratigraphic and biostratigraphic principles and methods. 2 gr. cr. Winter Quarter. MW 11:00 and 3 additional hours. Mr. Hofmann. Prerequisite: Geol. 584.

14-040-641(-642). *The Polarizing Microscope.* Crystal optics, use of the polarizing microscope for recognition of transparent substances in immersion media. 4 gr. cr. Autumn and Winter Quarters. MW 9:00; TTh 2:00-5:00. Mr. Sunderman. Prerequisite: Geol. 301-2-3 or permission of the instructor.

14-040-675. *Geology of Ore Deposits.* 3 gr. cr. <sup>Spring</sup> Winter Quarter. ~~TTh 11:00; W 1:00-4:00.~~ <sup>MW 8:00; F 8:00</sup> Mr. Jenks.

Primarily for Graduate Students

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

14-040-774. <sup>Emergent (Tectonics)</sup> *Advanced Mineralogy.* Crystal morphology, X-ray and crystal structure theory, use of contact and optical goniometers, powder and single crystal X-ray diffraction work. 3 gr. cr. each Quarter. TTh 9:30 plus 3 laboratory hours to be arranged. Mr. Koucky. <sup>Winter MWF 4:00</sup>

14-040-804(-805,-806). *Seminar in Geochemistry, Mineralogy, and Petrology.* Special topics, such as crystal growth, imperfections, mineral phase equilibria; review of current literature. 2 gr. cr. each Quarter. Hours to be assigned. Messrs. Larsen, Koucky.

14-040-807(-808,-809). *Seminar in Stratigraphic Geology.* 3 gr. cr. each Quarter. ~~MWF 3:00.~~ <sup>TTh 8</sup> Mr. Hofmann.

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. <sup>Autumn</sup> Spring Quarter. ~~MWF 8:00.~~ <sup>H:00</sup> Mr. Jenks.

14-040-874. *Universal Stage Microscope Studies.* Double variation and thin section techniques. 2 gr. cr. Spring Quarter. Hours to be arranged. Mr. Sunderman.

14-040-875. *Advanced Petrology: Igneous Rocks.* 4 gr. cr. Autumn Quarter. Mr. Larsen.

14-040-876. *Advanced Petrology: Sedimentary Rocks.* 4 gr. cr. Winter Quarter. MW 10:00; W 1:00-4:00; F 8:00-11:00. Mr. Larsen.

14-040-877. *Advanced Petrology: Metamorphic Rocks.* 4 gr. cr. Spring 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 1963-1964: ography of Western United States; World Physiography; 674, Petro

Head of Department: Professor Merkel (229 McMicken); Associate Professor: Professor Micken); Assistant Professors

This Department offers work of Philosophy in Germanic work is offered leading to a

Students electing work graduate major in German degree are required to take ography; all candidates for the 807-8-9, Middle High German. Successful completion of the ment for a reading knowledge the Graduate School's requirements (page 25.)

For Advanced Undergraduate

14-025-631(-632,-633). *Advanced* 3 gr. cr. each Quarter. TTh

14-010-501(-502,-503). *Survey* 1618: III, 1618-1750. 3 gr. cr.

14-010-521(-522,-523). *Schiller* cr. each Quarter. MWF 12:

14-011-601(-602,-603). *Elementary* MW 4:00-5:30. Mr. School

Primarily for Graduate Students

14-011-701(-702,-703). *Old Scandinavia.* 3 gr. cr. each

14-011-741(-742). *Finland-Swedish* Quarter. Autumn and Win

14-010-801(-802,-803). *Historical* 4:00-6:00. Mr. Merkel.

14-010-804(-805,-806). *The* Mr. Merkel.

14-010-971. *Research.* Cr Quarter. Staff.

Course Omitted in 1963-1964: offered in alternate years. year schedule.)

*Courses Omitted in 1963-1964:* 571, Interpretation of Aerial Photographs; 572, Physiography of Western United States; 573, Physiography of Eastern United States; 551-2, World Physiography; 674, Petroleum Geology.

Germanic and Slavic Languages and Literatures

Head of Department: Professor George C. Schoolfield (228 McMicken); Professor Merkel (229 McMicken); Associate Professors Pauls (639 Pharmacy), Syring (230 McMicken); Assistant Professors Malycky (231 McMicken), Slessarev (231 McMicken).

This Department offers work leading to the degrees of Master of Arts and Doctor of Philosophy in Germanic languages and literatures. At present, no graduate work is offered leading to a degree in Slavic studies.

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 901-2-3, Methods and Bibliography; all candidates for the doctorate are required to take Germanic Languages 807-8-9, Middle High German, and 601-2-3, Elementary and Intermediate Swedish. Successful completion of the latter course will satisfy the Department's requirement for a reading knowledge of a second Germanic language, and, simultaneously, the Graduate School's requirement of a second language for the doctorate. (See page 25.)

For Advanced Undergraduate and Graduate Students

14-025-631(-632,-633). *Advanced Stylistics*. A study of German prose composition. 3 gr. cr. each Quarter. TTh 9:30-11:00. Mrs. Slessarev.

14-010-501(-502,-503). *Survey of German Literature until 1750*. I, 500-1275: II, 1275-1618: III, 1618-1750. 3 gr. cr. each Quarter. MWF 10:00. Mr. Malycky.

14-010-521(-522,-523). *Schiller*. An intensive study of the works of Schiller. 3 gr. cr. each Quarter. MWF 12:00. Mrs. Slessarev.

14-011-601(-602,-603). *Elementary and Intermediate Swedish*. 3 gr. cr. each Quarter. MW 4:00-5:30. Mr. Schoolfield.

Primarily for Graduate Students

14-011-701(-702,-703). *Old Norse*. A study of the language and culture of medieval Scandinavia. 3 gr. cr. each Quarter. Th 4:00-6:00. Mr. Schoolfield.

14-011-741(-742). *Finland-Swedish Modernism*. A study of the 1920's. 3 gr. cr. each Quarter. Autumn and Winter Quarters. Tu 2:00-4:00. Mr. Schoolfield.

14-010-801(-802,-803). *History of the German Language*. 3 gr. cr. each Quarter. Tu 4:00-6:00. Mr. Merkel.

14-010-804(-805,-806). *The Age of Gellert*. 3 gr. cr. each Quarter. F 4:00-6:00. Mr. Merkel.

14-010-971. *Research*. Credit according to the amount of work elected. Offered each Quarter. Staff.

*Course Omitted in 1963-1964:* 901-2-3, Methods and Bibliography. (This course is offered in alternate years. The Department's other offerings are given on a three-year schedule.)

4 gr. cr. Spring  
Geol. 301-2-3 or

gin, transportation,  
ation of sedimentary  
hours. Mr. Hof-

igraphic principles  
ditional hours. Mr.

e of the polarizing  
n media. 4 gr. cr.  
Sunderman. Pre-

MW 8:10; F 8:10  
TTh 11:00; W 1:00

ged. Offered each  
11:00-12:00

X-ray and crystal  
single crystal X-ray  
laboratory hours to be

Petrology. Special  
ia; review of current  
Larsen, Koucky.

cr ch Quarter.

ading knowledge of  
gr. cr. each Quarter.

processes producing  
arter. MWF 3:00  
4:00

on and thin section  
Mr. Sunderman.

umn Quarter. Mr.

Winter Quarter.

Spring Quarter.

arranged. Offered

UNIVERSITY OF CINCINNATI BULLETIN  
Announcement  
of



*McMicken College  
of Arts and Sciences*

Transition Year from Semester and Term Calendars to the  
*Quarter Calendar*

Published by the University of Cincinnati  
Van Wormer Administration Building  
Cincinnati 21, Ohio

1963-1964

\* Additional calendar items relating to a specific college schedule will be found  
in Part 2 of the *Bulletin* of that college.

Calendars of the Evening College and the 1964 Summer School will be found  
in those *Bulletins*.

Mon., Aug. 31—Sat., Oct. 3

Summer Vacation

Sat., Aug. 27

Summer Commencement

**15-041-787. Seminar: Problems of Developing Nations.** An introduction to subsistence agriculture as the basis for development. Consideration of approaches to improvement: extension services and settlement projects. In 1963 the seminar focuses on African projects, successes as well as failures, with attention to their planning needs. Prerequisite: Geog. 104-5-6. Recommended corequisite: Geog. 587. 3 ug. cr. Autumn Quarter. Th 3:00-6:00. Mr. Roder.

**15-041-701, 702, 703. Research in Geography and/or Regional Planning.** Independent individual research. Credit depends on amount of work completed. May be entered any Quarter. Hours to be arranged. Messrs. Nash, Hoover.

**Geology**

Professor Jenks (Head of Department, 20 Old Tech), Caster (4A Old Tech); Associate Professors Durrell\* (35 Old Tech), Larsen (B11 Old Tech), Sunderman (31 Old Tech); Assistant Professors Hofmann (36 Old Tech), Koucky (33 Old Tech), Huff

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 282-3), 321-2-3, 437-8, 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, 112-3, 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.

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. MWF 8:00. Mr. Durrell.

**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. Durrell and assistants.

\*Absent on leave, March 30-June 13, 1964.

Mar 30 - Dec 15, 1964

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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, TTh 8:00; laboratory, Sections I, M 1:00-4:00; II, W 1:00-4:00; III, F 1:00-4:00. Mr. Sunderman. *Huff*

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& Night School  
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15-040-171. *Geology of the Cincinnati Region*. A Saturday field course to introduce students or teachers not expecting to do further work in earth sciences to the geology of the Greater Cincinnati area. 2 ug. cr. Autumn Quarter. W 4:00-6:00; S 9:00-4:00. Staff.

15-040-281, 282, or 283. *Geologic Demonstration Trip*. A two weeks' field excursion between spring examinations and Summer School 1964, through the eastern states to Virginia Beach. One-hour conference weekly during the Autumn Quarter and a report to be submitted at the end of the Quarter. (Alternates with Geol. 282, Northern trip, and 283, Southern trip.) 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.

15-040-321, 322, 323. *Historical Geology*. The physical and biological history of the earth with particular emphasis on North America. 4 ug. cr. ea. Qtr. TTh 8:00; Tu 2:00-5:00; S 9:00-12:00. Mr. Caster.

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.

15-040-479. *Common Rocks*. Hand specimen lithology and the genesis and alteration of rocks. Prerequisite: Geol. 301-2-3 or equivalent. 3 ug. cr. Spring Quarter. MW 9:00; Th 2:00-5:00. Mr. Sunderman.

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. Tu 12:00. Staff.

15-040-521, 522, 523. *Invertebrate Paleontology*. Paleobiology of common invertebrate fossils. Prerequisites: 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. Caster.

15-040-541, 542. *Principles of Geomorphology*. 3 ug. cr. ea. Qtr. Autumn and Winter Quarters. MW 10:00; F 1:00-4:00. Mr. Durrell.

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

15-040-574. *Glacial Geology*. 3 ug. cr. Spring Quarter. MW 10:00; F 1:00-4:00. Mr. Durrell.

15-040-575, 576, or 577. *Advanced Geology Field Trip*. A two weeks' field excursion between spring examinations and Summer School. Historical and regional geology. Conferences and report in Autumn Quarter. Each number refers to a specific route. Prerequisite: Permission of instructor. 3 ug. cr. Autumn Quarter. Mr. Caster.

15-040-581. *Principles of Petrology*. cr. Autumn Quarter. TTh 11:00.

15-040-582. *Petrology: Igneous*. 4 ug. cr. Winter Quarter. TTh 11:00.

15-040-583. *Petrology: Sedimentary*. 301-2-3 or equivalent. 4 ug. cr. Winter Quarter. Mr. Larsen.

15-040-584. *Basic Sedimentology*. Deposition of sediments and sedimentary rocks. Prerequisites: Geol. 301-2-3 or equivalent. MW 11:00 and 3 additional hours.

15-040-585. *Principles of Stratigraphy* and methods. Prerequisite: Geol. 301-2-3 or equivalent. 3 additional hours. Mr. Hofman.

15-040-675. *Geology of Ore Deposits*. W 1:00-4:00. Mr. Jenks. F 8:00-11:00.

15-040-641, 642. *The Polarizing Microscope* for recognition of minerals. Prerequisite: Geol. 301-2-3 or equivalent. Winter Quarters. MW 9:00; TTh 11:00.

*Courses Omitted in 1963-1964:* 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

Professors Schoolfield (Head of Department), Associate Professors Pauls (639), Malycky (231 McMicken), H. McMicken).

German 101-2-3, 104-5-6, 201-2-3, 204-5-6, 207-8-9, 210-11-12, 213-14-15, 216-17-18, 219-20-21, 222-23-24, 225-26-27, 228-29-30, 231-2-3, 234-2-3, 237-2-3, 240-2-3, 243-2-3, 246-2-3, 249-2-3, 252-2-3, 255-2-3, 258-2-3, 261-2-3, 264-2-3, 267-2-3, 270-2-3, 273-2-3, 276-2-3, 279-2-3, 282-2-3, 285-2-3, 288-2-3, 291-2-3, 294-2-3, 297-2-3, 300-2-3, 303-2-3, 306-2-3, 309-2-3, 312-2-3, 315-2-3, 318-2-3, 321-2-3, 324-2-3, 327-2-3, 330-2-3, 333-2-3, 336-2-3, 339-2-3, 342-2-3, 345-2-3, 348-2-3, 351-2-3, 354-2-3, 357-2-3, 360-2-3, 363-2-3, 366-2-3, 369-2-3, 372-2-3, 375-2-3, 378-2-3, 381-2-3, 384-2-3, 387-2-3, 390-2-3, 393-2-3, 396-2-3, 399-2-3, 402-2-3, 405-2-3, 408-2-3, 411-2-3, 414-2-3, 417-2-3, 420-2-3, 423-2-3, 426-2-3, 429-2-3, 432-2-3, 435-2-3, 438-2-3, 441-2-3, 444-2-3, 447-2-3, 450-2-3, 453-2-3, 456-2-3, 459-2-3, 462-2-3, 465-2-3, 468-2-3, 471-2-3, 474-2-3, 477-2-3, 480-2-3, 483-2-3, 486-2-3, 489-2-3, 492-2-3, 495-2-3, 498-2-3, 501-2-3, 504-2-3, 507-2-3, 510-2-3, 513-2-3, 516-2-3, 519-2-3, 522-2-3, 525-2-3, 528-2-3, 531-2-3, 534-2-3, 537-2-3, 540-2-3, 543-2-3, 546-2-3, 549-2-3, 552-2-3, 555-2-3, 558-2-3, 561-2-3, 564-2-3, 567-2-3, 570-2-3, 573-2-3, 576-2-3, 579-2-3, 582-2-3, 585-2-3, 588-2-3, 591-2-3, 594-2-3, 597-2-3, 600-2-3, 603-2-3, 606-2-3, 609-2-3, 612-2-3, 615-2-3, 618-2-3, 621-2-3, 624-2-3, 627-2-3, 630-2-3, 633-2-3, 636-2-3, 639-2-3, 642-2-3, 645-2-3, 648-2-3, 651-2-3, 654-2-3, 657-2-3, 660-2-3, 663-2-3, 666-2-3, 669-2-3, 672-2-3, 675-2-3, 678-2-3, 681-2-3, 684-2-3, 687-2-3, 690-2-3, 693-2-3, 696-2-3, 699-2-3, 702-2-3, 705-2-3, 708-2-3, 711-2-3, 714-2-3, 717-2-3, 720-2-3, 723-2-3, 726-2-3, 729-2-3, 732-2-3, 735-2-3, 738-2-3, 741-2-3, 744-2-3, 747-2-3, 750-2-3, 753-2-3, 756-2-3, 759-2-3, 762-2-3, 765-2-3, 768-2-3, 771-2-3, 774-2-3, 777-2-3, 780-2-3, 783-2-3, 786-2-3, 789-2-3, 792-2-3, 795-2-3, 798-2-3, 801-2-3, 804-2-3, 807-2-3, 810-2-3, 813-2-3, 816-2-3, 819-2-3, 822-2-3, 825-2-3, 828-2-3, 831-2-3, 834-2-3, 837-2-3, 840-2-3, 843-2-3, 846-2-3, 849-2-3, 852-2-3, 855-2-3, 858-2-3, 861-2-3, 864-2-3, 867-2-3, 870-2-3, 873-2-3, 876-2-3, 879-2-3, 882-2-3, 885-2-3, 888-2-3, 891-2-3, 894-2-3, 897-2-3, 900-2-3, 903-2-3, 906-2-3, 909-2-3, 912-2-3, 915-2-3, 918-2-3, 921-2-3, 924-2-3, 927-2-3, 930-2-3, 933-2-3, 936-2-3, 939-2-3, 942-2-3, 945-2-3, 948-2-3, 951-2-3, 954-2-3, 957-2-3, 960-2-3, 963-2-3, 966-2-3, 969-2-3, 972-2-3, 975-2-3, 978-2-3, 981-2-3, 984-2-3, 987-2-3, 990-2-3, 993-2-3, 996-2-3, 999-2-3.

All courses in German (437-8-9), may be entered at the instructor's permission.

15-001-221, 222, 223. *Comparative Geology*.

*Note:* The language requirement for German 101-2-3 (3 hours per v) is waived for students who have completed the fulfillment of the requirement in another language. The fulfillment of the requirement in another language is placed on the account of the student. German 104-5-6 (5 hours per v) in a classroom manner requires one year of study in German. German 104-5-6 (5 hours per v) in a conversational and reading skill manner requires one year of study in German.

15-040-581. *Principles of Petrology*. Prerequisite: Geol. 301-2-3 or equivalent. 4 ug. cr. Autumn Quarter. TTh 11:00; MF 1:00-4:00. Mr. Larsen.

15-040-582. *Petrology: Igneous Rocks*. Prerequisite: Geol. 301-2-3 or equivalent. 4 ug. cr. Winter Quarter. TTh 11:00; MF 1:00-4:00. Mr. Larsen.

15-040-583. *Petrology: Sedimentary and Metamorphic Rocks*. Prerequisite: Geol. 301-2-3 or equivalent. 4 ug. cr. Spring Quarter. TTh 11:00; MF 1:00-4:00. Mr. Larsen.

15-040-584. *Basic Sedimentology*. Principles governing the origin, transportation, deposition of sediments and subsequent changes leading to the formation of sedimentary rocks. Prerequisites: Geol. 301-2-3, 321-2-3, 479. 3 ug. cr. Autumn Quarter. MW 11:00 and 3 additional hours. Mr. Hofmann.

15-040-585. *Principles of Stratigraphy*. Stratigraphic and biostratigraphic principles and methods. Prerequisite: Geol. 584. 3 ug. cr. Winter Quarter. MW 11:00 and 3 additional hours. Mr. Hofmann.

15-040-675. *Geology of Ore Deposits*. 3 ug. cr. <sup>Spring</sup> Winter Quarter. <sup>MW 8:05</sup> TTh 11:00; W 1:00-4:00. Mr. Jenks.

15-040-641, 642. *The Polarizing Microscope*. Crystal optics, use of the polarizing microscope for recognition of transparent substances in immersion media. Prerequisite: Geol. 301-2-3 or permission of the instructor. 4 ug. cr. Autumn and Winter Quarters. MW 9:00; TTh 2:00-5:00. Mr. Sunderman.

*Courses Omitted in 1963-1964:* 271, Economic Mineral Deposits; 571, Interpretation of Aerial Photographs; 572, Physiography of Western United States; 573, Physiography of Eastern United States; 551-2, World Physiography; 674, Petroleum Geology.

Germanic and Slavic Languages and Literatures

Professors Schoolfield (Head of Department, 228 McMicken), Merkel (229 McMicken); Associate Professors Pauls (639 Pharmacy), Syring (230 McMicken); Assistant Professors Malucky (231 McMicken), H. Slessarev (231 McMicken); Instructor Rudowski (229 McMicken).

German 101-2-3, 104-5-6, 201-2-3, and 221-2-3 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. Courses in Scandinavian studies may be offered as a part of the requirement toward a major in German.

All courses in German, Scandinavian, and Russian, except Senior Readings (437-8-9), may be entered at the beginning of the Winter or Spring Quarter, with the instructor's permission.

15-001-221, 222, 223. *Comparative Literature*. For description, see page 39.

German

*Note:* The language requirement may be satisfied in *one of two* ways. (1) By taking German 101-2-3 (3 hours per week), followed by German 201-2-3 (3 hours per week). The fulfillment of the requirement in this manner requires *two years* of study; the emphasis is placed on the acquisition of *reading skill* in German. (2) By taking German 104-5-6 (5 hours per week). The fulfillment of the requirement in this manner requires *one year* of study; the emphasis is placed upon the acquisition of *conversational* and reading skill in German.

Prerequisite  
531-2-3  
MW 11  
Th 9:00-12