GEOLOGY 501: CURRENT TOPICS IN GEOLOGY

Fall Quarter 2009
Wednesdays 2-5pm, Lind 103

Instructors:	**Audrey Huerta**	**Tim Melbourne**
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Office hours:	Wed. & Fri. 10:00-12:00 am Or by appointment	Monday, 9:00-11:00 or by appointment
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Course webpage: http://www.geology.cwu.edu/facstaff/huerta/g501/

COURSE DESCRIPTION

Geology 501 is a combination lecture and seminar-style course.

The focus of this class is scientific literacy: basically, how to read, write, present, and discuss science.

To develop these skills, students will be reading, writing, presenting, and discussing material every week. The topics that students will cover are based on the rich range of geologic research currently being undertaken in the CWU Geological Sciences Dept.

LEARNING OUTCOMES

1. Students can critically read and discuss research articles on topics in geology, both within and outside of their area of specialization.
2. Students can give a clear and organized scientific presentation.
3. Students can write a concise ~2 page summary and critique of a research article.
4. Students can review written summaries and oral presentations of their peers.
5. Students can write a 10-15 page literature review and critique of a topic currently under debate.
6. Students can use reference software such as Zotero, Endnote or RefWorks

Every week the class structure will consist of:

- **Lecture** by a CWU Geology Dept professor on an aspect of their research
- **Summary presentations and discussions:** 10-15 min *student presentation* summarizing a related research articles followed by 10-15 minutes of directed discussion
- **Short (3 slide) overviews:** *student presentation* summarizing additional research articles
- **Presentation peer review:** You will use the "Peer review of Talks" to review student presentations and guide group discussion

STUDENT WEEKLY ASSIGNMENT

1) Read group papers, you will be expected to participate in the discussions of the group papers-
2) Written summary on group paper #1 (2 pages max, double spaced. See web site for example summaries)
3) 3 written questions to discuss on *each* group paper,

ADDITIONAL STUDENT RESPONSIBILITIES

- **Peer Reviews of written Summaries**
  Assigned throughout the quarter. You will use the "Peer review of SUMMARIES" rubric to analyze the strengths and weaknesses of peer article summaries and suggest improvements.
- **~1/2 page Term paper proposal.**
  Due Nov 4. Your topic must be approved prior to Nov 4. Compile your bibliography using a reference software such as *EndNote* or *Zotero*.
- **Term Paper**
  Due Dec. 2. 10-15 pg term paper on current controversial topic. It should be a literature review and critique of the current "state of knowledge" on this topic. You should style the paper after something like Annual Reviews of Earth and Planetary Science (but a bit shorter). See http://arjournals.annualreviews.org/loi/earth for examples. You must compile your bibliography using a reference software such as *EndNote* or *Zotero*. You should include figures from other articles and/or created yourself to illustrate points or provide background information. I will particularly be looking for improvement in areas that you received constructive criticism on evaluations from peers.
- **Presentation of Term Paper**
  Dec 2 and Exam Week **You will present an overview of your research in a 15-20 minute talk.**

GRADING

Student grades will be based on:

- Presentations – clarity; content; use of maps, graphs, charts
- Written summaries – organization, grammar/punctuation, content (see rubric)
- Conscientious and thorough reviews of other's summaries and talks
- Interest/participation in others' presentations
- **Improvement**

ASSIGNMENTS WILL BE PENALIZED 10% FOR EACH LATE DAY, UNLESS PRIOR ARRANGEMENTS HAVE BEEN MADE

ADA STATEMENT

Students with disabilities who wish to set up academic adjustments in this class should give me a copy of their Confirmation of Eligibility for Academic Adjustments from the Disability Support Services Office as soon as possible so we can meet to discuss how the approved adjustments will be implemented in this class. Students with disabilities without this form should contact the Disability Support Services Office, Bouillon 205 or dssrecept@cwu.edu or 963-2171 immediately.

ACADEMIC HONESTY

Cheating or plagiarizing will result in zero credit for the assignment and referral to the administration for disciplinary action. I don't anticipate this being a problem with this group.

SCHEDULE (SUBJECT TO CHANGE)

LECTURE	SEMINAR ACTIVITY
WEEK 1 (Sept 23) **154 Brooks Library Computer Lab, Rm** **Bring a usb-jump-thumb-drive**	• Meet with Gerard Hogan in Rm 154 of Brooks Library at 2:00 pm *Finding articles: Web of Science, Geo-Ref interlibrary loan and other Library* • 3:00 meet with Mari Knirck in Rm 154 *Bibliography software: Zotero*
WEEK 2 (Sept 30) **Tim Melbourne** *Slow slip events*	*Presentations on Classic Papers-* • **Benjamin:** group paper presentation and lead discussion • **Tabitha:** group paper #2 presentation and lead discussion • **Zoe W:** 3-slide presentation on Paper #3
WEEK 3 (Oct 7) ***Chris Mattinson*** *Ultrahigh-pressure metamorphism*	*Presentations on Slow Slip* • **Zoe F:** group paper presentation and lead discussion • **Kathryn:** group paper #2 presentation and lead discussion #2 • **Tabitha:** 3-slide presentation on Paper #3
WEEK 4 (Oct 14) **Charlie Rubin** *Snow and avalanches*	*Presentations on UH-pressure metamorph.* • **Rachel:** group paper presentation and lead discussion • **Kathryn:** 3-slide presentation on Paper #2 • **Richard:** 3-slide presentation on Paper #3 • **Jim:** 3-slide presentation on Paper #4
WEEK 5 (Oct21) GSA ***Susan Kaspari*** *Ice Core Records: Tools for Reconstructing Past Climate Variability and Assessing Recent Environmental Change*	*Presentations on ??* • **Matthew:** group paper presentation and lead discussion • **Zoe W:** group paper #2presentation and lead discussion on paper • **Rachel.** 3-slide presentation on Paper #3
WEEK 6 (Oct 28) ***Paul Winberry-*** *Dynamics of ice sheets*	*Papers on Climate* • **Christopher:** group paper presentation and lead discussion • **Matthew:** 3-slide presentation on Paper #2 • **Benjamin:** 3-slide presentation on Paper #3

WEEK 7 (Nov 4) ***Wendy Bohrson*** *Dynamics of Magma Plumbing Systems: Insights from Textural and In-Situ Chemical Studies*	*Presentations on Ice Sheet Dynamics* • **Aaron:** group paper presentation and lead discussion • **Richard** group paper #2 presentation and lead discussion on paper • **Christopher** 3-slide presentation on Paper #3 • ~**1/2 page term paper proposal (on approved topic)**

WEEK 8 (Nov 11) **Veterans Day, no class**	----------No Class----------
WEEK 9 (Nov 18) **Beth Pratt-Sitaula** *Climate and surface process interactions*	*Presentations on Igneous Processes* • **Jim** group paper presentation and lead discussion • **Zoe F.** 3-slide presentation on Paper #2 • **Aaron:** 3-slide presentation on Paper #3
WEEK 10 (Nov 25)-Thanksgiving **NO CLASS**	• ----------No Class----------
WEEK 11 (Dec 2) • **Students** will present summary of breadth paper	• **Richard present breadth paper** • **Kathryn present breadth paper** • **Jim present breadth paper** • **Christopher present breadth paper** • **Rachel present breadth paper** • **Breadth paper due**
FINALS WEEK (DURING SCHEDULED FINALS TIME) • **Students** will present summary of breadth paper	• **Benjamin present breadth paper** • **Zoe F. present breadth paper** • **Mathew present breadth paper** • **Aaron present breadth paper** • **Tabitha present breadth paper** • **Zoe W. present breadth paper**

*You will be giving several presentation in this class – get used to coming to class with the PPT on a flash drive and loading it onto the classroom computer before class or during the break after the lecture.