

**TRUMAN COLLEGE  
MASTER SYLLABUS – COLLEGE CREDIT COURSE**

<b>1. TITLE, NUMBER, AND CLASSIFICATION:</b>	Name of Course	<u>Physical Geology</u>
	Department Name	<u>Physical Science</u>
	Number Code	075
	Course Number:	0201

**2. COURSE TERM:** 16 Week Semester

**3. CREDIT AND CONTACT HOURS:**

(i) credit hours: 4 (ii) contact hours per week 5 (iii) types of activities  
**3 hours** Lecture/Discussion  
**2 hours** Lab  
Clinical/Work Experience Other

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

Eligibility for English 101 and Eligibility for Math 99

**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. 3 lecture and 2 lab hours per week

**6. STUDENTS FOR WHOM THE COURSE IS INTENDED**

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

**7. COURSE OBJECTIVES**

The Geology 201 class will be focused on achieving the following objectives:

1. Define 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. Review 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 running water landscape features with groundwater landscape features.
- 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. Construct well-arranged geologic cross-sections.

**9. TOPICAL COURSE OUTLINE**

The suggested outline for the class is:

- Week 1. Minerals
- Week 2. The rock cycle: Igneous Rocks and Intrusive activity.
- Week 3. Volcanoes and volcanic hazards
- Week 4. Soil and weathering
- Week 5. The rock cycle: Sedimentary Rocks and Metamorphic Rocks
- Week 6. Surface processes: The work of gravity
- Week 7. Running and ground water
- Week 8. Glaciers, Deserts and wind action
- Week 9. Oceans and shorelines
- Week 10. Earthquakes
- Week 11. Plate tectonics
- Week 12. Origin and evolution of the ocean floor
- Week 13. Mountain building
- Week 14. Geologic time
- Week 15. Earth evolution
- Week 16. Global climate change

**10. SUGGESTED TEXTS AND MATERIAL:**

The suggested text and lab materials for the class are:

Essential of Geology, 11<sup>th</sup> Edition, 2011, by Frederick K. Lutgens, Edward J. Tarbuck. Published by Pearson Education, Inc.  
 ISBN10: 0321714725  
 ISBN13: 9780321714725  
 Laboratory Exercises written and supplied by the department.

**11. WRITING REQUIRED**

The writing for the class typically include:

Weekly laboratory reports, quizzes and exams with short answer essay questions, and writing assignments.

**12. METHODS OF EVALUATION:**

The suggested methods of evaluation for the class typically include:

Exams, quizzes, laboratory reports, oral presentations and writing assignments.

**13. AUTHORIZED SIGNATURE AND FILE DATE:** \_\_\_\_\_

**DEPARTMENT AND CAMPUS**

**Physical Science Department  
Truman College**