

COURSE OUTLINE

Revision: M. Von Der Ahe, April 2008

DEPARTMENT:	Academic Programs
CURRICULUM:	The Natural World
COURSE TITLE:	Physical Geology
COURSE NUMBER:	GEOL& 101
TYPE OF COURSE:	Academic Transfer
Special Requirement Met:	None
AREA(S) OF KNOWLEDGE:	The Physical Universe
COURSE LENGTH:	1 quarter
CREDIT HOURS:	5
LECTURE HOURS:	44
LAB HOURS:	22
CLASS SIZE:	35
PREREQUISITES:	None

COURSE DESCRIPTION:

Origin and development of minerals and rocks, changing features of the earth's crust and the processes which have shaped these features. Lab included. One Saturday field trip required.

GEOL& 101 Physical Geology
April 2008

STUDENT LEARNING OUTCOMES ADDRESSED:

1. Human Relations – Use social interactive skills to work in groups effectively.
2. Critical Thinking and Problem Solving – Think critically in evaluating information, solving problems and making decisions.
3. Communication – Read and listen actively to learn and communicate.
4. Technology – Select and use appropriate technological tools for personal, academic and career tasks.
5. Personal Responsibility – Be motivated and able to continue learning and adapt to change. Manage personal health and safety. Be aware of civic and environmental issues.

GENERAL COURSE OBJECTIVES:

At the end of the course the student will:

1. Have obtained a fundamental understanding of the scientific method of observation and analysis.
2. Be introduced to the basic concepts of physical geology, including plate tectonics and its relationship to earthquake and volcanoes.
3. Demonstrate the practical identification of rocks and minerals.

TOPICAL OUTLINE:

- I. Down to earth
- II. The restless planet
- III. Earth's interior
- IV. The sea floor
- V. Birth of a theory
- VI. Planet dynamics
- VII. Mountain building and the growth of continents
- VIII. Earth's structures
- IX. Earthquakes
- X. Geological time
- XI. Evolution through time
- XII. Minerals
- XIII. Volcanism
- XIV. Intrusive igneous rocks
- XV. Weathering and soils
- XVI. Sedimentary rocks

XVII. Metamorphic rocks
GEOL& 101 Physical Geology
April 2008

TOPICAL OUTLINE: (CONT.)

XVIII. Running water: Erosion and deposition
XIX. Running water: Landscape evolution
Total hours

66

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GEOL& 101

GEOL& 101 Physical Geology
April 2008

SLO #	Included in Course Objective Number	SSCC Student Learning Outcomes
SLO 1.1	1,2,3	Communication - Read and listen actively
SLO 1.2	1,2,3	Communication - Speak and write effectively
SLO 2.1	1,2	Computation - Use mathematical operations
SLO 2.2	1,2	Computation - Apply quantitative skills
SLO 2.3		Computation - Identify, interpret, and utilize higher level mathematical and cognitive skills
SLO 3.1	3	Human Relations - Use social interactive skills to work in groups effectively
SLO 3.2	2,3	Human Relations - Recognize the diversity of cultural influences and values
SLO 4.1	1,2,3	Critical Thinking and Problem Solving -
SLO 5.1	1,2,3	Technology - Select and use appropriate technological tools
SLO 6.1	1,3	Personal Responsibility - Be motivated and able to continue learning and adapt to change
SLO 6.2		Personal Responsibility - Value one's own skills, abilities, ideas and art
SLO 6.3		Personal Responsibility - Take pride in one's work
SLO 6.4		Personal Responsibility - Manage personal health and safety
SLO 6.5	2,3	Personal Responsibility - Be aware of civic and environmental issues
SLO 7.1	1,2,3	Information Literacy - Access and evaluate information
SLO 7.2	2	Information Literacy - Use information to achieve personal, academic, and career goals, as well as to participate in a democratic society

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