

EFB/EST 220 Urban Ecology
Course Syllabus

Instructor : Professor Myrna Hall (112 Marshall, 470-4741, mhall@esf.edu)
Office Hrs : M 2:00 - 4:00

Graduate Assistants: 1) Steve Balogh (301 Illick, sbbalogh@syr.edu)

Office Hrs: W 9:30 - 10:30, F 1:00 - 2:00

Undergraduate Assistant: Nina Fabrega (ndfabreg@syr.edu)

Office Hrs: upon request

Course meets: M, F, Lecture/Discussion, 321 Bray, 9:30 -10:25 AM

W Stadium Place, Field Lab, 1:50 - 4:50 PM

Course schedule: [here](#) and on Blackboard

Prerequisites: **None**

Course Goals:

To introduce students to the analytical methodologies and tools that will help them begin 1) to understand quantitatively the flows of energy and materials between urban ecosystem components, and between urban areas and the rural areas that support them; and 2) to evaluate how (or whether) cities might be truly "sustainable." The role and importance of science, engineering, the design professions, education, and community participation in creating livable communities will be addressed, as will the social issues of environmental risk perception, equity and justice.

Objectives: To enhance student understanding of

1. the urban environment as an ecosystem and as part of the larger regional and global ecosystem
2. the quantification of the flow of energy, nutrients and materials through the urban ecosystem
3. the biogeography of the urban environment
4. the influence of human social and economic preferences, needs, and values on urban energy and resource dynamics
5. human perception of the urban environment and residence and its effect on behavior and response to urban environmental problems

6. the opportunities for ecologically-based urban remediation
7. environmental inequity and justice
8. the role of environmental science, design, engineering, community participation and policy studies in urban decision making
the need for measurable criteria for determining urban sustainability

Student Outcomes: At the end of the course, the student should be able to

1. measure several indicators of urban ecosystem health such as water quality, air quality, soil quality, noise, urban temperature, wildlife populations, citizen perceptions of quality of life, energy use, etc. using tools learned in this class;
2. trace (diagram) the flow of energy, nutrients, or materials through at least one subsystem of the urban environment;
3. discuss why urban environmental issues must be approached from a systems science perspective that includes socio/economic factors as well as the traditional ecosystem "biophysical" factors;
4. trace ecosystem effects of proposed remedial solutions, both within the local and regional ecosystem context
5. determine if, and explain why, a "solution" is sustainable
6. assess whether that "solution" offers equal environmental protection to all citizens
7. involve local citizens in the study and improvement of their local environment.

Books:

Textbook: Please purchase the reader from the Copy Center in Bray Hall

Lab Manual: Please purchase from the Copy Center

Lab Materials Required:

- Water sandals, wading boots, or old tennis shoes
- Field Notebook (binder type-preferably water-proof), and waterproof pen

Other recommended lab materials to buy or borrow as needed for field trips: magnifying glass, camera, clipboard, water bottle, sunscreen and /or hat, measuring tape, calculator

Evaluation:

Evaluation Tool	Percentage of grade
Lab Assignments (10)	70
Mid-term exam	15
Final Project	15
Total	100

Course Grades:

Your course grade will be determined by the grades earned on the items listed in the Evaluation section. You can find your letter grade in the table below.

A	93.0	-	100.0	Excellent
A-	89.5	-	92.9	Very Good
B+	87.5	-	89.4	Quite Good
B	82.5	-	87.4	Good
B-	79.5	-	82.4	Satisfactory
C+	77.5	-	79.4	Adequate, but needs improvement
C	72.5	-	77.4	Less than Adequate
C-	67.5	-	72.4	Major gaps in understanding
D	60.0	-	67.4	Minimum for passing
F	0	-	59.9	Minimal effort made in the course

Class Absence

If you encounter a situation beyond your control in which you will miss three (3) or more days of classes, you should contact Heather Rice in the Office of Student Life (110 Bray Hall, 470-6660) and they will contact all your instructors for you. Supportive documentation may be required.

Accommodations For Students With Disabilities:

If you have an identified disability and will need accommodations, you should first contact Ms. Rice in the Office of Student Life in 110 Bray Hall. Ms. Rice will discuss the ESF process and work with you to access supportive services. If you have a learning disability, the College will require you to provide supportive documentation and will develop an approved accommodation sheet for you. We will not provide accommodations until the Office of Student Life has developed an accommodation plan and we meet to discuss its applicability to this course. Accommodations will not be provided retroactively. If you have any questions about disabilities, please contact me and/or the Office of Student Life as soon as possible. All conversations will be confidential.