

# **Physical geology with Laboratory -Class Syllabus**

## Course Information

Number: GEO 101N lecture and 102N lab  
Title: Introduction to Physical Geology, lecture and lab  
Prerequisites: None  
Credits: 3 credit lecture and 1 credit lab (two independent, cognate courses)  
Session: Fall Semester, 2019

## Personal Information

Instructor: George Furniss, PG  
Office: best to catch me before or after class  
Office Hours: by appointment  
Phone: 406 241 1951 cell, text or leave message  
Email: comogeo@gmail.com  
If something bothers you at any time, just speak up and I'll try to stop and address your concern.

## Required Materials

Text: Earth by Hendrix and Thompson  
This textbook comes to us from two professors at UM and is published by Cengage.

Lab Manual: Laboratory Manual for Physical Geology to be handouts.

We will be going on field trips around the local area as the weather permits; to be announced, so wear good shoes and bring a field book for notes on those days. There will be a short report required each trip.

## Course Description

This course is designed to introduce students to the basic principles of physical geology. This includes minerals and rocks; tectonics, earthquakes, volcanoes and how mountains form; weathering and landforms; and the occurrence of ground water and many other natural resources.

## Course Objectives

Upon completion of the course, the students should understand fundamental concepts such as minerals, their composition and physical properties, methods to identify igneous, sedimentary and metamorphic rocks, and how these rocks formed, the rock cycle, geologic time, earth history and overall structures of mountains, valleys, the shapes of landforms, the causes of earthquakes, and volcanoes, and the movement of tectonic plates, weathering, erosion, the water cycle and how to understand topographic and geologic maps.

## Course Requirements

Integrated classroom and laboratory exercises will be complimented with weekly quizzes in class along with occasional homework and a midterm exam. An individual inquiry

project of your choice involving geology and a five-minute presentation to the class is required. Class participation, exams, and your project will provide 75% of grade. Class time will be dedicated to completion of project presentations the last two weeks of class. A final examination is 25% of grade. The final exam will be given on the last day of class or finals week. The exam will include questions on the major topics in the course objectives, and may include mineral and rock identification.

### Grading System

Based on a percent of total points possible:

A=90-100%

B=80-89%

C=70-79%

D=60-69%

### Honor Code and Plagiarism

Cell Phones must be turned off during class. Laptops, Pads, etc. must be off too.

All work submitted by students should represent their own work. Any student caught submitting another person's work as his or her own will at a minimum fail that particular assignment. A second offense will result in automatic failure of the course. There will be no exceptions to this policy. Any plagiarism will be reported to the student dean and may result in additional disciplinary action.

### Disabilities and the Learning Center

Students with unique learning needs are encouraged to see the instructor during office hours to discuss course requirements and approved accommodations. Students who seek information about disability services should contact Disability Services Director at UM Bitterroot College.

### Course Outline

We will cover chapters 1-13 in the textbook prior to Thanksgiving. This is more than one chapter per week because we stop briefly for a midterm exam after chapter 8, 9, or 10. After the midterm and reaching chapter 13 we will select a few of the remaining chapters for study. Students will be responsible for reading each chapter before each class period. Start with chapter one this week, chapter two next week and so on. Five review questions will be selected each week from the book and lecture. After the quiz and a review of the quiz we will go on to material in the next chapter. Lab reports are required for credit in the laboratory while in the field each week.

### Extra Credit

Community Service, for example, volunteering to monitor the NOAA weather station for a day a week, or spending 6 hours at the Ravalli recycling center during the semester, will be much appreciated by your instructor. Proof of volunteer hours will open the door to extra-credit work if you miss class or need a second chance on a quiz, exam, or lab report.