

GEOLOGY

GLG

College of Natural Science

200. The Geology of Man's Environment

Fall, Winter, Spring, Summer. 3(3-0)
Not open to Geology majors. Credit will be given in only one of the following: 200, 201, 306.

Man and his geologic environment: earthquakes, volcanoes, landslides, subsidence, flooding, coastal erosion, hydrology and human use, waste disposal, geologic aspects of environmental health, resources and energy, environmental law.

200L. Laboratory—Geology of Man's Environment

Fall, Winter, Spring, Summer. 1(0-3)
200 or concurrently.

Laboratory study of geologic processes associated with environmental hazards. Emphasis placed on land-use planning, applying geologic criteria to evaluate land potentials.

201. Earth Processes

Fall, Winter, Spring. 4(4-2) Credit will be given for only one of the following: 200, 201, 306.

Physical processes concerning evolution of Earth and its environments. Conservation and interaction of energy and matter through time. Laboratory stresses interpretation of process through studies of geologic data.

202. Evolution of the Earth

Fall, Winter, Spring. 4(4-2) 200; or 201; or 306.

Integration of physical, chemical and biological processes from which man's present environment has evolved; problems and controversies in the development of ideas of geologic and organic evolution.

205. Oceanology—The Marine Environment and Man

Fall. 3(3-0)

Physical oceanography, including origin, hydrologic, chemical, geological properties; and environmental quality of the oceans. Man-sea interactions are emphasized including resource utilization and pollution.

221. Minerals, Rocks and Fossils

(326.) Spring 3(2-3) Not open to majors.

Description, occurrence and identification of minerals, rocks, fossils, and additional features of especial significance to general science teachers and other earth science interest groups.

271. Geophysics and the Earth

Spring. 3(3-0) 200 or 201 or 306 or approval of department.

Basic concepts used in geophysics, including description of the Earth and its interior, methods of exploring for mineral and energy resources. Contributions of physical methods to understanding our terrestrial environment.

282. Energy Resources of the Earth

Winter. 3(3-0)

World energy resources of petroleum, coal, and atomic fuel. Social, political, economic and environmental problems of fuels.

300. Solar System Geology

Winter. 4(4-0) AST 119 or 217 or 229; GLG 200 or 201.

The origin, relationships, make-up and features of the bodies in the solar system emphasizing recent space exploration results and developing theories.

302. Vertebrate Life of the Past

Fall. 3(3-0) One course in a physical or biological science or Juniors. Interdepartmental with the Department of Zoology.

Fossil vertebrates from fish to man.

303. Introductory Geomorphology

Fall. 4(3-4) 200 or 201 or 306.

Descriptive course treating the geological origin and development of important surface features including special consideration of Pleistocene landforms of the Great Lakes region. Field trips required.

304. Geology of Michigan

Fall. 3(3-0) 200 or 201 and/or 202; or approval of department.

A historical accounting of the physical, historical and economic geology of Michigan and its environs; a course designed for students seeking an overall picture of the rather unique Michigan geologic environment.

306. Engineering Geology

Fall, Spring. 3(3-2) Credit will be given for only one of the following: 200, 201, 306. Sophomore Engineering students.

Fundamental principles of geology as applied to civil engineering practice. Minerals and rocks, aerial photographs, topographic and areal geologic maps and geologic cross sections studied in laboratory. Source of geologic literature and maps.

307. Geology Central Appalachians

Winter. 1(0-2) 200, or 201, or 202, or concurrently.

General geology of the Central Appalachians. A preparatory course for 308. Field excursions—Central Appalachians during spring vacation.

308. Field Excursion—Central Appalachians

Spring. 2 or 3 credits. 307.

Training in stratigraphic, sedimentological, paleontologic, and structural principles as applied to field methods.

321. Mineralogy

Fall. 5(4-4) One term of chemistry.

Introduction to crystal systems and forms exhibited by minerals, followed by study of composition, occurrence, classification, and identification of nonmetallic minerals.

322. Mineralogy

Winter. 4(3-4) 321.

Economic and chemical importance of minerals; mineralogy of non-silicates; practical crystallography; geochemistry of minerals.

335. Fossil Plants, Their History and Paleocology

Spring. 3(3-0) One course in geology or botany or biology or approval of department. Interdepartmental with the Department of Botany and Plant Pathology.

History of plants through geologic time; their form and evolution; how and where found, identified and reconstructed; their use in determining ancient geographic patterns, paleoenvironments, paleoclimates and community structure. Field trip.

337. The Fossil Record of Organic Evolution

Spring. 3(3-0) One course in a natural science; Juniors.

The direct evidence for organic evolution in the fossil record. Evolution of life from prebiological systems to man. Impact of fossil discoveries on human thought.

344. Field Geology—Summer Camp

Summer. 9 credits. 202, 363. Trigonometry; GLG 446, 437, 451 recommended.

Methods and techniques of geological surveying and mapping. Field interpretation of geological phenomena in igneous, metamorphic and sedimentary rocks in northern Michigan and Wisconsin.

A. Introduction to Field Techniques
3 credits.

Introduction to field techniques with stress on those that apply to sedimentary rocks. Stratigraphic correlation.

B. Methods of Geological Mapping
4 credits.

Plane table surveys, aerial photo and reconnaissance mapping. Examination and interpretation of structural and textural relationships in igneous and metamorphic rocks.

C. Geologic Interpretation of Selected Areas
2 credits.

Independent mapping and interpretation.

363. Lithology

(323.) Spring. 4(3-4) 321.

Processes that form igneous, metamorphic and igneous rocks, origin, distribution, variation and occurrence of rock. Study of rock properties in the field, in laboratory, and with the microscope.

392. Sedimentology

(492.) Spring. 3(2-3) 363.

Grain and aggregate properties of sediments; relationships of these properties to processes in the environment of deposition and to the pre-depositional and post-depositional history.

400H. Honors Work

Fall, Winter, Spring. Variable credit. Approval of department.

401. Environmental Geology

Spring of odd-numbered years. 3(3-0) 200, or 201, or 306, MTH 113, or approval of department.

Quantitative solution of geological problems applied to environmental planning and management, including surface and ground water waste disposal, urban geology, and methods for prediction of geologic hazards and resources.

411. Hydrogeology

Winter. 3(3-2) One term of geology and trigonometry.

Principles of the source, occurrence, and movement of ground water. Surface and subsurface investigations of ground water and elementary ground water hydrology.

413. Glacial Geology

Spring. 4(3-4) 201.

Geological aspects of glaciers and glaciation. Theories of ice ages through geologic time. Origin and development of glacial geomorphic features. Character and chronology of the Pleistocene. Laboratory techniques, with field trips to observe glacial materials and features of Michigan.

**Descriptions — Geology
of
Courses**

426. Optical and X-ray Mineralogy
(461.) Fall. 4(3-4) 321, PHY 239
or 289.

Theory, principle and application of the polarizing microscope and X-ray diffractometer in mineral analysis.

430. Vertebrate Paleontology

Winter. 4(3-3) ZOL 314 or approval of department. Interdepartmental with the Department of Zoology.

Fossil vertebrates with emphasis on the evolution of major groups. Laboratories on modern techniques and on the identification and interpretation of fossils.

IDC. Introduction to Meteorology

For course description, see Interdisciplinary Courses.

**IDC. Introductory Meteorology
Laboratory**

For course description, see Interdisciplinary Courses.

437. Invertebrate Paleontology

Fall. 4(3-4) 202 or ZOL 381 or approval of department. Interdepartmental with the Department of Zoology.

Systematics and evolution of marine invertebrates; uses of fossils in correlation and delineation of geologic time; structure and morphology of fossils as related to evolutionary development.

438. Paleocology

Spring. 4(3-4) 202 or ZOL 389 or approval of department. Interdepartmental with the Department of Zoology.

Distribution and abundance of marine fossils; response of skeletal morphology to environmental conditions; uses of fossils in reconstructing ancient climates and depositional environments.

445. Field Studies

Fall, Winter, Spring, Summer. Variable credit. May re-enroll for a maximum of 12 credits. Approval of department.

Advanced geological or geophysical field studies.

446. Principles of Stratigraphy

(434.) Fall. 3(3-0) 437, 392 or approval of department.

Covers principles of stratigraphy and application and exemplification of these principles to known geologic occurrences.

451. Structural Geology

Spring. 4(2-6) 202.

Description, classification, and origin of secondary structures such as folds, faults, joints, cleavages, foliations and lineations. Three-dimensional visualization stressed in economic laboratory problems involving descriptive geometry, stereographic projections, areal, and structural geologic maps.

462. Petrology

Winter. 4(3-4) 363.

Introduction to the chemical and physical processes that are responsible for the origin and evolution of igneous and metamorphic rocks. Laboratory studies of rock suites that illustrate basic processes in petrology.

474. Exploration Geophysics

Winter. 4(3-2) 201 or 306; MTH 112; PHY 239 or 289.

Techniques used in geophysical exploration, with application in petroleum prospecting, minerals exploration, and engineering. Includes gravity, magnetic, seismic, electrical and other methods, and well logging. Interpretation of geophysical data.

475. Solid Earth Geophysics

Fall. 3(3-0) MTH 112; PHY 239 or 289, one term of geology.

Geophysics, including Earth's composition and structure, its dynamic character, radioactivity and age determinations, seismicity and seismology, gravity and magnetic fields, heat flow, physical properties of earth materials.

479. Geotectonics

Winter of even-numbered years. 3(3-0) 451 or approval of department.

Aspects of global dynamics and geotectonics. Includes the origin and distribution of major structural features, geological and geophysical evidence for crustal movements, continental drift, behavior of earth materials.

482A. Mineral Resources

(482.) Spring of odd-numbered years. 4(4-0) 321, 451.

Genesis, distribution, and classification of ore deposits. Emphasis on metallic ores. Global patterns and tectonic relationships.

482B. Mineral Resources Evaluation

Spring of even-numbered years. 3(3-0) 321, 451, and approval of department.

Emphasis on practical applications of geoscience to mineral resources and the extractive industries. Aspects of exploration and development of reserves including evaluation, grade estimation, drilling, recovery, and beneficiation.

483. Petroleum Geology

Fall. 3(3-2) Approval of department.

Fundamental principles of the origin, migration and accumulation of petroleum. Exploration techniques to include well drilling, electric and radioactivity well logging, surface and subsurface exploration methods, seismic surveys, land leasing and oil field development. Laboratory study of well log plotting and subsurface mapping technique.

484. Applied Petroleum Geology

Winter. 3(1-4) 483.

Microscopic examination of well cuttings, practice in the use of electric and radioactivity logs, exploration for petroleum in selected areas by subsurface mapping techniques, economics of petroleum exploration.

493. Carbonate Sedimentology

Winter. 3(2-3) 392.

Genesis of carbonate sediments including discussion of carbonate-secreting organisms, effects of environment on mineralogy, depositional environments and diagenesis.

495. Geochemistry

Winter. 3(3-0) 201, CEM 152 or approval of department.

Processes affecting the distributions of elements in rocks, soils, waters, the atmosphere, interior of the earth and in meteorites. Origin of the elements. Evolution of the mantle, crust, atmosphere and oceans.

800. Special Problems

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

Special problems in hydrogeology, geomorphology and glacial geology, mineralogy and crystallography, petrology, paleontology, structural geology, and petrofabrics, stratigraphy, aerogeology, geophysics, economic geology, petroleum geology, sedimentation, and geochemistry.

803. World Regional Geology

Spring of even-numbered years. 3(3-0)

One course each in structural geology, sedimentation.

World regional geology emphasizing mountain building, basin structure and associated sediments, continental drift and plate tectonics.

810. Seminar

Fall, Winter, Spring. 1 to 3 credits. May re-enroll for a maximum of 12 credits.

Seminar relating to current research in geology.

825. Clay Mineralogy

Winter. 4(3-4) CSS 840, 850 or approval of department. Interdepartmental with the Department of Crop and Soil Sciences.

Structures and properties of clays; their origins, occurrence, and utilization. Methods of studying clays including x-ray diffraction, differential thermal analysis, infrared absorption and other chemical and physical techniques.

830. Paleobotany

Fall. 4(3-4) Approval of department. Interdepartmental with and administered by the Department of Botany and Plant Pathology.

Survey of fossil plants: their preservation, occurrence, geology, paleogeography, paleoecology, evolutionary history, classification and representative types. One weekend field trip to fossil plant locality.

831. Palynology

Spring of even-numbered years. 4(3-4) Approval of department. Interdepartmental with the Department of Botany and Plant Pathology.

An introduction to the principles and techniques of spore and pollen analysis, both fossil and recent, and utilization of plant micro-fossils for stratigraphic determinations and paleoecologic interpretations of most sedimentary accumulations and rocks. Includes certain algae, protozoans, similar organisms of uncertain affinity and dissociated fragments of larger organisms.

**833. Advanced Invertebrate
Paleontology**

B. QUANTITATIVE PALEONTOLOGY
Fall. 3(2-4) 437 or 438. Interdepartmental with the Department of Zoology.

Application of mathematical tools to paleontological problems, including statistical applications and numerical taxonomy; computer applications.

C. PALEOECOLOGY

Fall. 3(2-4) 437 or 438. Interdepartmental with the Department of Zoology.
Advanced problems in the distribution and abundance of fossil invertebrates; morphological adaptations to environmental pressures.

D. FOSSIL MORPHOLOGY

Fall. 3(2-4) 437 or 438. Interdepartmental with the Department of Zoology.

Skeletal morphology of fossil invertebrates, emphasizing the multivariate morphometric approach and other modern methods of morphological analysis.

834. Advanced Vertebrate Paleontology

Winter of even-numbered years. 3(3-0)
430 or approval of department. Interdepartmental with the Department of Zoology.
Recent advances and controversial issues in vertebrate paleontology including origin, classification, phylogeny, and stratigraphic relationships of fossil vertebrates.

838. Advanced Paleobotany

Winter. 3(2-4) Approval of department. Interdepartmental with and administered by the Department of Botany and Plant Pathology.

Morphology, anatomy, phylogenetic relationship and classification of fossil plants. Microscopic analysis of tissues and organs prepared by thin section, transfers, peels, polished and etched surfaces, and macerations.

843. Paleozoic Stratigraphy

Winter of even-numbered years. 4(5-0)
446, 392.

Classification, distribution, paleogeography, paleontology, interrelation, and structural setting of stratigraphic units within the Paleozoic systems. Laboratory work involves construction of correlation charts, structure and restored sections, paleogeologic, paleogeographic, and lithofacies maps, and study of certain key fossils.

844. Mesozoic and Cenozoic Stratigraphy

Winter of odd-numbered years. 3(3-0)
446.

Stratigraphy and paleontology with emphasis on tectonics and sedimentation.

852. Advanced Structural Geology

Winter of even-numbered years. 3(2-4)
451, MTH 214.

Mathematics and physics applied to problems in structural geology.

861. Evolution of the Earth's Crust and Mantle

Fall. 3(3-0) 462.

The composition, mineralogy and petrology of the Earth's mantle and crust. Plate tectonics and its relationship to earlier models of geosynclines, orogenic cycles, continental drift, etc.

862. Petrology—Igneous

Spring of even-numbered years. 2 to 4 credits. May re-enroll for a maximum of 8 credits. 462. Must enroll for laboratory with initial registration.

Physical and chemical principles involved in the origin of igneous rocks. Application of experimental techniques in petrology.

863. Petrology—Metamorphic

Spring of odd-numbered years. 2 to 4 credits. May re-enroll for a maximum of 8 credits. 462. Must enroll for laboratory with initial registration.

Origin and classification of metamorphic rocks. Study includes thin section investigation of the metamorphic textures and mineral associations and the physical-chemical principles involved in their development.

870. Topics in Geophysics

Spring. 1 to 3 credits. May re-enroll for a maximum of 12 credits. Approval of department.

Topics and problems in geophysics, such as tectonophysics, terrestrial heat flow, processing and analysis of geophysical data, geomagnetism, paleomagnetism, high-pressure geophysics.

872. Exploratory Seismology

Fall of even-numbered years. 4(2-4)
474.

Theory and technique of field seismic exploration methods. An associated geophysical survey will be conducted and a report prepared.

873. Seismology I

Winter of odd-numbered years. 3(3-0)
MTH 215 or concurrently; PHY 289 or concurrently.

Theory and application of seismic wave propagation in earth materials.

874. Seismology II

Spring of odd-numbered years. 3(3-0)
873 or approval of department.

Continuation of 873.

875. Advanced Geophysical Exploration I

Fall of odd-numbered years. 4(3-2)
474.

Theory and technique of gravity and magnetic methods, and their use in geophysical exploration. Associated practical exercises and laboratory work.

876. Advanced Geophysical Exploration II

Winter of even-numbered years. 4(3-2)
474, MTH 214.

Methods and techniques in geophysical exploration, including electrical, electromagnetic, radioactivity, magnetotelluric, and the physical principles of well logging. Associated practical exercises.

879. Rock Magnetism and Paleomagnetism

Spring of even-numbered years. 3(3-0)
321, 475, one year mathematics, one year physics; or engineering or physics majors.

Geomagnetism, and application to earth science. Character and history of the Earth's magnetic field, physics of remanent magnetism, magnetic properties of minerals and rocks, paleomagnetism, experimental results and procedures.

884. Regional Petroleum Geology

Spring of odd-numbered years. 3(3-0)
Approval of department.

Regional study of tectonics, stratigraphy and sedimentation in the U.S. and their relationship to petroleum occurrences in sedimentary basins. Analysis of petroleum distribution with emphasis on creative thinking in petroleum exploration. Practice in the analysis of petroleum possibilities in selected foreign areas.

891. Advanced Sedimentology

B. SANDSTONE PETROLOGY
(864.) Spring. 3(2-4) 392.

Origin, deposition and diagenesis of sandstones. Study includes thin section, X-ray, and SEM analysis of sediments.

895. Topics in Geochemistry

A. THERMODYNAMICS IN GEOLOGY
Fall of odd-numbered years. 1 to 3 credits. May re-enroll for a maximum of 12 credits. 462, 495.

Interpretation and prediction of natural mineral assemblages from thermochemical studies. High pressure and high temperature techniques in petrology. Phase equilibria studies and diffusion phenomena in natural systems.

B. AQUEOUS GEOCHEMISTRY

Winter of even-numbered years. 1 to 3 credits. May re-enroll for a maximum of 12 credits. 462, 495.

Ideal and non-ideal solutions, ion activities in natural waters, carbonate sedimentation, evaporite deposits, colloids, chemical weathering and diagenesis. Importance of organic species in natural waters and their effect in metal complexing. Redox reactions.

C. ANALYTICAL GEOCHEMISTRY

Fall of even-numbered years. 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 application of X-ray diffraction, X-ray fluorescence, neutron activation analysis, and atomic absorption spectrometry. Recently developed techniques in geochemistry will be discussed.

D. TOPICS ON GEOCHEMISTRY: GEOCHEMICAL CYCLES

Spring of even-numbered years, 1 to 3 credits. May re-enroll for a maximum of 12 credits. 462, 495.

Examination of the natural circulation of the elements and man's impact on these cycles.

897. Isotope Geochemistry

(892.) 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.

899. Research

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

900. Special Problems

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

Special problems in hydrogeology, geomorphology and glacial geology, mineralogy and crystallography, petrology, paleontology, structural geology and petrofabrics, stratigraphy, aerogeology, geophysics, economic geology, petroleum geology, sedimentation, and geochemistry.

999. Research

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

Earth Science

E S

407. Earth Science for Teachers

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; geomorphic 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.

410. Earth Science Seminar for Teachers

Fall. 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 and their interdisciplinary significance developed.

**Descriptions — Geology
of
Courses**

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.

800. Problems in Earth Science

Fall, Winter, Spring, Summer. 1 to 6 credits. May re-enroll for a maximum of 12 credits. Approval of department.

Independent study in topics related to earth science education.

**856. Comparative Literature:
Literature and Other
Disciplines**

Winter. 3(3-0) May re-enroll for a maximum of 9 credits. Interdepartmental with the departments of Romance and Classical Languages and English and administered by the Department of Romance and Classical Languages.

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 departments of English and Romance and Classical Languages and administered by the Department of English.

Rationale and techniques of study in comparative literature.

**902. Comparative Literature: Studies
in Form and Genre**

Winter, Spring. 3(3-0) Interdepartmental with the departments of English and Romance and Classical Languages and administered by the Department of English.

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) Interdepartmental with the departments of English and Romance and Classical Languages and administered by the Department of English.

Analyses of the manner in which various genres, conventions and continuing traditions 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.

**987. Seminar: Special Topics in
Comparative Literature**

Spring. 3(3-0) Advanced graduates. Interdepartmental with the departments of Romance and Classical Languages and English and administered by the Department of Romance and Classical Languages.

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

G R

303. Folklore

Spring. 3(3-0)

Folk heritage of peoples as revealed in their legends, superstitions, ballads, folksongs, hero tales, sayings, customs, and beliefs. Historical development of traditional lore as a reflection of social attitudes and the source for national mythologies.

**417. Scandinavian Contributions to
Literary Tradition**

Fall. 3(3-0) Approval of department.

Interdepartmental with the departments of English and Romance and Classical 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 and Classical Languages.

Continuation of 417.

**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 and Classical Languages and English and administered by the Department of Romance and Classical Languages.

Myths, archetypes, *Topoi*, significant ideas and intellectual currents in different periods and cultural traditions.

202. Intermediate German

Fall, Winter, Spring, Summer. 4(3-1)

201.

Continuation of 201.

203. Intermediate German

Fall, Winter, Spring, Summer. 4(3-1)

202.

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.

299. Special Projects

(G R 299.) Fall, Winter, Spring, Summer. 1 to 12 credits. May re-enroll for a maximum of 12 credits. Approval of department.

Work in areas outside regular course offerings.

**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(3-0) 203.

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.

325. German Civilization and Culture

Fall. 3(3-0) 203 or approval of department. A third year sequence for students not primarily interested in literature.

The cultural heritage of the German peoples. Readings and discussions in German based upon texts from history, the arts, philosophy, psychology, etc., from 1850 to World War I.

German

GRM

101. Elementary German

Fall, Winter, Spring, Summer. 5(5-0)

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(5-0)

101.

Continuation of 101.

103. Elementary German

Fall, Winter, Spring, Summer. 5(5-0)

102.

Continuation of 102.

201. Intermediate German

Fall, Winter, Spring, Summer. 4(3-1)

103.

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.