

## GEOL-1110: Earth Science

### Instructor Information

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Instructor name:

Office location:

Office phone:

Office hours:

Email address:

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### I. Course Description

This course provides a background in the physical, chemical, and biological principles that shape our planet. Topics covered are geology, meteorology, oceanography, energy, the environment, astronomy, and basic chemical and biological processes.

**Credit Hours:** 4 Credits (3 Class Hours, 3 Lab Hours)

### II. Course Outcomes and Topics

#### *Course Outcomes*

Upon successful completion of this course, the student will be able to:

- Discuss the physical features and processes of running water, ground water, wind, and glaciation that shape the Earth's surface through weathering and erosion.
- Explain the structure and interior composition of the Earth.
- Analyze the origins, textures and composition of common minerals and rocks.
- Explain the effects of the ocean on our coastlines and beaches.
- Analyze the theory of plate tectonics and its relationship to volcanoes, earthquakes, tsunamis and mountain building.
- Explain the concept of geologic time and discuss the history of life forms on Earth.
- Discuss the basic process of weather and climate and relate to global warming and cooling and other environmental effects.
- Analyze the origin of the universe and the subsequent evolution of our Solar System in relation to the origin of Earth.

#### *Topics*

- Foundations of Geology
- The Scientific Method and the Formation of Theories
- Atomic theory and the composition of matter
- Bonding and compounds
- The Elements and the periodic table
- Physical characteristics of minerals and mineral identification
- Mineral groups
- Intrusive and extrusive igneous rocks
- Types and characteristics of volcanoes and prediction of eruptions
- Magmatic differentiation and igneous structures
- Sedimentary and metamorphic rocks

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- Weathering, erosion, and soils
- The Earth's interior layers
- Plate tectonic theory
- Types of plate boundaries and their characteristics
- Earthquakes and faults in the United States
- Mountain building
- Agents of erosion and environments of deposition (Running water, ground water, glaciers, wind, beaches, ocean basins)
- Oceanography (Formation of oceans, continental margins, the ocean floor, seawater characteristics, tides, tsunamis)
- Meteorology (Composition of the atmosphere, moisture, clouds, types of precipitation, weather patterns, climate)
- Astronomy (Tools, nature of light, the electromagnetic spectrum, the Universe and its origin, star types, the birth and death of stars, solar system objects and their properties)

### III. Required Materials

#### **Textbook:**

- Hendrix and Thompson. Earth, 2<sup>nd</sup> edition. Publisher: Cengage. ISBN: 9781285442235.

#### **Lab manual:**

- Tarbuck, Lutgens, and Pense: Applications & Investigations in Earth Science, 8<sup>th</sup> ed., Publisher: Pearson. ISBN: 978-0321934529.

### IV. Course Policies

#### **Attendance**

Each instructor will provide information regarding his/her attendance policy. Failure to attend class will result in a final course grade of "FA" or "FN" (see explanation below), depending on the individual instructor's course policy.

- FA= Failure, attendance related (unofficial withdrawal). Last recorded date of attendance required. *Per TBR policy, a student who does not officially drop or withdraw from a course, but receives a failing grade, will receive an "FA" if the last day of attendance was earlier than two-thirds into the part-of-term. That date equates to the last day to withdraw from the course.*
- FN= Failure, never attended class (unofficial withdrawal).

Please be advised that instructors may have a more specific class policy.

**Method of Assessment/Evaluation:** *(Subject to change at instructor's discretion)*

#### Course average

Average of tests and final examination	= 40% - 75%
Average of lab reports	= 25%
Other (Quizzes, homework, etc.)	= 0 - 35%

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The course letter grade is determined according to the following point ranges:

0-59 = F, 60-69 = D, 70-79 = C, 80-89 = B, and 90-100 = A.

Please consult your instructor for specific information regarding method of assessment.

### **Safety:**

The instructor will review the regulations regarding safety in lab classes. You must turn in a signed copy of the regulations, and you should keep a copy for your records.

### **V. D2L Brightspace/NSOnline and myNSCC email**

It is the student's responsibility to check D2L and MyNSCC email on a regular basis. These are the official communication channels between the college and students. Students are responsible for the information communicated through those channels. D2L contains specific course information and MyNSCC contains information important for other purposes.

### **VI. Technology Statement**

Nashville State's classes are considered to be web-enhanced. Faculty have an expectation that students will use a computer and the Internet to complete assignments, engage in online discussions, and access various course materials through Desire2Learn (D2L) course shells. Computers are available for student use at each campus during campus open hours.

### **VII. ADA Compliance Statement**

Nashville State complies with the Americans with Disabilities Act. If you wish to request any special accommodations for any courses in which you are enrolled, contact the Access Center at 615.353.3741 or 615.353.3721.

### **VIII. Classroom Misconduct**

Nashville State Community College has a zero tolerance policy for disruptive conduct in the classroom. Students whose behavior disrupts the classroom will be subject to disciplinary sanctions. The Nashville State Student Code of Conduct policy is available at [http://www.nsc.edu/content/resources/Student\\_Code\\_of\\_Conduct\\_Policy.pdf](http://www.nsc.edu/content/resources/Student_Code_of_Conduct_Policy.pdf).

Please be aware that children are not allowed in class or unattended on campus.

### **IX. Academic Misconduct**

Any form of academic dishonesty, cheating, plagiarizing, or other academic misconduct is prohibited. Students are responsible for understanding and aiding by the Academic Misconduct Policy in the Nashville State Student Code of Conduct that can be found at [http://www.nsc.edu/content/resources/Student\\_Code\\_of\\_Conduct\\_Policy.pdf](http://www.nsc.edu/content/resources/Student_Code_of_Conduct_Policy.pdf).

In addition to other possible disciplinary sanctions that may be imposed through regular college procedures as a result of academic dishonesty the instructor has the authority to assign an "F" or a "Zero" for the exercise, paper, or examination or to assign an "F" for the course. Students may appeal through the appropriate college grade appeal procedures.

### **Academic Early Warning System**

Nashville State Community College has implemented an Early Warning System to notify students via e-mail about academic problems such as poor classroom attendance, poor performance on assignments/tests, poor communication skills, late/missing assignments,

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and/or lack of classroom participation. \*Please note that Early Warning Alerts do not affect a student's academic standing.

## **X. RAVE Emergency Alert System**

Emergency events can happen at any time and Nashville State Community College wants to be able to notify students if and when they occur. For this reason, all students have been enrolled in the free RAVE alert system. If you have not already done so, please log in at <https://getrave.com/login/nsc> to confirm and update your contact information and notification preferences. It is critical that your information be correct so that you will receive any emergency notifications. Your RAVE Username is your NSCC email address. If you've never received an email from RAVE with your password, or if you need to reset your password, select "Forgot your password?" and a new password will be emailed to you. Should the RAVE system indicate "user not found", select Register and create your own RAVE account.

## **XI. Inclement Weather Policy**

Nashville State will use the RAVE alert system to send a text message to students, staff, and faculty about adjusted hours of operation and/or closings at individual campuses. All students should check the Nashville State web site home page at [www.nsc.edu](http://www.nsc.edu) for announcements on campus closures, which may vary from campus to campus. Campus closures will also be announced on local television stations.

When classes are cancelled, an online assignment will be posted in NS Online. Check NS Online for a message from your instructor regarding your online assignment requirements.

Students should use their own best judgment in determining whether to report to campus during inclement weather when classes are not cancelled.

## **XII. Class Cancellation Policy**

If the class is cancelled, the instructor will notify all students by posting in the NSOnline/D2L course, e-mailing through NSOnline/D2L, and/or by posting a sign on the classroom door. In the event of class cancellation, students must access NSOnline/D2L to complete classwork and the assignment that will be posted in the course D2L site.

**NOTE:** This syllabus is meant simply as a guide and overview of the course outcomes, topics, classroom policies, and standard college policies. Some items are subject to change or revision at the instructor's discretion. Each instructor will further clarify their criteria for grading, classroom procedures, attendance, exams and dates, etc.