**Phys 160 – Physical Geology**
Fall 2018

Instructor: Dr. Rebecca Butler
Lecture: MWF 9:00-9:50 am
Office: 303 Yates Hall
Text: Understanding Earth, 6th Ed.
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Links:  [Academic Honesty and Integrity Policy (Links to an external site.)Links to an external site.](http://catalog.pittstate.edu/contentm/blueprints/blueprint_display.php?bp_listing_id=162&blueprint_id=124&sid=3&menu_id=7980)      [Fall 2018 Syllabus Supplement (Links to an external site.)Links to an external site.](https://www.pittstate.edu/registrar/_files/documents/syllabus-supplement-fall-2018)

This on campus face-to-face lecture course counts toward the requirements in General Education for your degree program. General Education is an important part of your educational program at Pittsburg State University and has been designed to implement the following philosophy:

**Philosophy of General Education:** General education is the study of humans in their global setting. The general education curriculum, therefore, acts as the heart of a university education by developing the capacities that typify the educated person and providing a basis for life-long learning and intellectual, ethical, and aesthetic fulfillment. General education examines the world around us and fosters an understanding of our interactions with the world and our place in the universe. General education celebrates the creative capacities of humankind and helps to preserve and transmit to future generations the values, knowledge, wisdom, and sense of history that are our common heritage.

This course will help you accomplish several of the Goals and Objectives of General Education including the development of your critical thinking skills and the development of your knowledge as to how the physical sciences have affected society, its institutions, and the world as a whole.

This course is an introduction to the physical processes that affect the Earth (such as plate tectonics, earthquakes, volcanism, mountain building, glaciation, weathering, and erosion) and to the rocks, minerals, and other materials that make up the earth’s surface and interior.

**Grading**
Homework                20%                                     A 100-90%
4 midterms               50% (12.5% each)               B 89-78%
In class work            10%                                     C 77-67%
Final                          20%                                    D 66-56%
Total                        100%                                    F 55-0%

**Homework**
Homework will be due every Monday in class (or if its online, by class time). Homework will not be accepted late. **Homework answers must be in the student’s own words.** Assignments will be on Canvas.

If you’re having trouble finding an answer, remember the glossary and index in the back of the book, and the “find” function in powerpoint (either under the “Home” menu, or you can hit Control-f). Lecture powerpoints will be posted on Canvas.

**Midterms**
We might be running a little behind or ahead on the material for each midterm, but barring natural disaster, the dates for the tests will stay as listed below.

Old midterms from a previous year are on Canvas for use as practice tests.

**In class work**
Sometimes there will be worksheets or activities during class. If you miss a day with these, you can still do them, either by filling out the worksheet on your own (they’ll be on Canvas) and sending it or showing it to me, or if the activity required materials, coming by my office to do it, before the next test.

**Final**
The final will be comprehensive.

**Learning Outcomes**

1.  Students should be able to describe and apply the methods for identifying minerals and rocks.

2.  Students should be able to describe the interior of the earth, including formation and what observations lead to the model.

3.  Students should be able to describe the processes that occur on and near the surface of the earth, including formation of rocks, shaping of sedimentary environments, sedimentary and metamorphic facies, evolution of continents, etc, and apply this knowledge in ways such as examining a rock or formation to determine where and how it formed.

4.  Students should be able to relate geological processes to effects on the world around us, including hazards (volcanoes, earthquakes, etc) and interactions with climate and the biosphere.

**General Education Philosophy and Goals for All Baccalaureate Degrees**

**Philosophy**

General Education is the study of humans in their global setting. The general education curriculum, therefore, acts as the heart of a university education by developing the capacities that typify the educated person and providing a basis for life-long learning and intellectual, ethical, and aesthetic fulfillment. General education examines the world around us and fosters an understanding of our interactions with the world and our place in the universe. General education celebrates the creative capacities of humankind and helps to preserve and transmit to future generations the values, knowledge, wisdom, and sense of history that are our common heritage.

**Goals of General Education**

General Education plays a pivotal role at Pittsburg State University. As a key component of undergraduate education, it furthers the University’s mission of “providing programs and services that create opportunities for students to develop intellectually, ethically, aesthetically, emotionally, socially and physically.”

The overall purpose of the General Education program is to provide an environment in which students can acquire the basic knowledge and skills common to educated people in our global society. To do this, the program provides instruction in certain basic disciplines ranging from the arts to science and technology. But it does more. It stimulates critical thinking and encourages decision-making free from prejudice or insularity. It develops the ability to communicate effectively via a variety of means. The program promotes ethical and aesthetic growth. It cultivates an appreciation of different cultures and the rights of others. In short, the foundation provided by General Education helps Pittsburg State University graduates lead satisfying lives and function responsibly in a complex and ever-changing world. And above all, the program provides a basis for future growth.

The General Education program accomplishes its task through a set of courses that meets the following goals and objectives. Goals of General Education for this course are listed below.

**Goal #1: Students should be able to communicate effectively.**

OBJECTIVES:

* Apply the principles of effective writing and other forms of communication.
* Demonstrate the ability to formulate and solve problems using the tools of mathematics.

**Goal #2: Students should be able to think critically.**

OBJECTIVES:

* Demonstrate the ability to distinguish between relevant and irrelevant information in problem solving.
* Articulate a problem and develop a logical and reasonable response to it using appropriate sources.
* Apply generalizations, principles, theories, or rules to the real world.
* Demonstrate the ability to analyze and synthesize information.

**Goal #3: Students should be able to function responsibly in the world in which they live.**

OBJECTIVES:

*Part I: Sciences*

* Demonstrate an understanding of the basic principles, facts, and theories of the biological and physical sciences.
* Demonstrate an understanding of the basic methods of inquiry, analysis and description in the biological and physical sciences.
* Demonstrate and understanding of how the natural sciences contribute to the general welfare of civilization.

*Part II: Social Studies*

* Demonstrate an understanding of contemporary social issues.
* Evaluate the impact of scientific, technological, economic, and intellectual change on social and political institutions.

*Part III: Political Studies*

* Demonstrate an awareness of the impact of public policy on people’s lives.