GEOG 661 GEOGRAPHIC RESEARCH

Fall 2016

3 Credits
Mondays 18:00-20:30
2129 Wood Hall

Instructor: Professor Chansheng He
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Office Hours: Mondays and Tuesdays: 15:30 - 17:00. Other times by appointment. Office hours may change under certain circumstances.

Course Purpose: This course is designed to improve graduate students' ability in applying and generating knowledge in geography.

Course Objectives:

(1) Discuss and debate key concepts and their applications in geography;
Format: Course readings, handouts, and lectures

(2) Improve students' critical thinking on the fundamental process and basic components of both applied and basic research;
Format: Course readings, handouts, lectures, and assignments.

(3) Discuss and debate the components and requirements of research proposal and master theses;
Format: Course readings, handouts, lectures, and assignments.

(4) Challenge students to develop their own research prospectus and proposals.
Format: Course readings, lectures, research prospectus and proposal.

Expected Outcome:

After taking this course, you should be able to:

1. Understand the process of applied and basic research;
2. Formulate your own research problems and hypotheses;
3. Conduct and critique relevant research literature;
4. Develop your own research prospectus and proposals; and
5. Assemble and present your research results in professionally acceptable format such as master thesis and conference proceedings.
Course Outline:

1. Introduction to contemporary environmental and ecological issues, the role of geography and geographic research
   Resources, environment, land use, landscape, climate change, spatial analysis, region, movement, sustainability, and scale, and their linkages with geography and geographic research.

2. Introduction to geographic concepts and modern geographic thought
   Geography, geographical disciplines, post structuralism, postmodernism, and postmodern geography

3. Research process in geography
   Strengthening students' background in basic research design issues including problem statement, objectives, literature review, sources of data, research design, results and discussions, conclusions and recommendations, and presentation of results.
   Development of M.S. thesis research topic: the role of students, the role of major advisors and committee members, requirements of Plans A and B.

4. Major types of research in geography
   Quantitative approaches (i.e., experiment and survey, sampling design methods) and qualitative approaches (field research and the use of available data). Procedures and appropriateness of use criteria.

Required Textbooks


References Books


York, New York.


**Course Requirements**

Students will be required to complete **FIVE** requirements during the course.

1. **Written Assignments (40% of course grade)**
   Students will be required to complete 10 written assignments throughout the semester, four of these will be graded up to 10 points each. Each assignment should be completed on time and late submission will be subject to a grade deduction of 4 points per day.
2. **Research Prospectus (10% of course grade)**
Students will submit to the instructor a 4-8 page research prospectus. The purpose of the prospectus: to outline the essential elements of a proposed research --research that a student will carry out to fulfill his/her M.S. requirements.

A research prospectus is, in effect, a preliminary (first draft) research proposal and should include the following sections: introduction to the problem, problem statement, literature review, research objectives (hypothesis testing), and expected outcome. **Due: 11/07.**

3. **Midsemester Examination (20% of course grade)**
A close-book midsemester examination will be held on **Monday, 11/21**. The format of the exam will be explained to the class before the exam day.

4. **Class Presentation of Research Plan (10% of course grade)**
Each student will present his/her research plan in the class. As this presentation accounts for 10% of the course grade, each student should adequately prepare his/her presentation in advance. Consider this a formal presentation. Dress and use your voice and body language appropriately like you do at a professional conference. You will be graded by the relevance and clarity of the visual materials, appropriate gesture, and completeness of your research plan. Each presentation will be limited to no more than 15 minutes with 10 min presentation and 5 min for questions and answers.

5. **Research Proposal (20% of course grade)**
Each student will submit a research proposal to the instructor by **Monday, 12/12**. The proposal is an extended and refined version of research prospectus, and should include the following components (if applicable): introduction to the problem, problem statement, literature review, research objectives (hypothesis testing), research design (including sources of data and analysis procedures), expected outcome, a detailed research schedule, and an itemized budget. Minimum length: 15 pages (single or double-spaced, excluding references. Website sources are limited to no more than 3 in references). Examples of research proposals will be distributed and discussed in class.

**Course Format**
This course is student-centered with heavy emphasis on class discussions and written assignments. Each class period is divided to 2 sections (in the later sessions of the semester): lecture and discussion between 6:00-7:30 p.m, and individual reading/assignments or discussions with the instructor between 7:40-8:30 p.m. Students are expected to complete both readings and writing assignments on time in order for them to actively participate in class discussions.

**Grading Standard:** Final grades of this course will be based on students' performance on completion of the assignments, research prospectus, midsemester exam, class presentation and research proposal. Conversion of scores to final grade is based on: 91 or above=A, 86 - 89 =BA, 80-85 =B, 76-79 =CB, 70-75 =C, 66-69=D, 65 or below =F.

**Standards for Submission of Written Materials:** Students are expected to complete their written assignments **professionally** in either double or single spaced computer printout using word processing. In completing the written assignments, whether long or short, please **consider and include** (if applicable) the
following elements: 1) purpose, 2) problem statement (e.g. environmental impact of human-induced climate change), 3) point of view (literature review, different perspectives of environmental, manufacture, research, and governmental agencies), 4) data and information (references), 5) theory and principles (ecology, hydrology, economics, etc.), 6) assumptions /standards (e.g. water and air quality standards), 7) implications and consequences (biological, physical, chemical, and economic, etc.), and 8)interpretations or recommendations. It is always effective to use examples in your assignments to support your point of view and demonstrate your understanding. Therefore, wherever appropriate, include examples in your writing. You should double-check the citation of references in the text, spelling and grammar of your written materials before submitting them to the instructor. Unless in unforeseeable emergency situation, students should submit their written assignments to the instructor by the due date. Late submission of the assignments will result in a grade deduction of 4 points for each day past the due date.

**Academic Integrity.** You are responsible for making yourself aware of and understanding the policies and procedures in the [Undergraduate Catalog (pp.268-269)/Graduate Catalog (pp. 26-27)] that pertain to academic integrity. These policies include cheating, fabrication, falsification and forgery, multiple submission, plagiarism, complicity and computer misuse. If there is reason to believe you have been involved in academic dishonesty, you will be referred to the Office of Student Conduct. You will be given the opportunity to review the charge(s). If you believe you are not responsible, you will have the opportunity for a hearing. You should consult with me if you are uncertain about an issue of academic honesty prior to the submission of an assignment or test.

**Religious Tolerance Policy.** Students may be excused from class for the purpose of observing major religious holidays without penalty provided the student has made such a request in writing at least two weeks in advance to the instructor. Missed class time because of major religious observances does not excuse the student from class work or examinations. The student must provide the instructor with a two week formal, written request identifying how completion of the course work will be accomplished. The instructor will provide students making such written requests with a reasonable amount of time to make up the work missed in each class.

**A note on cellular phone use in the classroom:** Please turn off your cellular phones in the classroom to show respect to other students and to maintain the order of our lectures. Violation of this rule will subject one to a 5-point reduction in grade for the 1st time and being excluded from taking quizzes thereafter.

**Post and notification of grades.** The Family Educational Rights to Privacy Act prohibits posting students’ grades by their names or any portion of their identification numbers/social security numbers without their written consent. Delivery of students’ grades via campus email or through the Internet is also prohibited for confidentiality cannot be guaranteed. Thus I will not notify or deliver your grades via email, or phone. Instead, I will enter your grade online through e-Learning and/or Gowmu.wmich.edu, and you should be able to check your grade safely there.

**Email communication.** The only email address that should be used for communication between WMU students and WMU faculty and staff is the email address associated with a BroncoNet ID. This email address typically takes the form "firstname.middleinitial.lastname@wmich.edu." Please use appropriate etiquette including person's name and body of the text and greeting in email communications (just like you would write a letter to somebody). You should communicate professionally in both the digital world and real world. Each of us should treat others the same way we want to be treated.
If your email does not have appropriate etiquette, it will not be replied.

Civility Statement. Western Michigan University is committed to creating and sustaining an environment that honors the inherent dignity and worth of all members of the WMU community. Respectful behavior expressed verbally, textually, visually, and physically should be the norm in all university communications and venues including classrooms, meetings, offices, workplaces, forums, events, social media, and residential communities.

Each member of our academic community is encouraged to be thoughtful and sensitive in their choice of words and behaviors. We should be aware of how our behavior affects others. Furthermore, we carry a responsibility to challenge those who communicate intolerance, hatred, and bigotry. Words and actions matter. Everyone is asked to do their part in creating a healthy and positive university community and a culture that truly values each member’s uniqueness, experiences, and perspectives (please see http://wmich.edu/sites/default/files/attachments/u370/2016/Civility%20Stmt.7-27-16_0.pdf for complete information)

Classroom etiquette. Please maintain proper etiquette in our classroom to show respect to all members. No eating inside the classroom. If you are hungry, please go outside and finish your food and then return to the classroom. Please keep appropriate posture to keep our classroom an active learning environment (don’t put your feet on the chair or table).

Students with special needs. If you are recognized with learning challenges that require special accommodations, please bring a letter from the Office of Student Resources and Services to me and I will do what I can to accommodate your specific needs.

Topics to be covered in this course:
9/12. Course overview; in-class completion of personal statement of purpose, goals, and plan of action; concepts of science and scientific research; and brief discussion on the role of geography. Introduction to the WMU Department of Geography faculty research (2 faculty members invited each week).

Questions: What is geography? What do geographers do?

Reading: Textbook by Clifford et al. 2016. 1-43.

Handouts:
**Assignment 1**: Select one of the following concepts and define it and explain how each of these concepts is related to either geographic research or resource management or environmental protection: location, region, movements, scale, spatial patterns, landscape, land use change, climate change, scarcity, pollution, sustainability, environment, and spatial analysis. Maximum: 2 pages (either single or double spaced, references may be on the 3rd page, applicable to other assignments). **Due 9/19**.

Questions: What is the foundation of geography? How has geography as a discipline evolved in different countries? What are the perspectives of Darwinism, Environmental Determinism and Possibilism? What is the thinking of the “Berkeley School”?

9/19. Discussion of some key concepts in geography: location, place, region, movements, scale, and spatial patterns, spatial analysis, cultural geography, regional geography, physical geography. **Assignment 1 due**.


Assignment 2: Define the concepts of Darwinism, environmental determinism, and possibilism and explain how they apply to geographic research with a case study or example. To be discussed in class. Due: 9/26.

Reading for 9/26: Holt-Jensen 57-98.
Questions: What is a paradigm? What are Thomas S. Kuhn’s paradigms? Define induction, deduction, and abduction to scientific explanation. What are the perspectives of location theory, central place theory, spatial science, social physics, systems analysis?


Assignment 3: Briefly describe a geographic or resource issue of your interest and explain why it is of interest to you. What knowledge or skills do you need in order to tackle the issue(s) of your interests. To be discussed in class. **Due: 10/03**.

Questions: How do spatial structures and social relations affect cultural landscape and ecosystems? How does spatial technology such as remote sensing and GIS contribute to geographic research? What is a scientific approach to geography? What are the goals of science? What are some ideal and empirical concepts in geography?

10/03. Research process in geography: overview, M.S. Plans A and B, the role of advisor and committee members (readers), the role of student.

**Assignment 4**: Find a M.S. theses and a journal article (e.g. Professional Geography or Annals of AAG) in geographic or resource-related areas and use your own words to summarize a) importance of the research, b) problem statement, and c) research objectives (paraphrasing). Max. 2 pages. **Due: 10/10**.

10/10. Statement of problem and research objectives. **Assignment 4 due**.
Assignment 5: Formulate your own statement of problem and research objectives based on the geographic or resource issues you identified in Assignment 3. You should give an introduction/background to the research topic you are pursuing (e.g. why is this topic important either with respect to a theoretical contribution or practical implications), describe a few closely related literature sources, state what the problem is and what you intend to do in addressing this problem, and finally briefly explain a few logically related objectives (no more than 5) of your research. An objective essentially is a major research component/milestone. Max. 3 pages. Due: 10/24.

10/17. Statement of problem to be continued, and literature review and sources of data (including government documents).

Assignment 6: Prepare 3 to 5 key words based on your research problem, do an on-line search and list a minimum of 10 journal articles, books, or reports which are related to your research topic following the style of A Manual for Writers of Term Papers, Theses, and Dissertations by Turabian. In addition, describe sources of data and their relevance to your research. For assistance in locating information relevant to this class contact Michael McDonnell, Library Liaison to the Geography Department. Phone: (38)7-5208, Michael.McDonnell@wmich.edu, Room 2030, Second Floor, Waldo Library.

10/24. Research design: quantitative research, and hypothesis testing. Assignment 5 due.

Assignment 7: Summarize and critique the two examples of research design from the same M.S. thesis and journal article you used in Assignment 4. Describe and justify your own research design (What has been done in somewhere else? How would you proceed with your research and why?) To be discussed in class. Due: 10/31.

10/31. Research design: qualitative research, survey research; basic statistic tests: Student test (t-test), Chi-square test, F-test, and ANOVA; and preparing your resume.

Assignment 8: Develop your resume, including career objectives, education, work experience, and skills. To be discussed in class.
11/07. Budget, processing and analyzing geographic data, Human Subject Institutional Review Board (HSIRB), and ethics of scientific research.  
Reading: Textbook by Clifford et al. 143-322; HSIRB handout.  

Research Prospectus Due.  
Assignment 9: Develop a detailed budget for your research proposal and justify your expenses. Due: 11/14.  

Reading: Handouts.  
Reading: Textbook by Clifford et al. 550-595.  


11/28. Introduction to modern geographic thought: positivism, poststructuralism, postmodernism, and postmodern geographies. Geography and policy  


Assignment 10. Define the concepts of postmodernism and postmodern geographies, and explain how they affect and shape geographic research. Due: 12/05.  

12/05. Presentation of research proposal in class and peer evaluation.  
Readings: Handouts.  

12/12. Presentation of research proposal in class and peer evaluation. Research proposal due.  

It should be noted that the instructor reserves the right to change and modify the above schedule pertaining to the needs of the course.