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GPHY 505.01: Research Design in Geographical Sciences II

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GPHY 505: RESEARCH DESIGN II

~ Spring 2018 ~

Class Meets: Wednesdays 5-6:50 pm; Stone Hall 217

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<http://www.cas.umt.edu/geography/faculty/halvorson/halvorson.html>

Office Hours: Tuesdays at 2-4:00p.m. or by appointment

Course Overview & Objectives

This course is part of a sequence of coursework for first-year Geography graduate students and graduate students in related fields of study (GPHY 504: *Research Design I*) is the other course in the sequence). The overall aim of this two-course sequence is to help students broaden their understanding of the diversity of empirical, theoretical, and methodological approaches within the discipline of Geography and allied sciences. Further, the intention is to provide a launching point for gaining the necessary background and skills in geographic inquiry and for producing meaningful, significant, and rigorous research that is worthy of a graduate degree.

Objectives

GPHY 505 has the explicit objective of assisting graduate students in developing a strategy for undertaking a significant research project. 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 research topic and preliminary proposal (i.e. prospectus) in hand that will eventually be developed into a full research proposal to be presented to your graduate research committee during Spring Semester 2016.

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 preliminary proposal; (3) to gain theoretical direction 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 begin developing writing, analytical, and presentation skills that will enable you to actively contribute to a learning community and to communicate your research to a scientific audience.

Learning Outcomes

By the end of the course you will have the following capabilities:

1. Build the foundation for preparing a rigorous research project.
2. Understand the general trajectories of research in contemporary geography and allied sciences, including the ability to frame geographic investigations in relation to the systematic branches of the discipline.
3. Demonstrate skills in academic writing, research design, research methodologies, grantsmanship, and oral communication.
4. Engage with a learning community of graduate students and faculty by sharing ideas, exchanging theoretical and methodological insights with each other, and supporting the research enterprise.

Assignments and Evaluation

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

Weekly Activities and Participation

This course follows an active discussion format. The format is designed to create an atmosphere for the lively exchange of ideas and opinions based on one's ability to critically read, accurately articulate, and subsequently discuss the works of others. Engagement and participation is critical to benefitting from this course.

Geo-Methodologies: Summary & Presentation

This assignment entails summarizing and presenting one research method, methodological theory, or methodological strategy that is central to your research project. The aim of this assignment is to encourage engagement with theory as well as technical aspects and to stimulate discussion and debate about methodological trends and innovations.

Ethics in Research and Profession

The objective is to examine the ethical and professional standards that 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 is required. The link to the Institutional Review Board website:

<http://www.umt.edu/research/compliance/IRB/default.php>.

Research Proposal (or Grant Proposal)

A written research proposal (in some individual cases this will be a grant proposal) makes up the bulk of the work that will be evaluated for this course. The work of writing this type of paper will be broken down into several phases that will be reviewed by peers and your advisor and revised for final submission at the end of the semester.

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 the development and direction of your research ideas. 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. Students should also begin to identify other faculty members for their research committee.

Presentation of Research Project

The presentation of the research project will be assessed based on clarity, structure and organization, and the ability to communicate the significance of the topic and its potential theoretical, methodological, and/or empirical contributions.

Peer Review and Participation in Mock Research Proposal Defense

A major focus over the course of the semester will be on scientific writing and the review and evaluation of academic work. Our course is founded on a collaborative approach that draws on the involvement of our learning community as well as the resources of the University's The Writing Center. Our peer review collaborations will be carried out in small-group sessions that center on the writing assignments for the course. A few working sessions will take place during our class meetings, and as part of this effort, you will be assigned to a writing group (2-3 students in each group). You will be preparing reviews of colleagues' work in an effort to provide comment, support, and feedback to your colleagues. Further, you will also benefit from this peer review process by receiving suggestions and feedback on your own research ideas and prospectus. Your active engagement and constructive participation in your writing group is fundamental to creating a successful learning environment. Details regarding the structure and organization of this component of the course will be provided in class.

Progression of Assignments and Grading Breakdown

Weekly activities and participation	5%
Assignment #1 Problem statement and research questions	5%
Assignment #2 Geo-methodologies	10%
Geo-methodologies presentation	10%
Ethics in research and the profession	5%
Assignment #3 Draft of research proposal	20%
Mock proposal defence	10%
Assignment #4 Final draft of research proposal	25%
Peer review contributions	10%

Grading Scheme

93-100	A	87-89	B+	77-79	C+	67-69	D+	<60	F
		83-86	B	73-76	C	63-66	D		
90-92	A-	80-82	B-	70-72	C-	60-62	D-		

Course Readings

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

- Creswell, John W. and J. David Creswell. 2018. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (Fifth Edition)*. Thousand Oaks, California: Sage Publications.
- Turabian, Kate L., revised by Wayne C. Booth, Gregory Colomb, Joseph M. Williams. 2013. *A Manual for Writers of Research Papers, Theses and Dissertations*. 8th ed. Chicago: The University of Chicago Press.
- Wulf, Andrea. 2015. *The Invention of Nature: Alexander von Humboldt's New World*. New York: Vintage Publishing.

Optional texts that offer numerous resources are:

- Clifford, Nicholas, French, Shaun and Gill Valentine (Eds). 2010. *Key Methods in Geography, Second Edition*. Thousand Oaks, California: Sage Publications.
- Solem, Michael, Kenneth Foote and Janice Monk. 2008. *Aspiring Academics: A Resource Book for Graduate Students and Early Career Faculty*. New York: Prentice Hall.

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**:

- Aspiring Academics Website:
<http://www.pearsonhighered.com/aag/>
- Association of American Geographers, Statement on Professional Ethics:
http://www.aag.org/cs/about_aag/governance/statement_of_professional_ethics.
- Dr. Michael Watts's UC Berkeley dissertation proposal resources:
<https://iis.berkeley.edu/node/304>.

Additional Information and 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

This semester is a perfect time to begin thinking about your thesis committee. Make sure to communicate with the chair of your committee about potential members. To qualify for graduate thesis committee service, members must have a degree that is at least at the level of the degree to be awarded. For more details on policies, please consult the Graduate School website.

Scientific and Scholarly Literature

You will need to immerse yourself in the academic literature on your topic. Please take time to inquire with your advisor about the relevant authors in your field of research, the important professional journals, and the seminal works (books, articles) that you should know (the “Must Reads”). Regularly (several times per week) develop the habit of reading articles from important professional journals in the field of Geography such as *The Professional Geographer*, *Annals of the Association of American Geographers*, *Geographical Review*, *Progress in Human Geography*, *Progress in Physical Geography*, *Journal of Geography*, *Geoforum*, *Economic Geography*, *Mountain Research and Development*, and those pointed out by your advisor.

Attendance at a Thesis Defense or Professional Conference

I encourage you to attend at least one thesis defense or to participate in a research conference during this first year of graduate school. A thesis defense and professional conference offer some of the best ways for learning about recent scientific and methodological developments 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://www.umt.edu/vpsa/policies/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/> 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>.

Course Schedule

PART I: RESEARCH DESIGN & PROCESS	
WEEK 1 JAN. 24	The relevance of research and the graduate research experience
TOPICS:	An introduction to our semester plan, including: (1) the value of meaningful and rigorous research in an advanced degree program and in professional life; (2) the research interests and backgrounds of participants; and (3) details of the course objectives and organization. We will also address practical considerations – navigating research tools and resources available through Mansfield Library and effective bibliographic search strategies.
ASSIGNMENT:	This week begin reviewing exemplary thesis research and grant proposals either in our “Exemplary Proposals” file on Moodle and from your advisor. Examine, evaluate, and critique the structure and content of these proposals, noting 3-4 observations about their strengths and weaknesses to share during our next class meeting.
WEEK 2 JANUARY 31	Developing a research approach and review of the literature
TOPICS:	Array of research approaches, the research process, major elements of research and grant proposals, and the literature review. We will examine how to synthesize the vast literature related to one’s research topic and how to structure the background section, thereby “narrowing” the scope of research.
READINGS:	Creswell Ch.1-3, Key Methods in Geography Ch. 1 & 2
ASSIGNMENT:	Three tasks: (1) Consider while reading: 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? (2) Using the library resources and tools expand the conceptual map of the studies and theory that pertain to your topic, the key words and major concepts, and prominent works. You will continue to develop this bibliography over the course of the semester; (3) Begin to sketch your research topic ideas and approach.
WEEK 3 FEB. 7	Resources for research design
TOPICS:	Discuss and synthesize the work from the first two weeks
READINGS:	Creswell Ch. 4 plus Solem et al. (2008) and Solis (2009)
ASSIGNMENT:	Continue narrowing your research topic in light of your academic, professional and personal goals. Prepare to discuss what types of research questions, approaches, methodologies, and skills are being used in your sub-field of interest. Assignment #1 submission via Moodle group on or before February 9: Submit problem statement, a statement on the significance/justification of your project, the preliminary research objectives and/or research question(s) guiding your study, and a listing of the key words and terms you are employing (3 pages in length).
WEEK 4 FEB. 14	Research design: introduction, purpose statement, and research questions
TOPICS:	The focus will be on crafting a problem statement and statement of purpose as well as the process of defining and refining research objectives and questions.
READINGS:	Creswell, Ch. 5-7; Watts, 2001 (online – see URL addresses above)
ASSIGNMENT:	Come prepared for group meetings on Assignment #1.

WEEK 5 FEB. 21	Geo-Methodologies: 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.
READINGS:	Creswell Ch. 8-10 and skim Key Methods Ch.5-30 and readings assigned by students.
ASSIGNMENT:	Assignment #1 due to Sarah. Begin to identify literature on methodological theory and specific methods relevant to your research plan and goals and prepare presentation for your scheduled presentation.
PRESENTERS:	
WEEK 6 FEB. 28	Geo-Methodologies: Representing and interpreting geographical data in your subfield
TOPICS:	Student presentations on geo-methodologies.
READINGS:	Readings assigned by students.
PRESENTERS:	
WEEK 7 MARCH 7	Attend the Montana Water Summit, March 5-7, Helena
WEEK 8 MARCH 14	Geo-Methodologies: Representing and interpreting geographical data in your subfield
TOPICS:	Student presentations on geo-methodologies.
READINGS:	Readings assigned by students.
PRESENTERS:	
ASSIGNMENT:	Submission of Assignment #2 to Moodle Group on or before March 16.
WEEK 9 MARCH 21	On research writing, presenting, and publishing
TOPICS:	This meeting will be devoted to strategies for communicating one's research in a variety of formats.
READINGS:	Boice 1997; Creswell Ch. 4; Hanson 1988; Wolford, 2001; Key Methods Ch. 31
ASSIGNMENT:	Come prepared with feedback on Assignment #2. Drawing on 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 will strive to follow in the writing process.
WEEK 10 ~ Spring Break ~ No Class Meetings March 26-30	
PART II: ETHICAL AND PROFESSIONAL CONSIDERATIONS	
WEEK 11 APRIL 4	Class meeting and Presidential Speaker Andrea Wulf's Lectures * 3-4:30pm Seminar on "Founding Gardeners" ~ Venue: Gallagher Business Building 123 * 8pm Lecture "Invention of Nature" ~ Venue: Dennison Theatre

TOPICS:	This meeting will focus on dimensions of geographical inquiry and discussion of our assigned text and visiting author and scholar Andrea Wulf!
READINGS:	Andrea Wulf's <i>The Invention of Nature</i>
ASSIGNMENT:	Submission of Assignment #2 to Sarah on April 4.
WEEK 12 APRIL 11	Ethics and professional standards and responsibilities ~ Attend "One River – Ethics Matter" Conference, UM Campus
TOPICS:	Our attention will continue to center on 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.
READINGS:	AAG Statement of Professional Ethics (online); Creswell Ch. 4; <i>Key Methods</i> Ch. 4; <i>Aspiring Academics</i> Ch. 12 by Iain Hay and Mark Israel
ASSIGNMENT:	Complete the online ethics module available via the ORSP website. Consider the ethical dilemmas you may encounter in your research and how you might prepare to address, respond to, or mitigate these in your study. Integrate these insights and concerns into your proposal. Submission of Assignment #3 to Moodle group on or before April 11.
PART III: PROSPOSAL REVIEW, REVISION, REFINEMENT	
WEEK 13 APRIL 18	Project Presentations
TOPICS:	We will have the first round of mock thesis proposal defenses.
ASSIGNMENT:	Read and review your group members' Assignment #3 and come prepared to provide written feedback. Submission of Assignment #3 to Sarah by April 23.
PRESENTERS:	
WEEK 14 APRIL 25	Convergence of CFC Society and Conservation Graduate Seminar and GPHY 505, 4-7:00pm, Venue: CHCB 452
TOPICS:	TBA
READING:	TBA
ASSIGNMENT:	Revise your thesis proposal and schedule your thesis proposal committee meetings. Submission of Assignment #4 to Moodle on or before April 27.
WEEK 15 MAY 2	Project Presentations, Synthesis, and Final Writing Workshop
TOPICS:	Mock thesis proposal defenses (continued). Our last meeting will also be devoted to workshopping the revised version of your proposal. The next steps in your research design process will be addressed.
ASSIGNMENT:	Come prepared for the group meetings on Assignment #4
PRESENTERS:	

FINALS WEEK ~ MAY 9 Final Class Meeting	
TOPICS:	Our last meeting will be devoted to reviewing your progress to date and to identify and discuss your upcoming short- and long-term research goals and plans.
ASSIGNMENT:	<i>Assignment #4 research proposal with your advisor sign-off is due to Sarah.</i>

Summary of Peer Review Group Project Work and Deadlines

Assignment	Students Submit to Moodle	Group Project Meeting	Due date to Sarah
#1 ~ Problem statement and research questions (with significance, research objectives, key words and terms)	Feb. 9	Feb. 14	Feb. 21
#2 ~ Research methodology	March 16	March 21	April 4
#3 ~ Draft of research proposal	April 11	April 18	April 23
#4 ~ Final draft of proposal	April 27	May 2	May 9