

FIELD METHODS IN GEOGRAPHY

Geography 542/442, 3 credits

Fall 2008

Drs. Brian Sommers & Charles Button



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COURSE DESCRIPTION & GOALS

The goal of this course is to engage the student in the design and execution of geographic field research. Techniques applied during this class will include field notes, sketching, area sampling, GPS applications, mapping, rapid bio-assessment of streams, questionnaire design and administration, design of coding forms, water quality assessments, habitat assessments, and vegetation surveying. Students in the course will be asked to learn and apply the field research techniques in a manner that replicates their use in professional circles.

The students will be divided into teams for the purpose of a series of field studies. The studies will use a site on the west side of Manchester, CT. The research will be conducted with the cooperation of the Manchester Planning Department. The activities will focus on issues related to groundwater protection and public water use. The results of the research will be submitted to the Town of Manchester in the form of three reports. Those reports (the 'deliverables' of the course) will be the basis for determining student grades. The reports will be used by the town as it embarks on its planning for the study area.

Although the catalyst for the project is groundwater protection for the Town of Manchester and its municipal wells, the character of the site lends itself to a variety of projects incorporating field methods in both physical and human geography. As such, students will gain field experiences that extend beyond groundwater issues.

As part of the course we will be spending considerable time in the Town of Manchester. In doing so we are guests of the town as well as representatives of CCSU. We thus expect that everyone will act accordingly.

GROUP GRADING OF PROJECTS

By dividing the class into teams, it will be possible to complete all of the necessary research elements. This replicates 'real world' work environments where specialists are often called to work together. So the work done in class will be as close to a real world work experience as possible. Assuming that all individuals contribute equally, group grading is rather simple. The problem is that even in the professional world that does not always occur. It is our expectation that all group members will act in a professionally appropriate manner and that they will contribute equally to the group effort. To ensure that everyone does contribute equally, we will use a methodology for deriving student feedback concerning group activities. The method will be presented during our visit to the field on September 15th. The feedback that we receive from that methodology will be used to determine whether individual performances merit grades that are higher or lower than the group grades.

GRADES (Undergraduate)

ELUP Group Presentation	= 20 points
ELUP Group Report	= 20 points
FLUP Group Presentation	= 20 points
FLUP Group Report	= 20 points
Report of Survey Findings	= 20 points
TOTAL POINTS	= 100 points

GRADES (Graduate)

ELUP Group Presentation	= 20 points
ELUP Group Report	= 20 points
ELUP Final Group Presentation	= 20 points
ELUP Final Group Report	= 20 points
FLUP Group Presentation	= 20 points
FLUP Group Report	= 20 points
Report of Survey Findings	= 20 points
TOTAL POINTS	= 140 points

GRADING SCALE:

A = 93-100%	B = 83-86.9%	C = 73-76.9%	D = 63-66.9%
A- = 90-92.9%	B- = 80-82.9%	C+ = 70-72.9%	D- = 60-62.9%
B+ = 87-89.9%	C+ = 77-79.9%	D+ = 67-69.9%	F = Less than 60%

THERE IS NO EXTRA CREDIT**TENTATIVE CLASS SCHEDULE**

The course schedule may change due to unexpected rapid or slow progress through the materials or due to other unforeseen circumstances. Attendance is mandatory. Frequent absences will result in a reduction in the overall course grade.

Week #	Date	Activity
1	Sept. 8	Course Introduction, Site Description & Project Overview RFP Presentation, ELUP Field Method Presentation & Discussion Groundwater protection Overview
2	Sept. 15	Site Visit & Overview
3	Sept. 22	ELUP – Vegetation Assessment Methods
4	Sept. 29	ELUP – Soils Assessment Methods
5	Oct. 6	ELUP – Rapid Bioassessment of Macroinvertebrates Methods
6	Oct. 13	ELUP – Index of Physical Integrity Methods
7	Oct. 20	ELUP – Land Use Surveys
8	Oct. 27	ELUP – Economic Development Surveys
9	Nov. 3	ELUP – Visioning and Charettes
10	Nov. 10	Group ELUP Documents Due and ELUP Group Presentations
11	Nov. 17	FLUP – Overview
12	Nov. 24	FLUP – Surveys and Questionnaires (pt 1)
13	Dec. 1	FLUP – Surveys and Questionnaires (pt 2)
14	Dec. 8	FLUP – Statistical Analysis Methods
15	Dec. 15	Finals Week-Presentation of Reports and Submission of Deliverables

FIELD RESOURCES & MATERIALS

The following materials will be available for the students to borrow from the Geography Department.

GPS units	Waders	Munsell soil charts	Soil augers
Tree ID books	Kick nets	RBV field equipment	Kayak
Canoe	Binoculars	Freshwater Invertebrates ID book	

RECOMMENDED BOOKS, GUIDES, ARTICLES, & OTHER RESOURCES

BOOKS

Lounsbury, J.F. and Aldrich, F.T. 1986. *Introduction to Geographic Field Methods and Techniques*. Second edition. Merrill Publishing Co.

Stoddard, R.H. 1982. *Field Techniques and Research Methods in Geography*. National Council for Geographic Education.

(Old editions of both books will be available for non-circulating student use.)

SOILS RESOURCES

<http://soildataviewer.nrcs.usda.gov/> - (Soil Data Viewer) provides users access to soil interpretations and soil properties while shielding them from the complexity of the soil database. Each soil map unit, typically a set of polygons, may contain multiple soil components that have different use and management. Soil Data Viewer makes it easy to compute a single value for a map unit and display results, relieving the user from the burden of querying the database, processing the data and linking to the spatial map.

<http://www.ct.nrcs.usda.gov/soils.html> - U.S. Natural Resources Conservation Service. Here you can find information about Connecticut soils.

VEGETATION RESOURCES

New England Wildflower Society - <http://www.newfs.org/consERVE/invasive.htm#links>

CT Department of Environmental Protection (Native Plants) - <http://dep.state.ct.us/cgnhs/invasive.htm>

CT Botanical Society - <http://www.ct-botanical-society.org/garden/garden2.html>

USDA Natural Resources Conservation Service - www.ct.nrcs.usda.gov/plants.html

Connecticut Invasive Plant Working Group – www.hort.uconn.edu/cipwg/

Invasive Plant Atlas of New England – www.ipane.org

2004 CT Invasive Plant Law – www.cga.ct.gov/2004/act/Pa/2004PA-00203-R00SB-00547-PA.htm