FIELD TECHNIQUES

- Fall 2017 -

Class Meets: M 2:00 - 4:50 pm; Schreiber Gymn (SG) 303

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Course Description

This course is intended to give you practical experience for use in designing and implementing research in the geographical sciences and in professional practice. We will emphasize a variety of geospatial, quantitative, and qualitative research methods used by geographers in the field to investigate problems and questions that are grounded in one or more of the five traditional foci of geography: spatial, earth science, human/environment interaction, regions, and place/landscape. You will complete several field projects and exercises that delve into physical and spatial geographic work such as geomorphology, climatology, cartography (basic mapping), global positioning systems (GPS), as well as human geographic approaches that involve interviewing, observation, social surveys, and content analysis.

Course Mechanics

This course meets once weekly for almost three hours. Sessions might include a lecture and field exercise, or only a field exercise. There are no hours assigned to any GIS/Computer Lab work during the sessions. However, you might want to analyze your data and prepare your assignments in one of Geography's computer labs. For the field laboratory portion, you should be prepared to be working outside, as all the work will be on and around campus and Mount Sentinel, in the Rattlesnake Creek, in downtown and other locations of interest. You will be working in groups of three, four, or five, and on some occasions, you may be working in the field outside of the scheduled field work time or perhaps on a different day. We will teach you the basics during the field lab period, but it is up to you and your group to conduct the field lab, record your findings, analyze the data, and present your work via field lab reports or other means as directed.

Required Textbook and Supplementary Materials

There is no required textbook for this course. Readings will be provided via Moodle for given weeks. Be sure to read the assigned material prior to the pertinent class and/or lab session.

Classroom/Field Policies and Procedures

The following policies allow us to teach without distractions, and, it will provide each student with a pleasant atmosphere for learning:

- Please make sure your cell phone is muted in the classroom and during the fieldwork. Refrain from texting, etc. (As an exception, you will use your cell phone for specific lab-related exercises).
- **Be on time!** We expect everyone to be on time for class (inside and outside) in order to not disturb the session.

• Equipment: much of the field equipment that you will use is relatively fragile and/or sensitive. You must take good care of this equipment and properly handle, store, check out, and return it as directed. Those observed mal-treating any equipment will be counseled as appropriate.

Other Policies

- Accommodations: The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and Disability Services for Students. If you think you may have a disability adversely affecting your academic performance, and you have not already registered with Disability Services, please contact Disability Services in Lommasson Center 154 or 406.243.2243. We will work with you and Disability Services to provide an appropriate modification.
- 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 need to be familiar with the Student Conduct Code (it is posted on Moodle). The Code is available for review online http://www.umt.edu/vpsa/policies/student_conduct.php. Cheating and plagiarism are not tolerated and will be dealt with as outlined in the Code.
- Due to the dynamic nature of scheduling and unforeseen events, the instructor and TA reserve the right to make changes to this syllabus as needed and if necessary.

Grading Scheme

Α	93 – 100%
A-	90 - 92.99%
B+	87 - 89.99%
В	83 - 86.99%
B-	80 - 82.99%
C+	77 – 79.99%
С	73 – 76.99%
C-	70 – 72.99%
D+	67 – 69.99%
D	63 - 66.99%
D-	60 - 62.99%
F	59.99% and below

The course is offered as traditional "T" letter grade only.

Attendance

Attendance is important for your success in this science course and, therefore, counts for 10% of the final course grade. I will take attendance during each session. If you cannot make it to a session, please inform me via email and generally describe the reason why you will miss or have missed a session. The following table explains the assigned attendance grade based on the number of UNEXCUSED missed sessions:

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Assignments and Value

Assignment	Points
11 Field Labs (5 points each)	55
Final Course Project	35
Attendance	10
Total	100

Assignments (Fieldwork):

The fieldwork activities and associated assignments encompass the practical or applied side of the course. Each such field lab is designed to cover an aspect of a sub-discipline within geography and requires a plan, procedure, analysis, and write-up. The field labs will be discussed at the beginning of each session, and then the actual fieldwork will consist of a demonstration and the completion of the fieldwork either during the remaining time of the session or outside of class-time. The fieldwork forms the crux of this course, and therefore constitutes a major part of your final grade.

Course Project

Completion of the Course Project will allow you to demonstrate that you are able to successfully integrate the various elements of the course. You will prepare a Field Research Plan that will detail (appropriately introduce, describe, schedule) the following:

The Problem: What is the issue or question that your field project would address? Human perceptions concerning access to a facility or feature, personal transport and/or mobility practices, meteorological variability across a landscape continuum, hillslope profile elements and erosion potentials related to slope modification, different types of physical units (plant associations, morphological features, habitats) that correspond to a particular landscape).

Background: What do prior studies indicate about the nature of the particular issue or question (Problem) that you are proposing to investigate? Examine and summarize key findings from several relevant items of published literature in the form of scientific papers (peer reviewed journal articles, white papers or other gray literature), government reports, etc.

Methods: What are the data you will need to collect? What are the data collection methods, tools, and/or instruments that you will use? How will you sample in such a way to ensure that you are obtaining a representative sample? How many observations are necessary to achieve sample validity? What are the analytical methods you will employ to analyze the data and develop your findings? What are the specific tools that you will use for data analysis, and why have you chosen to use these?

Findings: What are the findings that you expect to produce?

Additional Information

- 1. Please consult the Class Schedule for relevant dates.
- 2. For assistance with writing, please consult the on-line resources of the UM Writing Center in the Mansfield Library.

Tentative Schedule

Date	Topic	Remarks
WEEK 1		
04-Sep	Labor Day; Holiday	No Class
WEEK 2	Data Quality, Ethics, and Field Observation	
11-Sep	Introduction to the Course Lab 1: Field Observations (UM campus) Lab 2: UM Online Research Ethics Course (take home assignment)	
WEEK 3	GPS Navigation	
18-Sep	Lab 3: GPS Treasure Hunt (UM campus)	Lab 1 + 2 due
WEEK 4	Stream Discharge	
25-Sep	Lab 4: Stream Discharge (Rattlesnake Valley)	Lab 3 due
WEEK 5	Social Surveys	
02-Oct	Lab 5: Transit Count (UM campus)	Lab 4 due
WEEK 6	Weather Observation	
09-Oct	Lab 6: Weather Observations (UM campus/Mt. Sentinel)	Lab 5 due
WEEK 7	Interviews	
16-Oct	Lab 7: Interviewing (UM campus/Missoula downtown)	Lab 6 due
WEEK 8	Compass Orientation	
23-Oct	Lab 8: Compass Traverse (UM campus)	Lab 7 due
WEEK 9	Repeat Photography	
30-Oct	Lab 9: Repeat Photography (Missoula)	Lab 8 due
WEEK 10	Topographic Mapping	
06-Nov	Lab 10: Topographic Mapping (Riverfront Trail)	Lab 9 due
WEEK 11	Building Use Mapping	
13-Nov	Lab 11: Building Use Mapping (Missoula Downtown)	Lab 10 due
	Student Group Projects	
20-Nov	Student Group Projects Preparation (in class)	Lab 11 due
WEEK 13	Student Group Projects	
27-Nov	Student Group Projects Fieldwork (Missoula)	
WEEK 14	Student Group Projects	
04-Dec	Student Group Projects Fieldwork (Missoula)	
WEEK 15	Student Presentations	
11-Dec	Presentations of Group Projects (in class)	Final projects due
WEEK 16	Course Review	
19-Dec	Final meeting, 1:10 – 3:10 pm	