

**UP 406 Urban Ecology**  
**Spring 2024, Professor Rebecca Walker**  
[rhwalker@illinois.edu](mailto:rhwalker@illinois.edu)  
Office hours: Wednesdays 2-3pm (TBH 210)  
Tuesday 2-3:30pm (via Zoom -- [sign up here!](#))

**Description:** Over half the global population now lives in cities, and urban land use is expected to triple in area by 2030. As a result of the increasing dominance of cities, ecologists have increasingly focused their attention on urban environments in order to understand the important processes affecting urban ecosystems. Perhaps more than any other ecosystem, however, an understanding of urban habitats requires an analysis of the social as well as ecological factors affecting ecosystems. In this course, we will examine the new urban ecology, and combine ecological analyses with historical, anthropological, and sociological studies of urban nature. How are urban ecosystems similar to or different from other habitats? What are the characteristic features of urban ecosystems? How are cities connected to the ecology of distant ecosystems? What distinctive ecosystems are created in urban areas? How do we construct nature in urban ecosystems? As a human-dominated ecosystem, cities require both scientific and social-scientific analysis in order to evaluate the ecological footprint of cities, assess their ecological sustainability, examine growth management, unravel the connections between ecology and public health, or work to protect plants and animals from encroaching urbanization.

**Readings** — Each class there will be a handful of readings (2-4) covering a topic in urban ecology from a variety of perspectives. All readings will be posted on the course Canvas site, and there is no textbook for the class. Reading for each class session is **required and must be completed before class**. (*This said, I highly encourage you to read strategically. Read the Abstract and then the Conclusion to get the article's main points. Then, look at each figure and read each figure's caption. Skim the Introduction to understand the broader literature that the article is in conversation with. Finally, skim the Discussion to see how the article advances our understanding of the topic.*)

**Course Assignments** — Your grade for this course is based on five assignments: leading discussion, participation in discussions, weekly Photovoice discussion posts, final Photovoice essay, and a term paper.

Participation in the discussions will count for 20% of the grade, leading discussions for 20%, Photovoice posts for 20%, final Photovoice essay for 15%, and the paper for 25%. You must complete all requirements of the course to receive a passing grade. Late work will result in the loss of 10 points for each day past the due date.

Grades will be based on a scale of  
A+>98>A>92>A->90>B+>88>B>82>B->80>C>70>D>60>F.

- **Discussions (40%)** — In general, class periods will be divided into two parts, a short lecture given by the instructor introducing the class topic and then a class discussion. Discussions will be guided by several student discussion leaders, with one student assigned to each paper of the papers being discussed. Student discussion leaders will

begin Discussion by giving a brief presentation overviewing their particular assigned paper (slides are not required or expected. However, if you are using slides, please email them before class). Paper overviews should include 1) the field or discipline of the paper/paper lead author, 2) the research question or thesis statement of the article, 3) a very quick description of methods and study design, 4) an explanation of one of the key figures in the paper, 5) overview of important results and insights, 6) and the significance of the work to the topic for the class. After the papers have been introduced, discussion leaders will guide the class in a discussion of the class topic by drawing out, comparing and contrasting, and synthesizing insights from each of the papers. Discussion leaders should get in touch with one another before class to develop 4-6 questions for class discussion, to be **emailed to the instructor by 10 am on the day of class.**

The rest of the class is expected to participate in discussions, ask thoughtful questions, share thoughts and relevant experiences, and engage respectfully.

- **Photovoice Assignments (35%)** — Each week, students will be required to submit a [Photovoice](#) post. Photovoice is a participatory research method that embraces the idea that a picture is worth 1,000 words by having participants use images as a tool to show how a particular topic relates to their own lived experiences. Through photos, participants and researchers collectively draw out themes, insights, and phenomena. We will be adapting this research method to the purposes of our class to build a collective understanding of key themes from the course and how urban ecology shapes the world around us.

*Post assignment (20%):* Photovoice posts are in response to the prompt for the week and must include: 1) a **photo** that you take, out in the world, that relates to/challenges/expands upon/responds to/etc. the prompt, 2) a **short paragraph** explaining why you chose to take this photo and how it relates to the prompt and to the topic for this week. In addition, your explanation must make a **thoughtful connection to at least one of the readings** from this week. There are 12 weeks in which Photovoice prompts will be given (weeks 2-7 and 9-14), and students are required to submit posts for 10 of those (aka you can skip two weeks). Photovoice posts can be submitted on Canvas anytime during the week but are **due by the end of the week, on Sundays at 11 pm.** Photos submitted for Photovoice posts should be taken by the student and should not include images with people's faces or identifying information.

*Essay assignment (15%):* At the end of the semester, students will pick two to four of their posts and write a short essay (**1-2 pages double spaced**) that uses ideas and insights from these posts to **make an argument** (i.e., make a point). Include the photos from your posts at the top of your essay, and give each a figure caption that titles the photo, gives a brief description, and includes the date of the original post. Your essay must have a thesis statement that connects ideas touched on in your posts. Defend that thesis statement using the examples from your four photos/posts and from the class lecture and readings. Your essay **must cite at least 4 of the readings from the course** (feel free to pull in additional readings, from the course or elsewhere). Your Photovoice essay is due on **May 1.**

In addition to the essay, students will pick two of the four photos from their essay to be printed, mounted, and presented at our Photovoice gallery reception, held on **Apr. 29**. Each photo submitted for printing must include a title and date, and students should also submit a short summary of their argument in their essay, to be mounted with their photos.

- **Term Paper Assignment (25%)** — Students will write a paper of about 10-12 pages (double spaced, 12 pt font) on a topic of their choice. The paper must integrate scientific and humanities/social scientific approaches to urban nature. The paper will be due on **May 10**. Graduate students will write a paper of about 15-20 pages.

**Academic Honesty** — You are strongly encouraged to discuss class assignments with others, but your work in papers and exams must be your own. Do not quote directly or paraphrase from published works without a proper citation. Citations must be in APA format. You may use artificial intelligence (AI) for idea generation, but all written work must be your own, and all essays will be passed through AI detection software. When in doubt about what academic integrity requires, ASK! Failure to abide by the principles of academic honesty, including plagiarism and the unauthorized use of AI, will result in a failing grade for the course. Academic dishonesty may result in a failing grade. Every student is expected to review and abide by the Academic Integrity Policy: <https://studentcode.illinois.edu/article1/part4/1-401/>. Ignorance is not an excuse for any academic dishonesty. It is your responsibility to read this policy to avoid any misunderstanding. Do not hesitate to ask the instructor(s) if you are ever in doubt about what constitutes plagiarism, cheating, or any other breach of academic integrity.

**Student Conduct** — The Department of Urban and Regional Planning (DURP) is committed to creating an environment of inclusion and opportunity that is rooted in the very goals and responsibilities of practicing planners. Conduct that interferes with the rights of another or creates an atmosphere of intimidation or disrespect is inconsistent with the environment of learning and cooperation that the program requires. By enrolling in class in the Department of Urban and Regional Planning, students agree to be responsible for maintaining a respectful environment in all DURP activities, including classes, projects, and extracurricular programs. We will be governed by the University Student Code. See Student Code Article 1—Student Rights and Responsibilities, Part 1. Student Rights.

**Mental Health** — Significant stress, mood changes, excessive worry, substance/alcohol misuse or interferences in eating or sleep can have an impact on academic performance, social development, and emotional wellbeing. Campus offers a variety of confidential services including individual and group counseling, crisis intervention, psychiatric services, and specialized screenings, covered through the Student Health Fee. If you or someone you know experiences a mental health concern, please contact or visit any of the University's resources provided below. Getting help is a smart and courageous thing to do.

- Counseling Center (217) 333-3704
- McKinley Health Center (217) 333-2700
- National Suicide Prevention Lifeline (800) 273-8255
- Rosecrance Crisis Line (217) 359-4141 (available 24/7, 365 days a year)

If you are in immediate danger, call 911.

**Community of Care** — As members of the Illinois community, we each have a responsibility to express care and concern for one another. If you come across a classmate whose behavior concerns you, whether in regards to their well-being or yours, we encourage you to refer this behavior to the Student Assistance Center (217-333-0050 or <http://odos.illinois.edu/community-of-care/referral/>). Based on your report, the staff in the Student Assistance Center reaches out to students to make sure they have the support they need to be healthy and safe. Further, as a Community of Care, we want to support you in your overall wellness. We know that students sometimes face challenges that can impact academic performance (examples include mental health concerns, food insecurity, homelessness, personal emergencies). Should you find that you are managing such a challenge and that it is interfering with your coursework, you are encouraged to contact the Student Assistance Center (SAC) in the Office of the Dean of Students for support and referrals to campus and/or community resources.

**Students with Disabilities** — To obtain disability-related academic adjustments and/or auxiliary aids, students with disabilities must contact the course instructor as soon as possible and provide the instructor with a Letter of Academic Accommodations from Disability Resources and Educational Services (DRES). To ensure that disability-related concerns are properly addressed from the beginning, students with disabilities who require assistance to participate in this class should apply for services with DRES and see the instructor as soon as possible. If you need accommodations for any sort of disability, please speak to me after class, or make an appointment to see me or see me during my office hours. DRES provides students with academic accommodations, access, and support services. To contact DRES, you may visit 1207 S. Oak St., Champaign, call 217-333-1970, e-mail [disability@illinois.edu](mailto:disability@illinois.edu) or visit the DRES website at <http://www.disability.illinois.edu/>. Here is the direct link to apply for services at DRES, <https://www.disability.illinois.edu/applying-services>.

**Disruptive Behavior** — Behavior that persistently or grossly interferes with classroom activities is considered disruptive behavior and may be subject to disciplinary action. Such behavior inhibits other students' ability to learn and an instructor's ability to teach. A student responsible for disruptive behavior may be required to leave class pending discussion and resolution of the problem and may be reported to the Office for Student Conflict Resolution (<https://conflictresolution.illinois.edu>; [conflictresolution@illinois.edu](mailto:conflictresolution@illinois.edu); 333-3680) for disciplinary action.

**Emergency Response Recommendations** — Emergency response recommendations and campus building floor plans can be found at the following website: <https://police.illinois.edu/em/run-hide-fight/>. I encourage you to review this website within the first 10 days of class.

**Religious Observances** — Illinois law requires the University to reasonably accommodate its students' religious beliefs, observances, and practices in regard to admissions, class attendance, and the scheduling of examinations and work requirements. Students should complete the Request for Accommodation for Religious Observances form should any instructors require an absence letter in order to manage the absence. In order to best facilitate planning and communication between students and faculty, students should make requests for absence letters

as early as possible in the semester in which the request applies.

**Sexual Misconduct Reporting Obligation** — The University of Illinois is committed to combating sexual misconduct. Faculty and staff members are required to report any instances of sexual misconduct to the University’s Title IX and Disability Office. In turn, an individual with the Title IX and Disability Office will provide information about rights and options, including accommodations, support services, the campus disciplinary process, and law enforcement options. A list of the designated University employees who, as counselors, confidential advisors, and medical professionals, do not have this reporting responsibility and can maintain confidentiality, can be found here: [wecare.illinois.edu/resources/students/#confidential](http://wecare.illinois.edu/resources/students/#confidential).

Other information about resources and reporting is available here: [wecare.illinois.edu](http://wecare.illinois.edu).

**UP 406 Class Schedule**

Week	Date	Topic	Readings	Discussion Leaders
1	W 17-Jan	Introduction	Syllabus	NA
2	M 22-Jan	What is "urban?" What is "nature?" Troubling categories and boundaries	<ol style="list-style-type: none"> <li>1. Angelo and Wachsmuth, 2015</li> <li>2. Hinchcliffe, 2007 - ch.1;</li> <li>3. Ramalho and Hobbs, 2007</li> </ol>	
	W 24-Jan	History of Urban Ecology	<ol style="list-style-type: none"> <li>1. Taylor, 1999;</li> <li>2. McDonnell, 2007</li> </ol> <p><i>Further Reading: Pinctell, 2010</i></p>	
3	M 29-Jan	Environmental (In)Justice in Urban Landscapes	<ol style="list-style-type: none"> <li>1. Pulido, 2000</li> <li>2. Pastor et al., 2001</li> <li>3. Walker et al., 2023</li> </ol> <p><i>Further reading: Maantay, 2002</i></p>	
	W 31-Jan	Ecology of Segregation	<p>Pickett and Grove 2020 (short commentary - no discussion leader)</p> <p><b>Pick one:</b> 1. Wood et al. 2023 OR 2. Burghardt et al. 2022</p> <p><i>Further reading: Schell et al., 2020</i></p>	
4	M 5-Feb	Urban Metabolism	<ol style="list-style-type: none"> <li>1. Pincetl et al., 2014</li> <li>2. Nature's Metropolis - Ch. 4</li> <li>3. Demaria and Schindler, 2016</li> </ol> <p><i>Further reading: Gustafson et al., 2014</i></p>	

	W 7-Feb	<i>Guest Speaker: Gudrun Locke - The Nature of Shoreham Yards</i>	<a href="#">Shoreham Repository: A Feralegium</a>	
5	M 12-Feb	Urban Climate	1. Ackley et al. 2012 2. Benz and Burney, 2021	
	W 14-Feb	Urban Hydrology	1. Groffman et al., 2003 2. Ashley et al., 2011 3. Goh, 2019  <i>Further reading: McGrane et al., 2016</i>	
6	M 19-Feb	Urban Biogeochemistry	1. Peach et al., 2019 2. Fissore et al., 2012	
	W 21-Feb	Urban Soils	1. Edmondson et al. 2011 2. Chatelain et al., 2024 3. McClintock 2014  <i>Further reading: Sauerwein 2019</i>	
7	M 26-Feb	Adaptations to Urban Environments	1. Schell et al., 2020 2. Lowry et al., 2012 3. Levy et al., 2008	
	W 28-Feb	<i>Guest Speaker: Dr. Lea Pollack - Animal Behavior, Evolution, and Urban Environments</i>		
8	M 4-Mar	Paper proposal workshopping (via Zoom)		
	<b>W 6-Mar</b>	<b>Paper Proposal due, no class</b>		
9	M 18-Mar	Urban Habitat - island biogeography, metapopulations, and corridors	1. Marzluff, 2005 2. Wang et al. 2010 3. Vickers et al., 2015  <i>Further reading: Collinge, 1996; Swan et al. 2011</i>	
	W 20-Mar	Urban Biodiversity Conservation	1. Tella et al. 2020 2. Turo et al. 2020	
10	M 25-Mar	<i>Guest Speaker: Adam Arvidson, Minneapolis Park and Recreation Board - Managing Urban Greenspaces for Habitat (to be confirmed)</i>		

	W 27-Mar	Managing Cities for Conservation	1. Lambert and Schell, 2023 2. Larson and Brown, 2023 3. Magle et al., 2023  <i>Further investigation:</i> <a href="#">Landscape Connectivity Story Map</a>	
11	M 1-Apr	Urban Greenspaces	1. Mexia et al., 2018 2. Loughran, 2017	
	W 3-Apr	Green Gentrification	1. Angelo, 2019 2. Rigolon and N�neth, 2018 3. Maia et al., 2020	
12	M 8-Apr	<b>No Class - Work on paper assignment</b>		
	W 10-Apr	Urban Agriculture	(no sign-ups, guest lecture or field trip TBD)	
13	M 15-Apr	Yards	1. Padull�s Cubino et al. 2020 2. Kolbert, 2008	
	W 17-Apr	Urban Canopy	1. Wood and Dupras, 2021 2. Anderson et al., 2021 3. Riedman et al., 2022  <i>Further reading: Heynen et al., 2006</i>	
14	M 22-Apr	Urban Green Infrastructure	1. McPhillips and Mastler, 2018 2. Heck, 2021  <i>Further reading: Mastler et al. 2021</i>	
	W 24-Apr	Climate Change and Resilience in Cities	1. Meerow and Stults, 2016 2. MacKinnon and Derickson, 2013 3. McMillen et al., 2016 <i>Further Reading: Meerow et al. 2016</i>	
15	M 29-Apr	Photovoice Gallery Presentation		
	<b>W 1-May</b>	<b>Final Photovoice essay due</b>		
16	<b>F 10-May</b>	<b>Final Paper Due</b>		