SUMA K5530 The Urbanization Paradox: Crisis and Opportunity for Global Sustainability
Summer Session X: Tuesday from 6:10 to 8:00pm
3 Credits

Instructor: Steven Caputo Jr, sac2130@columbia.edu
Office Hours: Office hours will take place 1 hour before and 1 hour after class sessions.
Response Policy: Instructor will respond to emails from Monday to Friday within 24 hours, and 48 hours on weekends

Course Overview

The world is witnessing one of the most dramatic environmental and demographic transformations of all time. At the start of the twentieth Century, only 15% of people lived within densely built environments, while most others inhabited agrarian or natural landscapes. Today, 55% of the global population is urbanized and by 2050 that number will reach 75%, for a total of six billion urban dwellers. Cities now produce more than 80 percent of global GDP, consume two-thirds of all energy, and generate 70 percent of greenhouse gas emissions. More than half of all people live in coastal areas, many of which are urbanized and exposed to climate risks. It’s an understatement to say that global sustainability will succeed or fail in cities.

The goal of this course is to confront what has been called “the paradox of urbanization.” On the one hand, the surging growth of urban areas is devouring land and natural resources, destroying biodiversity, and exposing billions of people to hazardous and impoverished conditions. On the other hand, researchers, policy makers and NGOs have reached a consensus that cities should be the nexus of sustainable living. Urban dwellers live more efficiently, have wider access to resources—economic, health, educational, cultural, and social—and drive innovation. So can the urbanization paradox be resolved sustainably?

The course will employ a range of interpretive and analytical frameworks to address this question. Through lectures, in-class discussions, extensive reading, and the preparation of a semester long case study, students will develop a nuanced understanding of the causes, impacts, and opportunities of global urbanization. Particular focus will be given to the emerging “science of urbanization” and to multi-disciplinary research and field work, as well as associated critiques. Students will have the opportunity to conduct in-depth analysis of a city of their choice and gain high-level exposure to numerous others. By the end of the course, students will acquire the vocabulary and intellectual skills to participate effectively in the discourse of urbanization. They will also, hopefully, come away with a sober sense of optimism for a sustainable urban future.

This course satisfies the M.S. in Sustainability Management curriculum area requirements in Area 3: Physical Dimensions and Area 4: Public Policy.

PART I. INTRODUCTION TO URBANIZATION
- Course overview
- History and theory of cities
- “Urbanization Science”

PART II. CRITICAL ISSUES
- Place and mobility
- Displacement and inequality
- Health, environment & resource availability
- Climate Change

PART III: CASE STUDIES
- South and Central American Cities
- Asian cities
- Sub-Saharan African and Greater Middle Eastern cities

PART IV. RESOLVING THE URBANIZATION PARADOX
- Innovation, agency, and access
- Policy, governance, and global partnerships

Learning Objectives
By the end of this course students will be able to:
Columbia University School of Professional Studies
Master’s of Science in Sustainability Management

- Discuss and analyze the primary drivers and impacts of rapid urbanization
- Apply rigorous diagnostic skills and comparative frameworks to evaluate cities for political, economic, social, demographic, historical, physical / morphological, and functional conditions
- Confidently analyze research from a variety of disciplines and be able to describe short comings and gaps
- Critically assess policies, programs, and proposals that are aimed at promoting urban sustainability
- Demonstrate proficiency in the discourse of urbanization and effectively partake in relevant work experiences

Readings

A textbook will not be required for this course. All readings are listed in the Course Schedule section of this syllabus and will be posted to Canvas or available online. “Required” readings are to be read BEFORE coming to class. “Supplemental” readings will also be provided throughout the class. While they are not required, they will provide additional information that will enhance your knowledge of the course subject matter

Resources

Columbia University Library
Columbia’s extensive library system ranks in the top five academic libraries in the nation, with many of its services and resources available online: http://library.columbia.edu/

SPS Academic Resources
The Office of Student Life and Alumni Relations (SLAR) provides students with academic counseling and support services such as online tutoring and career coaching: http://sps.columbia.edu/student-life-and-alumni-relations/academic-resources.

Course Requirements (Assignments)

Annotated Bibliography (15%): Students will select a city to conduct an in-depth case study on and complete an annotated bibliography with at least 10 sources that they will use as part of their research. Cities should be selected from one of the following regions unless otherwise approved by the instructor: South and Central America; East, South, and Southeast Asia; Sub-Saharan African and the Greater Middle East.

Case Study Proposal (20%): Students will submit a two-page proposal that describes the objective / key questions of their case study, highlights key issues, outlines the research and analysis that they will conduct for their final case study, and describes what/how they will present to their fellow students.

Case Study Presentation (15%): Students will present their case study proposal and selected city in a 10-minute slide presentation followed by a 10-minute Q&A. Grade will be based on the clarity and brevity of the presentation, command of key issues, specificity and strength of the case study objective, and responses to student questions.

Final Case Study (40%): Students will submit an 8 to 10-page paper (with additional appendix materials as necessary) that provides a brief about their City, describes the objective of their case study and research / analysis undertaken, and articulates findings. Grading will be based on clarity, brevity, criticality, and strength of findings.

Class Participation (10%): All students are expected to contribute to the classroom discussion throughout the course, including the in-class presentations and discussions with guest speakers. While classes will generally feature lectures on the specified topics each week, active discussion is encouraged to bring in students’ experiences, knowledge, and critical perspectives on the issues addressed in the course.

Evaluation/Grading

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<tr>
<th>Component</th>
<th>Points</th>
<th>Evaluation criteria</th>
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<tr>
<td>Class Participation</td>
<td>10 Points</td>
<td>Each student will be evaluated for the frequency and quality of her/his contributions to class discussions. Students are expected to attend all sessions unless approved by instructor.</td>
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Annotated Bibliography 10 Points
Points will be awarded as follows: 3 points for completing the assignment with the required number of sources and annotations; up to 3 points for the range and depth of the selected sources; up to 4 points for the clarity and thoughtfulness of the annotations.

Case Study Proposal 15 Points
Points will be awarded as follows: 5 points for completing the case study proposal on time; up to 5 points for describing the objective and relevance of the case study; up to 5 points for describing the research plan and possible range of findings.

Case Study Presentation 15 Points
Points will be awarded as follows: 5 points for completing the presentation; up to 5 points for the quality and organization of the presentation visuals; up to 5 points for the brevity, clarity and persuasiveness of the spoken presentation.

Final Case Study 50 Points
Points will be awarded as follows: 20 points for completing the case study on time; up to 20 points for the quality of the analysis and for utilizing key concepts from the course; up to 20 points for the clarity and persuasiveness of the findings and recommendations.

TOTAL 100 Points
The following clarifies how points awarded to individual assignments translate into letter grades for the course: A+ is for extraordinary work (>96 points); A= 93-95 points; A-=90-92 points; B+=87-89, B= 84-86, B-=80-83, C+=77-79, C=74-76, C-=70-73, D=66-69, F= <65

Course Policies

Attendance and Participation
On-time attendance at each class meeting is expected. Partial attendance, i.e. lateness or early departure, if not excused in advance, will negatively impact the class participation portion of the course grade. You are expected to do all assigned readings, attend all class sessions, and engage with others in online discussions. If you need to miss a class for any reason, please discuss the absence with me in advance.

Late work
Late work will be accepted with a 15% reduction unless otherwise approved by the instructor prior to the due date.

Citation & Submission
All written assignments must use MLA format, cite sources, and be submitted to the course website (not via email).

Course Schedule/Course Calendar

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<tr>
<th>Date</th>
<th>Topics and Activities</th>
<th>Readings</th>
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| 5/24 | Part I: Introduction to Urbanization: Course Overview | Required Readings:  
  - Ola Söderström, Till Paasche & Francisco Klauser (2014) Smart cities as | Assignments |
### Required Readings


### Recommended Readings

<table>
<thead>
<tr>
<th>6/7</th>
<th>Part I: Introduction to Urbanization: Urbanization Science</th>
<th><em>Required Readings</em></th>
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<tr>
<th>6/14</th>
<th>Part II: Critical Issues: Land Use and Mobility</th>
<th><em>Required Readings</em></th>
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<tr>
<td></td>
<td>- Bradford S. Gentry, Changes in Land-Use Governance in an Urban Era. In Karen C. Seto and Anette Reenberg,</td>
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*Recommended Readings*
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<tr>
<th>6/21</th>
<th>Part II: Critical Issues: Displacement and Inequality</th>
<th>Required Readings</th>
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<td></td>
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<td>Norton Long, “The City as Reservation.” Public Interest 25 (Fall 1971)</td>
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<td></td>
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<td>George Sternlieb, “The City as Sandbox,” Public Interest 25 (Fall 1971)</td>
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<th>6/28</th>
<th>Part II: Critical Issues: Health, environment, and resource availability</th>
<th>Required Readings</th>
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<td>Robert I. McDonald, et al, “Water on an urban planet: Urbanization and the</td>
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<td>Assignment 2 due: Case Study Proposals</td>
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### Part II: Critical Issues: Climate Change

#### Required Readings

#### Recommended Readings
### Part III Case Studies: South and Central American Cities

**Required Readings**

- Young, “Urbanization, environmental justice, and social-environmental vulnerability in Brazil.” [presents four case studies of Brazilian metropolitan areas – Curitiba, Baixada Santista, São Paulo, and Rio de Janeiro – on the bidirectional interactions of urbanization and global environmental change, incorporating frameworks of urban ecology and environmental justice.]
- Alves and Ojima “Environmental inequality in São Paulo City.” [An analysis of differential exposure of social groups to situations of environmental risk aim to operationalize the concept of environmental inequality, measuring the association between disadvantaged socioeconomic conditions and greater exposure to environmental risks through the use of geoprocessing methodologies]

### Part III Case Studies: Asian Cities

**Required Readings**


### Recommended Readings

- Seto, K.C., and Fragkias, M., Quantifying spatiotemporal patterns of urban land-use change in four cities of China with time series landscape metrics,
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<tr>
<th>Date</th>
<th>Topic</th>
<th>Required Readings</th>
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Recommended Readings


School Policies

Copyright Policy
Please note -- Due to copyright restrictions, online access to this material is limited to instructors and students currently registered for this course. Please be advised that by clicking the link to the electronic materials in this course, you have read and accept the following:

The copyright law of the United States (Title 17, United States Code) governs the making of photocopies or other reproductions of copyrighted materials. Under certain conditions specified in the law, libraries and archives are authorized to furnish a photocopy or reproduction. One of these specified conditions is that the photocopy or reproduction is not to be "used for any purpose other than private study, scholarship, or research." If a user makes a request for, or later uses, a photocopy or reproduction for purposes in excess of "fair use," that user may be liable for copyright infringement.

Academic Integrity
Columbia University expects its students to act with honesty and propriety at all times and to respect the rights of others. It is fundamental University policy that academic dishonesty in any guise or personal conduct of any sort that disrupts the life of the University or denigrates or endangers members of the University community is unacceptable and will be dealt with severely. It is essential to the academic integrity and vitality of this community that individuals do their own work and properly acknowledge the circumstances, ideas, sources, and assistance upon which that work is based. Academic honesty in class assignments and exams is expected of all students at all times.

SPS holds each member of its community responsible for understanding and abiding by the SPS Academic Integrity and Community Standards posted at http://sps.columbia.edu/student-life-and-alumni-relations/academic-integrity-and-community-standards. You are required to read these standards within the first few days of class. Ignorance of the School's policy concerning academic dishonesty shall not be a defense in any disciplinary proceedings.

Accessibility
Columbia is committed to providing equal access to qualified students with documented disabilities. A student’s disability status and reasonable accommodations are individually determined based upon disability documentation and related information gathered through the intake process. For more information regarding this service, please visit the University's Health Services website: http://health.columbia.edu/services/ods/support.