















University of Oregon School of Planning, Public Policy and Management

PPPM 442/542: Sustainable Urban Development and Design: Global Practices and Experiences

Winter 2019

Class Time: Mondays and Wednesdays, 12:00-1:20 pm

Room: 130 GSH

Professor: Dr. Yizhao Yang, Associate Professor, PPPM

Office: 115 Hendricks Hall Email: yizhao@uoregon.edu

Office Hours: Tuesdays, 1:30pm to 2:50pm

Course Description

Approaches to sustainability adopted by different cities and countries vary dramatically. What types of sustainable practices have been employed so far? How can such practices be transferred and implemented under different circumstances? Have they reached the desired goals of urban sustainability? 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 learn about the innovative solutions and strategies employed to address issues unique to particular contexts and conditions.

Course objectives

- The course is aimed at helping students understand current sustainable development strategies, practices and lessons in the US and around the world.
- This course will help students become familiar with practical methods of planning and designing cities in a sustainable fashion, and build up their capacity to evaluate real world practices against their goals and objectives at departure.

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 Reading

There are two required textbooks for this class. They are available at the University bookstore.

- Wheeler, Stephen M., and Timothy Beatley, eds. Sustainable Urban Development Reader. 3 edition. London; New York: Routledge, 2014. (Reader)
- Adam Ritchie and Randall Thomas (editors). Sustainable Urban Design:
 An Environmental Approach. London; New York: Taylor & Francis, 2009.
 (a copy is on reserve in Knight Library) (SUDesign)

In addition to the textbooks above, following readings are recommended (most of them are available on the course website):

- 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 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/newurbana genda/

Class Format

This is a seminar course that involves learning experiences via extensive readings, regular lectures, various in-class activities, and independent research projects. Students are expected to have read all of the assigned materials before a class and actively engage in class activities. An important component of this class includes five discussion sessions where we use case studies to obtain better understanding of a particular dimension of sustainable urban development. Each graduate student is required to assume a leader role for one of these sessions as part of his or her course requirements. A discussion leader summarizes the main points of reading materials and offers an informed critique that can lead to further elaboration and discussion by fellow classmates during the discussion session. The discussion often includes an in-depth case study. Undergraduate students can sign up for the same activities to receive bonus points.

Class Evaluation

Undergraduate Students (PPPM 442)

- Class participation: attendance, discussion, short exercises, and pop quizzes (30%)
- Three assignments (45%)
- Case study poster (15%)
- Final exam (10%)

Graduate Students (PPPM 542)

- Class participation: attendance, discussion, short exercises, and pop quizzes (20%)
- Discussion session leader: Prepare a short summary of the reading materials and a set of discussion questions; Conduct research on an assigned a case study and present findings (20' presentation) (15%)
- Three assignments (30%).
- Case study poster (15%).
- Final exam (20%)

Classroom Environment

In order to create a classroom in which students are comfortable expressing their opinions and perspectives, the students are asked to approach the readings and others' contributions with both an open mind and a willingness to question one's own assumptions and biases.

Professional Practice

Students are expected to behave in a professional manner at all times.

 Students should treat each other and the instructor with the professional courtesy and respect expected in a workplace.

- All communications relating to this course and all work turned in for this course should reflect professional standards in tone, presentation, formatting, and spelling.
- The classroom is a place of focused learning. This requires that students arrive on time, stay until the end of the class period, do not disrupt the class by leaving the room temporarily, and refrain from non-learning activities. Students who fail to adhere to these guidelines will be asked to leave for the remainder of the class session.
- All course assignments are expected to be completed using a word processor.
- You will also be required to use PowerPoint for a presentation at the end of the term on your essay.

Course Workload

A general rule of thumb for the expected workload for a graduate level class is approximately 3-4 hours/week per credit hour. Thus, a four credit course will require approximately 12-16 hours of effort per week. Our class meets for three hours each week, so students should expect to spend an additional 9 to 13 hours per week studying for this course.

Documented Disabilities

Students who have a documented disability and anticipate needing accommodations in this course should make arrangements to see the instructor as soon as possible. They should also request that the Counselor for Students with Disabilities send a letter verifying the disability.

Email

All emails will be responded within 48 hours of receiving them. Make sure that you have reviewed course website and the syllabus prior to sending a note about course logistics. Please do not send emails if you need to miss a class for a routine matter, like a doctor appointment or job interview.

Late Assignment Policy

If you are unable to make it to class on the day an assignment is due, you may email your assignment to the instructor prior to the class time that assignment is due. Late assignments receive only partial credit. If an answer key is posted to the website, however, no late homework assignments are accepted (no credit).

Missed Class Policy

If you miss a class, inform the instructor prior to the class if possible and later provide acceptable proof to the instructor per University policies. Without any proof, your absence cannot be excused and will negatively affect your final grades. Please also arrange to get class notes from a classmate.

Incomplete Policy

Students are expected to behave in a professional manner and to turn in all materials at the designated time. In accordance with university regulations, an incomplete will only be given when "the quality of work is satisfactory but a minor yet essential requirement of the course has not been completed for reasons acceptable to the instructor." If a student receives an Incomplete for grade, he/she will be required to complete the work within three months from the last day of the final examinations of the current term.

Academic Misconduct

You are expected at all times to do your own work. Copying content from other students and submitting it as your own work is grounds for failing the class. The University Student Conduct Code (available at conduct.uoregon.edu) 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.

Plagiarism

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. Additional information about common forms of academic misconduct and plagiarism is available at www.libweb.uoregon.edu/guides/plagiarism/students.

Inclusion Statement

The School of Architecture and Allied Arts is a community that values inclusion. We are a 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.

Overview of Course Content and Schedule

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

| wk | Main Content | Readings, class activities and assignments |
|------|----------------------------|--|
| 1 | Course preview | ➤ World cities report 2016 by UN Habitat (http://wcr.unhabitat.org/main-report/) |
| 1/7 | | Reader, pp66-70 |
| | Discussion | > Watch TED video (The surprising math of cities and corporations, |
| | | https://www.ted.com/talks/geoffrey_west_the_surprising_math_of_cities_and_corporations) |
| | | Exercise: online search - compile definitions of sustainable urban development |
| 1/9 | Urban sustainability | > Reader, pp24-33, pp79-86 |
| | (concepts, ethics, values) | Imran, Sophia, Khorshed Alam, and Narelle Beaumont. "Reinterpreting the Definition of |
| | | Sustainable Development for a More Ecocentric Reorientation." Sustainable Development 22, no. 2 |
| | | (April 3, 2014): 134–44. https://doi.org/10.1002/sd.537. |
| | | Campbell (1996) "Green Cities, Growing Cities, Just Cities?: Urban Planning and the Contradictions |
| | | of Sustainable Development, " JAPA. Available on Canvas. |
| | | Class discussion and exercise: Definition of sustainable development |
| | | Assignment 1 (given out) - Defining urban sustainability, sustainable urban development. |
| 2 | International context | Urbanization and Sustainability in Asia (chapters 1&2) |
| 1/14 | | Matthew I. Slavin (editor). Sustainability in America's Cities: Creating the Green Metropolis. |
| | | Washington, DC: Island Press, 2011. Chapter 1 (Electronic version is available at UO library) |
| | | > Timothy Beatley (editor). Green Cities of Europe: Global Lessons on Green Urbanism. Chapter 1 |
| | | (electronic version is available at UO library) |
| | | Graduate students sign up for case study presentations (undergraduate students can sign up to |
| | | receive bonus points) |
| | | Undergraduate students start identifying case study for poster assignment |
| 1/16 | Planning and Urban design | SUDesign, "Introduction", "Urban planning and design", pp3-20 |
| | for urban sustainability | 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) |
| 3 | MLK day no class | |

| 1/21 | | |
|-----------|---|--|
| 1/23 | Theories and principles The triple-bottom line framework of SUD | Sustainable urban design – a (draft) framework (available on Canvas) The triple bottom line and sustainable economic development theory Reader Assignment 1 due, in-class discussion |
| 4 1/28 | Urban form and Land use | Readings from the reader Reader, pp117-137 SUDesign Sustainable urban forms (Jabareen, Journal of Planning Education and Research 26:38-52 2006) Assignment 2 (given out) – Developing a summary of key principles for SUD dimensions |
| 1/30 | Case studies and discussion (1) | Singapore (Reader, pp560-562) Calgary (https://www.youtube.com/watch?v=Q4ifncMIBvw) Portland Metro's Urban Growth Boundary Discussion leader presentation #1 |
| 5 2/4 | Transportation | Reader, pp151-178 SUDesign, pp21-30 Addressing Sustainability in Transportation Systems: Definitions, Indicators, and Metrics Sustainable Urban Transport in the Developing World: Beyond Megacities http://www.vtpi.org/tdm/tdm67.htm |
| 2/6 | Case studies and discussion (2) | Implementing Sustainable Urban Travel Policies in China, China's transportation infrastructure development. Beijing underground network: (china's mega projects part 3) http://english.cntv.cn/program/documentary/20130307/100232.shtm Discussion leader presentation #2 |
| 6 2/11 | Landscape, nature, ecology | Reader, pp179-194 SUDesign, pp31-41 Spirn – ecological approach to design (on Canvas) |
| 2/13 | Case studies and discussion (3) | Portland's green streets Eco-cities in China |

| | | Discussion leader presentation #3 |
|------|------------------------------|--|
| | | Exercise: mid-term check up, preparing for case study poster |
| | | Case study poster assignment given out |
| 7 | Water, resources, energy, | > Reader, pp195-232 |
| 2/18 | Materials, conservation, and | SUDesign, pp56-73, SUDesign, pp74-91 |
| | urban metabolism | ➤ Green building system: China's 3-star system and LEED in the US |
| | | > Integrating the concept of urban metabolism into planning of sustainable cities: Analysis of the |
| | | Eco. Cities Initiative. DPU WORKING PAPER NO. 168. (on Canvas) |
| 2/20 | Case studies and discussion | Power surge: are we finally on the brink of a clean energy revolution? (video) |
| | (4) | Discussion leader presentation #4 |
| | | |
| TBD | Local case study | EWEB's Wetland Project and Green Building |
| 8 | Social equity, Economic | > Reader 235 – 260 |
| 2/26 | development | Campbell (1996) "Green Cities, Growing Cities, Just Cities?: Urban Planning and the Contradictions |
| | | of Sustainable Development, " JAPA. Available on Canvas. |
| 2/28 | Case studies and discussion | Curitiba – movie and discussion |
| | (5) | Discussion leader presentation #5 |
| | | Assignment 2 due |
| | | Assignment 3 (given out). Evaluating urban sustainability |
| 9 | Urban sustainability | Readers. Pp365-388 |
| 3/5 | reporting and evaluation | Peter S. Brandon and Patrizia Lombardi. Evaluating Sustainable Development in the Built |
| | | Environment. Chichester, West Sussex; Ames, Iowa: Wiley-Blackwell, 2011. Chapters 3,4,5.6 |
| | | Urban indicators for managing cities (Asian Development Bank) |
| 3/7 | Poster presentation | Peer critique |
| 10 | Poster presentation | Peer critique |
| 3/12 | | |
| 3/14 | Course wrap up | |
| 11 | Final exam (take home) | Assignment 3 due |