

1-2014

GPHY 580.01: Seminar GIS and Cartography

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UNIVERSITY OF MONTANA
DEPARTMENT OF GEOGRAPHY

GPHY 580: Seminars in GIS and Cartography

Spring 2014

Professor:	Diep Dao
Office location:	Stone Hall 207
Telephone:	(406) 243-6821
Email:	diep.dao@mso.umt.edu
Office hours:	Tue 1:00-2:00 PM or by appointment (<i>Email is the best way to contact me</i>)
Class days/time:	Tue & Thu 11:10 AM-12:30 PM
Classroom:	Stone Hall 217
Class website:	On Moodle
Prerequisites:	None
Credit Units	3

Course description: The course is designed to provide a comprehensive overview of concepts, up-to-date geospatial technologies, and methodologies in Geographic Information Science in serving spatial applications related to human-society and environment-ecology. Lectures are formed to promote spatial thinking and spatial problem solving through article reviews. Students are guided through the process of recognizing spatial problems, accessing available spatial data and technologies, and developing the capability to think spatial and understand how GIS&T can help resolving challenges.

Text Books:

There is no required text. Lectures, reading materials, and additions/modifications to the class schedule will be posted on Moodle class site and it is your responsibility to check it for lectures!

Grading Policies:

Final grades will be calculated using the following thresholds: 90.0 (A), 80.0 (B), 70.0 (C), 60.0 (D), below 60.0 (F). The “+/-” grading system will be used. There will be no extra credit of any kind.

Task Percentage of Final Grade	
Task	Final Grade
Paper review & class discussion	30%
Mid-term Exam	30%
Final project (team of 2)	
Presentation	15%
Paper	15%
Class attendance	10%

Postgraduate students are expected to achieve higher level of critique and innovative work in all components of assessment. Maximum of 2 unexcused absences for the semester are allowed to all students. You are responsible for catching up the missing classes.

Extra Course Guidelines

1. *Paper review and class discussion:* Papers are posted on Moodle. Electronic copy will be available during lectures for discussions. Students are requested to review paper prior to lectures and be ready to interactively discuss during lectures. Submit hard copy of your review in class before discussion.
2. *Mid-term Exam:* Cover the lecture materials and review discussions. It may have multiple choice matching, definitions, and short-answer questions.
3. *Project:* Group of two students. Topics are to be chosen by the students (either self-proposed or from a list of given topics) and approved by the instructor.
 - Proposal: more instruction will be provided.
 - Presentation: Individual formal 15-min presentation. Briefly state your research question(s), literature, methodology, and results. PowerPoint is recommended.
 - Paper: more instruction will be provided.
4. If you want the full credit possible for assignments:
 - SHOW YOUR CONCEPTUAL UNDERSTANDING
 - BE WELL-PLANNED, WELL-ILLUSTRATED, NEAT, AND CLEAR!
 - WHEN IN DOUBT - ASK!

UM Policy Statements

Academic Dishonesty: All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University. Students with academic misconduct will be reported to the proper offices and receive a failing grade for the course. All students need to be familiar with the Student Conduct Code. The Code is available for review online at http://life.umt.edu/vpsa/student_conduct.php

Reasonable Accommodation: Students with disabilities may request reasonable modifications by contacting me so that appropriate forms and procedures can be completed. The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and Disability Services for Students. “Reasonable” means the University permits no fundamental alterations of academic standards or retroactive modifications.

Course Schedule: *This is a tentative schedule and subject to revision. Last updated on Feb 06, 2014*

Week	Date	Topics	Reading
1	1/28	Course overview & Syllabus Brief Introduction to GIS and History	On Moodle On Moodle
	1/30	Introduction to GIS - Applications	On Moodle
2	2/04	GIS&T Elements – Body of Knowledge	On Moodle
	2/06	Geospatial technologies and data sources	On Moodle
3	2/11	Geospatial technologies and data sources (cont.)	On Moodle
	2/13	Data models & spatial database management system	On Moodle
4	2/18	Data models & spatial database management system	On Moodle
	2/20	Mapping spatial data	On Moodle
5	2/25	Web GIS	On Moodle
	2/27	Web GIS impacts on institutions and organizations	On Moodle
6	3/4	Data manipulation & impacts on analysis	On Moodle
	3/6	Spatial analysis methods	On Moodle
7	3/11	Spatial analysis methods (cont.) Final Project TOPIC selection	On Moodle
	3/13	Spatial analysis methods (cont.)	On Moodle
8	3/18	Spatial analysis methods (cont.)	On Moodle
	3/20	Spatial-temporal analysis	On Moodle
9	3/25	Preparation for EXAM – no class	
	3/27	Mid-term EXAM	
10	4/1-3	Spring break – no class	
11	4/8	Geovisualization as an analytic approach	On Moodle
	4/10	Open sources approaches	On Moodle
12	4/15	GIST & Society: Privacy + Spatial Decision Support System Submit project UPDATE report	On Moodle
	4/17	Work on Final Project (assigned time slot for discussion)	
13	4/29 & 5/1	Work on Final Project (assigned time slot for discussion)	
14	5/6-8	Project Presentation DUE in class time	
15	5/13	Project Paper DUE by 5pm	