

PPPM

Department of Planning, Public Policy and Management



UNIVERSITY
OF OREGON



University of Oregon School of Planning, Public Policy and Management

PPPM 442/542: Sustainable Urban Development and Design: Building Sustainability Competencies

Winter 2023

Class Time: Mondays and Wednesdays, 12:00-1:20 PM
Location: 146 HED
Professor: Dr. Yizhao Yang, Associate Professor, PPPM
Email: yizhao@uoregon.edu
Office Hours: Wednesdays, 2:00pm to 3:20pm (Zoom or In-person)

COURSE OVERVIEW

Approaches to sustainability adopted by different cities and countries vary dramatically. What types of sustainable practices have been employed so far? How can practices be transferred and implemented under different circumstances? Have they reached the desired goals of sustainable urban development? This course introduces the concept of sustainable urban development, explores practices contributive to urban sustainability, and presents multiple frameworks for comprehensive assessment of those practices' impacts on various components of the urban system.

This course mainly focuses on the physical design and planning aspects of urban development through the lens of sustainability. It uses international practices and local examples to help students understand the challenges/issues faced by countries and regions around the world and it helps students learn about the innovative solutions and strategies employed to address issues unique to particular contexts and conditions.

LEARNING OBJECTIVES

- Understand current sustainable development strategies, practices, and lessons in the US and around the world.
- Become familiar with practical methods of sustainable urban planning and design.
- Build capacity to evaluate real world practices against sustainable development goals using evidence-based methodology.

COURSE WEBSITE

The course website is located on the University of Oregon's Canvas system (<https://canvas.uoregon.edu>). The class syllabus, announcements and other materials will be posted on the course website. Please check the course website frequently for updates. In addition, make sure that the University registrar has your correct email address. The instructor will use this email address to communicate with you.

REQUIRED READINGS FROM BOOKS AND OTHER SOURCES

- Wheeler, Stephen M., and Timothy Beatley, eds. *Sustainable Urban Development Reader*. 3rd edition. London; New York: Routledge, 2014. (**Reader**)
- Timothy Beatley (editor). *Green Cities of Europe: Global Lessons on Green Urbanism*. Washington, DC: Island Press, 2012. (Electronic version is available at UO library)
- Matthew I. Slavin (editor). *Sustainability in America's Cities: Creating the Green Metropolis*. Washington, DC: Island Press, 2011. (Electronic version is available at UO library)
- *Urbanization and Sustainability in Asia Case Studies of Good Practice*, Edited by Brian Roberts and Trevor Kanaley, Asian Development Bank (available at <https://www.adb.org/sites/default/files/publication/27965/urbanization-sustainability.pdf>)
- *The Future of Asian and Pacific Cities 2019: Transformative Pathways Towards Sustainable Urban Development*, UN ESCAP <https://www.unescap.org/publications/future-asian-and-pacific-cities-2019-transformative-pathways-towards-sustainable-urban>
- The UN sustainable development goals (2015-2030) <https://una-gp.org/the-sustainable-development-goals-2015-2030/>
- The New Urban Agenda: Key Commitments- <https://www.un.org/sustainabledevelopment/blog/2016/10/newurbanagenda/>

GRADING

Students earn points by completing assignments and participating in classes. The total points earned at the end of this term will determine a student's letter grade. There will be no weighting or curving involved in how the final grade is computed. Typical point ranges for different letter grades are shown here:

C's (C-, C, C+) (<80); B's (B-, B, B+) (80-90); A's (A-, A) (>90)

Part 1: Class attendance and participation following three components**All students: 25 points**➤ *Class attendance (10 points)*

Class attendance is in-person with zoom-attendance allowable under special circumstances. These circumstances may include: your sickness, family-related affairs, necessary travel for school activities, etc. Since I don't use zoom regularly in class, you need to contact me in anticipation of your need for zoom attendance so that I can make the zoom option available. Students are allowed to have 2 absences without penalty. After the initial 2 absences, each additional absence will result in 10% deduction of the 10 points (i.e., 1 points). Students with 10 or more absences will automatically fail this

class. Class activities, such as pop quizzes, discussions, and presentations, will be used to track students' attendance.

➤ *Weekly Reading Questions (5 points)*

Provide the following three entries based on your understanding of the readings assigned to the previous week. These entries are due by the end of each Saturday (11:59PM, starting on Jan. 14).

Entry 1. A summary of one reading that you find the most helpful (i.e., you enjoy the most reading it).

Entry 2. Something that any of the authors describes or discusses in the readings that you agree strongly.

Entry 3. Something that you find confusing. It could be a term, a historical event, or an opinion or conclusion.

Note about the entries: *There is no right or wrong question. I will review the information you submit on Canvas but will not grade it. You receive .5 point per week, as long as you submit the three entries. Throughout the term I will compile a list of items submitted for Entry 3 and let the students decide on a couple of them to discuss in class.*

➤ *Social Annotation (10 points)*

You will be working in a team of 4-5 students to make annotation collectively on 5 selected readings. Use the Hypothesis tool available on Canvas to complete this assignment. Instructions will be given in class about how to do social annotation.

Part 2: Case-study presentation and discussions

Graduate students: 20 points

This class includes 5 discussion sessions where we use a case-study approach to gain a better understanding of a particular dimension of sustainable urban development. These discussion sessions run from Week 4 to Week 8. During each of the discussion sessions, 2-3 graduate students will present cases and lead the Q&A sessions. A discussion leader summarizes the main points of reading materials about a case and offers an informed critique, which will then lead to further discussions among fellow classmates. In addition to presenting a case and lead relevant discussions, a graduate student will compile their case-study materials and evaluations into a multimedia report using Canvas Page. Case study sign-ups will take place during the second week.

Undergraduate students: 15 points

Each undergraduate student conducts a case study and presents their case study in a poster format and gives a pre-recorded 2' presentation during week 10. Instruction of making poster and creating presentation recording will be given in class. Case poster sign-ups will take place in Week 6.

Part 3: Three written Assignments

All students: 40 points

Part 4: Take home Exam

Graduate students: 15 points

Undergraduate students 20 points

COURSE COMMUNICATIONS

This class will communicate through our Canvas site.

- The class syllabus, announcements, some readings, and other materials will be posted on the Canvas. Please check the course website frequently for updates.
- Announcements and emails are archived there and automatically forwarded to your UO email, and can even reach you by text. Check and adjust your settings under Account > Notifications.
- Every Monday I will send an email that previews the content we'll work on that week and a checklist of the week's activities.
- I will host "live" office hours through [Zoom/Canvas Conferences] each week on Wednesdays from 2:00pm to 3:20pm. I welcome meetings outside my regular office hours, too, knowing that there is considerable uncertainty in all of our lives right now. Just email me to set a time. If you experience Internet access challenges, my office phone is a good way to reach me.
- There is a running discussion forum on our Canvas called "Class Discussion Board" for the entire group to ask and answer.

COURSE POLICIES

Missed Class Policy

You are responsible for all content missed, including any assignments, knowledge or skills covered or assigned in missed class. If you miss any lectures, please consult with classmates for class notes or watch the recordings of synchronous lectures. You are allowed two unexcused absences in this course. For each additional unexcused absence beyond the two, students will lose 0.5 point off their final course grade. However, students have opportunities to make up for the unexcused absences by making contribution to the Class Discussion Board. Please see specific instructions described in the "Class Attendance and Participation" Section.

Late Assignment Policy

Students are expected to behave in a professional manner and to turn in all materials at the designated time. When applicable, assignments turned in late with no documentation will be marked down ten percent for every day (24-hour period) they are late. **Assignments submitted one minute past the deadline will be graded as late.**

Extensions will only be granted in severe hardship (death in immediate family, illness or injury requiring bed confinement) or extenuating circumstances (fire, earthquake, etc.). Competing pressures from other courses, job requirements, or problems with your computer do not qualify as extenuating circumstances. Extensions must be requested before the assignment is due. In all circumstances, students are responsible for providing the instructor with official documentation of explanation prior to accommodation.

As the university community adjusts to teaching and learning remotely in the context of the COVID-19 pandemic, course requirements, deadlines, and grading percentages are subject to change. I will be mindful of the many impacts the unfolding events related to COVID-19 may be having on you. During this unusual time, I encourage you to talk with me about what you are experiencing so we can work together to help you succeed in this course.

Academic Misconduct

The University Student Conduct Code defines academic misconduct, which includes unauthorized

help on assignments and examinations and the use of sources without acknowledgment. Academic misconduct is prohibited at UO. I will report misconduct to the Office of Student Conduct and Community Standards—consequences can include failure of this course. I will ask you to certify that your exams/papers are your own work. Exams are administered in Canvas and untimed. I have designed them with the expectation that you will have access to course materials and the Internet when you take them—and that’s just fine. I will be looking to see evidence of critical thinking and your ability to put the concepts we’re working on into action in response to the exam prompts.

Plagiarism

Students should properly acknowledge and document all sources of information (e.g. quotations, paraphrases, ideas, data, analyses). If there is any reasonable question about whether an act constitutes academic misconduct, it is the student’s obligation to clarify the question with the instructor before committing or attempting to commit the act. Additional information about a common form of academic misconduct, plagiarism, is available at: <http://library.uoregon.edu/guides/plagiarism/students/index.html>

Accessible Education Center: Documented Disability

The University of Oregon is working to create inclusive learning environments. Please notify me if there are aspects of the instruction or design of this course that result in disability-related barriers to your participation. If you have a documented disability and anticipate needing accommodations in the course, please make the necessary arrangements. Also, please contact the instructor *early* in the term so that your learning needs are appropriately met.

You are also encouraged to contact the Accessible Education Center in 164 Oregon Hall at 541-346-1155 or uoaec@uoregon.edu

Inclusion Statement

The College of Design 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 and/or department head. The University Bias Response Team is also a resource that can assist you. Find more information at their website at <http://bias.uoregon.edu/index.html> or by phoning 541-346-2037.

Discrimination and Sexual Harassment

The UO is committed to providing an environment free of all forms of discrimination and sexual harassment, including sexual assault, domestic and dating violence and gender-based stalking. If you (or someone you know) has experienced or experiences gender-based violence (intimate partner violence, attempted or completed sexual assault, harassment, coercion, stalking, etc.), know that you are not alone. UO has staff members trained to support survivors in navigating campus life, accessing health and counseling services, providing academic and housing accommodations, helping with legal protective orders, and more. Please be aware that all UO employees are required reporters. This means that if you tell me about a situation, I may have to report the information to my supervisor or the Office of Affirmative Action and Equal Opportunity. Although I have to report the situation, you will still have options about how your case will be

handled, including whether or not you wish to pursue a formal complaint. Our goal is to make sure you are aware of the range of options available to you and have access to the resources you need. If you wish to speak to someone confidentially, you can call 541-346-SAFE, UO's 24-hour hotline, to be connected to a confidential counselor to discuss your options. You can also visit the SAFE website at safe.uoregon.edu

Your Well-being

Life at college can be very complicated. Students often feel overwhelmed or stressed, experience anxiety or depression, struggle with relationships, or just need help navigating challenges in their life. If you're facing such challenges, you don't need to handle them on your own--there's help and support on campus.

As your instructor if I believe you may need additional support, I will express my concerns, the reasons for them, and refer you to resources that might be helpful. It is not my intention to know the details of what might be bothering you, but simply to let you know I care and that help is available. Getting help is a courageous thing to do—for yourself and those you care about.

University Health Services help students cope with difficult emotions and life stressors. If you need general resources on coping with stress or want to talk with another student who has been in the same place as you, visit the Duck Nest (located in the EMU on the ground floor) and get help from one of the specially trained Peer Wellness Advocates. Find out more at health.uoregon.edu/ducknest.

University Counseling Services (UCS) has a team of dedicated staff members to support you with your concerns, many of whom can provide identity-based support. All clinical services are free and confidential. Find out more at counseling.uoregon.edu or by calling 541-346-3227 (anytime UCS is closed, the After-Hours Support and Crisis Line is available by calling this same number).

Basic Needs

Any student who has difficulty affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to live and believes this may affect their performance in the course is urged to contact the Dean of Students Office (346-3216, 164 Oregon Hall) for support. This UO webpage includes resources for food, housing, healthcare, childcare, transportation, technology, finances, and legal support: <https://blogs.uoregon.edu/basicneeds/food/>

Overview of Course Content and Schedule. Reading materials will be made available on Canvas

Please note: course reading materials are likely to be updated throughout this term as better readings become available and are identified.

wk	Main Content	Readings, class activities and assignments
1 1/9	<p>Course preview: syllabus</p> <p>Class discussion and exercise: the paradox of cities in sustainable development.</p>	<ul style="list-style-type: none"> ➤ The New Urban Agenda: Key Commitments https://www.un.org/sustainabledevelopment/blog/2016/10/newurbanagenda/ ➤ The UN sustainable development goals (2015-2030) https://una-gp.org/the-sustainable-development-goals-2015-2030/ ➤ Watch TED video - The surprising math of cities and corporations by Geoffrey West https://www.ted.com/talks/geoffrey_west_the_surprising_math_of_cities_and_corporations <p>Exercise given out: online search - compile definitions of sustainable urban development</p>
1/11	<p>Urban sustainability (concepts, ethics, values)</p> <p>Class discussion and exercise: world views and definition of sustainable urban development</p>	<ul style="list-style-type: none"> ➤ Imran, Sophia, Khorshed Alam, and Narelle Beaumont. "Reinterpreting the Definition of Sustainable Development for a More Ecocentric Reorientation." <i>Sustainable Development</i> 22, no. 2 (April 3, 2014): 134–44. https://doi.org/10.1002/sd.537. (Social Annotation #1) ➤ Reader, pp24-33, 66-70, 79-86 <p>Assignment 1 given out - Defining urban sustainability, sustainable urban development.</p>
2 1/16	<p>MLK Day</p> <p>No class</p>	<ul style="list-style-type: none"> ➤ Matthew I. Slavin (editor). <i>Sustainability in America's Cities: Creating the Green Metropolis</i>. Washington, DC: Island Press, 2011. Chapter 1 (Electronic version is available at UO library) ➤ Timothy Beatley (editor). <i>Green Cities of Europe: Global Lessons on Green Urbanism</i>. Chapter 1 (electronic version is available at UO library) ➤ Urbanization and Sustainability in Asia Case Studies of Good Practice, Edited by Brian Roberts and Trevor Kanaley, Asian Development Bank (chapters 1& 2, available at https://www.adb.org/sites/default/files/publication/27965/urbanization-sustainability.pdf) The Future of Asian and Pacific Cities 2019: Transformative Pathways Towards Sustainable Urban Development, UN ESCARP (executive summary and chapter 1) https://www.unescap.org/publications/future-asian-and-pacific-cities-2019-transformative-pathways-towards-sustainable-urban

1/18	International context & class discussions	<ul style="list-style-type: none"> ➤ Class discussion and exercise: world views and definition of sustainable urban development (this is part of Assignment 1) ➤ Case study assignment introduced. Sign-up for discussion leaders begins.
3 1/23	<p>Planning and Urban design for urban sustainability</p> <p>Class discussion and exercise: Planners' role in SUD</p>	<ul style="list-style-type: none"> ➤ Reader, Introduction to part one, pp8-10 ➤ American Planning Association (APA) Policy guide on planning for sustainability (https://www.planning.org/policy/guides/adopted/sustainability.htm) ➤ Campbell (1996) "Green Cities, Growing Cities, Just Cities?: Urban Planning and the Contradictions of Sustainable Development." JAPA (Canvas) ➤ Campbell (2016) "The Planner's Triangle Revisited: Sustainability and the Evolution of a Planning Ideal That Can't Stand Still." JAPA (Canvas)
1/25	<p>Theories and principles</p> <p>Class discussion and exercise: applying the triple-bottom line framework to SUD</p>	<ul style="list-style-type: none"> ➤ Sustainable urban design – a (draft) framework (available on Canvas) ➤ The triple bottom line – what is it and how does it work? (Canvas) ➤ Eight Principles of Sustainable Urban Design, https://energyinnovation.org/wp-content/uploads/2015/05/C4P-Insights-from-the-Data.pdf. ➤ Seven Strategies for sustainable urban planning, https://urbanfootprint.com/wp-content/uploads/2017/08/7-Strategies-for-Sustainable-Urban-Planning-Final.pdf. ➤ Climate change planning, Reader, pp91 – 116. <p>Assignment 1 Due. Sign-up for discussion leaders ends.</p>
4 1/30	Land use and Urban form	<ul style="list-style-type: none"> ➤ Land use and urban design, Reader, pp117-137 ➤ Sustainable urban forms (Jabareen, Journal of Planning Education and Research 26:38-52 2006) <p>Assignment 2 given out – Developing a summary of key principles for SUD dimensions</p>
2/1	Case studies and discussion (1)	<ul style="list-style-type: none"> ➤ Graduate student case presentations (case choices: Calgary, Portland Metro, and others)
5 2/6	Sustainable Transportation	<ul style="list-style-type: none"> ➤ Reader, pp151-178 ➤ Addressing Sustainability in Transportation Systems: Definitions, Indicators, and Metrics. (Canvas) ➤ Sustainable Urban Transport in the Developing World: Beyond Megacities. (Canvas) ➤ Sustainable transportation and travel demand management – planning that balances economic, social and ecological objectives. http://www.vtpi.org/tm/tm67.htm ➤ Implementing Sustainable Urban Travel Policies in China, China's transportation infrastructure development.

2/8	Case studies and discussion (2)	<ul style="list-style-type: none"> ➤ Graduate student case presentations (case choices: Bogota, Colombia, NY City, Trimet Portland Light rail system, etc)
6 2/13	Landscape, nature, ecology	<ul style="list-style-type: none"> ➤ Reader, pp179-194 ➤ Anne Whiston Spirn, "Ecological Urbanism," written for <i>Resilience in Ecology and Urban Design</i>, Pickett, et al. (Springer, 2013) (Canvas) ➤ Green infrastructure development in Portland, Eco-cities in China <p style="text-align: center;">Mid-term review; Undergraduate case study poster assignment given out</p>
2/15	Case studies and discussion (3)	<ul style="list-style-type: none"> ➤ Graduate student case presentations (case choices: Vancouver BC, Oslo, Norway, Surabaya Kampung Program, Cheonggyecheon restoration project)
7 2/20	Water, resources, energy, Materials, conservation, and urban metabolism	<ul style="list-style-type: none"> ➤ Reader, pp195-232 ➤ Integrating the concept of urban metabolism into planning of sustainable cities: Analysis of the Eco. Cities Initiative. DPU WORKING PAPER NO. 168. (on Canvas) ➤ Green buildings system: China's 3-star system and LEED in the US.
2/22	Case studies and discussion (4)	<ul style="list-style-type: none"> ➤ Graduate student case presentations (case choices: Hammerby Sjostad, Stockholm, Sweden, BedZED, UK, UC Davis, US, etc)
8 2/27	Social equity, Economic development	<ul style="list-style-type: none"> ➤ Reader, pp 235 – 260. ➤ Campbell (1996) "Green Cities, Growing Cities, Just Cities? Urban Planning and the Contradictions of Sustainable Development," JAPA. Available on Canvas. ➤ A Convenient Truth: Urban Solutions From Curitiba, Brazil. Giovanni Vaz, D. B. (Director). (2007).[Video/DVD] Green Planet Films. https://video.alexanderstreet.com/watch/a-convenient-truth-urban-solutions-from-curitiba-brazil (Available on the UO library website).
3/1	Case studies and discussion (5)	<ul style="list-style-type: none"> ➤ Graduate student case presentations (case choices: Curitiba, St. Vincent de Paul of Lane County, more) <p>Assignment 2 due Assignment 3 given out: Evaluating urban sustainability - indicators</p>
9 3/6	Urban sustainability reporting and evaluation	<ul style="list-style-type: none"> ➤ Readers. Pp365-388 ➤ Peter S. Brandon and Patrizia Lombardi. <i>Evaluating Sustainable Development in the Built Environment</i>. Chichester, West Sussex; Ames, Iowa: Wiley-Blackwell, 2011. Chapters 3,4,5.6 ➤ Urban indicators for managing cities (Asian Development Bank)

3/8	<p>Course review</p> <p>Course discussion and exercise: Sustainable urban planning – summary of approaches</p>	<ul style="list-style-type: none"> ➤ Planning, development and Management of sustainable cities: a commentary from the guest editors. (Canvas) ➤ Principles for sustainable urban places, https://isscbookofblogs.pressbooks.com/chapter/principles-for-sustainable-urban-places-the-why-what-and-how/.
10 3/13	Poster presentation	undergraduate students, peer critique
3/15	Poster presentation	undergraduate students, peer critique
11 3/20- 22		<p>Take-home final exam (distributed and collected via Canvas; available 8AM, March 20, due 8AM March 22)</p> <p>Assignment 3 due (March 22)</p>