

**HAROLD WASHINGTON COLLEGE
MASTER SYLLABUS – COLLEGE CREDIT COURSE**

1. TITLE, NUMBER, AND CLASSIFICATION:

Name of Course Physical Geology
Department Name Physical Science
Number Code 075
Course Number: 0201

2. COURSE TERM: 16 Week Semester

3. CREDIT AND CONTACT HOURS:

(i) credit hours 3 (ii) contact hours per week 4 (iii) types of activities
x Lecture/Discussion
x Lab
Clinical/Work Experience
Other

4. PREREQUISITES - if none check here ; otherwise describe below:

Eligibility for English 101

5. CATALOG DESCRIPTION - write below, as in current college catalog;

Basic earth processes: weathering, erosion, deposition, mountain building, metamorphism, volcanism, and plate tectonics. Writing assignments, as appropriate to the discipline, are part of the course. 2 lecture and 2 lab hours per week

6. STUDENTS FOR WHOM THE COURSE IS INTENDED:

For students who need a Physical Sciences laboratory course in order to satisfy the Natural Sciences requirement for Associate degrees or transfer credit or other interested students.

7. COURSE OBJECTIVES:

1. Describe the materials of which the earth is composed.
2. Explain how surface processes alter Earth's surface materials.
3. Relate the plate tectonics theory to earthquakes and mountain building.
4. Summarize Earth's history and the means by which it has been estimated.
5. Develop analytical skills through laboratory exercises.

8. STUDENT LEARNING OUTCOMES

Upon completion of the course, the student will be able to:

1. a. Differentiate between rocks and minerals.
b. Illustrate the rock cycle.
c. Classify rocks as igneous, sedimentary, or metamorphic.

2. a. Distinguish between weathering and erosion.
- b. Compare glacial, desert, and shoreline environments and the geologic processes that shape them.
- c. Illustrate the hydrologic cycle.
- d. Compare landscape features associated with running water with those associated with groundwater.
3. a. Define the plate tectonics theory.
- b. Correlate the different types of plate boundaries with their associated features, such as earthquakes, mountains, and new continental crust.
4. a. Differentiate between radiometric and relative dating.
- b. List major geologic time sections.
5. a. Identify rocks and minerals.
- b. Analyze topographic and geologic maps.
- c. Construct and order cross-sections.

9. TOPICAL COURSE OUTLINE:

1. Minerals and rocks
2. Soil and weathering
3. Surface processes
4. Running and ground water
5. Glaciers
6. Deserts and wind
7. Oceans and waves
8. Internal processes
9. Plate tectonics
10. Geologic history

10. TEXTS AND MATERIALS USED: List of suggested books and/or materials used in this course. Lutgens, Tarbuck, and Tasa, Essentials of Geology 9th Edition, Prentice-Hall Publishers, 2006, Chapters 1 – 19 (all)

Laboratory Exercises written and supplied by department.

11. AMOUNT OF WRITING REQUIRED:

Laboratory reports, short answer essay questions, writing assignments

12. METHODS OF EVALUATION: (Direct and indirect)

Exams, quizzes, laboratory reports, and writing assignments.

13. AUTHORIZED SIGNATURE AND FILE DATE: DEPARTMENT AND CAMPUS

**Physical Science Department
Harold Washington College**

5/06