GEOL 1401.045 INTRODUCTION TO EARTH SCIENCE I

Course Syllabus: Fall 2021 (Face-to-Face Dual Credit)

"Northeast Texas Community College exists to provide personal, dynamic learning experiences empowering students to succeed."

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Office Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Online
	Online	Online	Online	Online	Online	24/7

The information contained in this syllabus is subject to change without notice. Students are expected to be aware of any additional course policies presented by the instructor during the course.

Course Description: Lecture: Extension of the study of geology, astronomy, meteorology and oceanography, focusing on natural resources, hazards and climate variability. Lab: Activities will cover methods used to collect and analyze data in geology, meteorology, oceanography, and astronomy.

TSI REQUIREMENT: n/a
PREREQUISITE(S): none

REQUIRED TEXTBOOK AND MATERIALS: The Good Earth, 5e, by McConnell & Steer; ISBN 9781260466195

Additional Materials:

Introductory Geology Lab Manual: *DELINE, HARRIS AND TEFEND pdf can be accessed at:* *https://web.ung.edu/media/university-press/Laboratory%20Manual%20for%20Introductory%20Geology%20Updated%20082817.pdf?t=1510260756287*

Minimum Technology Requirements:

Laptop or computer
Access to high speed daily internet
Microsoft Office 365 (available as a free download for all NTCC students)

Required Computer Literacy Skills:

Ability to use a web browser to access NTCC Blackboard System for course information, eBook and McGraw Hill Connect

Ability to access NTCC student email system and communicate professionally and competently with instructor.

Ability to create and complete Word documents, save on your computer and upload into Bb assignment links if necessary.

Course Goals and/or Objectives:

Lecture: Learning Outcomes Upon successful completion of this course, students will:

- Identify the influence of geologic and hydrologic processes on Earth's surface.
- Describe the causes and effects of tectonic, meteorological, oceanographic, and astronomical hazards.
- Relate climate change to changes in tectonic configurations, astronomical relationships and atmospheric composition.
- Discuss potential effects of climate variability on Earth systems, including biological systems.
- Recognize how scientific models represent an abstraction of complex systems, such as ocean circulation and climate variability.
- Describe natural resources used by humans and their occurrence and extraction.
- Discuss the effects of renewable and nonrenewable resource development and sustainability

Lab: Learning Outcomes Upon successful completion of this lab, students will:

- Locate on maps and/or photographs localities susceptible to tectonic, meteorological, and oceanographic hazards.
- Discuss methods of hazard prevention and mitigation such as early warning techniques, construction methods, and civil planning.
- Describe contributing factors to past and current climate change.
- Analyze effects of climate variability on geological and biological systems.
- Analyze diverse sources of data that document climate variability such as ice cores, dendrochronology, fossils, and pollen.
- Relate the distribution of fossil fuel, metal and nonmetal resources to geologic processes.
- Describe the methods of extraction of natural resources and their effect on the environment.

College Student Learning Outcomes:

Critical Thinking Skills

CT.1

Students will demonstrate the ability to 1) analyze complex issues, 2) synthesize information, and 3) evaluate the logic, validity, and relevance of data.

Communication Skills

CS.1

Students will effectively develop, interpret and express ideas through written communication.

Empirical and Quantitative Skills

EQS.1

Students will manipulate numerical data or observable facts by organizing and converting relevant information into mathematical or empirical form.

EQS.2

Students will analyze numerical data or observable facts by processing information with correct calculations, explicit notations, and appropriate technology.

Team Work

TW2. Students will work with others to support and accomplish a shared goal.

GEOL 1401 Student Learning Outcomes:

Students will:

Student Learning Outcomes:

1. Gain critical thinking skills while working on and completing weekly homework assignments, which include applying methods such as Venn, diagrams, rubrics and concepts maps.

2. Gain awareness of geological events, weather and climate patterns and oceanic circulation on a global scale and understand/evaluate why events/features occur where they do. Assessment of your awareness is done through various homework assignments.

3. Gain knowledge of geological meteorological, astronomical and oceanic features and processes through lectures, research papers, exams, field trips, and presentations.

These learning outcomes will be assessed throughout the course and on the final exam.

Lectures & Discussions:

COURSE SCHEDULE:

GEOL 1401 16 WEEK ONLINE –FALL 2021 EARTH SCIENCE I FOR NON-SCIENCE MAJORS:

WEEK 1	Syllabus review and Syllabus Quiz, Course Calendar Review, Registration for McGraw Hill Connect, obtain Lab Manual (online free pdf)
WEEK 2	CH 1 INTRODUCTION TO EARTH SCIENCE
WEEK 3	CH 2 EARTH IN SPACE
WEEK 4	CH 3 NEAR EARTH OBJECTS
WEEK 5	CH 4 PLATE TECTONICS
WEEK 6	CH 5 VOLCANOES
WEEK 7	CH 6 EARTHQUAKES
WEEK 8	**MIDTERM EXAM**
WEEK 9	CH 7 SECTIONS 7.1 - 7.3 - EARTH SCIENTISTS, ELEMENTS/ATOMS, MINERALS
WEEK 10	CH 7 SECTION 7.4 - IGNEOUS ROCKS
WEEK 11	CH 7 SECTION 7.5 - SEDIMENTARY ROCKS
WEEK 12	CH 7 SECTIONS 7.6 - 7.7 METAMORPHIC ROCKS AND THE ROCK CYCLE
WEEK 13	CH 8 GEOLOGIC TIME
WEEK 14	CH 13 OCEANS
WEEK 15	CH 16 EARTH'S CLIMATE SYSTEM
WEEK 16	**FINAL EXAM**

DATES ABOVE ARE SUBJECT TO CHANGE DUE TO DIFFERENCES IN THE MVHS ACADEMIC CALENDAR AND THE NTCC ACADEMIC CALENDAR. DUE DATES WILL BE POSTED IN THE CLASSROOM AND COMMUNICATED TO STUDENTS IN ADVANCE.

Evaluation/Grading Policy:

	Grading Scale	
70% Tests including lecture and lab exams		
	A =	100 – 90%
30% daily work, labs, movie night questions,	B =	89 – 80%
chapter reflections, homework, other	C =	79 – 70%
assignments*	D =	69 – 60%
100% Total	F =	<59%

* Assignments include anything assigned by me including, but not limited to, quizzes, homework, daily work, chapter reflections, laboratory exercises, movie night questions, etc.

Evaluation/Grading Policy: Your grade for this course will be comprised of chapter reflections, movie night questions/quizzes, chapter exams, written papers, laboratory assignments and lab tests, and participation in field trips.

- **CHAPTER REFLECTIONS:** Chapter reflections will be assigned for each chapter and will be due the day before the Test for each chapter. Chapter reflections will constitute daily work and must be turned in on time for full credit (no exceptions). Chapter reflections will not be accepted after the due date and will be given a score of zero if turned in late. A rubric will be provided to provide you with the assignment requirements.
- **MOVIE NIGHT QUESTIONS**: Each chapter/topic includes related videos to watch with associated "Movie Night" questions. These questions are mostly multiple choice, and are simply answered by watching and listening to the movie. Movie Night Questions are always due at the end of the class period after we have finished the video. **Late submissions of the Movie Night Questions will not be accepted.**
- **TESTS/EXAMS** Exams will be given after we have covered each chapter. Exams will be worth 100 points each. Exams will cover material presented in the class, textbook, homework, quizzes, and class discussion. All exam scores will be included in your final grade. Exams must be taken on the scheduled day. You can make up exams only if you have a note from a doctor, a letter or email notification from the school/university regarding your participation in a school-sponsored activity, a copy of a jury summons, etc. This legitimate proof for why you cannot attend class that day must be provided to the instructor as far in advance of the exam as possible in order to determine a time to make up the exam.
- **LABORATORY ASSIGNMENTS** –Laboratory assignments will be completed during the course which will provide a hands-on application of material presented in the class and textbook. All labs scores will be included in your final grade. Some of the laboratory assignments will count as a test grade where others may count as daily grades. You will be informed of the grading evaluation status during class. Adequate class time will be provided to complete the labs/lab tests; however, should you fail to complete the lab assignment or tests during class it will be your responsibility to finish it outside of class time and turn in your work on the due date. Late lab assignments will not be accepted, especially since most of the labs will comprise one or two 40-minute class periods. If you are going to be out of class for a school-sponsored activity, please inquire prior to the event regarding any upcoming laboratory assignments.
- **FIELD TRIPS** – There will be field trips during school time in addition to field trips on the weekend. Dates will be provided as soon as they are available. Trips during school time are not optional; however, any field trip schedule on a weekend may provide an extra credit opportunity for students.

There may be unannounced short assignments presented (in class) that will generally cover the practical application of course studies to our life (and hopefully answer the question: why do we need to know this?); or on recent events related to earth and space science. Another reason to show up for class as these cannot be made up!

Attendance: Regular attendance of class is important for students to accomplish the work necessary to successfully complete this course. You are responsible for all material presented in class even if you miss for a legitimate reason (e.g., illness, family emergency, etc.). Please arrange to get class notes from another student if you miss class. Class assignments and scheduled tests cannot be made up if missed. Also, assignment due dates may change, another reason to attend class regularly.

Dropping Class: It is your responsibility to drop the class on or before November 17, 2021. If you do not attend class and do not drop it, you will fail the class and receive a grade of F. If you want to drop the class, you must follow the current NTCC and MVHS guidelines to drop a dual credit class.

GRADING SCALE: The grading scale is as follows:
70 % TESTS, INCLUDING BOTH LECTURE AND LAB TESTS OR MAJOR LABS
30% LABS, REFLECTIONS, MOVIE NIGHT QUESTIONS, QUIZZES

I want to emphasize that it is important to show up to class and turn your work in complete (demonstrating knowledge of the topic) and on time. You will do well in this class if you do this.

Student Responsibilities/Expectations:

Like all colleges, Northeast Texas Community College strives to be a "community of scholars." Please remember that you and all of the students in this class are pursuing very important goals in your lives. As human beings and as scholars, I expect every student to be courteous and considerate toward other individuals. This classroom will practice all six college student learning outcomes: critical thinking, communication, empirical and quantitative skills, teamwork and personal and social responsibility.

Science is a way of knowing about the natural world requiring the use of all six college learning outcomes (critical thinking, communication, empirical and analytical skills, team work, personal and social responsibility). That knowledge is based on evidence that is continuously subjected to testing and verification. Whether you are or are not vaccinated against COVID-19, because of the increase in the highly contagious delta variant, it is highly recommended that face coverings and social distancing in the class room/laboratory be observed to protect you and others. Face coverings must cover both mouth and nose. Covering coughs and sneezes and hand washing continue to be imperative in all situations. Please see the paragraph on "Alternative Operations".

Students are expected to adhere to the guidelines set forth in the "Commitment to Laboratory Safety Pledge" and in the safety video. In addition, students must wear long pants covering their ankles (leggings are unacceptable), closed shoes (no exposed skin or sock), and shirts that cover their shoulders. Approved safety glasses/goggles and face coverings at all times in the lab are also necessary. Students who wear corrective-vision glasses must have elastic-strap safety goggles that cover the entire glasses and seal against the forehead. Long hair should be pulled back. Failure to follow laboratory safety protocols could result in injury to yourself or others and will result in reduction of your laboratory grade. Students not dressed appropriately for lab will be asked to leave and will earn a grade of zero on that experiment.

As your instructor, I will attend all classes on time and prepared to teach what you are expected to learn each day. I will make a conscientious effort each class period to teach to the best of my ability and to provide you with clear, well-organized explanations of class material. I care deeply about your learning experience and your success in this course. However, that ultimate success does depend largely on you. Your success can be maximized and your potential achieved by exhibiting the characteristics of a good student including:

1) Honesty
2) Punctuality
3) Resourcefulness
4) Motivation
5) Organization
6) Diligence
7) Perseverance

These characteristics lead to success in college and contribute to success in future careers as well.

Alternate Operations During Campus Closure and/or Alternate Course Delivery Requirements:

In the event of an emergency or announced campus closure due to a natural disaster or pandemic, it may be necessary for Northeast Texas Community College to move to altered operations. During this time, Northeast Texas Community College may opt to continue delivery of instruction through methods that include, but are not limited to, online through the Blackboard Learning Management System, online conferencing, email messaging, and/or an alternate schedule. It is the responsibility of the student to monitor NTCC's website (http://www.ntcc.edu/) for instructions about continuing courses remotely, Blackboard for each class for course-specific communication, and NTCC email for important general information.
Additionally, there may be instances where a course may not be able to be continued in the same delivery format as it originates (face-to-face, fully online, live remote, or hybrid). Should this be the case, every effort will be made to continue instruction in an alternative delivery format. Students will be informed of any changes of this nature through email messaging and/or the Blackboard course site.

NTCC Academic Honesty Statement:

"Students are expected to complete course work in an honest manner, using their intellects and resources designated as allowable by the course instructor. Students are responsible for addressing questions about allowable resources with the course instructor. NTCC upholds the highest standards of academic integrity. This course will follow the NTCC Academic Honesty policy stated in the Student Handbook."

ADA Statement:

It is the policy of NTCC to provide reasonable accommodations for qualified individuals who are students with disabilities. This College will adhere to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to request accommodations. An appointment can be made with the Academic Advisor/Coordinator of Special Populations located in the College Connection. She/he can be reached at 903-434-8218. For more information and to obtain a copy of the Request for Accommodations, please refer to the NTCC website - Special Populations.

Family Educational Rights and Privacy Act (FERPA):

The Family Educational Rights and Privacy Act (FERPA) is a federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education. FERPA gives parents certain rights with respect to their children's educational records. These rights transfer to the student when he or she attends a school beyond the high school level. Students to whom the rights have transferred are considered "eligible students." In essence, a parent has no legal right to obtain information concerning the child's college records without the written consent of the student. In compliance with FERPA, information classified as "directory information" may be released to the general public without the written consent of the student unless the student makes a request in writing. Directory information is defined as: the student's name, permanent address and/or

local address, telephone listing, dates of attendance, most recent previous educational institution attended, other information including major, field of study, degrees, awards received, and participation in officially recognized activities/sports.