983. Carbonate Sediments
Fall of odd-numbered years. 3(2-2)
Approval of department.

985. Topics in Geochemistry
A. Thermodynamics in Geochemistry
Fall 1 to 3 credits. May re-enroll for a maximum of 12 credits. 492, 493.
Interpretation and prediction of natural mineral assemblages from thermodynamic studies. High pressure and temperature techniques in petrology. Phases equilibria. Studies and diffusion phenomena in natural systems.

B. Aquatic Geochemistry
Fall 1 to 3 credits. May re-enroll for a maximum of 12 credits. 462, 495.

C. Analytical Geochemistry
Fall 1 to 3 credits. May re-enroll for a maximum of 12 credits. 462, 495.
Instrumental techniques for the analysis of geological materials. Topics on applications of X-ray diffraction, X-ray fluorescence, neutron activation analysis, and atomic absorption spectrometry. Recently developed techniques in geochemistry will be discussed.

987. Isotope Geochemistry
(862.) Winter of odd-numbered years. 3(3-0) 495 or approval of department.
The abundances of stable and radiogenic nuclides and their variations in nature. Applications to geochronology and petrogenesis. Principles and application of neutron activation analysis to geological problems.

989. Research
Fall, Winter, Spring, Summer. Variable credit. Approval of department.

990. Special Problems
Fall, Winter, Spring. Summer. Variable credit. Approval of department.
Special problems in hydrogeochemistry, geochronology and paleomagnetism and crystallography, petrology, paleontology, structural geology and petrochemistry, stratigraphy, aerogeology, geophysics, economic geology, petroleum geology, sedimentation, and geochemistry.

999. Research
Fall, Winter, Spring, Summer. Variable credit. Approval of department.

Earth Science

407. Earth Science for Teachers
(PHS 407.) Fall. 3(3-0) or 4(3-3)
Fundamentals of climatology and its relationship to weathering in rocks; agents of erosion, transportation, and deposition; study of the common minerals; the three classes of rocks, and igneous, sedimentary and metamorphic processes; geographic features including glaciers, volcanoes, oceans, lakes, deserts, caves and others. Laboratory includes identification of minerals, rocks, study of topographic maps, and field trips to points of geologic interest.

408. Earth Science for Teachers
(PHS 408.) Winter. 3(3-0) or 4(3-3)
Continuation of physical geology and introduction to historical geology, containing discussions of earth structures, mountain building, economic geology, geologic time, basic astronomy, theories of earth origin, the earliest geologic eras, first evidences of life.

409. Earth Science for Teachers
(PHS 409.) Spring. 3(3-0) or 4(3-3)
Historical development of the various geologic periods through time with reference to the evolutionary development of the physical landscape, ancient geography, past climate, di-astrophic events and marine and land animals and plants. Laboratory includes identification of important animals and plant fossils, fossil environments, geologic maps, field trips to collecting localities.

410. Earth Science Seminar for Teachers
Fall, Winter, Spring. 1(2-0) May re-enroll for a maximum of 4 credits. One earth science subject matter course or concurrently.
Earth science subject matter areas will be inter-related through student presentation and discussion in their interdisciplinary significance.

445. Field Studies
Fall, Winter, Spring, Summer. 1 to 9 credits. May re-enroll for a maximum of 15 credits. Approval of department.
Experience and techniques in field investigation of the near-surface layers of the earth.

446. Laboratory Investigations
Fall, Winter, Spring, Summer. 1 to 6 credits. May re-enroll for a maximum of 15 credits. 445 or concurrently.
Independent laboratory investigation of materials and phenomena obtained from field studies.

GERMAN AND RUSSIAN

College of Arts and Letters

Students who have had high school work in the foreign language in which they wish to continue their studies must take a placement examination in that language. Placement in the appropriate course is determined by the results of this examination. University credit is not given for courses waived by performance on the placement examination.

German and Russian Courses

299. Special Projects
Fall, Winter, Spring. Variable credit. May re-enroll for a maximum of 18 credits. Approval of department.
Work in areas outside regular course offerings.

303. Folklore
Spring. 3(3-0)
Folk heritage of peoples as revealed in their legends, superstitions, ballads, folktogs, heroic tales, sayings, customs, and beliefs. Historical development of traditional lore as a reflection of social attitudes and the sources for national mythologies.

417. Scandinavian Contributions to Literary Tradition
Fall. 3(3-0) Approval of department.
Interdepartmental with the departments of English and Romance Languages.
Development and influence of the ideas, forms and motifs of the Scandinavian literatures in the literatures of the world.

418. Scandinavian Contributions to Literary Tradition
Winter. 3(3-0) Approval of department.
Interdepartmental with the departments of English and Romance Languages.
Continuation of 417.

419. Scandinavian Contributions to Literary Tradition
Spring. 3(3-0) Approval of department.
Interdepartmental with the departments of English and Romance Languages.
Continuation of 418.

499. Special Projects
Fall, Winter, Spring, Summer. Variable credit. May re-enroll for a maximum of 18 credits. Approval of department.
Work in areas outside regular course offerings.

825. Comparative Literature: Studies in Theme and Idea
Fall. 3(3-0) May re-enroll for a maximum of 9 credits. Interdepartmental with the departments of Romance Languages and English and administered by the Romance Languages Department.
Myths, archetypes, Topoi, significant ideas and intellectual currents in different periods and cultural traditions.

856. Comparative Literature: Literature and Other Disciplines
Winter. 3(3-0) Interdepartmental with the departments of Romance Languages and English and administered by the Romance Languages Department.
Relations between literature and the sciences and other arts; social, historical, psychological, philosophical bases of literary study.

878. Comparative Literature: Methods in the Study of Comparative Literature
Fall. 3(3-0) Interdepartmental with the English and Romance Languages Departments and administered by the English Department.
Rationale and techniques of study in comparative literature.

902. Comparative Literature: Studies in Form and Genre
Fall, Winter, Spring. 3(3-0) May re-enroll for a maximum of 9 credits. Interdepartmental with the English and Romance Languages Departments and administered by the English Department.
Development and interrelationships of individual and collective forms and genres of literatures of the Western world, including the drama, tragedy, the novel, the short story, the theory and forms of poetry, popular literature, and the tale.
903. Comparative Literature: Studies in Periodization
Fall, Winter, Spring. 3(3-0) May re-enroll for a maximum of 9 credits. Interdepartmental with the English and Romance Languages Departments and administered by the English Department.

Analyses of the manner in which various genres, conventions and continuations of literature interact with the creative and critical climates of particular periods and movements, such as classicism, the Middle Ages, the baroque, or romanticism, in qualifying or modifying characteristic literary works.

997. Seminar: Special Topics in Comparative Literature
Spring. 3(3-0) May re-enroll for a maximum of 9 credits. Advanced graduates. Interdepartmental with the departments of Romance Languages and English and administered by the Romance Languages Department.

German

101. Elementary German
Fall, Winter, Spring, Summer. 6(3-3) German language, civilization, and culture. Development of language skills in contemporary German. Independent practice in the language laboratory.

102. Elementary German
Fall, Winter, Spring, Summer. 5(3-0)
Continuation of 101.

103. Elementary German
Fall, Winter, Spring, Summer. 5(3-0)
Continuation of 102.

201. Intermediate German
Fall, Winter, Spring, Summer. 4(3-1)
Systematic review of grammar, oral practice, intensive and extensive reading of modern texts. This course or equivalent is required of majors and those planning to take advanced work in German.

202. Intermediate German
Fall, Winter, Spring, Summer. 4(3-1)
Continuation of 201.

203. Intermediate German
Fall, Winter, Spring, Summer. 4(3-1)
Continuation of 202.

241. German Literature in English Translation
Fall. 3(3-0) Knowledge of German not required. Not applicable to major requirements.
Selections from narrative prose, drama, and lyric poetry chosen to encourage and develop an appreciation of German literature.

242. German Literature in English Translation
Winter. 3(3-0) Knowledge of German not required. Not applicable to major requirements.
Continuation of 241.

243. German Literature in English Translation
Spring. 3(3-0) Knowledge of German not required. Not applicable to major requirements.
Continuation of 242.

301. Introduction to German Literature
Fall. 3(3-0) 203. Required of majors.
Representative works of eighteenth and early nineteenth century authors.

302. Introduction to German Literature
Winter. 3(3-0) 301.
Representative works of nineteenth century authors.

303. Introduction to German Literature
Spring. 3(3-0) 302.
Representative works of twentieth century authors.

321. German Composition and Conversation
Fall. 3(3-1) 200.
Essential and difficult points of grammar reviewed. Written and oral reports; active participation in class discussion. Designed especially for students who plan to teach German.

322. German Composition and Conversation
Winter. 3(3-0) 321.
Continuation of 321.

323. German Composition and Conversation
Spring. 3(3-0) 322.
Continuation of 322.

400H. Honors Work
Fall, Winter, Spring. Variable credit. Approval of department.

405. Schiller
Fall. 3(3-0) 303 or approval of department.
Principals works of Schiller.

406. Goethe
Winter. 3(3-0) 303 or approval of department.
Principals works of Goethe.

407. Goethe; Faust
Spring. 3(3-0) 303 or approval of department.
Goethe: Faust I and II.

410. German Reading Skills
Fall, Winter, Spring, Summer. 5(3-0) 101 or graduate students or approval of department.
Designed for those in scientific or other fields who wish to be able to read scholarly material. An intensive presentation of German grammar with emphasis on those features and techniques necessary for reading and translation.

411. German Reading Skills
Fall, Winter, Spring, Summer. 5(3-0) 103 or 410 and approval of department.
Reading and translation of works in the student's field of interest. Completion of 410 and 411 with 3.0 or better will satisfy the Ph.D. reading requirement in most departments.

421. Advanced German Composition and Conversation
Fall. 3(3-0) 333.
Continuation of 321.

422. Advanced German Composition and Conversation
Winter. 3(3-0) 421 or approval of department.
Continuation of 421.

423. Advanced German Composition and Conversation
Spring. 3(3-0) 422 or approval of department.
Continuation of 422.

427. The Contemporary German Scene
Spring. 3(3-0) 303 or approval of department.
The literary, artistic, intellectual, social, religious, economic, and political scene in present-day Germany with a study of its development from the recent past.

432. Mythology and Folklore
Fall. 3(3-0) 852. Fall of even-numbered years.
Mythology and folkloristic elements in Germanic epics and sagas.

434. Contrasting Structures of English and German
Fall. 3(3-0) 434 or LIN 401.
Linguistic analysis of the structures of English and German. Recommended for those intending to teach German.

435. History of the German Language
Winter. 3(3-0) 434 or LIN 401.
Survey of the development of Modern Standard German and its relationship to other Indo-European and Germanic languages.

438. German Poetry
Fall. 3(3-0) 858. Spring of even-numbered years.
Development of representative German lyric poetry based upon its intrinsic characteristics.

441. Studies in German Literature Before 1700
Fall of odd-numbered years. 3(3-0) 303 or approval of department.

442. Pre-Classicism and Sturm und Drang
Winter of even-numbered years. 3(3-0) 303 or approval of department.

444. Nineteenth Century Prose
Fall of even-numbered years. 3(3-0) 303 or approval of department.

445. Nineteenth Century Drama
Winter of odd-numbered years. 3(3-0) 303 or approval of department.
Continuation of 444.

446. Modern German Literature
Spring of odd-numbered years. 3(3-0) 303 or approval of department.
Representative works by major German authors from 1900 to the present.

A-80
802. History of Literary Criticism
Fall, even-numbered years. 3(3-0)
Important critical theorists from Aristotle to the present and their impact on German literature.

804. Middle High German Language
Fall, even-numbered years. 3(3-0)
Readings from the Middle High German language between 1050 and 1350, with emphasis upon the epic and lyric of the Classical period.

806. Teaching of the German Language
Fall, Winter, Spring. 1(1-0) May re-enroll for a maximum of 3 credits. Graduate teaching assistants.

817. Old High German Language and Literature
Spring of even-numbered years. 3(3-0)
German literature from the beginnings to about 1050; reading and analysis of sections from Tatial, Isidor, Notker, Otfried, Hildebrand, and other documents.

821. Middle High German Language
Winter of odd-numbered years. 3(3-0)
Readings in Middle High German from the 10th to 15th century, with a focus on court poets to "Vernher der Gartner."
401. **Russian Literature Before 1917**
Fall of odd-numbered years. 3(3-0)
303 or 327.
Major literary movements, authors, and works from the Kievan time to 1917.

402. **Russian Literature Before 1917**
Winter of even-numbered years. 3(3-0)
401.
Continuation of 401.

403. **Russian Literature Before 1917**
Spring of even-numbered years. 3(3-0)
402.
Continuation of 402.

410. **Russian Reading Skills**
Fall, Winter, Spring, Summer. 5(5-0)
101 or graduate students or approval of department.
Designed for those in scientific or other fields who wish to be able to read scholarly material. An intensive presentation of Russian grammar with emphasis on those features and techniques necessary for reading and translation.

411. **Russian Reading Skills**
Fall, Winter, Spring, Summer. 5(5-0)
103 or 410 and approval of department.
Reading and translation of works in the student's field of interest. Completion of 410 and 411 with 3.0 or better will satisfy the Ph.D. reading requirement in most departments.

425. **Contemporary Russian Literary Language**
Fall. 3(3-0) 323.
Description and analysis of contemporary Russian literary language, its phonology, morphology and syntax. Designed especially for future teachers of Russian.

426. **Contemporary Russian Literary Language**
Winter. 3(3-0) 425 or approval of department.
Continuation of 425.

427. **Contemporary Russian Literary Language**
Spring. 3(3-0) 426 or approval of department.
Continuation of 426.

431. **Russian Literature Since 1917**
Fall of even-numbered years. 3(3-0)
303 or 327.
Literary schools and authors in Russia after 1917. Readings in the works of Chekhov, Mayakovskii, Aleksey Tolstoy, Sholokhov, Pasternak and others.

432. **Russian Literature Since 1917**
Winter of odd-numbered years. 3(3-0)
303 or 327.
Continuation of 431.

433. **Russian Literature Since 1917**
Spring. 3(3-0) 303 or 326.
Continuation of 432.

451. **Introduction to Non-Russian Slavic Languages**
Fall of odd-numbered years. 3(3-0)
Knowledge of Russian.
Serbo-Croatian, Polish or Czech will be offered as needed by graduate students.

452. **Introduction to Non-Russian Slavic Languages**
Winter of even-numbered years. 3(3-0)
Continuation of 451.

453. **Introduction to Non-Russian Slavic Languages**
Spring of even-numbered years. 3(3-0)
452.
Continuation of 452.

500. **Teaching Methods of Russian in College**
Fall, Winter, Spring. 0 to 3 credits.
Graduate teaching assistant.
Supervised teaching of college classes in Russian.

501. **Slavic Bibliography and Research Methods**
Fall of odd-numbered years. 3(3-0)
Bibliographies of Slavic literature and languages. The library and the utilization of its resources. Principles of bibliographic compilation and research techniques in Russian Literature and linguistics.

515. **Russian Literature Before 1800**
Fall of even-numbered years. 3(3-0)
Origin and development of Russian literature up to 1800. Emphasis on major works and authors of the period.

517. **Nineteenth Century Russian Prose I**
Fall of odd-numbered years. 3(3-0)
Pushkin and Chekhov's search for a modern literary expression.

518. **Nineteenth Century Russian Prose II**
Winter of even-numbered years. 3(3-0)
Gogol and Turgenev: a study of contrasting techniques and temperaments.

519. **Nineteenth Century Russian Prose III**
Spring of even-numbered years. 3(3-0)
Tolstoy and Dostoevsky: two canons of aesthetics and ethics developed through the genre of the novel.

525. **Introduction to Old Church Slavic**
Fall of even-numbered years. 3(3-0)
Basic knowledge of Russian or another Slavic language.
Grammatical structure of the first written Slavic language accompanied by readings from the canonical Old Church Slavic texts.

529. **Development of Old Church Slavic and Russian**
Winter of odd-numbered years. 3(3-0)
Historical phonology and morphology of Old Church Slavic compared to that of Russian. The relation of both languages to Proto-Slavic and Proto-Indo-European. Readings of selected Old Church Slavic and Old Russian texts.

530. **Development of Modern Slavic Languages**
Spring of odd-numbered years. 3(3-0)
829.
A survey of the principal modern Slavic languages in historical perspective. The development of their phonological and grammatical features from Proto-Slavic and in relation to Old Church Slavic.

832. **Russian Drama Before 1859**
Winter of odd-numbered years. 3(3-0)
Origin and development of Russian drama. Analysis of major plays by Fonvizin, Gribyutov, Pushkin, Lermontov and Gogol.

833. **Russian Drama, 1859-1917**
Spring of odd-numbered years. 3(3-0)
Analysis of major plays by Ostrovsky, Turgenev, Tolstoy, Chekhov, and Gorky.

835. **Russian Poetics**
Fall of odd-numbered years. 3(3-0)
The development of literary genres, prosody, and versification.

836. **Nineteenth Century Russian Poetry**
Spring of even-numbered years. 3(3-0)
835 or approval of department.
Trends and styles in 19th century Russian poetry up to 1890. Emphasis on major poetry by Zhukovskii, Batyushkov, Pushkin, Baratynskii, Yevgeny, Tyutchev, Lermontov, Tolstoy, Fet, Nekrasov, and Solovey.

837. **Twentieth Century Russian Poetry**
Spring of even-numbered years. 3(3-0)
836 or approval of department.
Theory and practice of the Symbolists, Aesthetics, Futurists and the Social Realists.

850. **Russian Literary Criticism, 19th Century**
Fall of even-numbered years. 3(3-0)
The beginnings, the "Golden Age", and the radical criticism.

851. **Russian Literary Criticism, 20th Century**
Winter of odd-numbered years. 3(3-0)
Aesthetics, Transcendentalism and Socialist Realism.

854. **Russian Phonology and Morphology**
Winter of even-numbered years. 3(3-0)
LIN 401.
Linguistic description of the phonological and morphological structure of Modern Russian; phonemes and their allophones; morphological classes; morphophonemics.

855. **Russian Syntax**
Spring of even-numbered years. 3(3-0)
854.
Survey of syntactic phenomena in modern Russian. Basic clause, phrase, and sentence structures and their interrelations. Syntactic classes and their membership. The functions of Russian cases.

856. **Twentieth Century Russian Prose I**
Winter of even-numbered years. 3(3-0)
Modernistic trends in Russian prose before 1917.

857. **Twentieth Century Russian Prose II**
Spring of even-numbered years. 3(3-0)
Selected works by Bunin, Pasternak and Sholokhov.
Supervised analysis of activities in daily living. Provides background for teaching health to children.

103. Personal Health Fall, Winter, Spring. 3(0-3)
Development of understandings, attitudes and practices that are necessary for more healthful living. Provides background for teaching health to children.

121. Professional Perspectives Fall, Winter. 1(0-3)
Introduction to the profession of physical education.

122. Movement Perspectives Winter, Spring. 1(2-4) 121 or concurrently.
Descriptive analysis of activities in daily living, sports, and dance.

123. Teaching Perspectives Spring. 1(0-3) 122.
Introduction to teaching in physical education.

251. Structural Analysis of Physical Activity Winter, Spring. 3(2-3) Concurrently with 250; ANT 316.
Techniques of analysis of human movement based upon mechanical principles.

260. Developmental Basis of Physical Activity Fall, Winter, Spring. 3(2-2) 251; 261 concurrently.
Physical growth and motor development related to movement patterns in childhood and youth.

261. Psychomotor Basis of Physical Activities Fall, Winter, Spring. 3(3-0) 251; 260 concurrently.
The application of psychomotor principles to human movement.

300. Camp Counseling Spring. 3(2-3)

303. Recreation and Youth Organization Programs Winter. 3(3-0) Sophomores.
Development and conduct of special recreation events in community and youth organization programs including civic and youth centers, agency operation, adult and senior citizen activities.