

METROPOLITAN STATE COLLEGE OF DENVER
Office of Academic Affairs

REGULAR COURSE SYLLABUS

School of Letters, Arts & Sciences

Department: Earth and Atmospheric Science

Semester(s) Offered: Spring

Prefix & Course Number: GIS4890 Crosslisted With*: N/A

Course Title: Advanced GIS Project

Credit Hours: 3 (1 + 4)

Contact Hours: Lecture 15 Lab 60 Internship _____ Practicum _____

Schedule Type(s): B Grading Mode(s): L

Repeat* (Variable topics): N/A

*(Pertinent only if the course can be repeated; enter maximum number of hours that can be earned by taking this course.)

Restrictions (Variable Topics Course): N/A

Prerequisite(s):

GIS 4850

GIS 4860

C or better in prerequisite courses

Senior standing

Or permission of instructor

Corequisite(s): N/A

Prerequisite(s) or Corequisite(s): GIS 4870

Catalog Course Description:

This is a senior-level capstone course for land use majors with a concentration in Geographic Information Systems (GIS). Students will serve as GIS specialists working on individual or group projects with emphasis on land use applications. Students will manage a project from inception to completion including databases and maps as well as a final report and presentation (Senior Experience).

Required Reading and Other Materials will be equivalent to (Title, Author, Publisher, Copyright Date):

Readings from different books, manuals, scientific and trade journals

APPROVED:

Department Chair/Institute Director

Date

Dean

Date

Associate VP, Academic Affairs

Date

*If crosslisted, attach completed Course Crosslisting Agreement Form

Prefix and Course Number: GIS4890 _____

Specific (Measurable) Student Behavioral Learning Objectives:

Upon completion of this course the student should be able to:

1. Manage a GIS project from inception to completion.
2. Work with clients, students, and/or faculty to determine project goals and objectives
3. Review scientific literature relevant to the project goals
4. Contrast and compared alternative approaches to spatial problem solving
5. Define project deliverables, timelines, and milestones.
6. Determine spatial data requirements
7. Evaluate existing data quality through metadata parameters
8. Determine data processing sequences for achieving project goals and objectives.
9. Produce high quality cartographic products in support of project goals
10. Produce high quality data and metadata in support of project goals
11. Produce high quality documents in support of project goals in scientific format including abstract, introduction, objectives, methods, results, conclusions, and literature cited
12. Present project findings to clients, students, and faculty

Detailed Outline Of Course Content (Major Topics and Subtopics) or Outline Of Field Experience/Internship (experience, responsibilities and supervision):

1. Project Proposal
 - a. Project outline
 - b. Project purpose
 - c. Project data
 - d. Project methods
2. Intermediate Reports and Presentations
 - a. Data Collection and Data Summary Report
 - i. Datasets
 - ii. Metadata
 - b. Objectives and Methods.
3. Data organization
 - a. Spatial datasets
 - b. Metadata
4. Final report: Abstract, Introduction, Objectives, Methods, Results, Conclusions, Literature Cited
5. Final presentation
6. Final maps

Evaluation Of Student Performance:

Proposal, and interim reports

Final report and maps

Final presentation

Class Participation