

FLORIDA STATE COLLEGE AT JACKSONVILLE

COLLEGE CREDIT COURSE OUTLINE

COURSE NUMBER: GLY 1010C

COURSE TITLE: Physical Geology and Lab

PREREQUISITE(S): None

COREQUISITE(S): None

CREDIT HOURS: 4

CONTACT HOURS/WEEK: 5

CONTACT HOUR BREAKDOWN:

Lecture/Discussion:	3
Laboratory:	2
Other _____:	

FACULTY WORKLOAD POINTS: 4.4

STANDARDIZED CLASS SIZE ALLOCATION: 24

CATALOG COURSE DESCRIPTION:

Physical Geology for majors and non-majors is the study of the earth. The lecture covers structure and land forms, modifying agents and processes, characteristic rocks and minerals and a brief study of the surrounding atmosphere and the earth as a planet. Laboratory activities are designed to complement the lecture. Students will study rocks and minerals, earth history, fossils, structural features of the earth and various earth forms as related to certain geologic processes with the aid of rock and mineral samples, topographic maps and aerial photographs.

SUGGESTED TEXT(S):

Earth: An Introduction to Physical Geology, Tarbuck and Lutgens, Latest Edition, Prentice Hall

Exercises In Physical Geology, Hamblin & Howard, Macmillan Publishing Co.

Physical Geology, Laboratory Text and Manual, Dallmeyer, Kendall Hunt Publishing Co

IMPLEMENTATION DATE: Summer Term, 2003 (20033)
Fall Term, 2006 (20071)

REVIEW OR MODIFICATION DATE:

LECTURE COURSE TOPICS	<u>CONTACT HOURS PER TOPIC</u>
I. Introduction A. Past and Present Ideas on <i>Geology</i> B. <i>Geologic Time and Calendar</i> C. <i>A View of the Earth</i>	2
II. Minerals, Rocks and the Rock Cycle A. Matter and Minerals B. Mineral Properties C. Mineral Groups D. Rocks and the Rock Cycle	6
III. Rocks and Processes A. Igneous Rocks and Volcanoes (5) B. Metamorphic Rocks (4) C. Weathering and Sedimentary Rocks (4)	13
IV. Water A. Rivers and Landscape Development B. Ground Water C. Glaciers	8
V. Soils and Mass Wasting	1
VI. Deserts and Wind	1
VII. Oceans and Shorelines	1
VIII. Plate Tectonics A. Continental Drift B. Oceans C. Sea Floor Spreading D. Mountain Building E. Evolution of Continents	4.5
IX. Earthquakes A. Faults B. Crystal Deformation C. Earth Structure	2.5
X. <i>Geology and Man</i> A. Mineral Resources B. Water Resources C. Engineering <i>Geology</i> D. <i>Geothermal Power</i> E. Mining <i>Geology</i>	3

LECTURE COURSE TOPICS (Continued)

CONTACT HOURS
PER TOPIC

XI. *Geologic Time*

3

LABORATORY COURSE TOPICS

CONTACT HOURS
PER TOPIC

I. Rocks and Minerals	12
II. Topographic Maps - Introduction	2
III. Aerial Photos	2
IV. Landforms of U.S.	2
V. Streams	2
VI. Groundwater and Mass Movement	2
VII. Volcanism	2
VIII. Glaciation	2
IX. Shoreline and Eolian Processes	2
X. Planetary Geology	2



NOTE: Use either the Tab key or mouse click to move from field to field. The box will expand to accommodate your entry.

Section 1	
COURSE PREFIX AND NUMBER: GLY 1010C	4
Physical Geology and Laboratory	

Section 2
TYPE OF COURSE: (Click on the box to check all that apply)
<input type="checkbox"/> AA Elective <input type="checkbox"/> AS Required Professional Course <input type="checkbox"/> College Prep <input type="checkbox"/> AS Professional Elective <input type="checkbox"/> AAS Required Professional Course <input type="checkbox"/> Technical Certificate <input type="checkbox"/> Other _____ <input checked="" type="checkbox"/> General Education: (For General Education courses, you must also complete Section 3 and Section 7)

Section 3 (If applicable)
INDICATE BELOW THE DISCIPLINE AREA FOR GENERAL EDUCATION COURSES:
<input type="checkbox"/> Communications <input type="checkbox"/> Social & Behavioral Sciences <input type="checkbox"/> Mathematics <input checked="" type="checkbox"/> Natural Sciences <input type="checkbox"/> Humanities

Section 4
INTELLECTUAL COMPETENCIES:
<input checked="" type="checkbox"/> Reading <input checked="" type="checkbox"/> Speaking <input checked="" type="checkbox"/> Critical Analysis <input checked="" type="checkbox"/> Quantitative Skills <input checked="" type="checkbox"/> Scientific Method of Inquiry <input checked="" type="checkbox"/> Writing <input checked="" type="checkbox"/> Listening <input checked="" type="checkbox"/> Information Literacy <input checked="" type="checkbox"/> Ethical Judgment <input checked="" type="checkbox"/> Working Collaboratively

Section 5		
LEARNING OUTCOMES		METHOD OF ASSESSMENT
•	Explain and apply major concepts in physical geology including structure and land forms, modifying agents and processes, rocks and minerals and the earth as a planet.	Written tests, reports and/or use of equipment to demonstrate student competency in field.
•	Demonstrate knowledge of scientific method.	Formulate problem, make observations, derive and test hypothesis and make conclusions.
•	Communicate scientific ideas through oral or written assignments.	Students use analytical reasoning skills to solve problems on written tests and/or laboratory work.
•	Interpret scientific models such as formulas, graphs, tables and schematics, draw inferences from them and recognize their limitations.	Written reports of lab experiments and/or written tests demonstrate student competency in the application of scientific knowledge.
•	Demonstrate problem solving methods in situations that are encountered outside of the classroom.	Students use demonstrations, group discussions, written tests, laboratory reports, research projects and/or field experiences to illustrate competence in recognizing and evaluating various scientific processes.
•	Demonstrate proper laboratory technique including safety in the use and care of laboratory equipment and materials.	Results from laboratory work and experiments demonstrate student awareness of science and society.

Section 6
Name of Person Completing This Form: <u>Patty Crews</u> Date: <u>12/10/2004</u>

SECTION 7 MUST BE COMPLETED FOR ALL GENERAL EDUCATION COURSES ONLY (exclude AA electives)

<i>Section 7</i>	<i>Primary</i>	<i>Secondary</i>	<i>N/A</i>	KNOWLEDGE	<i>Primary</i>	<i>Secondary</i>	<i>N/A</i>	VALUE
A.				Global and Historical Knowledge & Understanding				Intellectual honesty
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	• Comprehends a general knowledge of the nature, origins and contributions of major civilizations	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Curiosity and openness to new ideas
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	• Comprehends the workings and interrelations of personal, business and government economies	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Recognition of one's own creative potential
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	• Comprehends political, social and economic systems and their effects upon society	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Acceptance of and respect for differences among people and cultures
B.				Cultural and Aesthetic Knowledge and Understanding				
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	• Comprehends the contributions of the arts and humanities to the human experience on a personal, national or global level	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Civic Engagement
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	• Comprehends the historical development of the arts and sciences	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Lifelong Learning
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	• Comprehends religious and cultural systems and their effects upon society				
C.				Human Awareness and Understanding				
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	• Comprehends the dynamics of human behavior and the process of increasing self-awareness, growth and development				
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	• Comprehends the stages of human development and the dynamics of human relationships in diverse cultures				
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	• Comprehends the factors that promote physical, mental and social well-being				
D.				Mathematics, Science and Technology				
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	• Comprehends the basic concepts and investigative processes of the natural sciences				
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	• Comprehends the breadth, significance and development of the mathematical sciences				
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	• Comprehends the ways science and technology have shaped and continue to reshape human cultures and the environment				

Section 8

Name of Person Completing This Form: Patty Crews Date: 12/10/2004