

CSPS118G: Earth, Life, and Time Colloquium
SEMESTER I: The Nature of Science and the Story of the Earth
Fall 2005

Room: CCC1100 Tue, 3:30-5:00

ELT Website: <http://www.geol.umd.edu/~jmerck/eltsite/>

Course Website: <http://www.geol.umd.edu/~jmerck/eltsite/syl118GF05.html>

INSTRUCTORS:

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TEACHING ASSISTANT

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COURSE ORGANIZATION: One meeting per week, one weekend scavenger hunt/orientation, three weekend field trips (1 required).

REQUIRED READINGS: This semester there are two required texts:

Bjornerud, M. 2005. *Reading the Rocks: The Autobiography of the Earth* (Westview)

Sagan, S. 1995. *The Demon-Haunted World: Science as a Candle in the Dark* (Random House)

Additional short readings will be made available on the ELT website.

Reading assignments must be done by the classtime listed.

COURSE OBJECTIVES AND PHILOSOPHY: Semester 1 concentrates on the **nature** of science in general, and uses the geological sciences as an example of the methods of science in practice.

CLASSROOM POLICIES: You should bring the following to every single colloquium meeting:

- A writing implement
- A notebook (containing this syllabus)
- The text for that half of the course (Sagan through October 5; Bjornerud after that)
- A willingness to participate constructively, both in small groups and in the class as a whole
- A readiness and ability to discuss the readings for that week

This semester we will have a number of small-group in-class projects. We expect everyone to help move tables and chairs when necessary for a particular project, and to help restore the tables and chairs to the "neutral" position when we are done. Many hands make light work!

During classtime:

- **PLEASE** be courteous to your fellow students and your faculty, and do not engage in side conversations. Even what you might think are hushed whispers in the back row can be heard all the way up front, and are disruptive to the attention of your classmates who are interested in getting a good grade in the class.
- All electronic modes of communication (mobile phones, pagers, etc.) must be turned "off" or be in silent mode
- No personal electronic listening devices (e.g., CD players, MP3 players, personal radios, etc.) will be allowed
- No reading of material not germane to the class activity will be allowed

Finally, please do not leave any debris behind: pick up all food/beverage containers, papers, newspapers, etc. near your seat and on your desk when you leave.

ATTENDANCE: Given the nature of the course and program, participation in colloquium meetings is **MANDATORY**. It is up to you to make certain that your presence has been recorded for every class.

- **Recording Your Presence:** On days with quizzes and/or group projects, your presence will be taken from these items. On other days, there will be a sign-up sheet. It is *your* responsibility to make certain that you have signed the quiz, project report, or sign up sheet.
 - Students observed leaving the colloquium before 4:50 or before it is formally dismissed will be counted absent.
 - **NOTE:** We expect students to adhere to proper academic decorum during colloquia. This means focusing your attention on presentations, refraining from conversations or activities that are not relevant (e.g., reading newspapers, doing homework for other classes, etc.), and showing proper respect for student, faculty, and guest presenters. *We reserve the right to count you absent from colloquium if you fail to uphold this standard!*
- **Excused Absences:** If you have a legitimate reason for being absent, such as a family emergency, unavoidable academic conflict, or other excuse according to the University's guidelines, we will usually excuse your absence. However you must notify us in a timely fashion. Telling us ahead of time is best, if possible. Requests for the excusing of an absence **will not be considered** after two workdays from the absence. Please use the Excused Absence Report form from <http://www.geol.umd.edu/~jmerck/eltsite/studentforms.html/>. **NOTE:** the next colloquium meeting is **too late** for requests for excuses!
 - Even if you miss a class from an excused absence, you are still held responsible for material during that class, included graded assignments such as quizzes and small group projects. See the faculty about arrangements for a make up. If the small group project is such that it cannot be done alone, it will not be factored into your grade **if** you have an excused absence that you informed the faculty about within two workdays from the absence.
- **Unexcused Absences:** All other absences are considered unexcused absence. You may have one unexcused absence that does not directly affect your grade (except for missed quizzes or small group projects: see above). Each subsequent unexcused absence lowers your final course grade by 10 points.
 - If you miss a quiz or small group project because of an unexcused absence, you will not be allowed to make it up.

POLICY ON GRADES: There are seven components to the grade, each of which is worth a certain percentage of the total. These are Scavenger Hunt/Orientation (5%), Field Trips (15%), Small Projects (25%), Quizzes (30%); HTML Project (10%); Service Day (10%), and Res-Life Events (5%). Here are the details:

1) Scavenger Hunt/Orientation: (5%) This event, held on September 10 (Saturday), is to help orient students to the Washington, D.C. area and the Metro System, as well as help you get to know other people in the class.

2) Field Trip Report: (15%) This semester there will be three (3) field trips. It is mandatory that every student participate in **one (1)** of these trips. These trips are to:

- October 2 (Sunday): Chesapeake Beach and Jug Bay Wetlands Sanctuary
- October 8 (Saturday): Sideling Hill and western Maryland Geology
- October 30 (Sunday): Fossil Collecting in West Virginia

If you do not go on any field trip, this part of your grade will be a 0. However, you may go on all field trips if you like, and space permits. Students may also participate in Sophomore (CPSP 218G) field trips, provided spaces are still available.

In order to get credit for attending a field trip, you must write up a short report about what aspects of the natural sciences you learned about on this event, and mount this report on your website. To clarify the requirements for the Field Trip Report:

- The text should be equivalent to about 2 pages double-spaced: about 500-600 words.
- The text must describe where you went, what you did, and what you learned about the natural historical sciences. (Some projects may require answering certain specific questions as well.)
- The text must be factually correct and free of spelling and grammatical errors.

- Your report should demonstrate mastery of the knowledge of the subject, and should include some original synthesis on your part (i.e., what you got out of it, how you linked it to material from this and other courses, etc.)
- You may include links and photographs, but these are not necessary.
- The report must **its own unique webpage** and **linked** to your ELT website.
- Unless there are extenuating circumstances, your report should be uploaded and available by the second Tuesday class following the field trip itself.

An html template for the Field Trip Report is downloadable from the ELT website at <http://www.geol.umd.edu/~jmerck/eltsite/templates.html>.

3) Small Projects: (25%) Throughout the semester there will be a series of small assignments; some in-class, some take home. Those in-class will be conducted in small groups (to be created on those dates), with your results handed in at the end of that classtime. Everyone in each small group receives the same grade for that day's work.

4) Quizzes: (30%) To verify that you are, in fact, mastering the material of the course, six (6) scheduled quizzes will be administered during the semester. We will automatically drop the lowest of the six grades. NOTE: Quiz materials will cover both the classes and the readings.

5) HTML Professional Academic Website: (10%) In the mid-semester we will have a short workshop teaching the basics of HTML coding and website design. You will be responsible for creating a website to be mounted on a umd.edu server; successful completion of this project is worth 10% of the total. You will be expected to maintain your website throughout your four semesters in ELT, and you will be adding new webpages to it over time. An html template for the Professional Academic Website is downloadable from the ELT website at <http://www.geol.umd.edu/~jmerck/eltsite/templates.html>.

6) Service Day: (10%) All CPS students are expected to participate in Service Day. If you missed Service Day, you MUST see the instructors and work out some arrangement for a make-up task or you will receive a 0 for this portion of your grade.

7) Resident Life Programs: (5%) As part of the living-learning commitment of CPS, students in ELT are expected to participate in any one **official** program offered by your dorm's Resident Life staff. (Students not living in dorms are still required to participate: the Centreville dorm activities will be the most accessible). Failure to attend any will result in a 0. We hope that these programs will make for a more effective and pleasant experience in becoming accustomed to college life. In order to confirm that you have attended this program, you will have to submit a ResLife Activity Verification Form, which is downloadable from the ELT website at <http://www.geol.umd.edu/~jmerck/eltsite/studentforms.html>.

GRADE SCALE (Course): ≥ 90 , A; 80-89, B; 70-79, C; 60-69, D; < 60 , F. "+" and "-" grades are given to the top and bottom two-point range, respectively, within each grade.

GRADE SCALE (Small Projects): +, 100; $\sqrt{+}$, 90; $\sqrt{}$, 80; $\sqrt{-}$, 70; -, 60; 0, 0 points

EXTRA CREDIT: ELT offers several different means of earning extra credit this semester. You may earn 5 points maximum extra credit this semester. Below are the options and requirements for Academic and Service extra credit. You may do an item in either category.

Academic: You may write an additional report on colloquium-related academic material, and mount this report as a separate page on your website. Topics could include:

- A second field trip report (see above) beyond the one required.
- A "reaction paper" based on any full-length chapter in *Demon-Haunted World* or *Reading the Rocks* that we did not assign for the semester (these would be chapters 5-9, 11, 16, or 18-25 for Sagan, and chapter 3 for Bjornerud).
- A "reaction paper" to any of the Supplementary Readings for the semester listed on the website <http://www.geol.umd.edu/~jmerck/eltsite/readings.html>
- A "reaction paper" to any whole section ("Part I: Time", "Part II: Drift", or "Part III: Chance") of James Powell's *Mysteries of Terra Firma*. **NOTE:** this project will be worth double points!

- A “reaction paper” to a non-classroom academic presentation on campus, such as a departmental seminar.
- A “reaction paper” to some other academic event: check with the ELT faculty to make sure it qualifies.

Reports for field trips should follow the format assigned for that trip, including the specific questions required. “Reaction papers” are reports that would address both a summary of the material encountered as well as your thoughts and comments on this material and how it relates to related matter you may have encountered (in colloquium, other classes, etc.) Reaction papers require you to show insight into the matters concerned, not a simple retelling of what was there nor your “feelings” about it.

Full extra credit will only be earned if all format issues are properly completed (sufficient length, proper html coding, no spelling or factual errors, etc.). Problems with these issues will result in a decrease in the extra credit grade received, as per field trip and other web-based reports.

Service: College Park Scholars seeks to promote civic responsibility among its students and faculty. To help fulfill CPS’ commitment to community service, we offer extra credit to your grade total for students who participate in some form of community service this semester.

- You cannot be paid for this service activity, nor be receiving credit for it in any other classes, nor be doing this service for disciplinary purpose for some other entity on campus (i.e., no “double-dipping”).
- This service must be conducted between Move-In Day and the last day of exams this semester.
- This activity must be approved by the Faculty Directors of ELT, or else you will not receive credit for it. Your best bet is to get it pre-approved, so you know in advance if it will count for extra credit!
- You must turn in an Activity Report form (see <http://www.geol.umd.edu/~jmerck/eltsite/rdfs/activityreport.rtf>) signed and dated by yourself and a site/activity supervisor in order to get credit.
- This extra credit can be earned by any of a number of activities. The list below is by no means exhaustive, but gives you an example of some of the sorts of activities that would count:
 - Serve as the ELT freshman representative on the CPS Student Advisory Board
 - Serve as a CPS Ambassador, or in Student Program Circle, or in the Residence Halls Association
 - Go to a high school to promote ELT (and CPS, and UMCP)
 - Participate in a Voting Drive
 - Donate blood
 - Volunteer at a clinic, shelter, or other similar institution
 - Volunteer at a non-profit organization
 - Serve as an officer in an SGA group
 - Serve as a Student Representative on Service Day

COMMUNICATION: Because many of our communications will be by e-mail, all students are required to maintain e-mail accounts and arrange for access to the Internet. Although not a course requirement *per se*, students should get into the habit of checking their e-mail daily. Failure to do so may cause you to miss crucial course information.

DISHONESTY: Evidence of dishonesty, cheating, fabrication, facilitating academic dishonesty, or plagiarism on even one assignment will be forwarded to the Honor Council for review. (See pp. 41-44 of the *UMCP 2005/2006 Undergraduate Catalog* or online at <http://www.jpo.umd.edu/>) Have a nice day.

MAIN SYLLABUS

8/29/05	SERVICE DAY
9/6/05	Introduction and Logistics of Class Being an Effective Student What is Science? What is Natural History?
9/10/05 (Sat.)	Metro Scavenger Hunt
9/13/05	The Logic of Science and The Scientific Method Reading: Sagan Chaps. 1-2 Reading (online): “The Nature of Science” from <i>Science for All Americans</i>

- 9/20/05 Hollow-Earth Antarctic Space Nazis, Surviving Plesiosaurs, Crop Circles, and Aliens on Ice: the Lure of Pseudoscience
Reading: Sagan Chaps. 3-4, 13
- 9/27/05 **Quiz 1**
An Introduction to Carl Sagan's Toolbox
Reading: Sagan Chaps. 10, 12
- 10/2/05 (Sun.) Field Trip 1 Jug Bay Wetlands Sanctuary and Chesapeake Beach**
- 10/4/05 The Logic of Non-Science: Logical Fallacies and How to Detect Baloney
Reading: Sagan Chaps. 14-15, 17
- 10/8/05 (Sat.) Field Trip 2 Geology of Sideling Hill**
- 10/11/05 **Quiz 2**
The Restless Earth: an Introduction to Geology
Reading: Bjornerud Prologue & Chap. 1
- 10/18/05 Workshop: Web Design
- 10/25/05 Commando Geology
Reading: Bjornerud Chap. 2
- 10/30/05 (Sun.) Field Trip 3 Fossils and Geology of West Virginia**
- 11/1/05 **Quiz 3**
Rocks, Environment, and Relative Time
Reading: Bjornerud Chap. 4
HTML project due
- 11/8/05 The Meaning of Fossils and the Geologic Timescale
Reading: Bjornerud Chap. 5
- 11/15/05 **Quiz 4**
Terra Mobile: a Look at Plate Tectonics
- 11/22/05 Adventures in Deep Time
- 11/29/05 **Quiz 5**
The Reality of Climate Change
Reading: Bjornerud Chap. 6 & Epilogue
- 12/6/05 Strange New Worlds: The Wonders of Planetary Geology
- 12/13/05 **Quiz 6**
A Brief History of the Earth; Semester Review