

# LARC 495/504 GEODESIGN

## Geodesign in Landscape Planning

LARC 495/504 Geodesign, FALL 2021, 6 credits

Instructors: Daniel Cronan (dcronan@uidaho.edu)

Time: Tuesday and Thursday from 12 to 1:15 PST

Location: AA 305 & AA 300 & 307 & zoom link: <https://uidaho.zoom.us/j/82434165357>

Geodesign hinges on the central question, “How do we get from the present state of this geographical study area to the best possible future?” (Steinitz, 2012, p. 49). The LARC 495/504 course intends to use a Geodesign process to answer this question for three regions in Idaho: Kootenai County, Teton Valley & the Owyhees. Two of these regions were selected by the GEM3 SES (Social Ecological Systems) team as project demonstration study areas with two, previously selected stakeholder groups associated with each area. The Geodesign process systematically aligns researcher-based modeling with stakeholder-driven assumptions about a place. Outputs of this process can potentially take the form of projective scenarios. ) intend to provide drafts of these scenarios as well as analytical representations (e.g. climate projections, channel complexity, land cover change, etc.) to be potentially used within stakeholder meetings. As a learning outcome, students will have the opportunity to develop their skills within five competencies in design and planning: a) Systems Thinking, b) interpersonal and transdisciplinary, c) anticipatory, d) normative, & e) strategic (Wiek et al., 2011). Student outputs from both courses are intended to be evaluated to determine learning through self-reported and spatially-explicit assessment tools (Cronan, 2019). Both courses are planned to be offered and advertised to students from diverse backgrounds, perspectives, and life experiences. Access to remote desktop connections as well as virtual platforms will be made available.

This course is intended to teach students the following:

- Current and Relevant Literature pertaining to the projects
- Understanding and implementation of a formalized methodology relevant to the field
- Application of research applied to design at multiple scales
- Application of process to guide design iterations

Evaluation:

- 10 % - Attendance, Participation, & Pinups
- 15 % - Writing Assignments
- 15 % - Precedent Presentation
- 30 % - Midterm Report
- 30 % - Final Report

## COURSE OBJECTIVES:

Students will gain experience applied to landscape architecture in the following areas:

- A) Interdisciplinary Research through supporting literature
- B) Alternative Futures and Geodesign
- C) Scenario Modeling
- D) Compelling Digital Representation & Data Visualization
- E) Geospatial Analysis and Suitability Modeling
- F) Geospatial Scenario Modeling and Development
- G) Aligning Quantitative (researcher projections) & Qualitative Data (stakeholder assumptions and uncertainty)
- H) Develop knowledge of urban and community systems applied to landscape architecture and planning

## University of Idaho Landscape Architecture Project Team

The UI project team consists of Landscape Architecture Geodesign students to develop scenarios of plausible projects for the Owyhee Region, Teton Valley, and Kootenai Idaho.

### TASK 1: Background and Context

Understanding relevant literature for the process and applicability through precedent studies is key to development of within the course. Students will be required to write a report from supplied readings and deliver a presentation of explaining the process.

Products: Presentations, digital maps, and written reports

### TASK 2: GEM3 scenarios

Course participants will collect data to understand how either site is operating, how well it processing, and how it can be changed. Students will revise designs once with a peer-to-peer evaluation rubric. Researcher-derived models as projections (e.g. species counts, land use impacts, climate models, etc.) will provide for the drivers of change in each scenario at different levels of variation. Simultaneously, these changes in land use will be validated with stakeholder uncertainties and themes about land use and land cover change. These stakeholder uncertainties and themes will be presented to the students as 'scenario narratives.' Students will be provided with relevant data and descriptive scenario narratives to help guide planning decisions and iterations. Students will couple these inputs to formulate the proportions of land use change at various timesteps. GEM3 researchers and specialists (from ISU, BSU, and UI) will be invited to give guest lectures and an invited early-semester workshop to couple research models with inputs provided by the stakeholders.

Products: Presentations, Geospatial scenarios, written report/ESRI Storymap

### TASK 3: Kootenai County Area of City Impact Scenarios

Students will create iterative scenarios of change with a stakeholder group from the Kootenai County. Students will evaluate the scenarios with stakeholder informed metrics, and teh scenarios will be revised to meet the needs of the stakeholder group.

Products: Presentations, geospatial scenarios (2 iterations, 1 with timesteps), written report/ESRI story-map

All products from previous stages of work (research, site analysis, etc.) will be combined with final landscape design(s) into a summary report. One digital (PDF or HUB site) of the final report will be provided to the instructor at the end of the course.

Due / review dates: Dates to be established in initial project team meeting. Final report and scenarios will be submitted to the INSTRUCTOR for review no later than December 20th, 2021 for course outputs.

**TENTATIVE SCHEDULE:** \*\*NOTE: Items on this schedule are subject to change. Revisions will be emailed and verbally addressed if changes occur.

	TUESDAY	THURSDAY
WEEK 1: Aug. 23 <sup>rd</sup> - Aug. 27 <sup>th</sup>	INTRODUCTION and SYLLABUS -Geodesign Overview and Examples	Alternative Futures and Geodesign
WEEK 2: Aug 30 <sup>th</sup> - Sept. 3 <sup>rd</sup>	Process & Evaluation Models: How does the study area operate and is it working well?	DEMO and WORKSHOP DUE: Written Report of Literature Review
WEEK 3: Sept. 7 <sup>th</sup> - Sept. 10 <sup>th</sup> (No Class for Labor Day)	Change Models: How might the study area be altered?	Change Models (cont.)
WEEK 4: Sept. 13 <sup>th</sup> - Sept. 17 <sup>th</sup>	Scenarios Exercise & Demo 'CHANGE MODELS'	Dan Out: Stakeholder Meeting
WEEK 5: Sept. 20 <sup>th</sup> - Sept. 24 <sup>th</sup>	Dan Out: Stakeholder Meeting	Geospatial Model Development Process DUE: Precedent Presentations
WEEK 6: Sept. 27 <sup>th</sup> - Oct. 1 <sup>st</sup>	Impact Models: What differences might the changes cause?	Geospatial Model Development - Tools and Methods
WEEK 7: Oct. 4 <sup>th</sup> - Oct. 8 <sup>th</sup>	Desk Crits	DUE Evaluation Models & 1st Draft Teton Valley OR Owyhee Scenarios, Presentations
WEEK 8: Oct. 11 <sup>th</sup> - Oct. 15 <sup>th</sup> (Midterm exam week)	Midterm Review Week	Midterm Review Week
WEEK 9: Oct. 18 <sup>th</sup> - Oct. 22 <sup>nd</sup>	DUE: Final Teton and Owyhee Scenarios Report, 2nd Iterations with Representations	ASSIGNED: Kootenai County Area of Impact Scenarios
WEEK 10: Oct. 26 <sup>th</sup> - Oct. 30 <sup>th</sup>	Process & Evaluation Models: How does the study area operate and is it working well?	Dan Giving UI 'Spotlight Lecture' Please attend!!!! 12:30 - 1:20
WEEK 11: Nov. 1 <sup>st</sup> - Nov. 5 <sup>th</sup>	Change Models: How might the study area be altered?	Demo and workshop
WEEK 12: Nov. 8 <sup>th</sup> - Nov. 12 <sup>th</sup>	Impact Models: What differences might the changes cause?	Demo and workshop
WEEK 13: Nov. 15 <sup>th</sup> - Nov. 19 <sup>th</sup>	Decision Models: How should the study area be changed?	DUE: DRAFT SCENARIOS 1 Demo and workshop

# TENTATIVE SCHEDULE (continued):

	TUESDAY	THURSDAY
WEEK 14: Nov. 22 <sup>nd</sup> - Nov. 25 <sup>th</sup>	No Class Fall Recess	No Class Fall Recess
WEEK 15: Nov. 29 <sup>th</sup> - Dec. 3 <sup>rd</sup>	-Peer to Peer Critiques	-Presentation Rehearsals -Mock Presentations
WEEK 16: Dec. 6 <sup>th</sup> - Dec. 10 <sup>th</sup> (Dead Week, No Exams/Sketches)	Final Review Week No Class	Final Review Week No Class
WEEK 17: Dec. 13 <sup>th</sup> - Dec. 17 <sup>th</sup> (Final EXAM Week)	-Presentations	Final Report Due by 5pm on December 16th, 2021

## EXPECTATIONS:

### TIMELY AND COMPLETE WORK

- Complete all in-class and supplemental exercises including readings from required text
- All assignments must be completed at the beginning of class specified in the schedule
- Regularly late or incomplete work will compromise your ability to pass the class

### ATTENDANCE and PARTICIPATION

- Come to every class prepared and attentive
- Ask questions and work with others respectfully to approach learning in collective manner.
- Work through obstacles with peer advice and demonstration tutorials such as Lynda.com and youtube videos.
- Create work that expands upon the guidelines give to show personal initiative.

### PROFESSIONALISM

- Be supportive and respect colleagues.
- Working through obstacles and critiques can be done collaboratively, however products of the class should be produced solely by each student.

## TEXTS:

- Resilient Downtowns by Michael A. Burayidi
- Walkable City Rules: 101 Steps to Making Better Places by Jeff Speck
- The Social Life of Small Urban Spaces by William H. Whyte
- Measuring Urban Design, Metrics for Livable Places by Reid Ewing and Otto Clemente
- Main Street...When a Highway Runs Through It: A Handbook for Oregon Communities, ODOT, by DEA and Walkable Communities (Dan Burden)
- Public Places, Urban Spaces: The Dimensions of Urban Design by Matthew Carmona, Tim Heath, Taner Oc, and Steve Tiesdell
- Within Walking Distance: Creating Livable Communities for All, by Phillip Langdon
- Excerpts from works by Jan Gehl, such as Cities for People and How to Study Public Life
- Excerpts from The Theory of Good City Form or other works by Kevin Lynch
- National Association of City Transportation Officials guides, including:
  - o Urban Street Design Guide
  - o Urban Bikeway Design Guide
  - o Urban Street Stormwater Guide
  - o Transit Street Design Guide
- Various chapters/excerpts from Planning and Urban Design Standards, American Planning Association, Kent S. Butler

## GRADES- METHOD OF EVALUATION

The following criteria will be used in determining your grade:

- Attendance and preparation for class, including timely completion of interim design products.
- Successful completion of exercises prior to class on the day they are due.
- Clarity, insightfulness and completeness of your thinking as reflected in your written, oral, and graphic work. This includes thoroughness of your research, depth of your analyses, and justification of methodology and approach to your projects.
- Technical quality of your work (e.g., appropriate choice/use of information and analytical tools for solving assigned problems; appropriateness of design process and solutions; accuracy of your graphic work; grammar, spelling, and logic in your writing; accurate citations, etc.).

The overall grade for the course will be determined based on the following breakdown:

Evaluation:

20 % - Attendance, Participation, & Pinups

10 % - Expert Directive Presentation and Network Analysis

10 % - Site Analysis and Precedent Presentation

25 % - Midterm Review: Analysis, Program, Master Plan/ Comprehensive Plan

10 % - Evaluation Metrics

25 % - Final Review: Site Scale Designs and Representations

A general description of assigned grades follows:

(A) Excellent

An outstanding performance in which the student demonstrates a superior grasp of the subject matter, and an ability to go beyond the given material in a critical and constructive manner. The student demonstrates a high degree of creative and/or logical thinking, a superior ability to organize, to analyze and to integrate ideas, and a thorough familiarity with the relevant literature and techniques. A highly creative yet workable solution is generated.

(B) Good

A better than adequate performance in which the student demonstrates a moderately high level of competency with respect to understanding the subject matter and examining the material in a critical and constructive manner. The student demonstrates a very good understanding of the relevant issues and a familiarity with the relevant literature and techniques. A creative solution is expressed but some revision would be needed.

(C) Average

An adequate performance in which the student demonstrates a generally adequate grasp of the subject matter and a moderate ability to examine the material in a critical and constructive manner. The student displays an adequate understanding of the relevant issues and a familiarity with the relevant literature and techniques. The solution generated would require extensive revision.

(D) Poor

A barely adequate performance in which the student demonstrates a familiarity with the subject matter, but whose attempts to examine the material in a critical and constructive manner are only partially or largely unsuccessful. The student displays generally poor understanding of the relevant issues, and limited familiarity with the relevant literature and techniques.

(F) Failure

An inadequate or extremely uneven performance with respect to familiarity with subject matter, ability to examine material, understanding of relevant issues, literature and techniques.

## LAAB CRITERIA

This course contributes to student achievement in the following areas:

Realm A – Critical Thinking: A1. Communication Skills; A2. Design Thinking Skills; A3. Investigative Skills; A4. Architectural Design Skills; A8. Ordering Systems Skills.

Realm B – Building Practices, Technical Skills, and Knowledge: B1. Pre-design Abilities. B2. Site Design Abilities. B3. Codes and Regulations.

## ATTENDANCE POLICY

Attendance in class is mandatory. Attendance may be taken at any time during the scheduled class period. If you must miss class due to an emergency, you must contact the instructor as soon as possible and make arrangements for making up missed work. If you will miss class for other reasons, including religious holidays, let the instructor know at the beginning of the semester, or as early as possible. Class discussions and in-class assignments will not be repeated. Students missing a class will be given an alternate or equivalent assignment that must be completed within the timeframe established by the instructor to make up for the absence. Three unexcused absences will result in lowering your grade up to one full letter grade at the instructor's discretion. Repeated unexcused absences (more than 3) are grounds for being given a non-passing grade for the course.

## DISABILITY POLICY

If you have a documented disability, other health concerns or special needs that may require assistance or special accommodation, please make arrangements to meet with the instructor as soon as possible to discuss your situation. Reasonable accommodations are available for students who have documented temporary or permanent disabilities. All accommodations must be approved through Disability Support Services located on the Moscow campus (Idaho Commons Building, Room 306) in order to notify your instructor(s) regarding accommodation(s) needed for the course. Note: all accommodations at the Boise Campus must also be approved through the DSS Office in Moscow as well.

Phone (208) 885-6307

Email [dss@uidaho.edu](mailto:dss@uidaho.edu)

Website [www.uidaho.edu/current-students/dss](http://www.uidaho.edu/current-students/dss)

## ACADEMIC INTEGRITY POLICY

Academic integrity is the cornerstone of the educational process at the University of Idaho. An important goal of the University of Idaho is to develop students who will be citizens who embrace ethical conduct, honesty and personal integrity. To that end, the University expects students to engage in academic activity with high standards of honesty and integrity. It is the student's responsibility to familiarize themselves with all academic honesty policies and regulations, which can be found on the Dean of Students' website: <http://www.uidaho.edu/student-affairs/dean-of-students/student-conduct/academic-integrity>

## COPYRIGHT POLICY

The University of Idaho is committed to respecting the rights of copyright holders and complying with copyright law. The policy can be found at: <http://www.lib.uidaho.edu/copyright/basics/whatis.html>

This website provides information and educational tools to assist faculty, staff, and students in making informed decisions regarding appropriate uses of copyrighted materials.



## UNIVERSITY OF IDAHO CLASSROOM LEARNING CIVILITY CLAUSE

In any environment in which people gather to learn, it is essential that all members feel as free and safe as possible in their participation. To this end, it is expected that everyone in this course will be treated with mutual respect and civility, with an understanding that all of us (students, instructors, professors, guests, and teaching assistants) will be respectful and civil to one another in discussion, in action, in teaching, and in learning. Should you feel our classroom interactions do not reflect an environment of civility and respect, you are encouraged to meet with your instructor during office hours to discuss your concern. Additional resources for expression of concern or requesting support include the Dean of Students office and staff (5-6757), the UI Counseling & Testing Center's confidential services (5-6716), or the UI Office of Human Rights, Access, & Inclusion (5-4285).

## FIREARMS POLICY

The University of Idaho bans firearms from its property with only limited exceptions. One exception applies to persons who hold a valid Idaho enhanced concealed carry license, provided those firearms remain concealed at all times. If an enhanced concealed carry license holder's firearm is displayed, other than in necessary self-defense, it is a violation of University policy. Please contact local law enforcement (call 911) to report firearms on University property. University of Idaho leadership remains committed to maintaining a safe work, living and learning environment on campus. We will not tolerate any threatening use of firearms or any other weapons. While authorized license holders may have familiarity and be at ease carrying a loaded firearm, we ask that they be aware that many people are not familiar with handguns and are uncomfortable in their presence.

## POLICIES FOR HEALTHY VANDALS

It is a longstanding tradition that Vandals take care of Vandals, and we all do our best to look out for the Vandal Family. The simple precautions listed below go a long way in reducing the impact of coronavirus on our campuses and in our communities. With everyone engaging in these small actions, we can continue to participate in our vibrant campus culture where we are able to learn, live, and grow. Visit U of I's COVID-19 page often for updated information. Questions related to U of I's coronavirus response can be sent to [covid19questions@uidaho.edu](mailto:covid19questions@uidaho.edu).

## IN-PERSON CLASS ATTENDANCE

Refrain from attending class in-person if you are ill, if you are experiencing any of the known symptoms of coronavirus, or if you have tested positive for COVID-19 or been potentially exposed to someone with COVID-19.

If you display symptoms and/or test positive, you should quarantine following the CDC's recommendations. Do not return to class until you meet the CDC's requirements.

If you have been exposed but are asymptomatic, you should stay home for 14 days from the last exposure if you remain asymptomatic, adhering to the CDC's requirements.

Documentation (a doctor's note) for medical excuses is not required; instead, email me to make arrangements to submit any missed work and make plans to use Zoom and/or online course materials to stay current with the course schedule.

## FACE COVERING REQUIREMENTS

All faculty, staff, students and visitors across all U of I locations must use face coverings over the nose and mouth whenever in any U of I buildings. Thus, you are required to wear a face covering in this classroom at all times: <https://www.webpages.uidaho.edu/cetl/docs/2021-Fall-Healthy-Vandals-Syllabus-Policies.pdf>

If you have a medical condition that affects your ability to comply with the face covering policy, please contact the Center for Disability Access and Resources (CDAR) to request a reasonable accommodation. If you have other reasons you believe make you exempt from wearing face coverings, please contact the COVID-19 Coordinator.

Failure to wear a face covering over your nose and mouth will require you to leave the classroom immediately. If a disruption to the learning experience occurs due to repeated offence and/or egregious behavior, you will be reported to the Dean of Students Office for a potential code violation.

## VANDAL FOOD PANTRY

The Vandal Food Pantry is a free resource stocked weekly with food, grocery bags, and various hygiene items. Its eight locations across campus are accessible during building hours and open to all. Please take what you need.

## What's Your Green Dot?

It's up to all of us to make a safer campus. Vandal Green Dot is a program that helps students learn about the power of the bystander, how to recognize potentially risky situations, and realistic ways to intervene. Together we can bring down the number of people being hurt by interpersonal violence on our campus. No one has to do everything, but everyone has to do something! Learn more and get involved by visiting UI's Green Dot Safety Program or emailing [greendot@uidaho.edu](mailto:greendot@uidaho.edu).