

East Ridgeline Open Space

Natural Area Parks Planning and Design Studio

Spring 2020 • 6 Credits • Mon/Wed/Fri from 1:00 – 4:50 pm • Location: Lawrence Hall, Room 312

Instructor: Jeff Krueger, PLA • UO Landscape Architecture Instructor • JK Environments LLC • www.jkenvironments.com

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Site Background

The City of Eugene has long envisioned a 20-mile string of interconnected parks and natural areas spanning the ridgeline to the south of Eugene and has been successful in acquiring a number of large natural area parks along this corridor over the past decade. Our studio will focus on the eastern end of this corridor which includes a 277-acre cluster of City-owned park properties (Moon Mountain, Coryell Ridge, Black Oak Basin, and Bloomberg Park).

These natural area parks, collectively known as “East Ridgeline Open Space”, currently contain no facilities and have very limited formal public access. High value native habitats are present on the site including patches of upland prairie, oak savanna, oak woodland, and wetlands. There are significant opportunities for habitat restoration and enhancement.



Camas in bloom atop Coryell Ridge with views toward Mount Pisgah and the Willamette River confluence.

Studio Focus

Students will begin the studio by evaluating existing site conditions and opportunities through site visits and review of available spatial data. Students will work in teams during the first two weeks to develop relevant site background and analysis materials to be shared by the studio and at midterm. Students will then work individually for the remainder of the studio to develop individual products including:

- Opportunities and constraints map
- A vision for East Ridgeline Open Space and high-level goals for site improvements
- Desired Future Conditions (DFC) Vegetation Map
- Master Plan Diagram showing spatial orientation of proposed trails and park facilities (early draft for midterm)
- Design details for between two and four proposed facilities or habitat enhancements to be chosen by each student (design work will occur after midterm)

Proposed facilities and trail types will be determined by each individual student, but should be consistent with the student's stated vision and goals and be compatible with the site's habitat values. Potential facilities could include:

- Recreational trails for a range of users (mountain bike, pedestrian trails, barrier free, explorer, etc.)
- Mountain bike skills park
- Nature play area or trail
- Disc golf course
- Canopy walk
- Pavilion for events and educational activities
- Interpretive signage or interventions
- Viewing platform
- Art installations

Software: We will primarily use Adobe Illustrator and PhotoShop, Google Earth, PowerPoint, the free Avenza Maps App., and the Oregon Wildflowers App. (optional \$10). Opportunities to use ArcGIS for students who have some background and training in the software. Hand drawn maps and illustrations or other design software may be substituted if desired.



Site Context Map

Our 277-acre East Ridgeline site is outlined in red below:



Instructor

Jeff Krueger is a licensed landscape architect in the state of Oregon and has over twenty-five years of experience providing planning, design, and project management for local governments and non-profit organizations in the Willamette Valley. He founded JK Environments LLC in 2013. He has previously worked for Lane Council of Governments, the U.S. National Park Service, Massachusetts State Parks, and two private landscape design firms. Jeff has extensive planning and design experience in the areas of ecology, natural resources, habitat restoration, parks and open space master planning, recreational trails, land use, and bicycle and pedestrian facilities. Jeff holds a degree in Environmental Design from the University of Massachusetts in Amherst (1987) and a BLA and MLA from the University of Oregon (1991/92). Jeff has been an Instructor with the Department of Landscape Architecture since 2014 and brings local ecological knowledge and real world experience to the studio.

Learning Outcomes

During this studio, students will have the opportunity to develop an appreciation and understanding for native habitats and local ecology while master planning a large natural area site and developing design details for habitat restoration, trails, and compatible recreational facilities.

By the end of the course, students will be able to:

- Conduct site analysis and mapping of a natural area and identify issues and opportunities.
- Document and interpret site history and changes in vegetation patterns.
- Use guidance from local, State, and Federal plans including the Oregon Conservation Strategy (ODFW, 2016) to determine appropriate target habitats and plant/wildlife species for our site.
- Develop a vision and goals to direct site master planning.

- Map “Desired Future Conditions” for habitat types.
- Design and site recreational facilities in a way that minimizes habitat impacts and maximizes user experience.
- Design a trail network to serve a range of user groups, calculate running grades of the trail, apply sustainable trail design principles, and estimate cost.
- Use Adobe Illustrator and Photoshop to create thematic maps, plans, photo imaging products, and details.

Guidelines for Studio Participation

- **Scheduled Class Time:** Students must be present during the regularly scheduled studio time. If a student is not able to attend they should notify the instructor in advance to request an excused absence. We will have a regular class meeting at 1:00 and a class check-in at about 4:50 on most days.
- **Individual Site Visits:** In addition to the 2-3 planned class field trips, students are encouraged to visit the site to gain a better appreciation and understanding of on-the-ground conditions. It is highly recommended that students partner up for site visits for general safety reasons. Please stay on city-owned land and respect private property rights. The Avneza map app will be a useful tool for verifying your location in the field.
- **Consolidating Questions and Requests:** Questions or requests for data or information from City staff should be coordinated through the instructor.
- **Grading Standards:** This course is graded on a pass/no pass basis. To pass the course, students must attend class on a regular basis (a minimum of 90% attendance), actively participate in group discussions, adequately complete all assignments, and make presentations at the midterm and final review. Two or more unexcused absences are grounds for a marginal pass. Preliminary assignments are given at the beginning of the term, but modifications and additions may be made following the midterm review. All final work must be submitted to the instructor in electronic format (PDF) before a final grade will be submitted.
- **Exit Interviews:** Exit interviews are required and will be conducted either Thursday or Friday of review week or early in exam week. Students MUST be available to meet during these times.

University and Department Policy

Academic Misconduct Policy

The [University Student Conduct Code](#) defines academic misconduct. Students are prohibited from committing or attempting to commit any act that constitutes academic misconduct. By way of example, students should not give or receive (or attempt to give or receive) unauthorized help on assignments or examinations without express permission from the instructor. Students should properly acknowledge and document all sources of information (e.g. quotations, paraphrases, ideas) and use only the sources and resources authorized by the instructor. If there is any question about whether an act constitutes academic misconduct, it is the students’ obligation to clarify the question with the instructor before committing or attempting to commit the act.

Accessible Education

The University of Oregon is working to create inclusive learning environments. If you feel there are aspects of the instruction or design of this course, which may result in barriers to your participation, please notify the instructor as soon as possible so that accommodations can be made. We are happy to modify the course requirements as needed to allow individuals with any limitations such as sight, hearing, and mobility to participate and your perspective could provide a valuable learning opportunity for the entire class. You may also wish to contact the [Accessible Education Center](#) for more information about the University of Oregon policies.

Inclusion Statement

The School of Architecture and Allied Arts is a community that values inclusion. We are committed to equal opportunities for all faculty, staff and students to develop individually, professionally, and academically regardless of ethnicity, heritage, gender, sexual orientation, ability, socio-economic standing, cultural beliefs and traditions. We are dedicated to an environment that is inclusive and fosters awareness, understanding, and respect for diversity. If you feel excluded or threatened, please contact your instructor, department head, or the [University Bias Response Team](#).

Proposed Class Schedule: Spring Term 2020 (subject to change)

Dates	Activities	Assignments
Week 1		
Monday, March 30	<p>Class introduction, studio overview, expectations, review syllabus and schedule, safety, and arrange our studio space.</p> <p>Lecture by Jeff: A quick overview our site; Rivers to Ridges context, Conservation planning basics for natural areas; Shared terminology, etc.</p> <p>Hand out Assignment #1 and form site analysis teams</p>	<p>Hand Out Assignment #1: Site analysis (team assignment)</p> <p>Please review the resource links listed at the end of the syllabus and one precedent study (Suzanne Arlie Park Master Plan or Bald Hill Farm Management Plan to discuss on Wednesday.</p>
Wednesday, April 1	<p>On-Campus Field Study – Test Avenza map app, pacing distance, visualizing acreage, calculating running slope, tree height (horizontal distance x tangent of degrees)</p> <p>Lecture by Jeff: More detail on East Ridgeline, shared terminology, habitat 101, studio resources, site analysis examples, Suzanne Arlie Park Master Plan and Bald Hill Farm Management Plan overview, Adobe Illustrator mapping tips, and quick tutorial on Google Earth (KML demo).</p>	
Friday, April 3	<p><u>Work Day:</u> Teams develop site analysis products; Identifying things to look for and photograph during our Monday field trip. Jeff available to provide feedback, etc.</p>	
Week 2		
Monday, April 6	<p>Field Trip – Dress for outdoors, wear good walking shoes, <u>long pants</u>, and rain gear if needed. Bring camera. Make sure your phone is fully charged so we you can use your Avenza App. Transportation will be provided. Areas of the site are likely to be muddy. Views are likely to be spectacular.</p>	<p>Black Oak Basin, Bloomberg Park, and south side of Coryell Ridge.</p> <p>Guest Tour Guide – TBA</p>
Wednesday, April 8	<p>Team site analysis presentations (5-10 minutes per team). Tell us what you learned. Provide feedback on materials.</p> <p>Hand out individual midterm assignment (Assignment #2)</p>	<p>Assignment #1 due at beginning of class.</p> <p>Hand Out Assignment #2: Midterm</p>
Friday, April 10	<p>Work on individual assignments – vision and goals</p>	
Week 3		
Monday, April 13	<p>Field Trip – Dress for outdoors, wear good walking shoes, bring camera. Transportation will be provided. This will be an opportunity for you and your team to do on-the-ground evaluation and site analysis.</p>	<p>Guest Tour Guide – TBA</p>
Wednesday, April 15	<p>Work on midterm assignment.</p> <p>Students present Existing Conditions, Opportunities, and Constraints to peers and instructor for feedback</p>	<p>Assignment #2, PARTS 1 & 2 (Existing Conditions, Opportunities, Constraints and Target Users) due at beginning of class</p>
Fri., April 17	<p>Lecture by Jeff: Trails planning, design, and construction concepts</p> <p>Work Day and individual desk critiques</p>	

Dates	Activities	Assignments
Week 4		
Monday, April 20	Students present vivid presence and goals to peers and instructor for feedback Work Day and individual desk critiques – Individual site visit if desired	Assignment #2, PARTS 3 and 4 (Vivid Presence and Goals) due at beginning of class
Wednesday, April 22	Work Day and individual desk critiques – Individual site visit if desired	
Friday, April 24	Pin up draft materials for Jeff and peer review Work Day and individual desk critiques	
Week 5		
Monday, April 27	Work Day and individual desk critiques	
Wednesday, April 29	Students present Master Plan Diagram to peers and instructor for feedback Finalize Proposed Master Plan Diagram and DFC Map	Assignment #2, PARTS 5 & 6 (DFC Habitat Map and Master Plan Diagram) due at beginning of class
Friday, May 1	Midterm Review (1:30-4:30). Team presentations and individual pin up (2 individual reviews each) – Format to be determined (self-selecting reviewer approach or assigned reviewers?).	---Midterm Presentations---
Week 6		
Monday, May 4	Field Trip – Howard Buford Recreation Area – Interpretive Interventions and native plants nursery Debrief midterm	
Wednesday, May 6	Hand out Assignment #3: Final Review Class discussion of final review format	Assignment #3: Assignment for final review. This will be an individual assignment and include refinement of midterm materials as well as detailed design for 2-3 areas or topics (students choose topics from a list or propose other topics) Outline is due for approval on May 11. Products are due on May 29.
Friday, May 8	Work Day and meet with Jeff to get list of final review products approved.	Assignment #3 outline due (Review your proposed list of final products with Jeff)

Week 7		
Monday, May 11	Presentation by Jeff: Examples of previous student work	Note: these two weeks are critical. Design iteration is important, so don't wait until the end to finish.
Wed, May 13	Pin up draft refined master plan diagram and DFC map for Jeff and peer review	Assignment #3 Master Plan Diagram due (print and pin up master plan diagram and DFC map)
Friday, May 15	Work Day and desk critiques	
Week 8		
Monday, May 18	Work Day and desk critiques – Design details Guest for desk critiques: TBA	
Wed, May 20	Work day and desk critique – Design details	
Friday, May 22	Work day – Design details	
Week 9		
Monday, May 25	Memorial Day – No Scheduled Class	
Wed, May 27	Pin up draft materials for Jeff and peer review (half of class) – prepare final review presentation	
Friday, May 29	Pin up draft materials for Jeff and peer review (other half of class) – prepare final review presentation	Assignment #3 design details due: Final review materials should be nearly complete. Please do your plotting and printing well in advance of the final review.
Week 10		
Monday, June 1 - 4	FINAL REVIEW (Date TBA) Will request 6/2	
Friday, June 5	Individual meetings with Jeff: debrief and evaluation may need to schedule some for Monday.	

Resources for Natural Areas and Trails

Habitat and Wildlife

- [Oregon Conservation Strategy](#) (ODFW, 2016) – Essential Statewide resource for guidance on determining target habitats and species.
- [A Landowner's Guide for Restoring and Managing Oregon White Oak Habitat](#) (Vessy and Tucker, 2006).
- [A Practical Guide to Oak Release](#) (USDA, 2006) -
- [The Willamette Valley Landowner's Guide to Creating Habitat for Grassland Birds](#) (ODFW, 2007).
- [Practical Guidelines for Wetland Prairie Restoration in the Willamette Valley, Oregon](#) (Lane Council of Governments, Institute for Applied Ecology, and City of Eugene, 2014) -
- [Oregon Department of Fish and Wildlife Species Information](#) (ODFW) – Oregon wildlife identification, photos, habitat requirements.
- [Oregon Explorer Website](#). (ODFW). This includes a map viewer and general Oregon wildlife and habitat information.
- [Garry Oak Ecosystems Recovery Team website](#) – Portal to multiple oak habitat resources.
- [Cascadia Prairie-Oak Partnership \(CPOP\)](#). This partnership site includes a technical library for publications related to oak and prairie habitat.
- [Conserving Oak Habitats in the Southern Willamette Valley](#) (Rivers to Ridges Partnership, 2015). Fact sheet.
- [Plant Database](#) (USDA). Detailed information about plant species
- [Salix Associates website](#). This is the business website of local ecologist Bruce Newhouse and includes some great tables and information about native plants, native butterflies and nectar plants, native bird plants, etc.
- [Oregon Flora Project website](#) (OSU). Detailed plant information for native Oregon species.
- [eBird](#) (Cornell Lab of Ornithology) – website has a search function for local bird records.

Trail Siting and Design

- [Universal Access Trails and Shared Use Paths](#) (Larry Knutson and Debra Wolf Goldstein – Penn Trails, 2014). This manual reviews Best Management Practices (“BMPs”) to utilize when planning, designing, constructing, and maintaining pedestrian trails for universal accessibility—for providing trails usable by all people, to the greatest extent possible, without separate or segregated access for people with disabilities.
- [Green Infrastructure and Health Guide](#) (Oregon Health and Outdoor Initiative, 2018). Includes connection between nature and public health, green infrastructure siting and design guidelines, and ways to evaluate health benefits.
- [Trail-Building Toolbox](#) (Rails to Trails Conservancy). Guidance on trail design, materials, crossings, bridges, lighting, signage, etc.
- [Designing and Building Sustainable Trails](#) (International Mountain Bike Association).
- [American Trails Resource Library](#). Compilation of articles and studies with topic search function.
- [USDA Forest Service Standard Trail Plans and Specifications](#) (USFW)
- [Global Heat Maps](#) (STRAVA)

City and Regional Open Space Plans and Reports

- [Eugene Trails Plan](#)
- [Suzanne Arlie Park Master Plan](#)
- [Wild Iris Ridge Master Plan](#)
- [Rivers to Ridges Regional Parks and Open Space Vision](#)
- [Ridgeline Open Space Vision](#)

Map and Historical Photo Resources

- [General Land Office Maps](#) – Historical Maps - Digital Copies of the Cadastral Survey Maps for Oregon, produced by the General Land Office in the 19th and 20th centuries.
- [University of Oregon Map Library](#). Variety of map resources and historical aerial photos.
- [Lane County Historical Museum Digital Archives](#). Variety of searchable historical photos
- [USGS Historical Topographic Map Explorer](#). Downloadable USGS maps from various eras.
- [University of Oregon Photograph Archive](#). Downloadable historical photos (mainly UO campus area)
- [Historic Oregon Newspapers](#). UO collection of scanned newspapers. Look for articles on Coryell Pass.

Habitat Management Plan – Precedent Studies

- [Suzanne Arlie Park Master Plan \(draft, 2019\)](#)
- [Wild Iris Ridge Master Plan](#)
- [Bald Hill Farm Management Plan \(draft 2016\)](#)
- [Murray Hill Management Plan \(draft, 2018\) - Canvas](#)