

GEO120 Geology of U.S. National Parks (3 cr.)

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OFFICE HOURS: Mondays, 1-3pm via zoom @ <https://uri-edu.zoom.us/my/cardace>

(3 crs.) Selected parks are used to illustrate geologic processes and age relationships to understand Earth history. Includes plate tectonics, volcanic and plutonic activity, glaciation, cave formation, stream and coastal processes, landscape formation. (Lec. 3) (A1) (B4)

Meeting times/location. TBD, MoTuWeTh 10:00AM - 11:45AM

Learning Outcomes.

At the end of this course, when it comes to geoscience questions, you will be able to:

1. Know when there is a need for information, and to be able to identify, locate, evaluate, and effectively and responsibly use that information (B4 gen ed goal);
2. Use scientific (evidence-based) thinking to understand the world and solve problems (A1);
3. Understand the mission of the National Park System and current challenges it faces;
4. Identify and understand important geologic terms and concepts and how they relate to national parks;
5. Comment critically about fundamental concepts in geology and the geologic history of Earth. Examples of fundamental concepts are: (a) Earth is 4.6 billion years old, (b) Earth is continually changing, (c) life evolves on a dynamic Earth and continuously modifies Earth, and (d) the nature of science (specifically geology) relies on evidence, analysis, interpretation, communication, and revision.

Required texts. All readings will be available as electronic resources through the URI library or web links. Physical geology. 2015. Steven Earle via Open Textbook Library distributor Minneapolis, MN Open Textbook Library https://uri-primo.hosted.exlibrisgroup.com/permalink/f/pf084o/01URI_ALMA51346981410002396

Required supplies.

Note-taking supplies, folder to store quizzes and graded work.

Grading (1000 pts possible).

8 Quizzes (40 pts each*8 quizzes)	320 pts (32%)
18 Homework Assignments (20 pts each*18)	360 pts (36%)
Final Exam (cumulative—please save and review all quizzes)	120 pts (12%)
Discovery Podcast (solo project, script+recording+review gallery+reflection letter)	120 pts (12%)
Participation (attendance/in class activities)	80 pts (8%)

● **Quizzes (32%)** Multiple choice or simple answer quizzes will be released (timed) on Brightspace, and draw on in-class material from previous lecture meetings.

● **Homework (36%).** In-class distribution of concept checks, short written reflections, and required homeworks (“HW” as shown in course schedule below). Full credit is awarded for a careful, whole, correct submission that is on time (complete at the time of grading, checked during and at the end of term).

● **Final Exam (12%).** A cumulative multiple choice or simple answer exam will be given.

● **Discovery Podcast (12%).** Prepare and develop a podcast.

● **Participation (8%).** You are expected to be present at all sessions associated with this course. *This may be more heavily weighted than you are used to. Participation will matter to the final grade you receive. Please be mindful of this and come to every class.*

Instructor policies.

- Support the learning and comfort of others in this class.
- Be a good group member: be friendly, do your part, generally be an adult. Conduct yourself in class with respect for others. There is no place here for personal slurs, rude language, or intimidating actions. I expect you to use courtesy in your speech with me and others in the class.
- Discuss personal issues (absences/excuses/grading questions) during individual meetings rather than in class.
- Turn in work when due for full credit. If you must be late, turn it in by 9:50AM the following morning for 10% penalty. If you have extenuating circumstances, and later submission is approved by your professor, turn it in by noon on reading day for the semester for 33% penalty. If not approved, you will receive a zero for late work.
- Missed in-class assignments will count as a zero unless excused. In the event of illness, contact Prof. Cardace before the missed class; provide doctor's documentation after the fact. Other excuses will be handled one by one.
- Ensure you have added quotation marks and a citation to any phrase you have taken from any written text, including publications, others' work, peer communications, chatbots, or web pages. All unquoted text should be original language composed by the student, or a plagiarism call will be made.
- If you have original digital scans or work to be submitted this semester, transform to a pdf prior to sharing.
- Any student with a documented disability may arrange reasonable accommodations. As part of this process, students are encouraged to contact the office of Disability Services as early in the semester as possible (<http://web.uri.edu/disability/>).
- "Incomplete" grades are not assigned except in cases of emergency approved by the Department Chair and the Dean.

Assigning semester grades: Each assignment in the course must be completed for you to receive a passing grade. At the end of the semester, I will use the following scale to determine your letter grade. I reserve the right to curve up.

94-100 = A; 90-93 = A-; 87-89 = B+; 84-86 = B; 80-83 = B-; 77-79 = C+; 74-76 = C; 70-73 = C-;
67-69 = D+; 64-66 = D; <64 = F

Academic Honesty: As a URI student, you have an obligation to conduct your academic work with honesty and integrity according to University standards. It is expected that all work that you submit will be your own, and that you have actually done the work that you are submitting. Cheating will not be tolerated in this course. It is unfair to your fellow students and it is disrespectful to me, your instructor. Should you be found to be guilty of cheating, you will receive a zero for that exam or assignment and a record of that misconduct will be filed with the Dean of Students office. In addition, other sanctions may include failure in or removal from this course or expulsion from the University. Should you observe a classmate engaged in academic misconduct, I would appreciate your bringing this to my attention. URI Academic Honesty Policy <https://web.uri.edu/studentconduct/academic-honesty-procedures/>

Don't Plagiarize. As in the University Manual @ <https://web.uri.edu/manual/chapter-8/chapter-8-2/>:

8.27.10 Cheating and Plagiarism. Students are expected to be honest in all academic work related to the classroom, online, internships, co-ops, study abroad, independent studies, research projects, practica, or other experiential placements. [#15-16-30](#)

8.27.11 A student's name on any written exercise (theme, report, notebook, paper, examination) shall be regarded as assurance that the work is the result of the student's own thought and study, stated in the student's own words and produced without assistance, except as quotation marks, references and footnotes acknowledge the use of other sources of assistance. Occasionally, students may be authorized to work jointly, but such effort must be indicated as joint on the work submitted. Submitting the same paper for more than one course is considered a breach of academic integrity unless prior approval is given by the instructors.

8.27.12 In preparing papers or themes, a student often needs or is required to employ sources of information or opinion. All such sources used in preparing to write or in writing a paper shall be listed in the bibliography. It is not necessary to give a footnote reference for specific facts which are common knowledge and have obtained general agreement. However, facts, observations and opinions which are new discoveries or are debatable shall be identified with correct footnote references even when restated in the student's own words. Material taken word for word from the written or oral statement of another person must be enclosed in quotation marks or otherwise clearly distinguished from the body of the text and the source cited. Paraphrasing or summarizing the contents of another's work usually is acceptable if the source is clearly identified but does not constitute independent work and may be rejected by the instructor. [#21-22-6](#)

8.27.13 Notebooks, homework and reports of investigations or experiments shall meet the same standards as all other written work. If any work is done jointly or if any part of an experiment or analysis is made by someone other than the writer, acknowledgment of this fact shall be made in the report submitted. Obviously, it is dishonest to falsify or invent data.

8.27.14 Written work presented as personal creation is assumed to involve no assistance other than incidental criticism from others. A student shall not knowingly employ story material, wording or dialogue taken from published work, motion pictures, radio, television, lectures or similar sources.

8.27.15 In writing examinations, the student shall respond entirely on the basis of the student's own capacity without any assistance except that authorized by the instructor.

8.27.16 Instructors shall have the responsibility of informing students about their expectations regarding the preparation of all assignments with academic integrity. [#15-16-30](#)

8.27.17 Instructors shall have the explicit duty to take action in known cases of cheating or plagiarism. The instructor shall have the right to fail a student on the assignment on which the instructor has determined that a student has cheated or plagiarized. The circumstances of this failure shall be reported to the student's academic dean, the instructor's dean, and the Dean of Students Office. The student may appeal the matter to the instructor's dean, and the decision by the dean shall be expeditious and final. The Dean of the Alan Shawn Feinstein College of Education and Professional Studies shall be considered the instructor's dean only in cases of courses offered exclusively through the Alan Shawn Feinstein College of Education and Professional Studies (e.g. courses with the code BIS). [#09-10-12 #October 20, 2022](#)
[Informational Report](#)

8.27.18 If the violation warrants more severe censure, the instructor may recommend additional action to the instructor's dean. Upon this recommendation the dean may authorize the instructor to fail the student in the course. The student or instructor may appeal the dean's decision to the Provost and Vice President for Academic Affairs whose decision on the appeal shall be final.

8.27.19 Either the instructor, the instructor's dean or the student's dean may request conduct action ([see 9.21.10 9.23.31](#)) on an allegation against a student for cheating or plagiarism. Any of the conduct sanctions listed in sections [9.22.10 - 9.22.18](#) may be imposed after a finding of guilty. If the request comes from an instructor it shall be accompanied by a statement of position from the instructor's dean ([see 9.20.10 and 9.21.10](#)). [#January 27, 2022 Informational Report](#)

8.27.20 Students accused of academic dishonesty within the drop period may be denied the opportunity to drop the course. This requires permission from the instructor's dean. If the accusation is not upheld in an appeal, the student will be given the same options available before the end of the drop period without penalty. [#04-05-32](#)

8.27.21 Any record of scholastic integrity infractions where actions have been taken (i.e., assignment of an "F" on an assignment and notification of the student's dean, dean's authorization to assign an "F" for the course, referral to the University Board on Student Conduct) will be forwarded to the Dean of Students Office. A cumulative file will be maintained in that office. The Dean of Students shall notify the student's dean of subsequent infractions and may initiate conduct action against the student. [#04-05-32 #October 20, 2022 Informational Report](#)

8.27.22. All course content (including but not limited to syllabi, outlines, presentation slides, lectures, lesson plans, class activities, exams, and assignments) created or facilitated by instructors shall be considered the instructors' intellectual property. Course content shall not be recorded, distributed, shared in any public domain or third party website, or sold without prior written consent of the instructor. [#15-16-30, #20-21-42](#)

Flu/COVID

If you are so sick you cannot/should not come to class, do not come. If you should be wearing a mask, wear a mask. Notify me at cardace@uri.edu of your status, and we will communicate through the medium we have established (zoom link shared on Brightspace site) for the class. We will work together to ensure that course instruction and work is completed for the semester. Recall: the Centers for Disease Control and Prevention have posted simple methods to avoid transmission of illness. For more information please view www.cdc.gov/flu or [flu.gov<http://www.cdc.gov/flu%20or%20flu.gov>](http://www.cdc.gov/flu%20or%20flu.gov). URI Health Services web page, www.health.uri.edu<<http://www.health.uri.edu>>, will carry advice and local updates.

Week	Monday	Tuesday	Wednesday	Thursday	Friday
<u>Week 1.</u> (May19)	(5/19/25) Welcome! National Park Service; Climate and Climate Change [Earle Ch19] HW1_	(5/20/25) Climate and Climate Change [Earle Ch19] <i>Gates of the Arctic</i> HW2_ Setting Up Your Discovery Podcast	(5/21/25) Quiz 1 Glaciation [Earle Ch16] Glaciation [Earle Ch16] <i>Glacier</i> HW3_	(5/22/25) Origin of Earth [EarleCh22] HW4_ Finding Good Information	NA
<u>Week 2.</u> (May27)	<i>Memorial Day, no class</i>	(5/27/25) Quiz 2 Earth Interior [Earle Ch9] HW5_	(5/28/25) Minerals [Earle Ch2] <i>Petrified Forest</i> HW6_	(5/29/25) Quiz 3 Tectonics [Earle Ch10] HW7_ Is your information GOOD? The CRAAP Test	(5/30/25) Volcanism [Earle Ch4] <i>Hawai'i Volcanoes; Lassen Intrusive Igneous Rocks</i>
<u>Week 3.</u> (Jun2)	(6/2/25) Quiz 4 [Earle Ch3] <i>Yellowstone; Acadia</i> HW8_	(6/3/25) Virtual Grand Canyon field trip! See Brightspace assignment. HW9_	(6/4/25) Quiz 5 Sediments & Sedimentary Rocks [Earle Ch 6] Clastics. <i>Grand Canyon; Arches</i> HW10_	(6/5/25) Sediments and Sedimentary Rocks [Earle Ch 6] + Earth History. Biological sed rocks. <i>Biscayne Bay; Guadalupe Mountains</i> HW11_ Discovery Podcast Content	NA
<u>Week 4.</u> (Jun9)	(6/9/25) Quiz 6 Sediments and Sedimentary Rocks [Earle Ch 6] + Earth History. Chemical sed rocks. <i>Carlsbad Caverns; Oregon Caves; White Sands.</i> HW12_	(6/10/25) Metamorphism and Metamorphic Rocks [Earle Ch 7] <i>Death Valley's Marble Canyon; Rocky Mountains 1.8Ga schists</i> HW13_	(6/11/25) Quiz 7 Geologic Structures [Earle Ch 12] HW14_	(6/12/25) Earthquakes [Earle Ch 11] <i>Point Reyes 'Earthquake Walk'</i> HW15_ Wise Up_ The Right Way to Cite	NA
<u>Week 5.</u> (Jun16)	(6/16/25) Quiz 8 Earth's Waters: Streams, Floods [Earle Ch 13] Groundwater [Earle Ch 14] <i>Pictured Rocks; Apostle Islands; Mammoth Cave</i> HW16_	(6/17/25) Earth's Waters: Shorelines [Earle Ch 17] Geology of the Oceans [Earle Ch 18] <i>Cape Cod National Seashore; Everglades</i> HW17_	(6/18/25) Review>Final exam	<i>Juneteenth, no class</i>	Podcast audiogallery (virtual closing meeting + showcase) HW18_

This syllabus is subject to change at the discretion of the instructor.

Students are responsible for keeping current with changes made to this syllabus. Have a great summer!