GEOGRAPHY 503: Fundamentals of Geoenvironmental Research  
Dr. Christopher Woltemade  
Fall 2011

OFFICE: 108 Shearer Hall • Phone: 477-1143 • E-mail: cjwolt@ship.edu

OFFICE HOURS: Tuesday 8:30 – 9:30 AM  
Wednesday 1:00 – 4:00 PM  
Thursday 8:30 – 9:30 AM (or by appointment)

GOALS: Fundamentals of Geoenvironmental Research will build student skills common to developing, implementing, and disseminating research projects in the major sub-disciplines of geoenvironmental studies. The course will generate opportunities to develop critical reading, writing, and presentation skills. Students will develop a literature review and a research proposal, as would be appropriate for either an independent research project or a masters thesis. The course will also develop fundamental skills for preparing grant proposals, professional reports, and oral and graphic presentations.


WEB PAGE: webspace.ship.edu/cjwolt/fun

ATTENDANCE: Attendance and participation in class are required. If you miss class, you are responsible for learning (from other students or myself) missed material and/or assignments. Students with more than one (unexcused) absence may fail the course, regardless of their performance. Disturbance of class will not be tolerated.

GRADING: Grades will be based on 300 possible points.  
270 - 300 (A), 240 - 269 (B), 210 - 239 (C), < 210 (F)

<table>
<thead>
<tr>
<th>Points</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Statement of interests memo</td>
</tr>
<tr>
<td>20 / 40</td>
<td>Draft / Final literature review</td>
</tr>
<tr>
<td></td>
<td>Oral presentation of literature review</td>
</tr>
<tr>
<td></td>
<td>Presentation of data in tables and graphs</td>
</tr>
<tr>
<td>100</td>
<td>Research proposal</td>
</tr>
<tr>
<td>20</td>
<td>Research grant proposal</td>
</tr>
<tr>
<td>10</td>
<td>Draft research proposal poster</td>
</tr>
<tr>
<td>25</td>
<td>Poster presentation of research proposal</td>
</tr>
<tr>
<td>25</td>
<td>Class participation</td>
</tr>
</tbody>
</table>
CLASS PARTICIPATION: You are expected to come to each class prepared to participate. Students who consistently provide thoughtful comments on assigned readings, presentations, and lecture material will earn 25 points for class participation. Students who are usually well prepared and participate in classroom discussion on a limited basis will earn 15 points for class participation. Students who rarely participate in discussion and/or are not consistently present and prepared for discussion will earn 0 points for class participation.

In order to maximize the quality of discussion, for each reading you are required to email to me at least two (2) discussion points and two (2) discussion questions no later than 8:00 AM on the date of the discussion. Your discussion points and questions may focus on content, literature review, methods, graphic presentation of information, structure of the writing, general critique, or other issues.

ASSIGNMENTS: In most cases, I request that you submit written work via email as an attached document in MS Office (Word, Excel) format. Assignments must be submitted by 6:00 PM on the due date. If your files are too large to email (>10MB), I will accept them on a thumb drive or via other file transfer. All assignments should be professionally formatted in a single document with a descriptive file name that identifies you as the author (e.g. “YourName_Fundamentals_statement_of_interests.docx”).

NOTE: I am willing to make any reasonable accommodations for students with limitations due to disability, including learning disability. Please see me during the first week of class to discuss any special needs you have. Also, any expected religious holiday absences must be provided to me in writing by September 12.
COURSE OUTLINE

AUG 29  Course introduction
Introduction to geoenvironmental research fields and department faculty
Bibliographic searches and types of source documents
Text:  Chapter 1 – Spatial Science and Its Traditions

SEP 5  LABOR DAY – NO CLASS

SEP 12  Preparing a professional memo
Preparing an abstract
Preparing a literature review
Due:  Statement of interests memo
Text:  Chapter 2 – Literature Reviews
Discussion:  Literature Review examples #1, #2, #3

SEP 19  Proper citation of sources
Proofreading and editing
Fundamentals of oral presentation
Due:  Topic statement for literature review
Discussion:  Research Proposal examples #1, #2, #3

SEP 26  Preparing a research proposal
• Format / organization
• Narrowing the focus
• Research questions and hypotheses
• Types and sources of data (e.g. primary, secondary, etc.)
• Methods
Text:  Chapter 3 – Research Questions
Text:  Chapter 4 – Data and Methods in Spatial Science
Text:  Chapter 5 – Graduate Degree Proposals
Discussion:  Research proposal examples #4, #5, #6

OCT 3  Preparation of professional articles
Cartographic presentation of data
Text:  Chapter 7 – Disseminating Research
Discussion:  Research proposal examples #7, #8

OCT 10  FALL BREAK
COURSE OUTLINE (continued)

OCT 17  Student oral presentations of literature reviews
         *Due: Draft Literature review → student peer reviews*

OCT 24  Student oral presentations of literature reviews
         *Text: Chapter 10 – Thesis I: Human Systems-Qualitative
         Text: Chapter 11 – Thesis II: Human Systems
         Text: Chapter 14 – Dissertation III: Physical Systems
         Due: Peer critiques of others’ literature reviews (2)*

OCT 31  Graphical and tabular presentation of data
         *Example exercises in data graphing
         Due: Final Literature review*

NOV  7  Graphical and tabular presentation of data
         *Discussion: Student graphics
         Due: Presentation of data in tables and graphs*

NOV 14  Preparing grant proposals
         Targeting the RFP, Budget, Timeline, Qualifications, Assessment, Dissemination
         *Discussion: Grant proposal examples #1, #2, #3
         Text: Chapter 6 – Grants and Grant Writing*

NOV 21  Professional reports (Scope of work, milestones, deliverables, etc.)
         *Due: Research proposal
         Due: Grant proposal*

NOV 28  Peer review of research proposal posters
         *Due: Draft poster of research proposal*

DEC  5  Student presentations of research proposal posters
         *Due: Final poster of research proposal*
GEO 503 Readings – Fall 2011

Available at: S:\GEO\Wolt\GEO503 Fun

<table>
<thead>
<tr>
<th>Literature Reviews:</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
</tr>
<tr>
<td>-----</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Research Proposals:</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
</tr>
<tr>
<td>-----</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>7</td>
</tr>
<tr>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grant Proposals:</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
</tr>
<tr>
<td>-----</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
</tbody>
</table>
Additional resources available in Ezra Lehman Library:


