

COURSE IMPLEMENTATION DATE: January 2010  
 COURSE REVISED IMPLEMENTATION DATE: \_\_\_\_\_  
 COURSE TO BE REVIEWED: March 2013  
*(four years after UPAC approval)* *(month, year)*

**OFFICIAL UNDERGRADUATE COURSE OUTLINE INFORMATION**

Students are advised to keep course outlines in personal files for future use.  
 Shaded headings are subject to change at the discretion of the department – see course syllabus available from instructor

GEOG 116	Geography	4
COURSE NAME/NUMBER	FACULTY/DEPARTMENT	UCFV CREDITS
Introduction to Geology		
COURSE DESCRIPTIVE TITLE		

**CALENDAR DESCRIPTION:**

This course is an introductory course in physical geology that examines materials composing Earth and the processes that operate beneath and upon its surface. Topics include minerals, rocks (igneous, sedimentary, and metamorphic), plate tectonics, earthquakes, volcanoes, earth resources, geologic time, and the processes that have shaped the Earth.

PREREQUISITES: None  
 COREQUISITES: None  
 PRE or COREQUISITES:

**SYNONYMOUS COURSE(S):**

- (a) Replaces: \_\_\_\_\_
- (b) Cross-listed with: \_\_\_\_\_
- (c) Cannot take: \_\_\_\_\_ for further credit.

**SERVICE COURSE TO:** *(department/program)*

**TOTAL HOURS PER TERM:** 75

**STRUCTURE OF HOURS:**  
 Lectures: 45 Hrs  
 Seminar: \_\_\_\_\_ Hrs  
 Laboratory: 24 Hrs  
 Field experience: 6 Hrs  
 Student directed learning: \_\_\_\_\_ Hrs  
 Other (specify): \_\_\_\_\_ Hrs

**TRAINING DAY-BASED INSTRUCTION:**

Length of course: \_\_\_\_\_  
 Hours per day: \_\_\_\_\_

**OTHER:**

Maximum enrolment: 25  
 Expected frequency of course offerings: Annually  
*(every semester, annually, every other year, etc.)*

**WILL TRANSFER CREDIT BE REQUESTED? (lower-level courses only)**  Yes  No  
**WILL TRANSFER CREDIT BE REQUESTED? (upper-level requested by department)**  Yes  No  
**TRANSFER CREDIT EXISTS IN BCCAT TRANSFER GUIDE:**  Yes  No

Course designer(s): <b>Steven Marsh, Carolyn Atkins</b>	Date approved: <b>January 2009</b>
Department Head: <b>Dr. Ken Brealey</b>	Date of meeting: <b>January 23, 2009</b>
Supporting area consultation (UPACA1)	Date approved: <b>March 2009</b>
Curriculum Committee chair:	Date approved: <b>March 9, 2009</b>
Dean/Associate VP: <b>Dr. Eric Davis</b>	Date of meeting: <b>March 27, 2009</b>
Undergraduate Program Advisory Committee (UPAC) approval	

**LEARNING OUTCOMES:**

Upon successful completion of this course, students will be able to:

1. articulate the scientific theories that explain the ways that basic geologic processes function and interact;
2. identify rocks and minerals based on their physical properties;
3. explain the theory of plate tectonics and its role in the formation of the Earth;
4. discuss and explain the processes involved in the shaping the Earth's surface;
5. describe geologic time, its major divisions and its influence on the processes that shape the Earth.

**METHODS:** *(Guest lecturers, presentations, online instruction, field trips, etc.)*

Lectures, laboratory sessions, assigned readings, discussion groups, and field trips.

**METHODS OF OBTAINING PRIOR LEARNING ASSESSMENT RECOGNITION (PLAR):**

Examination(s)                       Portfolio assessment                       Interview(s)

Other (specify):

PLAR cannot be awarded for this course for the following reason(s):

**TEXTBOOKS, REFERENCES, MATERIALS:**

*[Textbook selection varies by instructor. An example of texts for this course might be:]*

Tarbuck, E.J., F. K. Lutgens, C. J. Tsujita, and S. R. Hicock, 2009. Earth An Introduction to Physical Geology Second Canadian Edition. Toronto: Pearson .

Plummer, C.C., D. H. Carlson, D. McGeary, C. Eyles, and N. Eyles, 2007. Physical Geology & the Environment Second Canadian Edition. Toronto: McGraw-Hill Ryerson.

Chernicoff, S. and D. Whitney, 2007. Geology An Introduction to Physical Geology Fourth Edition. Toronto: Pearson.

**STUDENT EVALUATION:**

*[An example of student evaluation for this course might be:]*

Lab Assignments, lab exams, projects, quizzes, field trip reports	45-55%
Midterm exam	20-25%
Final exam	25-30%

**COURSE CONTENT:**

*[Course content varies by instructor. An example of course content might be:]*

Lecture Topics

1. Course Introduction.
2. Atomic structure and minerals.
3. Origin of Igneous rocks.
4. Volcanism.
5. Weathering and sedimentary rocks.
6. Metamorphism and metamorphic rocks.
7. Geologic time.
8. Plate Tectonics and the Earth's Interior.
9. Earthquakes.
10. Mass wasting.
11. Streams and groundwater.
12. Glaciers.
13. Coastal processes.
14. Deserts.