



NYU

**ROBERT F. WAGNER GRADUATE
SCHOOL OF PUBLIC SERVICE**

**UPADM-GP 217 – 001
Sustainable Urban Development
Spring 2021**

Class Information: Mondays and Wednesdays, 6:45-8:00 PM, via Zoom

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Office Hours: By appointment

Course Description

According to current estimates of the World's population, in the first decade of the 21st Century the number of people living in urban areas exceeded the number of people living in rural areas for the first time and current global population growth projections indicate that most of the population expansion in the rest of the century will take place in urban areas. This course examines the social, economic and environmental dimensions of sustainable development in urban areas. Some of the major themes explored as part of this course include indicators of sustainability, urban demographic trends, climate change, smart growth, green building, air and water quality, sustainable energy and transportation, waste management and environmental justice. In addition, the course will cover cross-cutting themes, such as the role of information technology (IT) and social networks in promoting sustainable urban development.

Course Objectives

By the end of the course students will:

1. Be familiar with the framework of sustainable development and the way it is applied to cities and urban areas.
2. Be familiar with indicators of sustainability, their application and limitations.
3. Be able to assess whether a city is making progress toward sustainable urban development goals and objectives.

Required Readings

Two books are required for the course. They are available electronically through NYU Bobst Library. The books are:

- The Sustainable Urban Development Reader, 3rd Edition, edited by Stephen M. Wheeler and Timothy Beatley. Routledge. 2014.
- Taking Sustainable Cities Seriously, 2nd Edition, by Kent E. Portney. The MIT Press. 2013.

An additional set of required and suggested readings from academic journals, the Internet and various media sources will be listed on NYU Classes.

NYU Classes

Course announcements, reading lists, and assignment descriptions will be available through the NYU Classes course site. Updates to class readings may be made if relevant new material is published during the semester. In addition, students will submit all their assignments electronically via NYU Classes.

Academic Integrity

Academic integrity is a vital component of Wagner and NYU. Each student is required to sign and abide by Wagner's Academic Code. Plagiarism of any form will not be tolerated. If you are unsure about what is expected of you, you should *ask*.

Henry and Lucy Moses Center for Students with Disabilities at NYU

Academic accommodations are available for students with disabilities. Please visit the Moses Center for Students with Disabilities (CSD) website at www.nyu.edu/csd and click on the Reasonable Accommodations and How to Register tab or call or e-mail CSD at (212-998-4980 or mosescsd@nyu.edu) for information. Students who are requesting academic accommodations are strongly advised to reach out to the Moses Center as early as possible in the semester for assistance.

NYU's Calendar Policy on Religious Holidays

NYU's Calendar Policy on Religious Holidays states that members of any religious group may, without penalty, absent themselves from classes when required in compliance with their religious obligations. Please notify me in advance of religious holidays that might coincide with assignments to schedule mutually acceptable alternatives.

Class Policies

Extensions for missed assignment deadlines will be granted only in case of emergencies and on a case by case basis.

Assignments and Evaluation

1. Two short written assignments (40%) – these assignments are designed to complement the assigned readings and help students learn how data, indicators and other materials can be used to assess progress in the area of sustainable urban development. The topics of the short assignments and their due dates are listed below. Assignment descriptions will be available two weeks before they are due in NYU Classes.

- Climate change and sustainability indicators– March 3
- Environmental justice – April 21

2. Final paper (40%) – As part of the final assignment students will conduct research on a topic related to the course. The assignment description will be available on NYU Classes and the assignment will be due on May 17.

3. Class attendance and class participation (20%) – students are expected to attend all classes and to be prepared to participate in discussions about the topics/readings covered in each lecture.

Learning Assessment Table

Graded Assignment	Course Objective Covered
Participation	All
Assignment 1	#1 and #2
Assignment 2	#1 and #2
Final Assignment	All

Grading Scale and Rubric

Students will receive grades according to the following scale:

There is no A+

A = 4.0 points

A- = 3.7 points

B+ = 3.3 points

B = 3.0 points

B- = 2.7 points

C+ = 2.3 points

C = 2.0 points

C- = 1.7 points

There are no D+/D/D-

F (fail) = 0.0 points

Overview of the Semester

Outline of topics covered each week.

1. What is sustainable urban development?

February 1 and 3. Introduction to the course and overview of the syllabus. Introduction to the concept of sustainable development and how it applies to urban areas.

2. Trends in urban population

February 8 and 10. Current trends in urbanization and projections for urban population.

Emergence and growth of mega-cities. Differences in current and projected urbanization rates in different regions of the world.

3. Urban areas and global climate change

February 17, 18 and 22. (Thursday, February 18 is a legislative day and classes meet on a Monday schedule). Discussion about global climate change and its impact on cities and urban areas. Topics explored will include sea level rise, extreme weather events and changes in temperature.

4. Measuring sustainability

February 24, March 1 and 3. How do we measure sustainability? Discussion of indicators of sustainability and how they can be applied to cities and urban areas.

5. Urban sprawl and smart growth

March 8 and 10. Discussion about urban sprawl and smart growth. Definitions, trends and projections. Factors affecting and driving urban sprawl.

6. Sustainable transportation

March 15 and 17. Discussion of sustainable transportation systems and vehicles. Trends in transportation use and modes of transportation. Can developing countries learn from developed country experiences? Discussion of innovative case studies in developing countries such as the bus rapid transit system of Curitiba, Brazil and the Cable Car of Medellín, Colombia. Air pollution and public health.

7. Sustainable energy

March 22 and 24. Past, current and projected trends in energy production and consumption. Alternative forms of energy production. Energy use, pollution and public health.

8. Sustainable use of materials and waste management

March 29 and 31. Trends in material use and waste production. Factors affecting waste production, re-use and recycling. Introduction to eco-efficiency.

9. Sustainable water use

April 5 and 7. Trends in water use, water treatment and water scarcity. Differences in access to water in urban areas in developed and developing countries. Differences in use of water treatment technologies around the world. Access to clean water and sanitation, water pollution and public health in urban areas.

10. Environmental justice, social equity and social dimensions of sustainability

April 12, 14 and 21. Discussion about the social dimension of sustainability in cities. Environmental health risks and vulnerable populations, environmental justice, income inequality, crime rates and trends.

11. Green buildings and sustainable housing

April 26 and 28. Discussion about green building and housing. Description of the LEED (Leadership in Energy and Environmental Design) Green Building Rating System. Potential of green building in developing countries.

12. Urban areas, parks, public spaces and biological diversity

May 3 and 5. Rates of urbanization around the world suggest urban areas will continue to grow and replace natural areas. Examples from Brazil, South Africa and the United States will be used to discuss how urban areas are affecting biodiversity hotspots and how urban parks and green areas can contribute to biodiversity conservation while providing environmental services for people.

13. New Sustainable Cities and Future Directions

May 10. New sustainable neighborhoods and cities built using sustainability principles.