

**YSS3229**  
**Urbanization and the Environment**  
*Semester 1 2016*  
*Tues-Fri 1:00-2:30 pm*  
*Classroom 11*

**Instructor**

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**Office Hours**

Mondays 2:30-5:30 pm (others by appointment)  
Sign-up in Google doc: <http://tinyurl.com/ot9d5je>

**Course Description**

With the majority of the global population living in cities, urbanization has become a defining characteristic of human civilization. This new era of urban dominance has brought a new urgency to understand how to balance the environment alongside urbanization. Is urbanization a problem or a possible solution to the environment and sustainable development? Urbanization is not only the movement of people, but it also represents a conceptual shift: a change in how we understand the built environment as well as the environment outside of what we classify as urban areas. This course will explore contemporary urbanization with a focus on the relationship between urban and urban growth and its implications for the planet's biological and physical systems.

**Course Format**

This course is designed as both a lecture and a seminar, of which active discussion and participation are key. A lecture will introduce the major themes and topics followed by discussion-based seminar. Engaged participation based on the readings is critical to the success of the class.

**Course Goals**

At the completion of this course, students will:

- Become well-versed in understanding the connection between urbanization and environment
- Understand and be exposed to current research and thinking regarding urban environmental sustainability
- Develop specific expertise in at least one area of interest related to urbanization and environmental issues
- Explore broader academic investigations and policy debates as they relate to this course

- Learn how to apply data and quantitative methods to answer policy-relevant questions
- Strengthen critical reading, analysis and writing skills
- Learn how to effectively work together in groups

### **Course Requirements and Grading**

1. 5 out of 10 reading reflections (25%)
2. 10 comments of reflections (10%)
3. General class participation (10%)
4. Remote sensing lab exercise (10%)
5. Team project plan (Midterm) (10%)
6. Final Paper (25%)
7. Final presentation of team project (10%)

### **Reading Reflections**

Each week, we will read a range of articles that will form the foundation of your knowledge of the issues. Every student is required to complete all the readings **prior** to coming to class and write a reflection of the articles that will provide the basis for discussion each week. The reflections and comment assignments are designed to ensure that everyone reads the articles and comes to class prepared to discuss them. Reflections should be uploaded to Canvas no later than midnight on Monday evenings, and comments should be made no later than midnight prior to class on Fridays.

#### *Reflections*

The reflection is meant to help you frame your thoughts about the readings and to help you think critically about the issues brought forth by the readings for the coming week. Treat the reflection assignment as a set of “talking points” or a memo for our class discussion. It can be a discussion of issues or ideas spurred by the readings, but should be a synthesis of the week’s readings as they relate to the week’s major themes. The reflection can be written as a set of structured bulleted short paragraphs or prose. The review must include 1-3 questions that arise from the readings. Reflections should not be longer than 1 page. Every student will be given one “free pass” to skip a reflection.

#### *Responses*

Before 11:59 pm on Thursdays, you will need to comment on one fellow student’s response on the Canvas discussion board. Each discussion seminar (on Fridays) one

student will be charged with the role of discussion lead. Your job as discussion lead is to read your colleagues' reflections and responses as they relate to the week's readings, synthesize some of the major themes and discussion points, as well as identify major questions for the group. You will present for less <10 minutes before facilitating a class discussion. Sign up to be a discussion lead here: <http://tinyurl.com/japq9ce>.

### **Team Project and UN Habitat III**

Students will work in teams of two to conduct a research project for the semester and an oral presentation at the end of the semester. The project will incorporate original research and will address one of the core UN Habitat III themes (<https://www.habitat3.org/the-new-urban-agenda/knowledge>) as they apply to Singapore's urbanization and environment. The UN Habitat III conference is the third in a series of conferences that began in 1976 to bring international political focus to the sustainable development of human settlements. It will be held in Quito, Ecuador, from Oct. 17-20 this year. We will follow this process closely throughout the course to witness how urbanization and environment issues play out in the international political arena.

The final project output will be an individual 10-page research paper AND a journalistic or policy-style 5-page memo OR multimedia presentation that is aimed for a general audience. Imagine you are introducing your findings to a sector of citizens or decision-makers who do not know much about the UN Habitat III conference, urban growth or environmental challenges. Or, imagine you are designing a social campaign to advance public support for your chosen Habitat III theme. How will you convince your target audience to take action? What should they be aware of in terms of trends, patterns, and impacts of your topic and findings? What tools - audio or visual - can help these audiences understand your issue? What kinds of social media, video, podcasts, data visualizations, or mappings can help you convey your message?

Each student will also include an appendix that describes the division of labor for your team, lessons learned from working together, and strategies for improving collaborative work. Higher grades will be awarded to those projects that think creatively out of the box. Don't turn in a boring research paper that you could have written using purely Internet sources!

#### *Why a team project?*

Increasingly, we need the help of others to answer and solve contemporary environmental questions and issues. Regardless of your professional aspirations, it is likely that at some point, you will need to work on a team to produce a product. Ideally, working with someone else will help broaden your perspective and provide a deeper understanding than working alone.

For some ideas on projects, see last year's course projects here: <http://urbanandenvt.courses.yale-nus.edu.sg/> or from a version I taught previously at Yale College, see <http://sites.environment.yale.edu/chinaindia>.

## *Presentations*

At the end of the semester, each team will give an oral presentation of their results. Details of the presentation requirements will be provided later in semester.

## **Technology-Free Policy**

All class discussions will be “technology free,” meaning that laptop computers, tablets, and smartphones will not be allowed.

## **Attendance and Late Assignment Penalties**

You are expected to attend all classes. Students are permitted one unexcused absence (e.g., to participate in an extracurricular activity) during the semester, with advance approval. Excused absences include required fieldwork for another course, with advance permission. Students must request the permission of the faculty member to be absent from classes. Penalties for all other unexcused absences will be assessed in your participation and discussion grades.

Late assignments will be assessed as follows:

- Reading reflections/comments: 1 point for each day late, with a maximum of 3 points (after that, no credit for the assignment)
- Other graded assignments (project proposal, final paper, etc.): 1 day late = 10% off; 2 days late = 20% off; 3 days late = 30% off; 4 days late = 100% off.

## **Intellectual and Professional Ethics**

Students are expected to uphold standards of academic honesty. Detailed at greater length on Yale-NUS’s website here – <http://studentlife.yale-nus.edu.sg/policies/academic-integrity> - the concept of academic dishonesty or cheating includes any misrepresentation of another's work as your own, including unacknowledged paraphrasing or quoting, use of another student's material, incomplete acknowledgement of sources including Internet sources, or submission of the same work to complete the requirements of more than one class.

In this course, we will hold you to the highest academic standards, which you will be expected to follow throughout your tenure at Yale-NUS. We expect each student to complete original, independent work. Plagiarism will not be tolerated. Proper citation of all sources is essential. If you are ever unclear about what constitutes academic dishonesty, it is *your* responsibility to contact me or another College resource for clarification.

Please see <http://library.yale-nus.edu.sg/plagiarism/> for more information regarding plagiarism and how to avoid it. Another good resource our library has put together to

walk you through how to write a research paper is here: <http://library.yale-nus.edu.sg/tutorials/>.

## **Readings**

We will draw from a variety of texts and materials in this course, although many of the readings will come from Wheeler, S. M., & Beatley, T. (Eds.). (2014). *Sustainable Urban Development Reader*. Routledge. Happily, it is available in e-book form here:

<http://www.yalenu.ebilib.com.libproxy.yalenu.edu.sg/patron/FullRecord.aspx?p=1811091>

## **Topics for Discussion (subject to change)**

*For readings, check the E-readings folder on Canvas*

### 1. Drawing the connection between urban and the environment

- *What is the relationship between nature and the city?*

### 2. What is 'urban,' how do we know?

- *How do we define cities? What do we mean by 'urbanization,' and how can we begin to understand its patterns, scope, and growth? How do we take into consideration the question of scale?*

### 3. Drivers of urbanization

- *What factors, such as economic growth, spatial planning, and migration, drive urbanization patterns?*

*\* August 26 class will not meet; instead we will make up a time the following week Wednesday August 31 or Thursday Sept. 1.*

### 4. Urban sustainability – The New Urban Agenda

- *What does sustainable development mean? What does it mean for cities? What are some approaches to evaluating urban environmental sustainability? What are their strengths and weaknesses? What is the UN Habitat III Conference and How is the international community articulating the 'New Urban Agenda' for sustainable development?*

### 5. Cities and climate change

- *How do cities contribute to energy consumption and impact climate change? How cities impacted by climate change?*

### 6. Food and consumption patterns in cities

- *What are the environmental impacts of food and consumption in cities and an urban diet?*

\*\*\* *RECESS WEEK: September 19 – 23*

*Mid-term Project Proposal due at 11:59 pm Sept. 16*

#### 7. Urban environmental justice

Guest lecturer: Prof. Yaffa Truelove, Yale-NUS College

- *What does “just sustainability” mean? How are cities exacerbating or contributing towards environmental justice?*

#### 8. Top-Down: Land-use planning, urban form, and infrastructure

- *How can land-use planning, infrastructure development lead to different urban forms? How can these top-down processes also lead to various forms of ‘lock-in’?*

#### 9. Bottom-up: Culture, Behavior, and Lifestyles in cities

- *How can bottom-up factors, such as human behavior, consumption patterns, and culture influence different urban environmental forms and outcomes? How do different culture and lifestyles influence urbanization and the surrounding environment?*

#### 10. Understanding and visualizing the urban environment

- *What tools exist to help us think spatially and measure urban phenomena? How can we use geospatial technology to examine environmental issues?*

\* no reading reflection this week, instead you’ll turn in a lab exercise

#### 11. Cities as ecosystems

- *What role do cities play in global ecosystems, both natural and otherwise? What is the concept of ‘ecosystem services’ and how do cities factor?*

#### 12. Institutions, Governance, and Public Participation

- *How are cities managed, and how do institutions, governance, and public participation shaping differences in environmental management and urban planning?*

#### 13. The future of urbanization strategies, cities, and the environment

- *What are smart cities, eco-cities, and how is environmental sustainability incorporated into urban planning and development?*

Final Project Presentations Friday, November 11 in class.

14. Reading Week

15. Exam Week. No in-class exam, but final paper will be due Friday, November 25 at 11:59 pm.