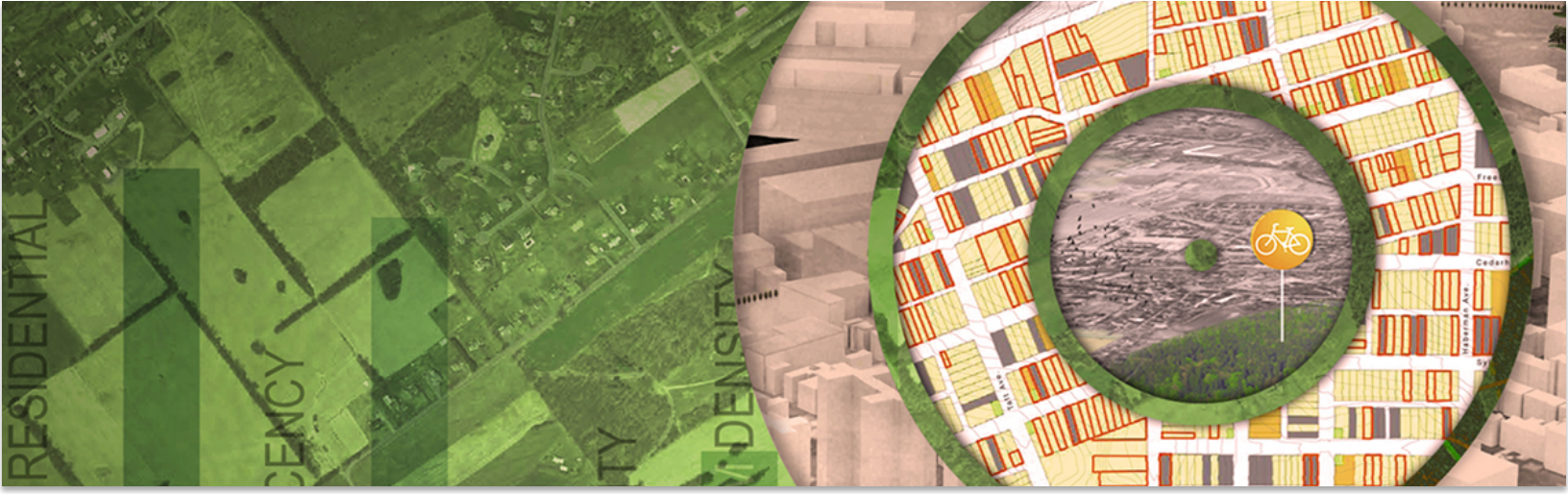

Pennsylvania State University

World Campus
GEODZ 511: Geodesign History, Theory, and Principles
Spring 2021 - 1

Course URL: https://courses.aanda.psu.edu/geodz511/
CANVAS URL: http://canvas.psu.edu/Course
Instructor: Rob Stauder [rbs5727@psu.edu]
Office Hours: Thursday 5:00 pm PST via Zoom Meeting or by appointment.
Prerequisites: None

Course Description

GEODZ 511 introduces the fundamental theory, concepts, and frameworks of geodesign. This course will introduce Dr. Carl Steinitz's framework for geodesign, plus two other commonly used frameworks, along with Ian McHarg's groundbreaking design process to provide students with a solid foundation for designing in response to geographic information. Throughout the course, students will become familiar with the geodesign process by reviewing videos and case studies, engaging in dialogue with colleagues, and by completing weekly assignments.

Each week the course material will be communicated through:

- Core readings
- Lesson narratives (*lectures*)
- Weekly assignments and/or quizzes
- Weekly discussions
- Independent research towards a final project

Students will demonstrate an understanding of geodesign concepts and material by using the geodesign framework to develop a response submission to one of three requests for proposal (RFP). Each of the three RFPs is based on an actual request for work. RFPs are standard vehicles that municipalities and companies use to solicit bids to perform work.

Geodesign is a framework and process that will be used to fulfill the work described in an RFP. Students may pick whichever RFP interests them.

One peer-review session will take place in week 6 of the course, providing students the chance to review and provide constructive feedback on the development of each other's individual proposal response. The course instructor will assign the peer-review work to each student. Students will provide feedback through a guided markup.

Required Texts

- Steinitz, Carl. A Framework for Geodesign: Changing Geography by Design. ESRI Press. 2012.
- McHarg, Ian L. Design with Nature. John Wiley & Sons Inc. New York. 1992.
- Other texts and articles will be provided through CANVAS.

Course Objectives

By the end of this course, a student should be able to:

- Define geodesign and its purpose
- Understand how to apply Geodesign (identify the problem and a method to solve it) to proposed work
- Describe the basic historic and contemporary foundations of geodesign theory
- Demonstrate a working knowledge of the geodesign process
- Understand the building blocks of a system and the significance of thinking in systems
- Collect a library of geodesign literature
- Develop a geodesign plan and methodology for inclusion in a portfolio

Course Evaluation

Geographic design is an inherently visual and communicative process. Students will use visual storytelling techniques to convey ideas. For most assignments, students will combine maps, images, diagrams and text to support and communicate ideas.

Late Assignment Policy

This course moves at a fast pace. Late submissions will receive a 10% deduction. The course instructor will not review assignments submitted more than one week after the original submission date.

2% Orientation Quiz

Becoming familiar with the course format and online environments is essential to success. Prior to the beginning of the lessons, an orientation quiz will be required. The quiz tests familiarity with the course interface and structure.

30% Lesson Quizzes

Two quizzes will be given to test understanding of the three iterations of the Steinitz Geodesign Framework. Because the Steintz framework is a guiding methodology for geodesign practice, a firm grasp of each part of the framework is essential to success in this course and any future work in geodesign. Quizzes will be open book, but unlike the orientation quiz, there is a time limit and may only be taken once.

30% Lesson Assignments

Assignments will generally consist of 2-3 questions related to the lesson. Each assignment is a critical building block toward the final project. Evaluation is based on:

30% Comprehension:	Is it clear that the student understands the material?
30% Application:	Is the student able to apply the concept(s) to a problem?
30% Articulation:	Does the student clearly communicate concepts?

Note: The remaining 10% will be awarded for assignments that are submitted complete and on time.

10% Draft Project + Peer Review

The draft (and final) project is based on responding to an RFP, as described above. Students must submit a draft of their final project. Students demonstrate how they would apply one of the three Geodesign frameworks studied in this course to delivering the services requested in the selected RFP.

Students will have to research the major themes and domains requested in the RFPs. Students submit their work as an interactive web app based on a mapping and storytelling framework.

During the week following draft response submission, students will be assigned to peer-review another student's response. Peer review will be guided using standard markup and feedback methods currently practiced in professional work.

20% Final Plan

The final project is a refined version of the draft response. In this final version students incorporate feedback from peers and expand on each framework model to include more detail, supporting information, and enhanced visual communication, maps, images, diagrams, and other means of visual communication are required.

8% Collaboration

Collaboration is a key part of the geodesign process. Collaboration is an opportunity for students to share ideas with their peers. Students are expected to maintain an on-going conversation with peers through weekly

discussions. The peer-review session associated with the draft plan will be evaluated as part of that assignment and is not directly tied to an overall collaboration grade.

Discussion contributions need not be long but should be substantive and engaging. Students will be evaluated on the quality, insight, and productivity of their contributions in weekly discussions:

40% Consistency:	Does the student consistently contribute to the conversations?
30% Quality:	Is discussion grounded in a theoretical foundation or personal insights?
30% Response:	Does the student acknowledge and respond to other students?

Course Grades

A 90% - 100% **B** 80% - 89% **C** 70% - 79% **D** 60% - 69% **F** < 60%

Course Schedule

All assignments should be complete and submitted to CANVAS by 11:59pm on Monday night. The instructor will generally provide feedback on each assignment by Sunday evening. A full course calendar of assignment and peer review due dates can be found on CANVAS. A typical week is outlined below.

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Assignment/ Quiz Due @ 11:59pm	Contribute to weekly discussion	Contribute to weekly discussion	Mid-week Q+A session with instructor* 5:00pm PST via Zoom	Work on lesson assignment and independent research towards Final Plan		
Receive graded assignment from previous week						
Begin weekly readings and Lesson Narrative	Readings and Lesson Narrative	Readings and Lesson Narrative	Respond to weekly discussion thread			

* The instructor will host a weekly video check-in to answer any questions that arise during the week. Please try to write down your questions during the week and post them to weekly Q+A board on CANVAS (under Discussions). All video sessions will be recorded to assure all can hear how the questions are

addressed, however, you are encouraged to join the live conversation via Zoom to interact with your peers and the professor.

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.

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 256 MB of RAM
- 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. According to 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 website at: 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.