COURSE OVERVIEW & OBJECTIVES

*Research Design* (GPHY 505) is the second course in a sequence of coursework for first-year Geography graduate students and graduate students in allied disciplines (GPHY 504: *Introduction to Geographical Research* is the first course). The course is designed to explore research approaches, methods, and design considerations and to address professional and ethical aspects of the research enterprise. The primary goal is for you to complete the course with a well-developed research proposal in hand that will be presented to your graduate research committee for approval to proceed with your research. The expectation is that during the semester you will also schedule a research planning meeting or proposal presentation with your advisor and graduate research committee.

The course objectives are five-fold: (1) to build a perspective on different types of empirically-based theoretical and applied research undertaken in geography and allied sciences; (2) to explore and develop a research topic into a full research proposal; (3) to gain theoretical grounding and preparation in a methodological approach that is central to your research project; (4) to develop the structure and competence to *start, finish and survive* a major research endeavor; and (5) to develop writing, analytical, and presentation skills to enable you to actively contribute to a learning community and to communicate your research to a scientific audience.

ASSIGNMENTS & EVALUATION

The course is structured around the following assignments that will be discussed in greater detail during our meetings:

*Weekly activities and participation (5% of grade):* This course follows a discussion format. The format provides an atmosphere for the exchange of ideas and opinions based on one’s ability to critically read, accurately articulate, and subsequently discuss the works of others. You will be asked to critically appraise and present readings in class. Your active engagement and constructive participation is fundamental to a successful learning environment.

*Research methodology summary & presentation (15% of grade):* This assignment entails summarizing and presenting a research methodology that is central to your project. The aim of this assignment is to encourage engagement with methodological theory and to stimulate discussion and debate about methodological trends and innovations.
Ethics in research and profession (5% of grade): The objective is to examine the ethical and professional standards which guide scientific research and professional activity in your field of study. This includes addressing ethical dilemmas that you might encounter. Completion of the Human Participant Protections Education for Research Teams module (link from the Institutional Review Board website: http://www.umt.edu/research/irb.htm) is also required.

Written research proposal (50% of grade): A written research proposal makes up the bulk of the work that will be evaluated for this course. The work of writing a full research proposal will be broken down into several phases that will eventually result in a draft that will be reviewed by peers and your advisor and revised for final submission.

As you write each of the core sections of the proposal, it is essential that you communicate with your advisor. Her/his feedback should add to your growing knowledge of your topic, thereby resulting in a continual improvement to your proposal. In order to succeed in developing a viable research topic and in preparing a sound proposal, supported by the committee chair, students are required to seek committee chair/advisor input on the theoretical and methodological approach and on the proposal (sign-off sheet will be provided). Students should also begin identifying other faculty members for their research committee (please complete the department Graduate Committee Appointment form as needed).

Proposal presentation (15% of grade): The proposal presentation will be assessed based on clarity, structure and organization, and the ability to communicate the significance of the project and its theoretical, methodological, and empirical implications.

Peer review of proposals (10% of grade): The focus here is on the process of reviewing and evaluating academic work. You will be preparing structured anonymous (blind) reviews of proposals and presentations in an effort to provide help, support, and feedback to your colleagues. Further, you will also benefit from this peer review process by receiving suggestions and feedback on your own proposal.

I will be grading using the plus/minus system. Grades will be issued as follows:
A = 93-100%, A- = 90-92%; B+ = 87-89%; B = 83-86%; B- = 80-82%; C+ = 77-79%; C = 73-76%; C- = 70-72%; D+ = 67-69%; D = 63-66%; D- = 60-62%; Below 60% = F.

Please feel free to come to my office hours or to catch me after class with questions. I am also available by appointment if the regular office hours do not fit your schedule.

COURSE READINGS

This course will integrate a range of texts and materials. The required textbooks are:


An **optional text** which offers numerous resources is:


Additional materials will be made available in class, and book chapters and articles will be posted digitally. Several reading assignments are available via these **websites**:

- National Science Foundation, Geography and Regional Science, Samples of Successful Doctoral Dissertation Research Improvement Grants.
- Dr. Michael Watts’s UC Berkeley dissertation proposal resources: [http://globetrotter.berkeley.edu/DissPropWorkshop/](http://globetrotter.berkeley.edu/DissPropWorkshop/) or [http://iis.berkeley.edu/funding-opportunities/graduate](http://iis.berkeley.edu/funding-opportunities/graduate).

**ADDITIONAL INFORMATION & POLICIES:**

**Course Communication**: All communication for the course will be conducted using UM e-mail addresses. I encourage you to regularly check your official University e-mail or to have messages to your official e-mail address forwarded to your preferred e-mail address.

**Communication with Chair/Advisor**: In order to succeed in developing a viable research topic and preparing a sound proposal supported by the committee chair, you must communicate with the chair/advisor of your committees from the very beginning and at critical stages of the research planning process. Throughout the semester at particularly critical junctures, it is expected that you will meet with the chair of your committee. These meetings are of great benefit to both you and your advisor. You will be able to receive constructive comments on your work and gain valuable knowledge in areas such as learning of available resources, honing in a research topic, and developing an understanding of what is required for the proposal. Advisors, on the other hand, are able to develop a relationship with the students, understand their interests, and track their progress throughout the proposal process.

**Graduate Research Committee**: Make sure to communicate with the chair of your committee and the remaining members to be appointed to your thesis committee about their willingness to serve. To qualify for graduate thesis committees, members must have a degree which is at least at the level of the degree to be awarded. For more details on policies, please consult the Graduate School website: [http://www.umt.edu/grad/policies/default.htm](http://www.umt.edu/grad/policies/default.htm).

**Attend a Thesis Defense or Professional Conference**: I encourage you to attend at least one thesis defense or to participate in a research conference. A thesis defense offers one of the best ways for learning about recent scientific and methodological developments in your subfields and for gaining ideas to enhance oral communication and presentation.
**Academic Honesty & Student Conduct Code:** All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or disciplinary sanction by the University. All students at The University of Montana are responsible for knowing and adhering to the Student Conduct Code of this institution. The Code is available for review online at [http://life.umt.edu/vpsa/student_conduct.php](http://life.umt.edu/vpsa/student_conduct.php).

**Disabilities Assistance and Accommodation:** Students requesting disability accommodations are advised to contact the **DSS office** (406-243-2243), Lommasson Center 154. This office determines accommodations based on the documented disabilities. Please see [http://www.umt.edu/dss/](http://www.umt.edu/dss/) and the Catalog.

**Writing Assistance:** For assistance with writing, please consult the on-line resources of the UM Writing Center, Liberal Arts 144 [http://www.umt.edu/writingcenter](http://www.umt.edu/writingcenter).

### COURSE MEETINGS & SCHEDULE

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<tr>
<th>PART I: RESEARCH DESIGN &amp; PROCESS</th>
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<td><strong>Week 1 ~ January 29:</strong> The relevance of research design and process</td>
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<td><strong>TOPICS:</strong></td>
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<td><strong>READING S:</strong></td>
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<td><strong>ASSIGNMENT:</strong></td>
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<p>| <strong>Week 2 ~ February 5:</strong> Developing a conceptual and theoretical framework |
| <strong>TOPICS:</strong> | What is a literature review and what should it accomplish? How is a good literature review structured and how does it inform the articulation of a problem statement? We will examine how to synthesize the oftentimes vast literature related to one’s research topic and how to structure the background section, thereby “narrowing” the scope of research. |
| <strong>READING S:</strong> | Creswell Ch.2, <em>Key Methods</em> Ch. 2, and <em>Aspiring Academics</em> Ch. 11 by Patricia Solis |
| <strong>ASSIGNMENT:</strong> | Two tasks: (i) You will need to devote much time and effort to familiarize yourself with the literature as it pertains to your topic, and to identify the main bodies of theory, the major concepts and key contributors to your field of study. Revisit the work that you began last semester, indentifying the key words and prominent works. In consultation with your advisor, make sure that your bibliographic resources are appropriate to your topic. You will continue to develop this bibliography over the course of the semester; (ii) Begin to sketch out the outline of your thesis proposal, realistically identify your assets and resources, and the areas where you have gaps. |</p>
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<th>Week 3 ~ Feb. 10: Research design: introductions, purpose statement, and research questions</th>
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<td><strong>TOPICS:</strong> The focus will be on crafting a strong problem statement, significance and justification, and identifying research questions.</td>
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<td><strong>READING S:</strong> Creswell, Ch. 5-7; Watts, 2001 (online – see URL addresses above)</td>
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<td><strong>ASSIGNMENT:</strong> Bring to class a one paragraph problem statement, a one paragraph statement on the significance/justification of your project, the specific research question(s) guiding your study and the objectives, and a listing of the key terms and variables you are employing. We will be sharing these with each other during our class meeting.</td>
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**Week 4 ~ February 17 ~ No Class (Presidents’ Day)**

**Week 5 ~ February 24: Methodology: Generating and Working with Data in Human and Physical Geography**

| **TOPICS:** We will embark on a discussion of methodological theory and approaches, drawing attention to the methods needed for your project. Guest presentations. |
| **READING S:** Creswell Ch. 8-10 and skim *Key Methods* Ch.5-30 |
| **ASSIGNMENT:** Begin to identify literature on methodological theory and specific methods relevant to your research plan and goals and prepare your presentation following the assignment guidelines. |

**Week 6 ~ March 3: Representing and interpreting geographical data in your subfield**

| **TOPICS:** Student presentations on geo-methodologies. |
| **ASSIGNMENT:** Readings assigned by students. |

**PRESENTERS:**

**Week 7 ~ March 10: Representing and interpreting geographical data in your subfield**

| **TOPICS:** Student presentations on geo-methodologies. |
| **ASSIGNMENT:** Readings assigned by students. |

**PRESENTERS:**

**Week 8 ~ March 17: Representing and interpreting geographical data in your subfield**

<p>| <strong>TOPICS:</strong> Student presentations on geo-methodologies. |
| <strong>ASSIGNMENT:</strong> Readings assigned by students. |</p>
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## PART II: ETHICAL AND PROFESSIONAL CONSIDERATIONS

### Week 9 ~ March 24: Ethics and professional standards and responsibilities

**TOPICS:**

Our attention will turn to ethical and professional issues of data collection, handling and interpretation as well as dilemmas that arise in a variety of research scenarios. The discussion of ethics in research will also extend to fieldwork in diverse geographical and cultural settings.

**READING S:**

- AAG Statement of Professional Ethics (online);
- Creswell Ch. 3; *Key Methods* Ch. 3 and 4;
- *Aspiring Academics* Ch. 12 by Iain Hay and Mark Israel

**ASSIGNMENT:**

Complete the online ethics module available via the ORSP website. For next week prepare a 5-10 minute oral presentation on the ethical dilemmas you may encounter in your research and how you might prepare to address, respond to, or mitigate these.

Submit your draft proposal to your advisor and to me for review and feedback.

### Week 10 ~ March 31-April 4 ~ Spring Break

**TOPICS:**

This meeting will be devoted to strategies for communicating one’s research in a variety of formats.

**READING S:**

- Boice 1997; Creswell Ch. 4; Hanson 1988; Wolford, 2001; *Key Methods* Ch. 31

**ASSIGNMENT:**

Drawing in the readings, prepare 3-4 points that describe your research writing plan and goals and the challenges and/or obstacles that you think you may face in implementing these. Consider one or more strategies from the readings that you think you will attempt to follow in the writing process. Also, plan to attend the UM Graduate and Faculty Research Conference on April 12.

## PART III: PROPOSAL REVIEW, REVISION, AND REFINEMENT

### Week 12 ~ April 14: Research Proposal Presentations

**TOPICS:**

We will have the first round of research proposal presentations.

**ASSIGNMENT:**

The draft of your research proposal is due in class. Bring two hard copies of your proposal to class for distribution to peer reviewers.

**PRESENTERS:**

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### Week 13 ~ April 21: Research Proposal Presentations

**TOPICS:**  
Student presentations of research proposals (continued).

**ASSIGNMENT:**  
Read and review the research proposals that you have been assigned. Prepare a 1-2 page detailed (blind) evaluation of each proposal. Your evaluations are due in class today and will be shared anonymously with the proposal authors.

**PRESENTERS:**

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### Week 14 ~ April 28: Research Proposal Presentations

**TOPICS:**  
Student presentations of research proposals (continued).

**PRESENTERS:**

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### Week 15 ~ May 5: Final Meeting

**TOPICS:**  
Our last meeting will be devoted to summarizing the review and revision process in academic contexts and reporting on outcomes from thesis committee meetings.

**ASSIGNMENT:**  
The revised draft of your proposal with your advisor sign-off is due at this time. Your written peer review (blind) evaluations of the oral presentations are also due.