

**South Plains College**  
**Course Syllabus**  
Physical Geology 1403

### **Instructor Information**

Instructor: Aaron Greene      Office Location: S184

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### **Required Course Materials**

**Lecture:** *EARTH, Portrait of a Planet, Sixth Edition / Stephen Marshak*

### **Purpose Statement**

This course is an introduction to the dynamic planet earth. Physical forces, both interior and exterior, will be examined and interpreted. Plate tectonic interaction will be examined at the planet level and at the level of human interaction with earthquakes, volcanoes, landslides, etc.

Geologic research also examines the chemistry of the rocks and minerals that make up the planet's crust. This knowledge assists in the discovery of economic resources such as minerals, fossil fuels, and ground water. We will examine the importance of these resources in modern human life.

### **Prerequisites**

No previous college-level courses are required.

### **Course Description**

Introductory course in geologic principles; the composition and structure of the earth, its landforms, and the agencies active in their production are presented. This course is intended for all students interested in the study of the earth. Global examples of all theories and processes will be presented for interpretation and understanding.

A calendar will be provided, as soon as student presentation topics are accepted.

#### **1. The key points to be addressed in Lecture are:**

- What is Geology?
- The difference between Science and Religion
- The Big Bang! How does understanding the universe help in Geology?
- How do we know how to quantify these massive measurements of time? 4.57 Ga & 13.7 Ga
- A Comparison & Contrast of Planets
- A Journey to the Center of the Earth
- The Delicate Composition of the Crust
  - Continental
  - Oceanic
- Continental Drift Hypothesis
- Seafloor Spreading
- Paleomagnetism and Polar Wandering
- Plate Tectonics
- Plate Boundaries
- Recognizing what we have learned within the global context (examples)
- Minerals
- Rocks
- The Rock Cycle
- Volcanism
- Earthquakes

#### **2. The key points to be addressed in Lab are:**

- Safety
- Creating Models of Earth Processes
  - Continental Drift
  - Seafloor Spreading

- Paleomagnetism
- Polar Wandering
- Composition of the Planet
- Identifying Minerals
  - Defining Characteristics
  - Mohs Scale of Hardness
- Identifying Rocks
  - Igneous
  - Sedimentary
  - Metamorphic
- Geologic Maps

3. Classes meet twice a week for both lecture and lab

**4. GEOL 1403 earns 4 credit hours**

5. Students will develop proficiency in the appropriate Intellectual Competencies as follows:
- **Reading:** The ability to analyze and interpret a variety of printed materials, books, documents and articles – above the 12th grade level.
  - **Writing:** The ability to produce clear, correct and coherent prose adapted to purpose, occasion and audience – above the 12th grade level.
  - **Listening:** The ability to analyze and interpret various forms of spoken communication, possess sufficient literacy skills of writing, reading – above 12<sup>th</sup> grade level.
  - **Critical Thinking:** The ability to INDIVIDUALLY think and analyze at a critical level.
  - **Computer Literacy:** The ability to understand our technological society, use computer-based technology in communications, solving problems, acquiring information. Use of PowerPoint, Word, Excel, and Screencast-o-matic software within the Blackboard platform.

**Course Objectives and Student Learning Outcomes**

Upon completion of the course, the student will show competence in the course objectives listed below:

**Lecture:**

1. Read the assigned chapters in the textbook and laboratory manual.
2. Attend all lectures and laboratory classes.
3. Take notes in class.
4. Participate in class discussions.
5. Complete assigned reading material and homework.
6. View audiovisual materials on selected topics.
7. Use the computer software in the lab and/or classroom as it is assigned.
8. Complete the exams on the assigned dates; the exams may include essay questions.

**Laboratory:**

1. Demonstrate knowledge of laboratory safety.
2. Gather, organize, calculate, and interpret data.
3. Effectively communicate scientific ideas (hypothesis, theories, and laws) with supporting evidence.
4. Identify & categorize rocks and minerals by their characteristics.
5. Interpret, construct and analyze topographic maps.

**Course Requirements**

1. The student is required to do the following:
  - Read the assigned chapters in the textbook
  - **Attend all lectures and laboratory classes.**
  - Take notes in class.
  - Review notes daily.
  - **Participate in class discussions.**
  - Complete reading material and homework.
  - View audiovisual materials on selected topics.

- Use the computer software in the lab and/or classroom as it is assigned.
- Complete the exams on the assigned dates

### **Outcomes Inventory**

Assessment questions will be inserted into assignments throughout the course to determine the mastery of course learning objectives; given at the discretion of the instructor.

### **Diversity Statement**

In this class, the teacher will establish and support an environment that values and nurtures individual and group differences and encourages engagement and interaction. Understanding and respecting multiple experiences and perspectives will serve to challenge and stimulate all of us to learn about others, about the larger world and about ourselves. By promoting diversity and intellectual exchange, we will not only mirror society as it is, but also model society as it should and can be.

### **Disability Statement**

Students with disabilities, including but not limited to physical, psychiatric, or learning disabilities, who wish to request accommodations in this class should notify the Special Services Office early in the semester so that the appropriate arrangements may be made. In accordance with federal law, a student requesting accommodation must provide acceptable documentation of his/her disability to the Special Services Coordinator. For more information, call or visit the Special Services Office in the Student Services building, 894-9611 ext. 2529.

### **Pregnancy Statement**

If you are pregnant, or have given birth within six months, Under Title IX you have a right to reasonable accommodations to help continue your education. To activate accommodations, you must submit a Title IX pregnancy accommodations request, along with specific medical documentation, to the Director of Health and Wellness. Once approved, notification will be sent to the student and instructors. It is the student's responsibility to work with the instructor to arrange accommodations. Contact Chris Straface, Director of Health and Wellness at 806-716-2362 or email [cstraface@southplainscollege.edu](mailto:cstraface@southplainscollege.edu) for assistance.

### **Calendar / Schedule**

The instructor will ensure that the course content is covered in a manner that fulfills the course objectives. Due dates for assignments, quizzes and exams will be provided within a calendar format. All dates will be **tentative and subject to change**. For instance, if Blackboard or the school servers go down, I may change due dates.

### **Attendance Policy**

ATTENDANCE: School policy on attendance is covered in the current catalog. Roll is kept for **both lecture and lab**. If you are absent **four consecutive class-days**, you may be dropped or if you accumulate five absences you may be dropped. **A drop in the above manner usually results in a grade of F.**

### **Instructor Initiated Drop**

- **Attendance Policy (above)**
- **Excessive Class Interruption:** I truly enjoy teaching in a positive environment. I am jovial and helpful in class. I like being open and friendly, but the structure of the class is very important, so I can become very serious about keeping the rules. Please, realize, I will not hesitate to drop a student if I see evidence that they are preventing a positive learning environment. It is rare, but it can happen, and it comes down to my determination. **I WILL ONLY GIVE ONE WARNING.** In class phone use is prohibited, so

please take this rule seriously. It gets out of hand quickly. I may ask the student to leave for the day or drop them from the course if it becomes excessive.

- Disruptive, rude, or crude behavior is prohibited. Ask if you aren't sure if something is appropriate.
- Aggressive tones and argumentative behavior will be given only one warning. Students deserve a positive atmosphere. Discussion of different opinions and positions is fine, in a polite manner.
- **If a directive to stop a behavior has been given and the behavior continues, a student may be dropped at the discretion of the instructor.**
  - Here is an example of one warning for a behavior. A student has her pants low, exposing almost her entire underwear. The student is instructed to please, make sure your clothing is covering your body and undergarments properly. The student comes to class the next day with the same exposed undergarments. The instructor can simply drop the student and ask her to leave, informing her she has been dropped from the course.

- **Academic Integrity**

- A student may be dropped at the discretion of the instructor for inappropriate testing behaviors. I will always discuss the situation with students. **Honesty** and integrity in the process is required of the student. **If you have done something wrong, the instructor expects the student to acknowledge it and decide to correct the behavior in the future.**
- Dishonesty of any kind on examinations or on written assignments, illegal possession of examinations, the use of unauthorized notes during an examination, obtaining information during an examination from the text- book or from the examination paper of another student, assisting others to cheat, alteration of grade records, illegal entry or unauthorized presence in an office are examples of cheating. Complete honesty is required of the student in the presentation of all phases of course work. This applies to quizzes of whatever length, as well as to final examinations, to daily reports and to term papers. **(Student Code – SPC Student Guide, Pg: 12)**
- Students are expected to produce their own individual work on all assignments. In group assignments, it is perfectly fine to discuss different possible answers and solutions, but the work you submit should be your thoughts and solutions. Do not copy from digital sources or student sources. **Mr. Greene firmly believes INTEGRITY is vital in the professional world. Please, keep this in mind.**

## Grade

These are subject to change. For instance, when extra credit opportunities are given, these percentages are slightly altered.

<u>Grades for Class</u>	<u>Percentage</u>	
Lab Quiz 1	10%	_____
Lab Quiz 2	10%	_____
Lab Quiz 3	10%	_____
Test #1	10%	_____
Test #2	10%	_____
Test #3	10%	_____
Presentation	10%	_____
Lab Work and Participation Grade	10%	_____
Online Quizzes	10%	_____
FINAL	10%	_____

**Your Grade (average)**

**100% Scale**

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