GEOL 5 Course Outline as of Summer 2008

CATALOG INFORMATION

Dept and Nbr: GEOL 5 Title: GEN HISTORICAL L&L
Full Title: General Geology: Historical
Last Reviewed: 12/20/1991

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	3.00	Lecture Scheduled	2.00	17.5	Lecture Scheduled	35.00
Minimum	3.00	Lab Scheduled	3.00	17.5	Lab Scheduled	52.50
		Contact DHR	0		Contact DHR	0
		Contact Total	5.00		Contact Total	87.50
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 70.00 Total Student Learning Hours: 157.50

Title 5 Category:	AA Degree Applicable
Grading:	Grade Only
Repeatability:	00 - Two Repeats if Grade was D, F, NC, or NP
Also Listed As:	
Formerly:	

Catalog Description:
Evolution of North America as realized through the theory of plate tectonics and sea floor spreading. Explanation of development of mountain systems, ocean basins and climatic changes throughout geologic history are viewed in the light of this theory. Geologic significance of national parks and monuments; development of earth's animal and plant inhabitants; interpretation of topographic and geologic maps and study of representative rocks, minerals and fossils.

Prerequisites/Corequisites:

Recommended Preparation:
GEOL 1, GEOL 1L or PHYSC 1; eligibility for ENGL 100 or ESL 100.

Limits on Enrollment:

Schedule of Classes Information:
Description: History of the earth, the changing patterns of land & sea, & the evolution of its plants & animals, rocks & fossils. (Grade Only)
Prerequisites/Corequisites:

Recommended: GEOL 1, GEOL 1L or PHYSC 1; eligibility for ENGL 100 or ESL 100.
Limits on Enrollment:
Transfer Credit:
Repeatability: Two Repeats if Grade was D, F, NC, or NP

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	**Area**		Effective:	Inactive:
	C	Natural Sciences	Spring 1983	Summer 2008
CSU GE:	**Transfer Area**		Effective:	Inactive:
	B1	Physical Science	Spring 1983	Summer 2008
	B3	Laboratory Activity		
IGETC:	**Transfer Area**		Effective:	Inactive:
	5A	Physical Sciences	Fall 1981	Summer 2008
	5C	Fulfills Lab Requirement		

CSU Transfer: Effective: Inactive:

UC Transfer: Effective: Inactive:

CID:

Certificate/Major Applicable:
Not Certificate/Major Applicable

COURSE CONTENT

Outcomes and Objectives:
Provides the student with the theoretical, descriptive, and methodilogical experiences required to successfully understand general historical geology and its related concepts. Students participating in this course will have the opportunity to analyze the natural processes that governed and shaped the earth through geologic time and be able to answer questions specifically related to the major geologic time and be able to answer questions specifically related to the major geologic concepts. Students completing this course should be able to domprehend and demonstrate some knowledgeability of historical geology through lecture discussions, reading assignments, written assignments, and examination.

Topics and Scope:

Course content will include but not be limited to the following areas stated on the course outline.
Geologic time: The nature of the records of the rocks; time units and measurement of geologic time; rates of weathering, erosion, deposition, uranium, and carbon 14.
The rock record: Rock units; time-stratigraphic units; correlation.
Reconstructing the past: Uniformitarianism; finding ancient lands.
Environments of deposition: Marine, transitional and continental.
Concepts of plate tectonics: Plates and plate boundaries; trenches

and subduction; mantle hot spots, and rows of volcanic islands.
Current topics of plate tectonics in relation to crustal deformation and mountains. The break-up of Pangaea.
Unraveling the history of the Precambrian: Origin of the continents; the Precambrian shields, the Superior Province; Churchill Province; Central Province; the Grenville Province; Beartooth Mountains; the Beltian System; Precambrian of the Grand Canyon; Lake Superior region.
The origin of life: First indications of life on earth; fossils; learning to recognize fossils.
Early Paleozoic: A study of the interpretation of epiric seas; further studies of tectonics and paleogeography.
Middle Paleozoic: Time of reefs, forests, and salt deposits.
Late Paleozoic: A tectonic climax and retreat of the seas. The forming of Pangaea; the Appalachian Orogeny; minor mountain building in the western United States.
Mesozoic Era: Age of reptiles and continental break-up; the beginning of mountain building in western United States; the Nevadan Orogent and the Laramide Orogeny.
Cenozoic History: Threshold of the present: The final uplifting of the western mountains.
The Pleistocene Epoch: Unraveling the physical and glacial history; the coming of man.

Assignment:

Evaluation of student performance will be determined through examination (written and/or objective) and through at least one of the following written assignments: Comprehensive research paper, analytic essay, report and book reviews, extra credit reports, or field assessment. Students will be required to master textbook and research material independently outside of class.

Methods of Evaluation/Basis of Grade:

Writing: Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

Reading reports, Lab reports, Essay exams, Term papers	Writing 25 - 50%

Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Lab reports, Quizzes, Exams	Problem solving 10 - 30%

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

None	Skill Demonstrations 0 - 0%

Exams: All forms of formal testing, other than skill performance exams.

Multiple choice, True/false, Matching items, Completion	Exams 25 - 50%

Other: Includes any assessment tools that do not logically fit into the above categories.

None	Other Category 0 - 0%

Representative Textbooks and Materials:
Dott: EVOLUTION OF THE EARTH
Peterson: EVOLUTION OF NORTH AMERICA
Stern: GEOLOGICAL EVOLUTION OF NORTH AMERICA
Brice: LABORATORY STUDIES IN EARTH HISTORY