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

PREPARED BY: M. Von Der Ahe
DATE: April 2008