

**CASPER COLLEGE COURSE SYLLABUS**  
**EDCI 1450 N1 Earth Science for Elementary Schools**

**Semester/Year:** Fall 2015

**Lecture Hours: 1**                      **Lab Hours: 0**                      **Credit Hours: 1**

**Class Time:** ONLINE                      **Days:** ONLINE                      **Room:** NA

**Instructor's Name:** Jeannie Gunderson

<b>Instructor's Contact Information:</b> Office - Tate Museum 124	<b>Office Phone:</b> 268-2536 <b>Home Phone:</b> 235-2030 <i>(Please call prior to 9:00 p.m.)</i>	<b>Email:</b> jeanniegunderson@caspercollege.edu
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**Office Hours:** by appointment

**Course Description:** Covers selection of basic Earth Science concepts, materials, and curricula appropriate for elementary school. This course parallels the contents of GEOL 1070 and ASTR 1070.

**Statement of Prerequisites:** There are no prerequisites. However, there is a co-requisite. Students must take Geology 1070 or Physical/Historical Geology.

*\*\* As this is an online course, it is each student's responsibility to secure continuing access to a reliable computer and internet access through the entire length of the semester. \*\**

**Goal:** It is my desire that students leave this class with enhanced ability and innovation to involve their future students in the hands-on learning of earth science in an interesting, exciting classroom environment.

**Outcomes:** Students will develop a notebook of ideas for hands-on classroom activities and lists of appropriate children's books, source books, and materials. Students will demonstrate their understanding of active, hands-on science teaching by presenting example activities, plus appropriate fillers and puzzlements. Students will achieve satisfactory scores on tests and assignments. Students will also:

1. Demonstrate effective written communication
2. Use the scientific method
3. Solve problems using critical thinking and creativity
4. Appreciate aesthetic and creative activities
5. Use appropriate technology and information to conduct research

**Methodology:** This course will present ideas and techniques through the Assignments, Discussion Forums, and as a part of each section of the course. The readings will include embedded questions to be answered or ideas to be discussed. Communication is an important part of this course.

**Evaluation Criteria:** Each of the assignments will be checked and an appropriate number of points awarded. There will be an open-notebook midterm test and an open-notebook final. Participation in the day-to-day, give-and-take of a classroom is an important aspect of education. Therefore, students will be expected to participate each and every week and enter into discussions, hands-on activities, and question-and-answer sessions. The outcomes will be assessed through testing, problem-solving, writing, and discussions.

**Grammar and mechanics do count.** Make sure you proofread your responses before submitting them. I reserve the right to adjust points corresponding to proper/improper grammar and mechanics usage. One or two assignments will require more time and will be worth a larger number of points. I reserve the right to add or delete assignments or tests, and to adjust points, depending on what I ask you to do.

**Casper College may collect samples of student work demonstrating achievement of the above outcomes. Any personally identifying information will be removed from student work.**

### **Approximate Point Distribution**

Assignments – 100 points

Discussion – 75 points (5 points each week)

Exams – 100 points

**TOTAL POINTS POSSIBLE: Approximately 275 points**

**Grade Cutoffs: A: 90%; B: 80-89%; C: 70-79%; D: 60-69%; F: <60%**

I hope you, as potential teachers, do not have to be threatened by points but rather you will take a serious interest in ideas, materials, and techniques that may be useful in your classroom.

**Required Text, Readings, and Materials:** No text. Make use of sources available. Use your text money for materials as needed on children's lit books for your classroom.

**Class Policies:** It is likely that some small problems will crop up. Relax and don't worry. The problems can be taken care of. The most important thing to remember is to plan ahead, participate in the Discussion Forums, and don't be afraid to try something new. Most assignments have specific due dates. They cannot be made up. Make sure you know when things are due as they may not be accepted past the due date. Plan accordingly. Do not ask for extra credit opportunities; this is unfair to other students and gives the erroneous impression that "quantity" of work equals "quality" of work! *Do the assignment well in a timely manner the first time around.*

**Last Date to Change to Audit Status or to Withdraw with a W Grade:** Check the Casper College Academic Calendar.

**Student Rights and Responsibilities:** Please refer to the Casper College Student Conduct and Judicial Code for information concerning your rights and responsibilities as a Casper College Student.

**Chain of Command:** If you have any problems with this class, you should first contact the instructor to attempt to solve the problem. If you are not satisfied with the solution offered by the instructor, you should then take the matter through the appropriate chain of command starting with the Department Head/Program Director, the Dean, and lastly the Vice President for Academic Affairs.

**Academic Dishonesty: Cheating & Plagiarism:** Casper College demands intellectual honesty. Proven plagiarism or any form of dishonesty associated with the academic process can result in the offender failing the course in which the offense was committed or expulsion from school. See the Casper College Student Code of Conduct for more information on this topic.

**Official Means of Communication:** Casper College faculty and staff will employ the student's assigned Casper College email account as a primary method of communication. Students are responsible to check their account regularly. This is also, where you will find course evaluation links during course evaluation periods.

**ADA Accommodations Policy:** If you need academic accommodations because of a disability, please inform

me as soon as possible. See me privately after class, or during my office hours. To request academic accommodations, students must first consult with the college's Disability Services Counselor located in the Gateway Building, Room 344, (307) 268-2557, [bheuer@caspercollege.edu](mailto:bheuer@caspercollege.edu). The Disability Services Counselor is responsible for reviewing documentation provided by students requesting accommodations, determining eligibility for accommodations, and helping students request and use appropriate accommodations.

**Calendar or schedule indicating course content:** Please read through all the assignments, welcome, and syllabus now. Send an email telling me you have done so, and I will reward you with your first 5 points.

I hope doing these assignments will introduce ideas for your classes and encourage you to investigate possibilities. Each assignment is due no later than the date indicated unless we have talked about a problem. Most require just a single page. Please remember to put your name, section, date, and title of the assignment at the top of the page.

Some of the assignments require lead-time, so start now. If you expect to look at an assignment Tuesday night and submit it Wednesday you may be sadly fooled. Remember you have two weeks to get the assignment finished.

**Mailing address: Jeannie Gunderson, Geology Department, Casper College, 125 College Drive, Casper WY 82601. Home phone (in case you have a worry) 307-235-2030.**

**Discussion Forums** – Weekly participation is expected. Discussions Forums will have activities attached that will need to be completed in order to discuss with and respond to other class members and me. Each topic will cover two weeks. The first week, students will be expected to read the topic, follow and complete the activity, and post an original, well thought-out response to the topic questions. The second week, students will need to respond to at least two of their classmates with meaningful comments and questions that lead the discussion forward. Due dates are listed on the Discussion Forums.

**Assignment 1 - *Interactive 3D* (10 Points) Due Tuesday, September 8th.**

Work through the Interactives for the Dynamic Earth web site

(<http://www.learner.org/interactives/dynamicearth/>)

Click on see results. Take a screen shot of your Test Skills scores that includes your name and date.

Upload the results to the Dropbox.

**Assignment 2 - *Me and NSTA* (10 points) Due Tuesday, September 22nd.**

Go to the National Science Teachers Association website - <http://www.nsta.org/> Feel free to explore all the resources listed for members and non-members. You will need to register but it is free for a non-member account. Click on Conferences & Professional Learning -> The NSTA Learning Center. Fill out the handout about different aspects of the website.

**Assignment 3 - *Careers in Earth Science* (10 points) Due Tuesday, October 6th.**

1. Research one of the many careers in Earth Science. *Find out what they do, where they work, what they need to learn to become that scientist.*
2. Access toondoo @ <http://www.toondoo.com/>  
Based on your research, create a cartoon that explains *what your scientist does, where they work and what they need to study*. Be sure to include your name and print it out. Be ready to share in class.

**Mid-term Test (20 points) Due Thursday, October 15<sup>th</sup>.**

This is an open-notebook (the one you have been building since the beginning of class) test of ten to twenty questions.

**Assignment 4 - *NatureScope* (10 points) Due Tuesday, October 27<sup>th</sup>.**

Evaluate the National Wildlife Federation's series of publications called *NatureScope*. The Casper College Library has a couple of sets on reserve and more in the stacks if you have an opportunity to visit the library. Write a review of at least 2 volumes relating to earth science. You can relate such things as modern biological environments to what conditions might have been like when now fossil plants or animals were alive. *Include how you might use these 2 resources. Provide specific references by volume name and page numbers.*

**\*While you are at the library take a look at *Roadside Geology of Wyoming* (or your state).**

**Assignment 5 - *Big Taffy Mountain* (20 points) Due Tuesday, November 10<sup>th</sup> .**

Big Taffy Mountain is a lesson by Dana Van Burgh. More information will be given out prior to the due date. This assignment requires lead-time so start early.

Assignment: Go forth and purchase some of these candy bars and experiment with them. Try placing one of the longer types across the open end of an old glass. Put it someplace where it will not be disturbed for a few days. Make a stack of Air Heads and stand it on end in a small jar like a cheese glass. Place others between two supports or balance one (or a set) over a small support. Check on these every day to see what has happened. Document your experiment with photos/drawings.

Now take these observations to your imaginary classroom. How might you use them? Can you come up with enhancements? Let your imagination loose on the project. Tell me what you dreamed up.

**Assignment 6 - *Children's Literature Books* (20 points) Due Tuesday, November 24<sup>th</sup>**

Tying Science into reading with both fictional and expository text is an important way for teachers to meet curriculum goals. We have discussed many children's books through out this semester. You have been recording them with the author's name. Add 5 more of your own books to the list.

**Assignment 7 - *Discovery Days* (30 points) Due Thursday, December 10<sup>th</sup>.**

Think of a lesson for Earth Science! Plan a way to present an Earth Science concept or project to elementary students. It will need to be engaging, hands-on, and thoughtful. If you have a worksheet for students to fill out, it probably isn't a hands-on lesson. You will share the lesson with your classmates in the Discussion Forum. A rubric will be provided for how your lesson will be assessed.

**Finals - December 14<sup>th</sup> - 17<sup>th</sup>.**

**Final Examination Date to be announced.**