

**GLY 171: Earth Science**  
**SUNY Cortland**  
**Department of Geology**  
**Fall 2009**

**Course Information:**  
Room: Sperry Center 205  
Time: Mon/Wed/Fri 10:20-11:10  
Credit Hours: 4 sem hrs

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**Instructor:** Mrs. Julie Barclay

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Home page: [http:// web.cortland.edu/barclayj/index.html](http://web.cortland.edu/barclayj/index.html)

Office hours: Tues 10:30-11am, Thurs 1-3pm, Fri 9-10am, or by appointment.

**Books (REQUIRED):**

Earth Science (12th ed.). Tarbuck, E.J. and Lutgens, F.K., Pearson Prentice Hall, 2009.

(This is a loose-leaf version; it is highly recommended that you put it in a large three-ring binder.)

Dire Predictions, Understanding Global Warming. Mann, Michael E and Kump, Lee R., DK Publishing, 2009.

Geode's World Atlas (21<sup>st</sup> ed.). Veregin, Howard (editor), Pearson Prentice Hall, 2005.

Encounter Earth. Kluge, Steve, Pearson Prentice Hall, 2009.

Earth Science Laboratory Manual. Barclay, J., SUNY Cortland, Fall 2009.

**Other Course Requirements:**

Cortland WebMail Account

You are REQUIRED to maintain a SUNY Cortland e-mail account. Important notices and reminders will be sent through the e-mail account you have officially registered with campus computing services ONLY. I will NOT be responsible for messages you do not receive. If you need assistance setting up an account contact the Academic Computing Services Technology Help Center (x2500) in Winchell Hall.

Earth Science Lab Kit (only available at campus bookstore)

**Course Description:**

Basic concepts and principles of geology, meteorology, and oceanography. Three lectures and one two-hour laboratory per week. Not open to geography, mathematics, or science majors or to students with credit for GLY 160 or 261.

**Laboratory:**

A separate laboratory syllabus will be provided during your first lab session.

Please note: LABS WILL START ON MONDAY AUGUST 31st. YOU MUST HAVE A LAB MANUAL for all labs, failure to bring your lab manual will result in a grade of zero for that days exercise.

**Attendance Policy:**

Attendance is expected. If you miss a class, you will still be held responsible for the material covered that day. Make-up assignments and exams will be allowed ONLY if you have given me PRIOR notification of your absence. Student-athletes who miss class due to sporting events must provide me with a signed excuse form, from their coach, if they wish to make-up missed materials.

## **EVALUATION:**

### **1. Examinations**

There will be four (4) one-hour exams given during the semester (on Sept 25, Oct 23, Nov 20, and the final exam on Dec 15). Each exam will include the material covered in class up to the date of the exam; please note that this may vary slightly from what is listed on the course outline. Only the final exam will cover some cumulative material. The average of the four exams will count towards 60% of your final grade.

Lecture exams may *ONLY* be rescheduled due to a verified illness or an approved activity identified prior to the exam (i.e. religious services, participation in a college activity, court appearances, etc.). A make-up exam must be completed within two weeks of the original exam, otherwise you will receive a grade of zero. The format of the make-up exam may differ from that of the original exam.

### **2. Homework and In-Class Assignments**

Homework and in-class exercises will be given throughout the semester to help emphasize important topics. These will cumulatively count towards 10% of your final grade. These can only be made-up if you have given me *PRIOR* notification of your absence. If you are ill and unable to make it to class please e-mail me that day to notify me of your absence and you will be allowed to make-up any assignments given that day.

### **3. Laboratory**

The work you complete in the laboratory will count towards 30% of your final grade. See your lab syllabus for details.

1. Lecture Exams	60%
2. Homework and In-Class Assignments	10%
3. Laboratory Work	30%
Total	100%

## **Course Objectives:**

This course will cover the basic concepts and principles of geology, meteorology, and oceanography, while emphasizing the use of the scientific method. It will provide an understanding of the world we live in and the natural processes acting upon it, as well as examine the interaction between humans and the environment. Examinations will test your understanding of these basic concepts and principles. Laboratory exercises will reinforce these principles while emphasizing the use of the scientific method. Homework and in-class assignments will review class topics as well as encourage you to explore certain topics more in depth and encourage you to apply the information to real world situations.

## **Course Schedule:**

The attached schedule is a detailed list of the topics to be covered in this course, as well as a list of the corresponding readings. Please note that this schedule is subject to change; any changes will be announced in lecture.

## **Disability Statement:**

If you are a student with a disability and wish to request accommodations, please contact the Office of Student Disability Services located in B-40 Van Hoesen Hall or call (607) 753-2066 for an appointment. Information regarding your disability will be treated in a confidential manner. Because many accommodations require early planning, requests for accommodations should be made as early as possible.

**COURSE CONDUCT:**

You are expected to behave in a mature and courteous manner. Frequent class disruptions and disrespect towards your fellow students WILL NOT be tolerated.

**Academic Integrity:**

It is expected that each student will earn their final course grade by completing their own course work to the best of their abilities. Cheating in any form will not be tolerated.

**Cell Phone Usage:**

The use of cell phones in any form (including text messaging) during lecture and lab classes is **strictly prohibited**. If you have responsibilities that may require you to take a call during class (such as for a job or child care responsibilities) please notify me in advance.

**Tardiness:**

You are expected to be in the room and ready to begin promptly at the start of class (10:20am). If you are late for any reason please QUIETLY enter the classroom in a non-distracting manner. Frequently tardiness will lower your course grade.

**Fall 2009 Course Schedule**  
(Please Note: Some topics are subject to change.)

<b>Week/Date</b>	<b>Topic</b>	<b>Corresponding Pages in <u>Earth Science</u> by Tarbuck and Lutgens</b>
Week 1: 8/31-9/4	Introduction, Scientific Method, Earth System, Earth's Interior Plate Tectonics	1-25 238-240 187-214
Week 2: 9/7-9/11	<b>No Class Monday September 7 - Labor Day</b> Plate Tectonics Continued Earthquakes	219-243
Week 3: 9/14-9/18	Earthquakes Continued Mineralogy Igneous Petrology and Volcanology	29-44 54-62, 247-278
Week 4: 9/21-9/25	Volcanology Continued <b>Exam #1 Friday September 25th</b>	
Week 5: 9/28-10/2	<b>Sedimentary Petrology</b> Metamorphic Petrology Mountain Building	62-70 70-74 283-304
Week 6: 10/5-10/9	Mountain Building Continued Weathering and Erosion	83-102
Week 7: 10/12-10/16	Mass Wasting <b>No Class Friday October 16 - Fall Break</b>	103-110
Week 8: 10/19-10/23	Streams <b>Exam #2 - Friday October 23rd</b>	115-134
Week 9: 10/26-10/30	Groundwater Meteorology	134-147 445-473, 477-480, 513-520, 523-526
Week 10: 11/2-11/6	Meteorology Continued Arid Geomorphology	173-181
Week 11: 11/9-11/13	Glacial Geology Climate/Climate Change	153-172 569-594
Week 12: 11/16-11/20	Climate Continued Extreme Weather <b>Exam #3 Friday November 20th</b>	530-533, 560-565
Week 13: 11/23-11/27	Oceanography <b>No Class November 25-27 - Thanksgiving Break</b>	367-381, 391-397, 411-440
Week 14: 11/30-12/4	Oceanography Continued	
Week 15: 12/7-12/11	Geologic Time Astronomy	309-330 625-649, 665-672, 695-697, 11-12
<b>FINAL EXAM: Tuesday December 15<sup>th</sup>, 10:30am-12:30pm, Sperry 205</b>		