New Jersey Institute of Technology
College of Science and Liberal Arts
Department of Physics
The Earth in Space, Phys 203–011
Fall 2023
Mondays, 11:30 a.m. to 12:50 p.m. **Kupfrian Hall, Room 209**
Thursdays, 11:30 a.m. to 12:50 p.m. **Kupfrian Hall, Room 209**

Instructor

Tao Zhou, Ph.D., Associate Professor
Tiernan Hall, Room 478
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Office Hour: Monday 2:30 – 4 pm, Wednesday 11:30 am to 1 pm

Textbook: Tarbuck, Lutgens and Tasa, *Earth Science*, Pearson.

Grade

Your final grade will be based upon 3 examinations (20% each) and one Final Examination (30%) and class participation including quiz (10%). The examinations will be administered on the following dates.

There will be no "make-up" examinations. If you plan to be absent on one of exam dates, you must discuss your situation with the instructor at least a week before the exam. If you miss an examination and you have not discussed the situation with the instructor, you will receive a grade of zero for that examination. The grades you earn on your examinations will determine your final grade based on the following table.

85% to 100%	A
80% to 84%	B+
70% to 79%	B
65% to 69%	C+
50% to 64%	C
40% to 49%	D
0% to 39%	F

The examination grades will not be "curved," nor will the final grades be "curved." Each examination will consist of multiple-choice and/or true-false questions, all of which will come directly from topics discussed in class and/or topics discussed in the textbook. The Final Examination will consist of multiple-choice and/or true-false questions covering the entire course's material. Each examination will be "closed book" and "closed notes." No "formula sheet" or "cheat sheet" will be provided, nor will either be permitted for any of the examinations.

The Earth in Space (Phys 203) and The Earth in Space Laboratory (Phys 203A) are two separate courses for which you will receive two separate and independently determined grades. Moreover, you are free to register for either one of these courses without registering for the other course. If you register for both courses, withdrawal from one course does not mean you must withdraw from the other course.

Academic Integrity

Any student who is disruptive in the classroom will be in violation of the Academic Honor Code and will be reported to the Dean of Student Services.

Any student who cheats during an examination will be in violation of the Academic Honor Code. The student will automatically fail the course and will be reported to the Dean of Student Services so that further action may be taken. Examples of cheating during an examination include, but are not limited to, talking with another student, copying work from another student's examination, allowing another student to copy work from your own examination, or use of any materials besides the examination paper and a writing utensil.

Course Schedule (subject to change based on course progress)

Lecture 1: introduction to Earth Science (Chapter 1)
Lecture 2: Matter and Minerals (Chapter 2)
Lecture 3: Rocks: Minerals of the solid earth (Chapter 3)
Lecture 4: Weathering, soil, and mass wasting (Chapter 4)
Lecture 5: Running water and ground water (Chapter 5)
Lecture 6: Glaciers, deserts and wind (Chapter 6)
Exam1: Chapter 1 to 6
Lecture 7: Plate tectonics (Chapter 7)
Lecture 8: Earthquakes and Earth's interior (Chapter 8)
Lecture 9: Volcanoes and other Igneous Activity (Chapter 9)
Lecture 10: Crustal deformation and Mountain building (Chapter 10)
Lecture 11: Geological Time (Chapter 11)
Lecture 12: Earth's evolution through geological time (Chapter 12)
Exam 2: Chapter 7 to 12
Lecture 13: The Ocean floor (Chapter 13)
Lecture 14: Ocean water and Ocean life (Chapter 14)
Lecture 15: The dynamic Ocean (Chapter 15)
Lecture 16: The atmosphere (Chapter 16)
Lecture 17: Moisture, Clouds and Precipitation (Chapter 17)
Lecture 18: Air pressure and wind (Chapter 18)
Exam 3: Chapter 13 to 18
Lecture 19: Weather patterns and sever storms (Chapter 19)
Lecture 20: World climate global climate change (Chapter 20)
Lecture 21: Origin of Modern astronomy (Chapter 21)
Lecture 22: Touring our solar system (Chapter 22)
Lecture 23: Light, Astronomical observations and the Sun (Chapter 23)
Lecture 24: Beyond our solar system (Chapter 24)
Lecture 25: Review
Final Examination