

# ENV 200—Cities and the Environment

Fall quarter, 2009

## Logistics

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**Office hours:** Monday & Wednesday 9:30–10:30 am or by appointment

## Course overview

From the course catalog: “This course focuses on the interactions between urban areas and the environment. It is a discussion of the physical setting of cities; the water, energy, air and waste disposal needs of urban areas; and the effects of urban areas on the air, water and land environment.” More fully, we will think about our cities and consider if they are sustainable. Here, we define sustainability as the ability for the environment to continue providing us with ecosystem services (e.g., clean air and water) with no degradation in the future. Like many inquiries into environmental science, we will consider interactions between cities and the environment separated into the four great Earth spheres: biosphere, atmosphere, hydrosphere and lithosphere. For cities, this corresponds to the topics urban ecosystems, air pollution, water quality and solid waste disposal. By importing food, material goods and energy (electricity and fuel), cities also cause impacts beyond their physical borders. Finally, using student driven presentations, we will consider ways that cities can become more sustainable.

## Course philosophy

We will strive to have an interactive discussion on the topics addressed in this class. One lesson of environmental science is the impact that each of us has on the sustainability of our planet, and the diverse student population at DePaul will help us to understand how different ways of living (e.g., urban verses suburban) change this impact. Science is difficult to learn passively—classroom participation promotes active learning. Student learning is the focus of this class, and I expect student participation and feedback in reaching the objectives of the course. Students will be encouraged to provide both formal and informal feedback throughout the semester on course direction, topics and teaching methodology. Also, helpful criticism is always appreciated via email, office hours and after class.

## Policies

**Academic Integrity:** According to the DePaul University [Student Handbook](#), “Violations of academic integrity include but are not limited to the following categories: cheating; plagiarism; fabrication; falsification or sabotage of research data; destruction or misuse of the university's academic resources, alteration or falsification of academic records; academic misconduct; and complicity.” The Handbook also states that, “If an instructor finds that a student has violated the Academic Integrity Policy, the appropriate initial sanction is at the instructor's discretion.” To support this policy, your assignments may be submitted to the website [turnitin.com](http://turnitin.com). For more information, definitions, and examples, see DePaul University's Academic Integrity website at <http://academicintegrity.depaul.edu>.

**Reading assignments:** Approximately once per week you will have a reading assignment provided on the blackboard site. In addition, there will be 2–4 questions related to that reading assignment, and you should answer each question with at least three sentences. You will use the Blackboard assignment system to submit your answers. At the beginning of class, we will spend 10–15 minutes talking over the readings. The questions will be designed to provide each student with a baseline of information and as a starting point for our discussion. To allow for an evolution of discussion topics, these questions will be posted online three days before the class. Also, during the class presentations, each presenting group will be responsible for providing a short reading assignment and a related question.

**Late assignments:** All assignments are due online at 11:59 pm on the day preceding the class. Late assignments will receive a 10% per day grade penalty (i.e., within 24 hours = -10%, within 48 hours -20%, etc.). All assignments must be turned in electronically via Blackboard.

**Class mid-quarter evaluation:** As a new faculty member at DePaul, I am particularly interested in student feedback. In addition to the standard end of the quarter evaluation, I will conduct a mid-quarter evaluation to look for ways to improve both the content and delivery of this course.

**Final projects:** Groups of 3–4 students will create a final presentation that covers either a measure of sustainability or methodology for increasing a city's sustainability. The format of the presentation is left open, but should meet the following guidelines. You will have 25 minutes to present the report, which needs to include at least 5 minutes of class discussion based on a reading and a question you provide one week prior to your report. Possible presentation formats include an oral lecture, a poster with a question & answer session or a video. An initial literature review (a bibliography with at least 10 peer-reviewed sources) is due **Monday, Oct 12** and a formal project proposal is due on **Monday, Nov 2** and should include a detailed outline, a 500–600 word abstract detailing the concepts addressed in the presentation and a revised literature review. Some tentative topics:

Sustainable indicators: energy sources and conservation, air quality, water quality, environmental justice  
Initiatives: green buildings, public transportation, smart growth, urban forestry, food security

**Final paper:** Each student will be responsible for writing a 5–6 page (double spaced) paper based on your final project topic. Although the paper can draw on the material presented in common, each paper must be the individual's work and the usual standards of plagiarism apply. The paper is due the **Wednesday (Nov. 18)** following the last day of class.

**Exams:** There will be a midterm for the course given on **Monday, Oct 26**. The midterm will focus on the material covering the impacts of cities on the environment. The final exam (**Monday, Nov 23**) will cover the student presentations.

**Blackboard:** In an effort to reduce paper usage, all class materials and grades will be available on the Blackboard site. I will post all lectures on the Blackboard site within 24 hours after the class. We will also use Blackboard for all assignment submissions.

**Attendance:** Attendance is required for all classes. Students will be allowed to miss two classes without penalty during the quarter. This will be implemented by dropping the two lowest grades on Blackboard for attendance. This should cover all 'routine' absences such as colds, doctor appointments, etc. Further excused absences will only be granted in exceptional circumstances with appropriate documentation. After your first two absences, approximately 1 point for each missed class will be taken off your final grade. Any exceptions to this policy must be arranged in advance (e.g., athletic competitions). These allowed misses do not affect the due dates for any reading assignments or final project milestones.

## Grading

Grades in this class will be determined on the following scale:

>=93	92-90	89-87	86-83	82-80	79-77	76-73	72-70	69-67	66-60	<60
<b>A</b>	<b>A-</b>	<b>B+</b>	<b>B</b>	<b>B-</b>	<b>C+</b>	<b>C</b>	<b>C-</b>	<b>D+</b>	<b>D</b>	<b>F</b>

I may change these grade boundaries, but this will always be in favor of the students and will be applied uniformly to the entire class. Grades will be determined from the individual components of the course by the following allocation:

<b>Final exam</b>	<b>Midterm exam</b>	<b>Reading assignments</b>	<b>Final project</b>	<b>Attendance</b>
20%	25%	15%	25%	15%

## Sources of help

If you think you may have special learning needs, please feel free to see me as soon as possible, and every effort will be made to reasonably accommodate your needs. Also, see:

- **PLuS Program:** for students with learning disabilities and/or attention deficit disorders
- **Writing Center:** for students who need help with writing
- **OSD:** for students with physical disabilities
- **Dean of Students:** accommodations with health or family emergencies

## Scientific Inquiry domain

Courses in the Scientific Inquiry domain are designed to provide students with an opportunity to learn the methods of modern science and its impact on the world around us. Courses are designed to help students develop a more complete perspective about science and the scientific process, including: an understanding of the major principles guiding modern scientific thought; a comprehension of the varying approaches and aspects of science; an appreciation of the connection among the sciences; the fundamental role of mathematics in practicing science; an awareness of the roles and limitations of theories and models in interpreting, understanding, and predicting natural phenomena; and a realization of how these theories and models change or are supplanted as our knowledge increases.

## Goals and Learning Outcomes

Below are listed the learning goals and outcomes for the Science Inquiry Domain. Each goal is listed followed by learning outcomes associated with the goal. Most of this document conforms to the National Science Education Standards.

1. Students will understand the major principles guiding modern scientific thought. Students will demonstrate a mastery of the science content knowledge of their SID courses.
2. Students will know that science, technology, and math serve as mechanisms for inquiry into the nature of the universe.
3. Students will understand and appreciate the interrelationships among science, technology and math.
4. Students will understand and appreciate the role of science in society and in their lives.
5. Students will understand the nature of science, technology, and mathematics.

After completing the ENV 200 course, students should be able to describe:

- How physical and biological factors influence the development of cities
- How urban growth and development impact the physical and biological environment
- Implications of sustainable strategies in limiting the physical and biological impact of cities

## Syllabus

Week—Dates	Topic	Notes
<b>1—Sep 9</b>	Introduction	No reading assignments
<b>2—Sep 14-16</b>	The impact of the local environment on cities	
<b>3—Sep 21-23</b>	Air pollution	
<b>4—Sep 28-30</b>	Water quality	Form final project groups
<b>5—Oct 5-7</b>	Solid waste disposal	
<b>6—Oct 12-14</b>	Urban open spaces and biodiversity	Literature review ( <b>Oct 12</b> )
<b>7—Oct 19-21</b>	Global warming and cities	
<b>8—Oct 26-28</b>	Environmental justice	Midterm exam ( <b>Oct 26</b> )
<b>9—Nov 2-4</b>	Conclusion and review of project outlines	Project outlines ( <b>Nov 2</b> )
<b>10—Nov 9-11</b>	Class presentations of final projects	
<b>11—Nov 16</b>	Class presentations of final projects	<b>Wed, Nov 18:</b> final paper due

The above schedule is a framework, and changes will be communicated in class and via the Blackboard site.

**Class times:** Monday & Wednesday 1:00–2:30 pm

**Class location:** McGowan South Room 206

**Final exam:** Monday, November 23<sup>rd</sup>, 11:45 am–2:00 pm