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**REM 802****Research Approaches and Integration for REM Ph.D. Students****Ken Lertzman  
Spring 2010**

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Tues. 10:30 – 12:20 a.m.

BLU 10901

Wed. 11:30 – 1:20 a.m.

BLU 10901

*Note: although we are scheduled to meet in elsewhere, we have few enough people we can meet in the library/meeting room associated with my lab in REM, **please go there for the first class**. It is the room beside 8415 (where most of my students have offices)*

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**Goals for the Course**

1. Prepare students for the comprehensive/defense of the thesis proposal.
2. Prepare students to be effective, efficient, and successful in their PhD research.
3. Support PhD students in developing an integrative, synthetic, and cross-disciplinary approach to research and thinking about problems in resource and environmental management.

**Objectives for Students in the Course**

1. Understand the structure and process of the REM PhD degree in detail, both the written guidelines in the PhD Handbook and the intent of those who wrote the Handbook.
2. Learn how to choose and conceptualize a Ph.D. research project; understand the nature of PhD projects and their role in academics.
3. Gain a deeper understanding of the nature and challenges of synthesis, both within and across disciplines.
4. Learn about research proposals and prepare for defending the research proposal
5. Prepare a draft of the PhD thesis proposal that will be defended within a year of completing the class.
6. Prepare for the cross-disciplinary and integrative aspects of planned PhD research and the REM comprehensive/proposal defense
7. Practice breadth-oriented oral examination skills.
8. Develop and polish skills in research design and communication.
9. Gain experience applying critical and creative thinking skills in research

**Suggested Text**

There is no overall text for the course but we will refer frequently to Davis 2005 (2cd Ed) and everyone should make sure that they have access to it—either by purchasing a copy or sharing with someone else. There are a number of copies of the first edition around REM, but the second edition provides some useful updates.

Davis, Martha. 2005. Scientific Papers and Presentations, 2cd Ed.. Academic Press.

In addition to Davis, individual articles will be provided, primarily as pdf's.

I have a collection of other books on thesis writing in general and PhD theses in particular, proposal writing, and research design – all these will be available to you for signing out from my lab.

## **Format and Grades**

This course will consist primarily of a series of discussions among the participants (students and instructor), with occasional guests. Everyone must come prepared to participate fully in these discussions. The primary goals of the course are to prepare to design and conduct interdisciplinary PhD research and further your progress towards the combined REM proposal defense and comprehensive exam. The final product of the class is a draft of the PhD proposal that you will defend within a year of completing this course. You will move toward those goals in direct proportion to the amount you put into the course. This is much more a course about you learning what you need to know as part of a structured group process than it is a course about the instructor downloading information.

I would like all assignments turned in electronically. When papers are turned in electronically, single-spaced text is appropriate (12 point text, with at least 1 inch margins). If I do receive hard copy, it should always be double-spaced.

Grades will be based on your participation on a daily basis in class discussions and exercises, on a couple of smaller written and oral submissions, and on the outline of the field statement completed at the end of the class. The breakdown of grade assessment is as follows:

1. Outline of Research Proposal (Feb 1)	10%
2. Draft research proposal (March 2)	10%
3. Contributions to cross-disciplinary synthesis	10%
4. Mock Oral Exam	10%
5. Final research proposal	35%
6. Class Participation (e.g. discussions, peer editing)	25%
<hr/> Total	100%

### *1. Outline of research proposal.*

The main product of this course will be a draft of your research proposal. The first assignment will be an outline of your proposal.

### *2. First Draft of Research proposal.*

This is intended to be your best effort at a draft suitable for sharing with the class. All proposals will be circulated among the class for peer editing. Depending on progress, we may move the due date a week or two later in the term. One of the themes in the class will be the importance of rewriting and editorial review in the production of finished products—this aspect of the structure of the class will model that.

### *3. Presentation/discussion on synthesis/integration/interdisciplinarity.*

We will have several sessions focusing on cross-disciplinary synthesis. Each student will have opportunities to make various kinds of contributions to these discussions.

### *4. Mock oral exam.*

At the end of the class, all students will participate in a mock oral exam administered by their committee (plus me). The format will be similar to the oral exam associated with the combined

comprehensive/defense of the thesis proposal, though shorter. Though the real exams are closed to the public, the whole class will be present at all of these mock exams to maximize the opportunity for learning about different approaches to the idea of a comprehensive knowledge of REM breadth.

*5. Final Draft Proposal.*

The major written product of the class will be a draft of the proposal you will defend in the combined comprehensive/proposal defense within a year of completing this class. We expect that the project—and the proposal—will evolve over that time, but this should lay the foundations for what you will actually defend. This proposal will be due shortly after last day of class. My goal is for students to have some time to incorporate feedback from the mock oral exam into their written product.

**Tentative Outline of Topics by Date:**

**Note that many of these dates will likely shift in response to my assessment of priorities for this particular group. As well, I have left several spaces with content “to be determined” in order to respond adaptively to the course process. The readings listed in the righthand column are only a fraction of the readings we will cover. The rest will be provided in relation to each topic area as we cover it. Finally, the dates at which guests will join us have not been confirmed, so should not be considered final.**

<b>Date</b>	<b>Topic</b>	<b>Due/Deadlines/Landmarks; Readings</b>
Jan 5	Introduction to class. Discussion of research interests, expectations from class, from comprehensives process, and from degree.	Goals and Expectations for REM PhD students.
Jan 6	REM PhD program and process. Read and annotate REM PhD Handbook. Come with questions and edits.	REM PhD Handbook Also review University's graduate regulations <a href="http://www.sfu.ca/dean-gradstudies/">http://www.sfu.ca/dean-gradstudies/</a> - look for Graduate Studies Handbook
Jan 12	What is a PhD, a dissertation, comprehensives, etc.? Thinking big, thinking small, connecting the two. Strategy.	Davis Preface, Chaps 1, 2, 6 Lanyon 1995
Jan 13	The Proposal. Outlines	Davis Ch 5, examples of proposals Moffat 1994
Jan 19	Proposal workshop 1	Bring 1 page version of research proposal and outline of a longer version to share and discuss.
Jan 20	Writing and editing	Lertzman 1995, Davis Chs 3&9
Jan 30	Guest: Randall Peterman	
Feb 1	Guest Anne Salomon?	<b>Proposal Outlines due</b>
Jan 26	Philosophy of Research/Science	
Jan 27	Research Strategy	Kuhn, Booth et al, Davis Ch 6

Feb 2		
Feb 3	Graphic Presentation, Oral Presentation, Powerpoint	Davis Ch 11, 13-17
Feb 9	Resilience thinking/theory and coupled social-ecological systems	
Feb 10	TBD	
<b>Feb 15-26</b>	<b>Olympics Break No Classes</b>	<b>[time to write proposal drafts]</b>
March 2	Cross-disciplinary synthesis 1.	<b>First Draft of Proposals due.</b>
March 3	Cross-disciplinary synthesis 2.	
March 9	Proposal Workshop – mutual editing and discussion	
<b>March 10</b>	<b>No Class – REM External Review</b>	
March 16	Finishing/End-Game: defenses, externals, library Publishing, authorship, professionalism, post-docs	Davis Ch 7, 8, 12
March 17	Internal Oral Practice (with senior PhD students)	
March 20	Internal Oral Practice (with senior PhD students)	
March 23	Guest: Mark Jaccard	<b>Ken away in Haida Gwaii</b>
March 24	Guest: Tom Gunton/Wolfgang Haider	<b>Ken away in Haida Gwaii</b>
March 30	TBD	
March 31	Practice Proposal Defense I [with committees]	
April 6	Practice Proposal Defense II [with committees]	
April 7	Practice Proposal Defense III [with committees]	
April 13	Practice Proposal Defense IV [with committees]	
April 14	Last Class, wrap-up, review	<b>Ken possibly away in field – to be rescheduled if so</b>
		<b>Final Proposals Due April 16-19 TBD</b>