



SCI 201 Earth Science

Peter Mortensen

UNITED TRIBES TECHNICAL COLLEGE

COURSE INFORMATION

This course is an introduction to the Earth Sciences; geology, meteorology, oceanography, and astronomy.

Credits: 3

Pre/Corequisites:

- Corequisite: LAB 201

CLASS INFORMATION

Section Number:

Term: Spring Year: 2024 Start Date: 1/9/2024 End Date: 5/3/2024

INSTRUCTOR

Peter Mortensen

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Office Phone: 701-221-1335

Office Location: SCITC 028

Office Hours:

M-F 12:00-13:00, MWF 14:00-15:00, TR 14:30-15:30

TEXTBOOKS

Face-to-Face Course:

Lutgens, F. K., Tarbuck, E. J., & Tasa, D.G (2016). Essentials of Geology. Pearson. ISBN:9780134446622

Online Course:

Lutgens, F. K., Tarbuck, E. J., & Tasa, D.G (2016). Essentials of Geology. Pearson. ISBN:9780134446622

INSTITUTIONAL LEARNER OUTCOMES

Critical Thinking: Employ critical thinking skills in the processes used to identify and solve problems.

Quantitative & Scientific Reasoning: Develop solutions to mathematical and scientific problems.

COURSE OBJECTIVES

1. Discuss content knowledge about the Earth system, landform processes, weather and climatology, Earth history, the Sun-Earth system, and the formation of the Universe.
2. Understand and use standard Earth Science tools and technology to collect, record, and analyze data.
3. Identify and describe Earth Science processes, including geologic, meteorological, oceanographic and astronomical processes, which affect the Earth and its inhabitants.
4. Discuss current Earth system processes in the news, such as natural disasters, anthropogenic influences, and local environmental issues.
5. Compare and contrast traditional Native American ways of knowing with western science.

GRADING INFORMATION

Final grades are based on total points earned, according to the grading scale below.

A. GRADING SCALE

Grade	Percentage
A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	Below 60%

B. COMMUNICATION

Email is the official means of communication at UTTC. Information Technology (IT) will assign all students an official UTTC email address. All correspondence from the College to the student will be sent to the student's UTTC email address. Students are expected to check their email regularly and are responsible for all information sent to them via their UTTC email address. Faculty expect students to use their official email address for all instructional purposes, including communicating with the faculty.

C. ATTENDANCE

Students at UTTC are expected to participate in all of their class sessions and are expected to communicate with their instructors regarding any emergencies that cause them to miss class. Regardless of the circumstances, the student is responsible for obtaining any information missed because of the absence and completing any outstanding assignments. The student may refer to the course assignments in [My.UTTC.edu](https://my.uttc.edu), contact another student enrolled in the course, or

meet with the course instructor during office hours to get the missing information. Attendance is entered as “Present”, “Absent-Unexcused”, or “Excused” (college-sanctioned absences).

D. LATE ASSIGNMENT SUBMISSIONS

UTTC supports and fosters the student’s responsibility for completing and submitting assignments on or before scheduled due dates and times. If an assignment is due, the student should make every effort to submit the assignment on time. Occasionally, a student may experience an unexpected life event that results in the submission of late work. Communication is the key. Instructors are more than willing to work with students in the event of an emergency if the student communicates with them before the date and time the assignment is due to make other arrangements.

Late assignment deadlines will vary among departments but will not exceed more than five (5) business days after which the assignment was initially due. Assignment due dates, late assignment deadlines, and late assignment penalties are outlined in course syllabi. Assignments not submitted by the initial deadline date will be reflected in the course gradebook as a zero (0) until the assignment has been submitted. The amount of points deducted for late work is at the discretion of the instructor. Assignments submitted via E-mail will not be accepted under any circumstances and will receive a grade of zero.

E. MISSED TEST, EXAMS AND QUIZZES (FORMAL ASSESSMENTS)

Students may not make up a missed test, exam or quiz without a valid reason for their absence (illness, family emergency). It is the student’s responsibility to contact their instructors before the absence, or within 24 hours after missing the formal assessment. The instructor will review the reason the student missed and determine if the circumstance justifies the student being allowed to take the formal assessment. Approved make-up assessments must be taken outside of the student’s regular class schedule and during a time and location agreed upon between the student and instructor. Students are not to miss another class in order to make-up an assessment for another course. If the student fails to show on the date and time of the makeup assessment, the student will not be permitted to reschedule the makeup and the assessment and will earn a 0% grade.

F. EARLY ALERT SYSTEM

UTTC’s Early Alert System (EAS) is a proactive, communication driven support system that provides timely identification and interventions to work with individual students to assist in generating plans to overcome challenges to college success. The system assists UTTC students by linking them to faculty and staff who can provide and connect students to available resources and strategies. The early alert serves as an opportunity for students to take ownership of their success and empower them to accomplish academic and personal goals. The system helps faculty and academic advisors connect and communicate with students as issues arise. The additional cross-wide partnerships create a culture of collaboration focused upon the best interest of UTTC students.

Academic related concerns such as attendance, missing assignments, or classroom behavior will result in an early alert being issued by faculty. When an early alert is issued, the student will receive an email requesting them to make arrangement to follow up with the instructor and/or their academic advisor. Students receiving an early alert should make the necessary arrangements to set up and meet with faculty as soon as possible to generate a plan of success.

G. ACADEMIC HONESTY

Students are expected to complete their own work. Academic dishonesty includes plagiarism; cheating on assignments or examinations; engaging in unauthorized collaboration on academic work; taking, acquiring, or using course materials

without faculty permission; submitting false or incomplete records of academic achievement; acting alone or in cooperation with another to falsify records or to dishonestly obtain grades, honors, awards, or professional endorsement; altering, forging, misrepresenting, or misusing an academic record; or fabricating or falsifying data, research procedures, or data analysis. Refer to [Academic Affairs policies](#) and procedures handbook for further information.

H. STUDENTS WITH DISABILITIES

United Tribes Technical College recognizes its responsibility for making reasonable accommodations to ensure there is no discrimination on the basis of a disability. The Disabilities Support Services coordinates reasonable accommodations, support services, and appropriate referrals for the purpose of removing barriers and providing an equitable learning environment. If you have a disability, please contact the Disabilities Services (DS) office at (701) 221-1456 or email at dss@uttc.edu.

I. TITLE IX STATEMENT

Title IX is a federal civil rights law that prohibits discrimination on the basis of sex, including sexual harassment, rape and sexual assault. United Tribes Technical College is committed to upholding the law and standards that promote respect and human dignity in a safe environment. Sexual misconduct and relationship violence in any form violates UTTC's mission, cultural values, Student Code of Conduct, and may also violate federal and state law. If you or someone you know has been impacted by sexual assault, dating and domestic violence, stalking, or sexual exploitation, UTTC has resources available on the [Title IX website](#). you can find the appropriate resources on the UTTC campus and in the community

J. DIVERSITY AND EQUITY STATEMENT

United Tribes Technical College values diversity because it enriches the community and wealth of experiences that characterize a post-secondary education. Our students, faculty, and staff come from Tribal lands throughout the United States and Canada. The majority of our students come from the northern plains region of the country, with 70% representing the North Dakota tribes.

UTTC recognizes that diversity is about much more than race, ethnicity or geography. Because students from many Tribal nations are represented at UTTC, from a wide range of cultural and ethnic backgrounds, students are encouraged to share their own cultural practices, traditions, and beliefs in the classroom in an effort to build an inclusive and welcoming community for all individuals and one from which we can learn from one another. We believe engagement with diverse perspectives and ideas is critical to the education and growth of all people, and we value the unique experiences and viewpoints of all of our community members.

EQUITY STATEMENT

United Tribes Technical College (UTTC) believes that access to a high-quality education in an inclusive environment is the right of all individuals and imperative for the continued advancement of a strong democracy and workforce. Equity is ensuring that all students receive what they need to be successful through the intentional design of the college experience.

K. TECHNOLOGY REQUIREMENTS

To ensure that you are using the recommended personal computer configurations, please refer to the [minimal technology requirements](#).

COURSE CALENDAR

This schedule is tentative and subject to change.

Module/Week	Academic Topic Instructional Strategy	Support Materials, Book chapters, etc.	Assessment (Formative – Summative)
1 Jan 9 - 12	Intro to Earth Science	Ch 1	Quiz
2 Jan 15- 19	*No School 1/15 MLK Plate tectonics	Ch 2	Quiz
3 Jan 22 -26	Matter & minerals,	Ch 3	Quiz
4 Jan. 29 – Feb. 2	Igneous rocks, Volcanic activity	Ch 4-5	Quiz
5 Feb 5 - 9	Weathering & soil, Sedimentary rocks	Ch 6-7	Quiz
6 Feb. 12 - 16	Metamorphic rocks	Ch 8	Quiz
7 Feb 19 - 23	*No School 2/19 President's Day Earthquakes	Ch 9	Quiz
8 Feb 26 – Mar 1	Structural geology	Ch 11	Midterm Exam
9 Mar 4 - 8	Midterm Grades Due 3/8 Mass wasting	Ch 12	Quiz
Mar 11 – 15 Spring Break – No Classes			
10 Mar 18 - 22	Fluvial geology, Groundwater	Ch 13-14	Quiz
11 Mar 25 - 29	*No School 3/29 Good Friday Deserts & aeolian processes	Ch 16	Quiz
12 Apr 1 - 5	Glacial geology	Ch 15	Quiz
13 Apr 8 - 12	Coastal geology	Ch 17	Quiz
14 Apr 15-19	Geologic time	Ch 18-19	Quiz

15 Apr 22 - 26	Climate change	Ch 20	Quiz
16 Apr 29 – May 3	Finals Week		Final Exam
	Review		
GRADES DUE	May 6th		