

## **GEODZ 822: Models I - Evaluation and Decision**

**Course URL:** <http://canvas.psu.edu>

**Course Instructor:** David Goldberg [dgoldberg@psu.edu]

**Instructor Office Hours:** by appointment

**Prerequisites:** GEODZ 511

### **Course Description**

The Geodesign Framework directs design thinking regarding a specific issue or project as well as determining how best to conduct a specified study. The Framework is comprised of six families of models, which form the basis for a design study's analysis and project approach. In this course you will develop fluency in two of the Framework's families of models: Evaluation and Decision, while understanding how those contribute to the entire Framework methodology.

Following Carl Steinitz's framework for geodesign, you will learn how these two models determine the design method by defining how the decisions are made, and by whom, and what evaluations are necessary in making an informed decision. You will learn that final designs are decision-driven not data-driven. The course teaches you how to ask questions, assess attractiveness, vulnerability, and risks of particular factors in Evaluation models, as they are defined by the cultural, political, and administrative values of the stakeholders in the Decision models, which themselves are defined by the design consequences of Impact models.

You will gain a better understanding of these models by reviewing case studies, engaging in dialogues with colleagues, and by completing weekly assignments. Each week the course material will be communicated through five (5) different methods:

- Topic overview
- Core readings
- Relevant videos
- Weekly assignments
- Canvas dialogues

### **Required Texts**

- Steinitz, Carl. A Framework for Geodesign: Changing Geography by Design. ESRI Press. 2012.
- Other texts excerpts, articles, etc. will be provided through the Penn State Library Reserves. See: <http://www.libraries.psu.edu/psul/reserves.html>

## Course Objectives

*By the end of this course, you should be able to:*

- Describe how geodesign studies are *decision*-driven – not *data*-driven.
- Describe a method for performing a geodesign study.
- Assess the goals and values for the “people of the place” in a geodesign study.
- Demonstrate an ability to perform suitability modeling.
- Understand the paired relationship of decision and evaluation models.
- Understand the role decision and evaluation models have in specifying representation, process, and impact models.
- Successfully exhibit the role of collaborator in a geodesign study.

## Case Project

In GEODZ 511, you worked on an individual geodesign study focusing on your area of interest (AOI). In this course, you will be working on a course case project, not as an individual but as a member of a geodesign team. While in the team, you will assume the role(s) of individual stakeholder group(s) and contribute your expertise to a Methods Plan for the given geodesign study.

The case project and your role(s) will be defined in Lesson Two of this course.

## Course Evaluation

The course grade will be based on lesson assignments, discussions, and a final methods plan. The assignments and discussions will follow a plus (+), check-plus (✓+), check (✓), minus (-), and incomplete (0) grading scheme. While this translates to points in Canvas (which in turn represents letter grades), this scheme is to promote progress rather than focusing on a grade. The Methods Plan will follow a traditional letter-graded grading scheme.

The percentage that each component will contribute to the final grade is as follows:

- 40% Assignments
- 20% Discussion / Collaboration
- 40% Methods Plan + Presentation

### Lesson Assignments (20%)

Assignments will consist of activities related to the lesson. Each assignment is a building block to the understanding of the Methods Plan. A more detailed rubric will be included in each assignment.

### Methods Plan (40%)

As a member of a geodesign team, you will collaborate on a Methods Plan for the case project. Using Canvas’s discussion threads for methodology discussion, you will specify the methods of the Decision and Evaluation Models for the case project. Your method

plan will undergo a peer-review. A more detailed rubric will be included on the Method Plan assignment.

### **Discussion / Collaboration (20%)**

Collaboration is a key part of the geodesign process. Collaboration is an opportunity for you to share ideas and dialogue with your peers. You will be expected to contribute regularly to the groups and maintain an on-going conversation with your peers.

We will be using Canvas's Discussions as our forum for participation

Students will be evaluated on the quality, insight, and productivity of their contributions. Posting general relevant information is encouraged, but if you want others to respond, please pose a question(s) relating to the post.

50% *Quality* – Are your discussions grounded in a theoretical foundation?

50% *Insight* – Do you contribute something new to the conversation?

### **Late Assignment Policy**

In an eight-week format, this course moves at a very fast pace. Assignments that are submitted late affect both your ability to receive timely feedback and your ability to be prepared for the following assignment. As such, late submissions have significantly more penalty than can be conveyed through a grade deduction. However, late submissions will be assigned a 10% deduction. The course instructor will not review assignments submitted more than one week after the original submission due date (unless communicated by the instructor).

### **Course Grades**

A+ 97.1% - 100%

A 93% - 97%

A- 90% - 92.9%

B+ 87.1% - 89.9%

B 83% - 87%

B- 80% - 82.9%

C+ 77.1% - 79.9%

C 73% - 77%

C- 70% - 72.9%

D 63% - 69.9%

F < 63%

## Course Schedule

All assignments should be complete and submitted to the specified delivery method by 11:59pm PST on the Monday following new lesson material (unless otherwise noted). The instructor will generally provide feedback on each assignment within 48hrs of the submission date. A full course calendar of assignment and collaborative review due dates will be posted to Canvas. A typical week is outlined below:

MON	TUES	WED	THUR	FRI	SAT / SUN
New lesson overview available online		Mid-week instructor check-in of discussion		Team Collaboration Component Due	Student work on lesson assignment individually or collaborate on team assignment
Assignment Due @ 11:59pm PST					

A complete calendar of the course activities is posted to Canvas.

## Course Delivery Format

This course will be delivered entirely online. There are no face-to-face class sessions. Be sure to go through the Getting Started module thoroughly to prepare yourself for how this course will operate and what is expected of you. In short, the course is Web-based. It makes extensive use of Penn State's Learning Management System called CANVAS for discussion activities, assignment submissions, and grade reporting. The course Web pages reside outside CANVAS and supply you with most of the course content, directions, media, and activities you will need. The Getting Started module will explain the delivery format in more detail.

Since this course is offered purely online, all of our correspondence will take place via email. I will be sending out weekly emails and announcements using CANVAS email, at the beginning of each lesson, to remind you of important class information, and assignment due dates. I expect all students to check their email daily so that we are all on the same page. It is the responsibility of each student to stay aware of all class requirements, deadlines, and due dates. Please don't hesitate to email me with any questions or concerns, but remember that all communication with me must take place via CANVAS email. Synchronous web meetings can also be requested for clarity of course content.

## Course Software

This course will utilize a number of desktop and cloud-based applications. These tools will enable you to produce individual as well as collaborative products:

- ConceptBoard - <https://conceptboard.com/>
- MindMeister - <https://www.mindmeister.com/>
- VoiceThread - <https://voicethread.com/>
- ArcGIS Online - <http://www.arcgis.com/>
- ArcGIS Pro - <https://pro.arcgis.com>

Access to these applications will be provided to you at no cost as part of this course. You will receive invitations to join our Geodesign team on ConceptBoard, MindMeister, and ArcGIS Online during the first week of the course. Please accept these invitation so that you can be added to the team.

## Technical Requirements

### Operating System

Windows 2000/XP or Vista, Mac OS X 10.2 or higher (10.3 or higher recommended)

### Web browser

Mac OS X: Firefox, Safari (current version) Windows: Firefox, Safari, Internet Explorer (current version) Firefox and Safari are preferred as they will provide the fastest experience possible for e- Learning Institute courses. Due to nonstandard handling of CSS, JavaScript and caching, we do not support using Internet Explorer 6 as your browser.

### Other Requirements

- Adobe Flash Player 9 or later
- A minimum of 2GB of RAM
- 2 GHz or higher processor
- 500 MB of available (a.k.a "free") hard disk storage is recommended
- Broadband (cable or DSL) connection required

### Note

Cookies, Java, and JavaScript must be enabled. Pop-up blockers should be configured to permit new windows from Penn State web sites.

## **Academic Policies**

### **Academic Integrity**

According to the Penn State Principles and University Code of Conduct: Academic integrity is a basic guiding principle for all academic activity at Penn State University, allowing the pursuit of scholarly activity in an open, honest, and responsible manner. In accordance with the University's Code of Conduct, you must not engage in or tolerate academic dishonesty. This includes, but is not limited to cheating, plagiarism, fabrication of information or citations, facilitating acts of academic dishonesty by others, unauthorized possession of examinations, submitting work of another person, or work previously used without informing the instructor, or tampering with the academic work of other students. Any violation of academic integrity will be investigated, and where warranted, punitive action will be taken. For every incident when a penalty of any kind is assessed, a report must be filed.

### **Affirmative Action & Sexual Harassment**

The Pennsylvania State University is committed to a policy that all persons shall have equal access to programs, facilities, admission, and employment without regard to personal characteristics not related to ability, performance, or qualifications as determined by University policy or by Commonwealth or Federal authorities. Penn State does not discriminate against any person because of age, ancestry, color, disability or handicap, national origin, race, religious creed, sex, sexual orientation, or veteran status. Direct all inquiries to the Affirmative Action Office, 211 Willard Building.

### **An Invitation to Students with Learning Disabilities**

Penn State welcomes students with disabilities into the University's educational programs. If you have a disability-related need for modifications or reasonable accommodations in this course, contact the Office for Disability Services, ODS (located in 116 Boucke Building, 1-814-863-1807 (V/TTY). For further information regarding ODS please visit their web site at: [www.equity.psu.edu/ods](http://www.equity.psu.edu/ods).

Instructors should be notified as early in the semester as possible regarding the need for modification or reasonable accommodations. Since many students have disabilities not readily noticeable this announcement or statement encourages students to identify their needs early in the semester so timely adaptations can be made. You may refer to the Nondiscrimination Policy in the Student Guide to University Policies and Rules.