CPSP218G: Science & Global Change Colloquium
SEMESTER III The Search for Solutions: Science in the Age of Consequences
Fall 2011
CCC1100 Mon, 3:30-4:50 pm
SGC Website: http://www.geol.umd.edu/sgc/
Online Syllabus: http://www.geol.umd.edu/sgc/syllabi/CPSP218G1108.html
ELMS Blackboard Website: http://elms.umd.edu/ Course ID: 201108_CPSP218G_THOLTZ

INSTRUCTORS:
Dr. Thomas R. Holtz, Jr. Dr. John W. Merck, Jr.
Office: Centreville 1216 Office: Centreville 1218
Phone: x5-4084 Phone: x5-2808
E-mail: tholtz@umd.edu E-mail: jmerck@umd.edu
Office Hours: Tue 8:30-11 am or by appointment Office Hours: Thurs 3-5 pm (GEO 1119) or by appointment

TEACHING ASSISTANT
Lauren Niles
E-mail: lniles11@gmail.com [Please label Subject line: “CPSP 218G”]
Office Hours: Centreville 1217, 4-5 pm

NOTE: It is your responsibility as a student to completely read through and understand this syllabus. If you have questions about it, please contact Dr. Holtz or Dr. Merck. You will be held responsible for following all requirements of this syllabus.

COURSE ORGANIZATION: One meeting per week, five weekend field trips (one required).

REQUIRED READINGS: This semester there are two primary required books:

Reading assignments must be done by the classtime listed.

COPYRIGHT: Copyright 2011 Thomas R. Holtz, Jr. and John W. Merck, Jr. as to this syllabus and all lectures. Students are prohibited from copying and selling course materials, from selling lecture notes, and from being paid to take lecture notes without the express written permission of the faculty teaching this course.

COURSE OBJECTIVES AND PHILOSOPHY: In reviewing the foreign policy and national security implications of global climate change, the Center for Strategic and International Studies referred to the current century as the “Age of Consequences”. Having developed a scientific understanding of the issues, what can we as individual citizens and as members of our larger societies do? All of us will live in a human-dominated future, but our decisions and actions can help direct what changes may come and how we deal with them. It is better to make those decisions and actions based on accurate science than on criteria other than those which govern global change. In this semester students will address how scientists are acting to deal with the effects of natural and human-induced changes; what some of the options for changes in our own lives and technologies might be; and how we can contribute (through new scientific discoveries and own personal actions) to our future situation. Additionally, students will learn how to critically evaluate scientific claims in the media. Furthermore, each student will develop a plan for an individual research, internship, or service-learning project involving the discovery, application, or transmission of scientific information for their fourth-semester Sophomore Practicum.

LEARNING OUTCOMES: By the end of the semester, every student should be able to:
• Assess the scientific validity of proposed methods of mediating or adapting to current and future climate change.
• Present information about scientific and related issues by means of PowerPoint platform presentations and wiki pages.
• Create a digital graphics image for conveying relevant information.

GRADES: Course grades are calculated by the summed total of the ten items listed below. The relative percentage of the total grade represented by each is given. Overall course grade scale is:

≥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. Unless otherwise noted, grades based on the following grade scale:

+, 100 pts; √+, 90 pts; √, 80 pts; √-, 70 pts; -, 60 pts; 0, 0 pts.

1) **Quizzes** (10%): Four quizzes will be taken, of which the lowest grade will automatically be dropped. Quizzes will cover the readings, lectures, and other presented material.

2) **Group Projects** (10%): Two small group projects are assigned during the semester. These are generally completed during a single class time, in small randomly assigned groups of 4-5 students. Only a single project is handed in for each group; all students in a group receive the same grade. Group projects missed due to unexcused absences cannot be made up.

3) **Field Trip Report** (10%): Each student is responsible for attending and reporting on one of the field trips available during this semester. This report is in the form of an online essay. Grades for the assignment are based 25% on the Style Rubric (http://www.geol.umd.edu/pages/sgc/resources/rubric.html#Style) and 75% on the Content Rubric (http://www.geol.umd.edu/pages/sgc/resources/rubric.html#Content) specific to that assignment. Field trip reports are due online the second Monday after the field trip itself.

The field trip opportunities this semester are:

a) Sept. 18 (Sunday), Fossil Hunting at Brownie Beach (Bayfront Park), Chesapeake Beach, MD
b) Oct. 22 (Saturday), Smithsonian Environmental Research Center, Edgewater, MD
c) Oct. 29 (Saturday), Maryland Science Center, Baltimore, MD
d) Nov. 13 (Sunday), National Air & Space Museum, Washington, DC
e) Nov. 20 (Sunday), Koshland Museum of the National Academy of Sciences, Washington, D.C.

NOTE WELL: You cannot receive credit this semester for a field trip report for a site on which you reported in your freshmen year!

4) **“Search for Solutions” Team Projects** (30% total): During the middle of the semester, each team of 4-5 students will report on some method of mediating or adapting to global change issues. Each team will report on their analysis of the pros (benefits of, science behind, etc.) and criticisms (weaknesses of, costs of, criticisms of criticism, etc.) of their issue. This project results in two different subprojects:

a) **PowerPoint Presentations** (15%): Between October 17 and November 7, the individual teams will present their report as a 15 minute PowerPoint presentation.

b) **Wiki** (15%): Additionally, each team is responsible for documenting their report in the form of a wiki on the ELMS Blackboard site for the course.

Details on the specifics of these reports and their grading scheme will be provided later in the semester.

5) **Media Report** (10%): How faithfully does the news media transmit scientific information? In this project you will choose a news report based on a particular new scientific study, find the original paper on which that report was based, and compare and contrast what is said in the original paper against what is said in the news report. Your report will be a web-based project due by class on October 10.

6) **Mini-Poster Project** (10%): In the mid-semester we will have a small workshop teaching the basics of raster and vector graphics. You will be responsible for creating a small poster concerning your SGC experiences using these software packages; successful completion of this project is worth 10% of the total. Due October 3.

7) **Practicum Proposal** (5%): All SGC students must participate in a practicum in order to complete their Citation. While the work for the practicum will be done after this semester, we use this semester to help you organize your projects. By November 7 you will have to turn in a proposal for your practicum work, giving a preliminary view of a) where you will be doing your work; b) what that work will likely entail; and c) what you expect to get out of this project. Failure to provide a proposal will not only mean loss of 5% of your grade, but it will also prevent you from receiving any credit from the practicum!!

8) **Learning Contract** (5%): The second practicum-related portion of your grade this semester is the Learning Contract. This is a formal agreement between you, your site supervisor, and our office, making clear the tasks and hours for which you will be responsible and the credit level to which your practicum course will be given. The Learning Contract is due on the last colloquium day of the semester (December 12). Failure to provide a
proposal will not only mean loss of 5% of your grade, but it will also prevent you from receiving any credit from the practicum!! You can download the Learning Contract from http://www.geol.umd.edu/pages/sgc/docs/learncontract.pdf.

9) SGC 3-Semester Review (10%): Also due the last day of classes, you should write up a short report detailing your experiences with the Science & Global Change Program so far. This will be mounted as a unique webpage linked to your SGC site. Specifics about the review will be given later, but your target audience will be prospective incoming students. A template is available at http://www.geol.umd.edu/sgc/resources/threeseasonsemester.html.

LATE ITEMS: Hardcopy items must be turned in on the colloquium they are due. Make sure you bring them with you. If they are turned in after this time but prior to the next colloquium, there will be a grade reduction of one step (i.e., a plus to a check plus, a check plus to a check, etc.; this is a 10 point drop). If it is not turned in by the next colloquium the grade will be a 0.

Online items must be uploaded by the date listed. We will typically check the week after they are due to be uploaded: if they are not present at this time, you will have a -15% penalty off of the Style portion and be sent a warning to get it uploaded within the week. If it is not present by the second week (i.e., within 1 week of the warning email), you will get a 0 on the project.

In either case if there are important extenuating circumstances, discuss this with the faculty & TA as early as possible so that we can make allowances, if we deem it appropriate.

EXTRA CREDIT: SGC offers several different means of earning extra credit this semester. You earn 5 points maximum extra credit per item, up to a total of two items (i.e., 10 points total). In general, the extra credit is gained by writing a reaction paper mounted as a separate page on your website. Topics could include:

- A second field trip report (rather than a reaction paper, use the formal assignment for that field trip) beyond the one required.
- A reaction paper to a non-classroom academic presentation on campus, such as a departmental seminar, related to the program topics
- A reaction paper to one of the supplementary readings (see http://www.geol.umd.edu/sgc/resources/readings.html) or videos (see http://www.geol.umd.edu/sgc/resources/climatevideos.html), or a comparable work.
- A reaction paper to an academic presentation off campus related to the program topics
- A reaction paper to some other academic event: check with the SGC 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. See the Reaction Paper template at http://www.geol.umd.edu/sgc/resources/reactionpaper.html.

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. All Academic extra credit assignments must be online by the end of classes (i.e., before finals).
CPSP118G & 218G: Science & Global Change Colloquia
Colloquium Policies

SGC Website: http://www.geol.umd.edu/sgc/
Online Policies: http://www.geol.umd.edu/sgc/syllabi/SGC1108policies.html

NOTE: It is your responsibility as a student to completely read through and understand this syllabus. If you have questions about it, please contact Dr. Holtz or Dr. Merck. You will be held responsible for following all requirements of this syllabus.

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

- A writing implement
- A notebook (containing this syllabus)
- The text for that part of the course
- 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
- Laptops may be used ONLY for taking notes and/or following along with webnotes for the class. If you are found to be using your laptop for other purposes you will be asked to shut it down. If you fail to do this, you will be considered “absent” for that day.
- 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 and dispose of them properly

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 the University’s guidelines, we will usually excuse your absence. However you must notify us in a timely fashion. Requests for the excusing of an absence will not be considered after two workdays from the absence: please contact us by email! Please use the Excused Absence Report form from http://www.geol.umd.edu/pages/sgc/docs/absence.pdf.
If the absence was for a colloquium for which there was no graded activity (i.e., no quiz, no group project, etc.) **AND** for which this was your first absence from colloquium this semester, you may simply complete the Excused Absence form and turn it in. If instead there were a graded activity **AND/OR** this was not your first absence from colloquium this semester, you will need to provide some form of documentation from an independent source supporting your absence. These include, but are not limited to:

- A doctor’s note, official notice of court activity, etc.: please attach a copy to your Excused Absence form
- Barring the above, a signed statement by an independent party (for example, your RA if you were ill and the RA is willing to verify that they observed this: feel free to use the back of the Excused Absence form for this)

**NOTE WELL:** Failure to provide the Excused Absence Form will result in the absence being unexcused, and you will face the appropriate penalties.

**NOTE:** the next colloquium meeting is **too late** for requests for excuses.

- **Grades and Excused Absences:** 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.

- **Religious Observances:** The University System of Maryland policy provides that students should not be penalized because of observances of their religious beliefs, students shall be given an opportunity, whenever feasible, to make up within a reasonable time any academic assignment that is missed due to individual participation in religious observances. It is the responsibility of the student to inform the instructor of any intended absences for religious observances in advance. Notice should be provided as soon as possible but no later than the end of the schedule adjustment period (September 13).

- **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 below). 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.

- In cases of inclement weather or other unexpected emergencies, the University may close. Please consult the University main webpage (http://www.umd.edu) or call 301-405-7669 (SNOW) to confirm such cancellations. Drs. Holtz & Merck will contact students via ELMS in order to inform them concerning delays of due dates for projects to be handed in or for exams: typically these will be shifted until the next available class date.

**COMMUNICATION:** Because many of our communications will be by e-mail, all students are expected 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. See http://www.oit.umd.edu/wheretogo/seeTable.cfm for a list of available computer labs on campus.

At your earliest convenience, log on to http://www.testudo.umd.edu/apps/saddr/ and update your electronic and mailing addresses. This will help ensure that important information from College Park Scholars faculty and staff reach you in a timely and accurate manner.

**ELMS BLACKBOARD SITE:** http://elms.umd.edu/ Course ID: 201108_CPSP118G_THOLTZ for the freshmen colloquium, 201108_CPSP218G_THOLTZ for the sophomore colloquium. The primary function for the ELMS Blackboard site will be to record your grades, although we will also use it as a secondary site for documents, handouts, etc. We will use the Comments function for graded items to convey information about projects this semester (such as Field Trip webreports): please look at these for help in understanding your grade and correcting errors.

**ACADEMIC INTEGRITY:** The University of Maryland has a nationally recognized Code of Academic Integrity, administered by the Student Honor Council. This Code sets standards for academic integrity at Maryland for all undergraduate and graduate students. As a student you are responsible for upholding these standards for this course. It is very important for you to be aware of the consequences of cheating, fabrication, facilitation, and plagiarism. For
The University of Maryland is one of a small number of universities with a student-administered Honors Code and an Honors Pledge, available on the web at [http://www.studentconduct.umd.edu/Info/Students/AcadHonorPledge.aspx](http://www.studentconduct.umd.edu/Info/Students/AcadHonorPledge.aspx). The code prohibits students from cheating on exams, plagiarizing papers, submitting the same paper for credit in two courses without authorization, buying papers, submitting fraudulent documents, and forging signatures. The University Senate encourages instructors to ask students to write the following signed statement on each examination or assignment: “I pledge on my honor that I have not given or received any unauthorized assistance on this examination (or assignment).”

**ACADEMIC ACCOMODATIONS:** If you have a documented disability, you should contact Disability Support Services 0126 Shoemaker Hall. Each semester students with documented disabilities should apply to DSS for accommodation request forms which you can provide to your professors as proof of your eligibility for accommodations. The rules for eligibility and the types of accommodations a student may request can be reviewed on the DSS web site at [http://www.counseling.umd.edu/DSS/receiving_serv.html](http://www.counseling.umd.edu/DSS/receiving_serv.html).

**COURSE EVALUATIONS:** CourseEvalUM will be open for students to complete their evaluations for Fall 2011 courses between Tuesday, November 29, and Wednesday, December 14. Students can go directly to the website [www.courseevalum.umd.edu](http://www.courseevalum.umd.edu) to complete their evaluations, beginning November 29. You will be alerted about these dates and provided more information closer to that time, and students will be alerted via their official University e-mail account.

Students who complete evaluations for all of their courses in the previous semester (excluding summer), can access the posted results via Testudo’s CourseEvalUM Reporting link for any course on campus that has at least a 70% response rate. You can find more information, including periodic updates, at the IRPA course evaluation website: [https://www.irpa.umd.edu/Assessment/CourseEval/fac FAQ.shtml](https://www.irpa.umd.edu/Assessment/CourseEval/fac FAQ.shtml)

The expectation is that all students will complete these. This is YOUR chance to anonymously evaluate this class: please use this opportunity!

**CPSP218G: Science & Global Change Colloquium**  
**SEMESTER III The Search for Solutions: Science in the Age of Consequences**  
**Fall 2011**  
**CCC1100 Mon 3:30-4:50 pm**  
**SGC Website:** [http://www.geol.umd.edu/sgc/](http://www.geol.umd.edu/sgc/)  
**Online Schedule:** [http://www.geol.umd.edu/sgc/syllabi/CPSP218G1108sched.html](http://www.geol.umd.edu/sgc/syllabi/CPSP218G1108sched.html)  
**ELMS Blackboard Website:** [http://elms.umd.edu/](http://elms.umd.edu/)  
**Course ID:** 201108_CPSP218G_THOLTZ

**SCHEDULE OF LECTURES AND EVENTS**

- **9/4/11 (Sun.)**  
  SGC Annual BBQ (after Freshmen Metro Scavenger Hunt)

- **9/5/11**  
  LABOR DAY

- **9/12/11**  
  Semester Introduction & Practicum Issues  
  Science in the Age of Consequences

- **9/18/11 (Sun.)**  
  **Field Trip I: Fossil Hunting at Bayfront Park, Brownie Beach, Chesapeake Beach, MD**

- **9/19/11**  
  Workshop: Poster Design  
  Overview & Sign Up for “Search for Solutions” Team Projects  
  The First Word in “Science Fiction”  
  Reading: Craven Chaps. 0-3

- **9/26/11**  
  Communicating Science GROUP PROJECT
Reading: Craven Chaps. 4-7

10/3/11  **Quiz 1**  Denial Ain’t Just a River in Egypt: Real Science, the News Media & the Blogosphere
Mini-Poster Project due
Reading: Craven Chaps. 8-10

10/10/11  Catch the Wind: How Sailing Changed the World, and the Future of the Oldest Renewable
Media Report due online
Reading: MacKay Chaps. 1-5

10/17/11  **Quiz 2**  “Search for Solutions” Team Projects I Modifying the Carbon Cycle
Reading: MacKay Chaps. 6-10

10/22/11 (Sat.)  **Field Trip II: Smithsonian Environmental Research Center, Edgewater, MD**

10/24/11  “Search for Solutions” Team Projects II Renewable Energy
Reading: MacKay Chaps. 11-15

10/29/11 (Sat.)  **Field Trip III: Maryland Science Center, Baltimore, MD**

10/31/11  “Search for Solutions” Team Projects III Modifying Current Energy
Reading: MacKay Chaps. 16-20

11/7/11  “Search for Solutions” Team Projects IV Geoengineering
Practicum Proposal due
Reading: MacKay Chaps. 21-25

11/13/11 (Sun.)  **Field Trip IV: National Air & Space Museum, Washington, DC**

11/14/11  Guest Lecture: Sustainability at the University of Maryland
Reading: MacKay Chaps. 26-29

11/20/11 (Sun.)  **Field Trip V: Koshland Museum of the National Academy of Sciences, Washington, DC**

11/21/11  **Quiz 3**  Who Pays for Science?  **GROUP PROJECT**
Reading: MacKay Chaps. 30-32

11/28/11  Mad Science in Culture and in History

11/29/11 (Tues.)  Online Course Evaluations available

12/5/11  Science as a Defense Against Tyranny

12/12/11  **Quiz 4**  The Enlightenment and the New Revolution
Learning Contract due
3-Semester Review due online

12/14/11 (Wed.)  Online Course Evaluations ends: please complete your evaluations before this date