ESM 428 (CRN 41093) /ESM 528 (CRN 41100) - Urban Ecology

Winter 2025 Syllabus

Meeting: Monday/Wednesday 9:00am - 10:50am

Instructor: Leslie Bliss-Ketchum, Ph.D.

Email: blissket@pdx.edu Office: SRTC 139B Office Hours: By appointment, remote meeting options available

Course objectives

Study ecosystem processes in urban areas, including structure and function, how humans manage urban ecosystems, and in particular, how human social systems can and do influence urban ecological function. Emphasis will be on responses of flora and fauna to changes in climate, hydrology, geomorphology, geochemistry, soils and available habitat in urban areas. Issues of species conservation, ecosystem management, environmental justice, restoration and sustainability in urban systems will also be discussed.

Instructor Inclusivity Statement

It is my intent that students from all backgrounds and perspectives be well served by this course, that students' learning needs to be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength and benefit. It is my priority to create a learning space that is respectful of gender, sexuality, ability, age, socioeconomic status, ethnicity, race, nationality, and culture. I encourage and appreciate any suggestions for meeting this goal. Please let me know ways to improve the effectiveness of the course for you personally or for other students or student groups. In addition, please let me know of any religious or other events that may conflict with any of our class meetings this term so that we can make alternative arrangements for meeting course requirements.

Item	Points	Total Grade %15%	
News reports	60		
Quizzes (2)	40 each, 80 total	20%	
Midterm exam	100	25%	
Final exam	100	25%	
Participation	60	15%	
TOTAL	400 points	100%	

Student Evaluations

Grade Value

Scores for each graded assignment/test will be totaled and a final grade will be based on the total score as a percent of 400 as follows: A=100 to 93%; A-=92 to 90%; B+=89 to 87%; B=86 to 83%; B=82 to 80%; C+=79 to 77%; C=76 to 73%; C=72 to 70%; D=69 to 60%; F=59% and below.

Assignments

Reading assignments: All readings will be posted to Canvas at least 1 week prior to their due date. <u>Required</u> readings are expected to be read **prior to** class time; be ready to discuss them during class.

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Assignments continued:

Undergraduate News Reports: Each student will present once during the term on an urban ecology item in the news. Please sign up for a topic and presentation slot **no later than Friday January 17th** (the sign-up sheet is available here). Starting on January 22nd, at the beginning of each class students will give a brief verbal summary of their news article. Along with the oral presentation, the student will turn in a <u>copy of the news</u> source (an abstract is sufficient for a journal article) and a one-paragraph essay on the news topic. The essay should be typed, double-spaced and *no more than one page long*. The essay will be due on the day that the student is scheduled to present. Other students are encouraged to ask questions and/or otherwise comment on the article after the presentation. News items can be from online or print sources, and include newspapers, magazines, blogs, and journal articles. Please see the grading rubric in Canvas for assignment details and suggested news sources.

Graduate News Reports: Each graduate student will give a 10-minute presentation on an urban ecology study from the primary literature. The topic will be the choice of the student but must be directly relevant to <u>urban</u> <u>ecology</u>. The presentation should include a PowerPoint and give an adequate description of the study methods, analyses, and findings. Please see the grading rubric in Canvas & add your name and topic to the <u>sign-up sheet</u> **before February 14**th.

Exams: There will be two timed exams, a midterm and a final. The final will not be cumulative. We will review for each exam in the previous class period.

Quizzes: There will be two quizzes during the term. The goal of the quizzes is to familiarize students with the types of questions that will be asked on exams and enforce learning of course content.

Participation: Attendance during scheduled class times, asking questions, participating in discussion board postings (as applicable), and your contribution to small-group activities will all be considered in the calculation of your participation grade.

Course Policies and Responsibilities

Illness policy: Contact the instructor before class, or as soon as possible by email if you are unable to attend. For an illness resulting in more than 3 consecutive missed class periods, please provide a doctor's note or other documentation to avoid late/missed work penalties.

Late and missed work policy: For news report posts and presentations a 10% per week late penalty will be applied. Students must complete quizzes, exams, and news reports, with the time allotted unless prior arrangements are made or in the case of an illness or emergency.

Access and inclusion for students with disabilities: If any aspects of instruction or course design result in barriers to your inclusion or learning, please notify me. I am happy to work with you to ensure that your full participation in this course is possible. The Disability Resource Center (DRC) provides reasonable accommodations for students who encounter barriers in the learning environment. If you already have accommodations from the DRC, please contact me to make sure I have received a faculty notification letter and to discuss your accommodation.

Student Conduct

Students are expected to adhere to the PSU Code of Student Conduct: https://www.pdx.edu/dos/psu-student-code-conduct.

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Winter 2024 Class Schedule*

Week	/Date	Reading Assignment(s)	Lecture topics	Assignments/Misc	
	1/6		Week 1a: Welcome and Course Intro Week 1a: Syllabus review, Why urban ecology?		
1	1/8	Required: Schell et al 2020 Recommended: McDonnell 2011, Alberti et al. 2003	Week 1b: What is Urban Ecology?	Sign up for news reports, reading discussion. Undergrad news reports - topic sign up due before Wednesday Jan 17th	
	1/13	Required: Luck & Wu 2002 Recommended: Tanner p. 1-14	Week 2a: Intro to urban ecosystems	News reports sign up completed, discuss content/readings	
2	1/15	Recommended: Alberti Chapter 7, Yeakley 2014	Week 2b: Atmospheric processes Week 3a: Hydrology 1	Discuss lecture content/readings	
	1/20	NO CLASS – Martin Luther King Jr. Day			
3	1/22	Required: Walsh et al. 2005 Recommended: Holder & Gibbes 2017	Week 3b: Hydrology 2	News reports, discuss content/readings,	
	1/27	Recommended: Pavao-Zuckerman 2009	Week 4a: Soils 1	Quiz 1	
4	1/29	Required: <u>Oldfield et al. 2014</u> , <u>Hermann et al.</u> 2018	Week 4b: Soils 2	News reports, discuss content/readings	
5	2/3	Recommended: Adler and Tanner Chapters 3.2 and 3.3	Week 5a: Biogeochemistry 1	News reports	
	2/5	Required: Pataki et al. 2011	Week 5b: Biogeochemistry 2	News reports	
6	2/10	Required: Alberti Chapter 8	Week 6: Urban biodiversity	News reports, discuss content/readings	
6	2/12	Midterm Exam			
7	2/17	Required: Williams et al. 2009	Week 7a: Plant ecology 1	News reports, discuss content/readings Graduate news reports - topic sign up due	
/	2/19	Recommended: Hahs et al. 2009, von Behren et al. 2013	Week 7b: Plant ecology 2	News reports	
8	2/24	Required: Evans et al. 2015, Ferronato et al. 2016,	Week 8a: Animal ecology 1	News reports, discuss content/readings,	
	2/26	Required: Lopucki and Kitowski 2017	Week 8b: Animal ecology 2		
0	3/3	Recommended: Bliss-Ketchum et al 2016	Week 9a: Impacts of artificial light	News reports (Graduate Students)	
9	3/5			Quiz 2 News reports (Graduate Students)	
	3/10	Required: Boone et al. 2009.	Week 10a: Environmental Justice	News reports (Graduate Students)	
10	3/12	Revisit: Schell et al 2020 Recommended: Wolch et al. 2014	Week 10b: Environmental Justice	discuss content/readings: Revisit Schell et al. Final exam review, open discussion/questions	
	3/18				

*Schedule and assigned readings may be updated as needed during the course of the term