Sustainable Urban Development

New York University
Wagner Graduate School of Public Service
UPADM-GP 217 – 001
Spring 2014
Tuesdays and Thursdays 6:45-8:00 PM
Location: Silver, Room 402

Instructor

Carlos Restrepo
Office: Puck Building, 3rd Floor, Office 3036
Phone: 212-992-9867
E-mail: cer202@nyu.edu
Office Hours: Thursday, 4-6 PM or 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 of the developing world. This course examines the social, economic and environmental dimensions of sustainable development in urban areas. Some of the major themes explored include indicators of sustainability, urban demographic trends, poverty, green building, urban sprawl, air and water quality, sustainable energy and transportation, and global climate change. In addition, the role of information technology (IT) and information and social networks in promoting sustainable development and the diffusion of ideas globally will be explored.

Course Readings:

Three books will be required for the course. They are available at the NYU Bookstore (located at 726 Broadway). They are:


These books will also be available in the Course Reserves Desk, on Lower Level 2 of Bobst Library.

Additional readings from academic journals, agency reports and other sources will also be used.

**Class Assignments and Grading**

1. **Short assignments**

There will be four short assignments throughout the semester and they will be 40% of the grade.

2. **Term paper**

The final paper assignment will provide students with the opportunity to explore a topic related to the course in more detail. It will be 40% of the grade.

3. **Class attendance and participation**

Students will be expected to actively participate in class discussions. Class attendance and participation will be 20% of the grade.

**Schedule of Lectures and Topics**

1. **What is sustainability?**

   January 28 and 30. 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 growth and urbanization**

   February 4 and 6. Current and past trends in urbanization and growth of cities. Emergence and growth of mega-cities. Differences in current and projected urbanization growth rates in developed countries and developing countries. Social indicators and general health issues in rapidly growing urban areas.
3. Urban areas and global climate change

February 11 and 13. Discussion about global climate change and its impact on cities and urban areas. Topics explored will include climate change mitigation and adaptation to sea level rise, extreme weather events and changes in temperature.

4. Measuring sustainability

February 18 and 20. How do we measure sustainability? Discussion of indicators of sustainability, including composite indexes of sustainability, and their application to cities and urban areas.

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


6. Urban sprawl and smart growth


7. Green buildings and sustainable housing


March 18 and 20 – Spring Recess – No class

8. Sustainable transportation

March 25 and 27. Discussion of sustainable transportation systems and vehicles. Trends in transportation use and modes of transportation. 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.

9. Sustainable energy

10. Sustainable use of materials and waste management

April 8 and 10. Trends in material use and waste production. Factors affecting waste production, re-use and recycling. Introduction to eco-efficiency.

11. Sustainable water use

April 15 and 17. 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.

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

April 22 and 24. 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. IT and Sustainable Development

April 29 and May 1. The role of information technology in the diffusion of ideas related to sustainable urban development.

14. Global Activism and Sustainable Development

May 6 and 8. The rise of global activism and activism as way to promote sustainable development in urban areas.