

Geology

2015 – 2016

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Geology is one of the oldest of scientific enterprises. Early hominids relied on the ability to identify and utilize appropriate rocks for use in the fabrication of stone tools. The ancient Greek philosophers Thales of Miletus (c. 620 B.C.E. – c. 546 B.C.E.) considered many geologic problems and Theophrastus wrote an early geologic text titled “On Stones” (c.300 B.C.E.). Mineral resources have played a significant role in the history of civilization. We often refer to broad periods of human history on the basis of their use of mineral resources (Paleolithic, Neolithic, Copper Age, Bronze Age, Iron Age, etc.) The modern world is inextricably reliant on geologic materials and nearly every aspect of our material cultural is somehow linked to Geology. Today, Geology is considered a “hard science” which utilizes Mathematics, Chemistry and Physics to understand phenomena. These tools are used to understand not only the occurrence of mineral resources but in the assessment of geologic hazards, the understanding of planetary and crustal dynamics, and the decoding of Earth history. Geology is not only practiced by professionals but also by enthusiasts who enjoy visiting sites with geologic significance, or perhaps enjoy collecting geologic materials. It is often beautiful and typically interesting. The understanding of basic geologic principles is an integral component of a well-rounded education.

Course Description

This is a survey course in which the students learn principles of Geology. This will be accomplished through reading the textbook, class discussion, viewing media, and lab experiences. Special emphasis will be given to Local and regional geology. There will also be an emphasis on the identification of geological materials such as rocks, minerals, and fossils.

Students are also expected to complete at least one major research project for the class. This may be in the form of a research paper or may be submitted in another format such as a slide show, shot film, rock/mineral collection, etc. Requirements and expectations for the project will be discussed in class when the assignment is given.

Daily Assignments:

Daily assignments will include reading, working on assignments, labs, lectures, assessments, discussions of current events in science, and research.

Homework:

We will try to accomplish as much as possible in class. The student is responsible for completion of unfinished work as homework. The student will also have regular homework involving the textbook. Text book assignments will consist of the student reading the assigned section and may include writing a complete outline of the relevant information within the section. Homework may also include section and/or chapter assessments. It is important that this homework be finished on the day that it is due as this will facilitate class discussion and student understanding of the material. Assignments and due dates will be posted on the class web page at <http://amesgeology.weebly.com/>

Late Work:

Late work will be accepted if the student has a valid and written excuse for not being able to complete the work on time. Written excuses will be accepted either on or before the due date of the assignment or on the first day that the student returns to class. Email excuses from the parent or guardian is acceptable and encouraged. Due dates are announced regularly and students are responsible for recording due dates in their planners.

Unexcused late work will receive reduced grades. Each class day that the assignment is late will result in a reduced maximum grade for the assignment.

1 day late = 90% maximum score

2 days late = 75% maximum score

3 days late or greater = 50% maximum score (maximum penalty)

Make-up Work:

Make-up privileges will be given for validated and excused absences. Students need to make arrangements with me on the first day they return to class from their absence.

Electronic Devices & Other “Nuisance” Items:

Items that distract from learning are generally not allowed in class. As per school policy, any electronic devices (cell phones, MP3 players, iPods, hand held games, student laptop computers, etc.) may be confiscated if not turned off and put away during class.

Caviat: Occasionally “smart phones” and student computers may be used for class related purposes only if and when specifically authorized by the teacher.

Controversial Topics

- **Reproduction** We will be discussing some aspects of reproduction in class this year. This includes reproductive activity and traits of all levels of biology, bacteria to humans.
- **Evolution** We will be exploring the topic of evolution, both microevolution and macroevolution. Evolution is a scientific fact, and will be studied as such.
- **Geologic and Cosmologic Time** We will discuss the idea of time in terms of very large numbers.
- **Pseudo-Science** will be examined, discussed and often debunked.

Film

Numerous film clips will be utilized in the course of instruction. While the majority will be short clips, some will be shown as complete features. All films will be relevant to the course matter and will consist of material which is appropriate for children of High School age.

Miscellaneous

Snacks and Drinks will be permitted in class at the discretion of the teacher. Drinks must be in a spill-proof container. Snacks must be already removed from any cellophane or foil wrappers so as to be minimally distracting to the class. Any spills, crumbs and trash must be immediately policed by the student. If this privilege becomes a distraction, it will be revoked.

EXPECTATIONS & CONSEQUENCES

EXPECTATIONS:

1. **RESPECT**—Be respectful of other people’s property, opinions, and feelings, as well as your own.
2. **ON TIME & PREPARED**—Come to class on time and have all materials you will need for the day (pen/pencil, notebook, text, binder, paper).
3. **HONESTY**—Being a good citizen in my class means knowing that I can trust you. Be honest when answering questions and when reporting on your projects and experiments.
4. **SAFETY** —Laboratory materials and processes are safe when approached in a careful and deliberate manner. When the students are performing a lab activity, they will be expected to observe all safety rules described by the teacher. They will also be expected to behave in a careful and deliberate manner and to exercise common sense. Students must not handle laboratory materials or perform processes without the explicit instruction of the teacher. Students will be expected to report any unsafe materials or situations to the teacher as soon as it is identified.
5. **ACADEMIC INTENT** —It is assumed that every student in the class desires to learn the content of the curriculum. Students, therefore, will be expected to make an honest effort to learn and to avoid behaviors which might inhibit their own ability or the ability of their classmates to learn.

CONSEQUENCES:

- Disrespect will NOT be tolerated. Your parents will be called and a conference will be set up to discuss the problem. If it becomes continuous, you will be referred to the principal for further intervention.
- If you are late to class, excused or not, you may not be able to earn the points associated with attendance on that day. You need to provide your own class materials each day, I may not be loaning them out. If you do not have your materials and cannot borrow any, you may miss out on any participation points given for the day.
- If you are caught cheating, you will receive an immediate zero on the assignment or test in question. Your parents will be contacted immediately and you will explain to them why you are receiving a zero. If it is a continuous problem, you will be referred to the principal for further action.
- Unsafe behavior will not be tolerated. No student may behave in a manner which will compromise their own safety or that of others. Where the behavior is clearly unintentional, corrective instructions will be given. Repeated unsafe behavior may result in the student “sitting out” the laboratory exercise or possibly even longer-term consequences. Intentional or malicious unsafe behavior may result in a permanent exclusion of the student from lab experiences. The student will be responsible for performing alternative assignments or lose credit for the lab.

Grading for Learning

Recent scholarship has emphasized the importance of student's effort, involvement, commitment and responsibility for their learning and success. Student responsibility is key to all development and learning. Students receiving the following grades demonstrate these characteristics most of the time:

A: Exhibits novel and creative ways to show learning. Enjoys the challenge of learning and successfully completes open-ended tasks with high quality work. Assignments are complete, high quality, well organized and show a high level of commitment. Almost all the learning outcomes are fully or consistently met and extended.

B: Exhibits standard ways to show learning. Enjoys open-ended tasks, but needs support in dealing with ambiguity. Assignments are generally complete, thorough, and organized. Most of the learning outcomes are fully or consistently met.

C: Needs some encouragement to show learning. Needs support to complete open-ended tasks. Assignments are generally complete, but quality, thoroughness, and organization varies. More than half of the learning outcomes are fully or consistently met.

Grading:

Students will be given credit for work completed, and a score of zero for work not completed. The student's score will be computed as a percentage of the work assigned and scores earned. Grades will be assigned as follows:

- A** = 90% - 100%
- B** = 80% - 89%
- C** = 70% - 79%
- D** = 60% - 69%
- F** = Less than 60%

Students will be expected to adhere to the AMES Internet Use Agreement and to be careful and appropriate in the use of school resources. Students must report all damage to resources, equipment malfunctions and discovery of inappropriate use immediately.

Students who enjoy a challenge and are interested in Geology tend to really enjoy this class. I look forward to working productively with you.

Please return this portion

Geology

Student Name: _____

Class: Geology

I have read and I understand the Disclosure:

(Print Parent Name) (Parent Signature) (Date)

(Print Student Name) (Student Signature) (Date)

Parent Contact Information

The best way to reach me is by:

Telephone : _____

E-mail: _____

Other: _____