***Introductory Geology******01:460:101***

***(and 01:460:103 lab)***

***Fall Semester, 2021***

***Draft Syllabus as of 1 September, 2021***

A picture containing indoor, sitting, table, bowl

Description automatically generated

**Website:** <https://sakai.rutgers.edu>

**Instructor**  
Prof. Carl Swisher email: [cswish@eps.rutgers.edu](mailto:cswish@eps.rutgers.edu)              
 - Office Hours: via *Zoom*, after class, and by scheduled appointment

**Lab Instructors / TAs**   
Aidan Taylor    [aet79@scarletmail.rutgers.edu](mailto:aet79@scarletmail.rutgers.edu) Sec. 01  Wednesday   3:00 – 6:00

Zakiya Chikwendu [chikwenduz@gmail.com](mailto:chikwenduz@gmail.com) Sec. 02   Friday   9:00 – 12:00

- Office Hours: via *Zoom*, after lab, and by scheduled appointment

**Lecture**  
For Fall Semester, all lectures will be live Tuesday / Thursday, 1:00-2:20 pm in WL 308. Meetings, discussions and presentations may at times be scheduled via Rutgers *Zoom*online meetings during regular scheduled classroom times. Advance notification of these meetings will be given. You will receive invitations to join any Zoom meetings as well as receive reminders prior to the start of each meeting. In class and online presentation time will typically be limited to one hour.

All lectures and class participation will be live, requiring your participation during the designated course times. We will try to record all lectures. It is important that you schedule your time for participation during course hours. Likewise, your class presentations will be presented to the class using PowerPoint in class and shared via *Zoom*. As such, you will need to have a reasonable internet connection, a computer or laptop with both audio and video capabilities, so that we are able to reasonably communicate with each other.

**Labs**

All lab presentations and class participation will live in-class in WL308, requiring your participation during the designated course times, the lab presentations will not be recorded. It is important that you schedule your time for participation during course hours. Lab discussions and assignments may at times be scheduled via Rutgers *Zoom*online meetings during regular scheduled lab times. Advance notification of these meetings will be given. You will receive invitations to join any Zoom meetings as well as receive reminders prior to the start of each meeting.

**Online Course Materials**

Please note, lectures and materials utilized in this course, including but not limited to videocasts, podcasts, visual presentations, assessments, and assignments, are protected by United States copyright laws as well as Rutgers University policy. We will try to record all lectures for use in this course only. As the instructor of this course, I possess sole copyright ownership. You are permitted to take notes for personal use or to provide to a classmate also currently enrolled in this course. Under no other circumstances is distribution of recorded or written materials associated with this course permitted to any internet site or similar information-sharing platform without my express written consent. Doing so is a violation of the university’s Academic Integrity Policy. Similarly, these copyright protections extend to original papers you produce for this course. In the event that I seek to share your work further, I will first obtain your written consent to do so.

**Course Textbook: recommended**  
Text 1: *Understanding Earth*, 8th Edition, 2020, by Grotzinger, and Jordan is our recommended text. <https://store.macmillanlearning.com/us/product/Understanding-Earth/p/131905532X?gclid=Cj0KCQjwsZKJBhC0ARIsAJ96n3XhdxTk_zmhHNMkXITijbM0V0zQqdEjoQHjUlMBtB_Eql4zxXb0QcoaAuz0EALw_wcB>

*An earlier e-version of this text,* *7th Edition, 2014, by Grotzinger, and Jordan* *will be posted on our Canvas site.*

Text 2: *Earth: Portrait of a Planet*, 6th Edition, 2018 by Stephen Marshak / book website <https://wwnorton.com/books/9780393640137>

**Lab Textbook**: Lab Notes / Handouts

**Some dates to remember**

- Fall Semester, 2021, begins Wednesday, September 1

- First day of Geo 101 is Thursday, September 2, 2021.

- Monday September 6, is Labor Day, there will be no classes

- Wednesday, 6 September, will be Monday classes, therefore there will be no lab

- First Geo101 lab will be Wednesday, 15 September (sec. 01) and Friday, 17 September (sec. 02)

- Monday 18 November will be Wednesday Classes-

- Thanksgiving break will be Wednesday, 24 November -Sunday, 28 November

- Regular Classes end Monday, 13 December, Reading Days are Tuesday 14-15 December

- Alternate Final for Geo101 / Date to be determined

**Grading Points**  
Take home quizzes / Exams 3 @ 60 pts 180

Geologic Timescale Presentation / Report      60

Labs                         10 @ 10 pts 100  
Lab quizzes 9 @ 5 pts 45  
Lab Final 50

*TBD* Geology New Jersey Field Trip / Assignment 30

Miscellaneous stuff 35 ±

**Total Class Points ~ 500 ±**

**Note on the attached Course Syllabus**  
The course syllabus should be used as a general outline of the course.  The syllabus may be modified during the semester if needed due to unforeseen absence as a result of unscheduled appointments or changes required as a result of online scheduling.  Modifications will be discussed in class and posted on the SAKAI course website. 

**Week Day Labs Topic / Readings in Grotzinger & Jordan**

Wk 1

Thur. 09/02 Introduction to Geology  *Chapter 1, p.3)*

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` Tue. 09/07 Physical Parameters of the Earth *(Chapter 1, p.3), notes*

Wk 2 *No Lab*

Thur. 09/09Earth and its place in the Universe *(Chapter 9, p.221)*

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Tues. 09/14 The Periodic Table (presented by Alissa Mader / notes)

Wk 3 *Solar System / Density*

Thur. 09/16 Elements, Ions and Isotopes *(Appendix 3)*

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Tues. 09/21 Minerals *(Chapter 3, p.57)*

Wk 4 *Minerals*

Thur. 09/23 Rocks *(Chapter 3, p.57)*

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Tues. 09/28 Primary Rocks / Solids from Melts *(Chapter 4, p.91)*

 Wk 5 *Igneous Rock*

Planetary Differentiation *(Chapter 9, p.221)*

Thur. 09/30

*Take Home Quiz 1*

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Tues. 10/05 Intro to Plate Tectonics (*Chapter 2, p.27)*

 Wk. 6 *Plate Tectonics*

Thur. 10/07 Age of the Earth *(Chapter 8, 195 part, Appendix 3)*

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Tues. 10/12 Sedimentary Rocks *(Chapter 5, p.115)*

 Wk 7               *Sedimentary Rocks*

Thur. 10/14 Stratigraphy *(Chapter 8, p.195 part)*

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Tues. 10/19 Transformation from a Solid State *(Chapter 6, p.149)*

Wk 8  *Metamorphic Rocks*

Thur. 10/21 Mountain Building *(Chapter 7, p.171)*

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Tues. 10/26 Intro to Earth’s Timescale (p.202 -, notes)

Wk 9

Thur. 10/28 *Structural Geology*

*Take Home Quiz 2*

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Tues. 11/02 4.5 GA of Earth History *(Chapter 11, p.283 and notes)*

Wk 10 *Maps / Cross Sections*

  Thur. 11/04 Geology of New Jersey (notes)

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Tues. 11/09 Geobiology *(Chapter 11, p.283*

Wk 11

  Thur. 11/11 Earthquakes *(Chapter 13, p.347)*

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Tues. 11/16 Venting of the Earth: Volcanoes *(Chapter 12, p.313)*

Wk 12 *No Lab*

Thur. 11/18 Thanksgiving Break – no class

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Tues. 11/23

Wk 13 *Earthquakes & Volcanoes*

Thur. 11/25 Earth’s Climate *(Chapter 15, p.407)*

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Tues. 11/30 Climate Change *(Chapter 23, p.641)*

Wk 14 *Climate Change*

  Thur. 12/02 Energy Resources (*Chapter 23, p.641)*

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Tues. 12/07 Timescale Presentations I - Reports

Wk 15       *Exploration / Engineering Geology*

Thur. 12/09 Timescale Presentations II - Reports

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*Take Home Quiz 3*

**\* Rutger’s policy regarding face masks on campus and in classrooms**

*In order to protect the health and well-being of all members of the University community, masks must be worn by all persons on campus when in the presence of others (within six feet) and in buildings in non-private enclosed settings (e.g., common workspaces, workstations, meeting rooms, classrooms, etc.). Masks must be worn during class meetings; any student not wearing a mask will be asked to leave. Masks should conform to CDC guidelines and should completely cover the nose and mouth:* [*https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/about-face-coverings.html*](https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/about-face-coverings.html) *Each day before you arrive on campus or leave your residence hall, you must complete the brief survey on the My Campus Pass symptom checker self-screening app.*

**\* Statement committing to diversity, inclusion, equity**

*"In this course, students and instructors are expected to respect one another regardless of gender identity, race, religion, ethnicity, sexual orientation, ability, country of origin, and socioeconomic background. Going beyond respect, we must all put forth the effort to understand one another and show compassion. This means communication with one another in the course must reflect the values above. Any disrespect, from harassment through microaggressions, is unacceptable and will be handled accordingly. Assignments and lessons in the course are intended to be accessible to every student and if there is any issue, please alert the course instructor, your TA, or undergraduate advisor. We as TAs and instructors are not immune to what has been said here, and if any issue should arise please say something to us through email, Canvas message, or Zoom meeting. Earth Sciences (along with many other STEM fields) have a history of excluding marginalized groups (BIPOC, people with disabilities, women, LGBTQ+ community). It is our job to actively dismantle these exclusionary practices and make a conscious effort to change Earth Science culture for the better.”*

\* The above statement is modified slightly from a draft presented by Rutger's association of Earth and Planetary Science graduate students and is adopted here by the TAs and instructors of this course.  
**Rutgers’ Policy on Academic Integrity**.  If you are not familiar with this, I highly recommend you look it over. It is posted on the course website and listed below.

**\* Policy on Classroom Etiquette**  
The Department of Earth and Planetary Sciences is committed to teaching excellence, fostering close interaction between students and faculty.  While recognizing that large lecture classes are required to serve the demand for 100- and 200-level introductory course, the department has made concerted effort to avoid offering courses larger than 140 students whenever practicable.  At all levels, we demand that instructors (Professors, Lecturers, and Teaching Assistants) AND students display appropriate respect and consideration for each other.  Instructors should try to infuse students with an enthusiastic appreciation of Geological Sciences, be well prepared for class, provide students with clear goals and expectations, listen carefully to student questions and comments, and conscientiously evaluate students' work.  Students are expected to attend the scheduled classes and to behave courteously in class.  Together, instructors and students will maintain an environment of openness and civility that encourages and honors the intellectual achievement represented by the discipline of Department of Earth and Planetary Sciences.  Rules on exams, attendance, tardiness/leaving early, and integrity are outlined below.  As rules vary somewhat for each course and for each instructor, students should be familiar with those particular rules as outlined by each instructor for each course.  Any uncertainties or questions should be clarified by asking the course instructor.  
**Attendance:** Students are expected to attend class; attendance is one of the best prognosticators of a student's performance.  If a student cannot attend a class or must leave early, he/she should inform the instructor and ask to be excused.  Instructors may require signed attendance sheets and may count attendance as part of the grade.  Falsification of an attendance record by signing another student's name or signing and then leaving class is a serious breach of academic integrity.   
**Tardiness and Leaving Class Early:** Rutgers is geographically challenged.  Students must commute considerable distances between classes and instructors are aware of problems that students encounter in trying to come to class on time.  Students should try to not schedule courses on different campuses in adjacent periods.  We recognize that some tardiness is inevitable; HOWEVER, habitually arriving in class late and departing early is disruptive and rude.  We ask that once you make every effort possible to get to class on time, and once there, STAY.  
**Personal Conversation**: It is rude and disruptive to engage in personal conversation during class.  Students who persist in this disruptive behavior may be asked to leave the class and may be penalized as absent.  Refusal to leave class once requested will result in disciplinary action at the Dean's level.  **Cell phones and beepers should be turned off in class.**  
**Exams:** Every effort must be made to take exams when scheduled.  No unexcused make-up exams will be given without PREVIOUS reported absence through the website <https://sims.rutgers.edu/ssra/>.  Those with valid excuses as decided by the instructor will be allowed to take exams in a method determined by the instructor. **Academic Integrity**: Our department fully endorses a no-tolerance cheating and plagiarism policy.  If you are caught cheating, the instructor may fail you and request disciplinary action.

\* Cheating and plagiarism are not acceptable! 

**\* Current Academic Integrity Policy**: <http://academicintegrity.rutgers.edu/integrity.shtml>  
Violations include: cheating, fabrication, plagiarism, denying others access to information or material, and facilitating violations of academic integrity.  
**Your Rights:**We are all human, and instructors and students both make mistakes.  If you feel that you have been treated unfairly, first contact the Instructors and TAs and arrange to meet. If an adequate resolution cannot be agreed upon, the instructors will help assist you in setting up a meeting with the department Chair and or Dean of Arts and Sciences.