

## Environment, Infrastructure and Transportation Courses (Urban Planning, Management, and Policy)

ACADEMIC YEAR 2006-2007 (preliminary)

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### COURSE LIST

WAGNER SCHOOL (bolded listings are courses scheduled for the Summer/Fall 2006 and planned for Spring 2007)

<http://wagner.nyu.edu/courses/>

- P11.2610 Environmental Impact Assessment (Fall 2006)**
- P11.2612 Urban Infrastructure and Environmental Services (AY0708)
- P11.2613 Sustainable Cities in A Comparative Perspective (Fall 2006)**
- P11.2615 Environment and Urban Dynamics (AY0708)
- P11.2617 Environmental Law (Summer 2006)**
- P11.2625 Workshop in Planning & Management - Urban Waterfront (Summer 2006)**
- P11.2628 Technology, the Media, and Cities (TBA)
- P11.2641 Urban Transportation Planning (Fall 2006)**
- P11.2126/2878 Risk Management in Environmental Health and Protection (Summer 2007)\*
- P11.2234 Ecoleadership (Spring 2007)**
- P11.2470 Transportation Policy (Spring 2007)**
- P11.2991/2 Transportation courses at Polytechnic University of New York**

Courses: <http://www.poly.edu/catalog02-03/catalog02-03-48-transportation.pdf>

Class schedules: <http://www.poly.edu/academics/classsschd.cfm>

\*Confirm availability and schedule

**Recommended Course Sequence (Wagner)** (Note: some courses are taught every other year)

#### Tier I: Introductory/Foundation Courses

Environmental Focus: **P11.2615 Environment and Urban Dynamics** or **P11.2610 Environmental Impact Assessment**

Infrastructure Focus: **P11.2612 Urban Infrastructure and Environmental Services** or **P11.2610 Environmental Impact Assessment**

#### Tier II: Specialized Coursework

##### A. Environment

- P11.2610 Environmental Impact Assessment (for infrastructure also)**
- P11.2613 Sustainable Cities (for Infrastructure also)**
- P11.2617 Environmental Law**
- P11.2625 Workshop in Planning and Management of the Urban Waterfront**
- P11.2126/2878 Risk Management in Environmental Health and Protection

##### B. Infrastructure: Transportation and Communications Technology

- P11.2470 Transportation Policy**
- P11.2628 Technology & Media in Cities
- P11.2641 Urban Transportation Planning**
- P11.2991/2 Transportation courses at Polytechnic University of New York**

(Contact: Prof. Elena Prassas at Polytechnic (718-260-3788); register at Wagner-Dr. C. Nicolson)

## GRADUATE COURSES ON THE ENVIRONMENT OFFERED BY OTHER SCHOOLS WITHIN NEW YORK UNIVERSITY

(check course availability and faculty contacts on department web pages)

### GRADUATE SCHOOL OF ARTS AND SCIENCES

Environmental Health Sciences\*\* (Contact: Richard Schlesinger)

<http://niem.med.nyu.edu/gradprog/>

G48.1004 (G23.1004)	Environmental Health
G48.1005	Ecotoxicology
G48.2015-2016	General and Environmental-Toxicological Pathology I-II
G48.2017	Environmental Radioactivity
G48.2025	Current Problems in Environmental Health
G48.2035 (G23.2035)	Environmental Hygiene Measurements I
G48.2036 (G23.2036)	Environmental Hygiene Measurements II
G48.2039	Environmental Epidemiology I
G48.2044	Environmental Epidemiology II
G48.2048	Air Pollution Transport and Modeling
G48.2309 (G23.2309)	Systemic Toxicology
G23.2305	Environmental Contamination
G48.2310 (G23.2310)	Principles of Toxicology
G48.2315	Environmental Immunotoxicology

\*\*These courses are taught in Sterling Forest, NY, at the NYU Medical Center (401 East 30th Street), or on the NYU Washington Square campus.

Department of Biology (Contact : Tyler Volk)

<http://www.nyu.edu/fas/dept/biology/graduate/courses.html>

G23.1004 (G48.1004)	Environmental Health
G23.1006 (G48.1006)	Toxicology
G23.1201	Earth Biology

Draper Program

<http://www.nyu.edu/gsas/dept/draper/4.htm>

G65.1813	Garbage in Gotham : The Anthropology of Trash
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### SCHOOL OF EDUCATION

Program in Environmental Conservation Education (Contact: Andrew Light; Mary Leou)

<http://www.nyu.edu/education/steinhardt/db/programs/19>

E50.2019	Foundations of Environmental Thought (Fall 2003)
E50.2070	Environmental Education (Fall 2003)
E50.1500	Introduction to Environmental Ethics (Spring 2004)
E50.2020	Contemporary Debates in Environmental Ethics (Spring 2004) Topic Spring '04: Ethical Issues in Restoration Ecology
E50.2021	Environmental Politics (Spring 2004) Topic Spring '04: Development Ethics & Global Env. Change

Program in Health Education (Sally Guttmacher)

<http://www.nyu.edu/education/nutrition/>

E81.2056	Environmental Health Problems
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**SCHOOL OF LAW** (Richard Revesz, Dean of the School of Law)

<http://its.law.nyu.edu/StudentCourseInfo.cfm>

L01.3505	Environmental Law
L01.3508	Advanced Environmental Law
L02.2510	Environmental Law Clinic
L02.2505-2506	International Environmental Law Clinic and Seminar

## SELECTED COURSE DESCRIPTIONS for WAGNER SCHOOL COURSES

### **P11.2610 Environmental Impact Assessment: Processes and Procedures**

In development disputes, the interaction between communities and government, special interests and the private sector shape the fabric of neighborhoods, cities and regions around the world:

the discovery of a historic burial ground results in redesigning a major municipal center;

environmentally friendly design is incorporated into a new high-rise building;

a dam is redesigned to protect endangered species;

health effects of lead prompt new requirements for paint removal from bridges.

In this course students obtain essential skills to critically read, review and conduct impact assessments to balance environmental, social and economic needs. Elements evaluated in actual impact statements include real estate, urban design, transportation, energy, natural resources, sustainable design, and social justice. Recovery and rebuilding following catastrophic events are a key focus. Guest lecturers are leaders and experts in environmental assessment from academia, government, and consulting firms.

### **P11.2612 Urban Infrastructure and Environmental Services**

Infrastructure provides our basic public support services and facilities for environmental protection, transport, and communication. A major concern of infrastructure planning, policymaking and management has been quality of life issues associated with environmental impacts, human safety, convenience, and the support of basic social and economic needs. Facilities built decades ago are now reaching or exceeding their design lifetimes. Investments in maintenance, rehabilitation, repair, replacement and new technologies often do not keep up with these declining conditions and nationwide assessments and “scorecards” have estimated multi-billions of dollars of financial needs. This situation can be particularly acute in urban areas that experience dramatic changes in population, the economic base, and overall social and environmental sustainability.

This course uses a number of approaches to address these infrastructure issues. These include: (1) management strategies to more effectively oversee design, construction, operation and maintenance from a systems perspective; (2) capital programming and financing strategies to provide resources for rehabilitation efforts; (3) environmental and social impact assessment; (4) the introduction of new technologies to improve the infrastructure base; and (5) processes that promote stakeholder engagement through the negotiation of disputes over existing programs, levels of service, and facility siting. The course introduces students of urban planning, policy and public administration to analytical approaches, databases, and applications or case studies for infrastructure planning, policy, and management. It draws from both national and international experiences. It also provides applications to infrastructure planning and impact assessment in the context of natural hazards and security. As covered in this course, infrastructure encompasses transportation and utilities such as water supply, energy, communications, and environmental protection (wastewater treatment and solid waste management).

### **P11.2613 Sustainable Cities in A Comparative Perspective**

**Prerequisites:** P11. P11.1018 Microeconomics; P11.2660 History and Theory of Planning or P11.1022

According to estimates by the United Nations, between 2000 and 2030 the share of the world's population living in urban areas will increase from 47% to 60%, with the fastest growing cities located in developing countries. This course examines the social, economic and environmental dimensions of sustainability in cities. Policies and programs that try to address the challenges of sustainability from both developed and developing countries are studied and compared. Opportunities for avoiding unsustainable practices in developing countries through the use of modern technologies are also analyzed. Some of the major themes explored in the context of the sustainability of cities are indicators of sustainability, demographic trends and migration, income distribution, crime and security, green building, urban sprawl, ecological footprint, air and water quality, climate change, and sustainable energy and transportation policies.

### **P11.2615 Environment and Urban Dynamics**

This course introduces students of planning and public administration to planning, management and policy analysis for environmental resources primarily in urban and suburban settings. Dimensions of sustainability and urban sprawl provide a context for the environmental issues presented. Environmental analysis and planning techniques, that are used to formulate and implement environmental policy in the context of other societal needs and priorities, are emphasized. Planning and decision-making skills are applied to the development, design, and implementation of standards, regulatory strategies and their market-based alternatives, plans and programs, and pollution prevention and mitigation measures in a number of environmental areas. The substantive environmental areas covered include air and water quality, water supply (quality), environmentally sensitive natural resources, solid and hazardous wastes, and pesticides. Global and trans-national problems, such as global warming, ozone depletion and acid rain, are provided as foundations for environmental management and planning. The environmental aspects of siting disputes and the role of public involvement in environmental decision-making are evaluated along with techniques for communicating environmental issues with the public.

### **P11.2628 Technology, the Media, and Cities**

This course examines how government organizations, private industry, and nonprofit groups use the media to influence public policy issues. The changing role of the print and electronic media at the local, national, and international levels is considered. The impact of new telecommunications systems on the social and economic life of cities is also explored. Topics include the changing role of government in policy making and information technology.

### **P11.2641 Urban Transportation Planning**

**Prerequisites:** P11.1011 or the equivalent.

This course describes the origins and evolution in the New York region of transportation authorities, metropolitan planning agencies, and city and state government in formulating transportation policies and implementing plans and projects from the 1920s to the 1990s.

### **P11.2126 Risk Management in Environmental Health and Protection**

**Note:** Identical to Decision Making in Environmental Health [P11.2878](#).

This course is designed for public and private sector managers concerned with environmental risks and hazardous substances. It addresses the needs of both students and practitioners in environmental health services (such as water supply and waste management); directors of environmental health, safety and environmental protection units in government, industry, and the not-for-profit sector; environmental educators; and environmental scientists and planners engaged in environmental and health risk assessments. Both scientific and regulatory contexts for risk assessment are provided. Topics include identification and assessment of risks, integration of technical information into decision making, risk communication, and the development of solutions. Cases include applications of risk assessment and risk management to the aftermath of 9/11 on public services and chemical and biological contamination episodes nationally and internationally. The course may be taken for credit or on a noncredit basis.

### **P11.2234 Ecoleadership: The Public Role of the Private Sector in Building Sustainable Societies**

This course examines the impact of the global quest for economic capital on the development of social and natural capital worldwide as well as the role of the private sector in shaping sustainable economic growth policies which also promote the development of social and natural capital. The course is focused on the policy shaper and actor. It examines the growing impact of the private sector on policy making on

the provision of public goods worldwide and on the sustainability agenda through WTO and other mechanisms of global trade.

**P11.2470      Transportation Policy**

**Prerequisites:** [P11.1020](#) and [P11.1022](#).

This course examines key features of transportation policy in the United States, including the framework for public policy making, the principal governmental policies and programs, as well as the successes and failures of these policies. The course is mainly concerned with passenger transportation in metropolitan regions.

Note: Other NYU environmental courses are typically taught in the School of Education's Environmental Conservation Education Program; Stern School of Business; the Graduate School of Arts and Sciences (GSAS) Department of Biology and Environmental Health Sciences; and the School of Law.

## **SUMMER INSTITUTES ON THE ENVIRONMENT (4 course credits each)**

### **P11.2126/P11.2878 Summer Institute in Risk Management in Environmental Health and Protection (including Quantitative Risk Assessment). Four days**

This course provides managerial, decision-making and quantitative risk assessment skills for public and private sector managers and specialists in environmental protection, health, safety, emergency services, and regulation relating to chemical substances in the environment. Components of the risk assessment portion of the course include current procedures for quantitative risk assessment, human exposure to chemicals, the fate and transport of chemicals in the environment, and the use of toxicology and epidemiology in health risk assessment. The risk management portion encompasses the legal, regulatory, administrative and financial contexts for risk assessment and risk communication. The contexts to which risk assessment and risk management are applied in the course include waste cleanups, hazardous substance spills, water supply contamination, and the setting of environmental standards. Applications to risks posed by natural hazards and security are also included. The course is designed for students and practitioners in environmental health services (such as water supply protection and waste management); directors of environmental health, safety and environmental protection units in government, industry, and the not-for-profit sectors; environmental educators; and environmental scientists and planners using or conducting environmental and health risk assessments. (Professor Rae Zimmerman and Guest Lecturers)

### **P11.2617 Summer Institute in Environmental Law. Five days**

Over the past couple of decades, environmental laws have increased dramatically in number and complexity. This course is a comprehensive coverage of environmental laws encompassing areas such as water and air pollution control and prevention, toxic substances, drinking water, hazardous and solid waste management, and medical wastes. The attributes of the laws that are emphasized include liability and enforcement, environmental aspects of property transfers, right-to-know, citizens suits, and other topics pertinent to environmental management, policy and planning. Speakers include lawyers from major law firms, law schools and other organization engaged in legal work. (Adjunct Professor Phil Weinberg and Guest Lecturers)

### **P11.2625 Workshop in the Planning and Management of the Urban Waterfront (Summer Institute). Typically five consecutive Tuesdays**

This course covers the planning and management of urban waterfronts, with a focus primarily on New York City. It addresses waterfront revitalization issues including inactive maritime and industrial areas, interim commercial uses and the staging of mixed use developments, recreation, public service uses and conservation. Topics to be explored are the regulatory process, financing techniques, planning strategies, legislative requirements, project management, comprehensive land and water use planning, and public-private partnerships. The workshop consists of classroom instruction and field trips. Guest lecturers are drawn from both the public and private sectors. (Adjunct Assistant Professor Holly Haff and Guest Lecturers)