

ENV432H1F: Urban Ecology Fall 2017

Last Updated: Sept 5, 2017

Time: Wednesdays, 9 am - noon
Location: AP 120 (new 07F)
Instructors: Karen Ing, ES2098, 416-978-4863; karen.ing@utoronto.ca
Don Jackson, ES3055E, 416-978-0976; don.jackson@utoronto.ca
Office Hours: by appointment, and usually available after lectures

Course website: Blackboard (accessible via <http://portal.utoronto.ca>)

Required Text:

There is no textbook or hard copy reader for this course. Course readings have been drawn from a variety of sources that are electronically accessible and will be listed on the course webpage on BB.

For students who want to do additional readings, the following are recommended general resources:

Alberti, Marina. 2008. *Advances in Urban Ecology: Integrating Humans and Ecological Processes in Urban Ecosystems*. Springer.

Douglas, Ian and James, Philip. 2015. *Urban Ecology: An Introduction*. Routledge.

Forman, Richard T. 2014. *Urban Ecology: Science of Cities*. Cambridge University Press.

Marzluff, John M., Shulenberger, Eric, Endlicher, Wilfried. 2008. *Urban Ecology: An International Perspective on the Interaction Between Humans and Nature*. Springer.

Niemelä, Jari, Jürgen H. Breuste, Thomas Elmqvist, Glenn Guntenspergen, Philip James, and Nancy E. McIntyre (eds). 2011. *Urban Ecology, Pattern, Processes, and Applications*. Oxford University Press. New York.

Pickett, S.T.A., and Cadenasso, M. 2012. "Urban Ecology" in R.A. Meyers (ed.) *Encyclopedia of Sustainability Science and Technology*, New York: Springer, 11324-11343.

Course Evaluation

Midterm, 90 min in-class	Oct 18 th	20%
Proposal	Nov 1 st	5%
Term Paper	Dec 6 th	30%
Presentation	Nov 29 th /Dec 6 th	10%
Final Exam	Dec exam period	30%
Participation		5%

Course Subject:

The course examines the ecology of urban areas through consideration of the biological and physical environments, in particular how the human-constructed environment alters pre-existing biophysical conditions and interactions. It encompasses a comparative perspective to study the development of these emerging ecosystems of increasing importance given global urbanization.

Course Elements:

- Physical impacts of human settlement and urbanization on natural ecosystems. Coverage include: impacts on soils, air and water; biosphere; and issues of contaminants and pollution.
- Wildlife (plants, mammals, insects, fishes, etc) and factors impacting their dynamics and the biodiversity of urban systems
- Restoration theories and goals, regional & local case studies
- Students will develop term papers based on primary data and literature examining various questions that integrate biophysical components of the urban environment.

Educational objectives:

- Appreciation and recognition of the relevance and importance of urban ecosystems as a unit of ecological study
- Demonstrate and integrate understanding of fundamental scientific principles relating to the lithosphere, atmosphere, hydrosphere and biosphere as relevant in urban ecosystems.
- Integrate knowledge from physical and biological sciences to examine the impacts humans and large urban centres have on their surrounding ecosystems and vice versa, e.g. heat island, climate, pollution, etc.
- Understand the issues and potential remediation techniques available to address urban issues
- Experience in developing research questions concerning complex interconnected environmental problems at multiple scales from a broad interdisciplinary perspective through the collection and interpretation of scientific data.
- Familiarity with the complex relationships between scientific approaches to environmental issues and political, social, economic and ethical perspectives on the environment, particularly related to urban systems.

Lecture Schedule

Note: Associated readings will be identified with links on the course homepage on Blackboard.

Date	Lecture Topic
Sept 13	Introduction to urban ecology
Sept 20	Urban Soils
Sept 27	Atmospheric Processes and Climate in Urban Systems
Oct 4	Hydrologic Processes and Water in an Urban Environment
Oct 11	Urban Habitat and Wildlife
Oct 18	IN CLASS MIDTERM
Oct 25	Urban Habitat and Wildlife - continued
Nov 1	Urban Features: Human Structures & Green Spaces Proposal due
Nov 8	November Break – no classes
Nov 15	Restoration; Remnant Habitat & Restoration
Nov 22	Restoration; urban sustainability
Nov 29	Case studies: student presentations
Dec 6	Case studies: student presentations Assignment due

Note: Important Dates

Sept 20 – last day to add or make section changes to F and Y section code courses

Oct 18th - midterm

Nov 1st – proposal due

Nov 6th – Last day to cancel F section code courses from academic record and GPA; last day to add or remove a CR/NCR option for F section code courses

Nov 6-10th – November Break, no classes

Nov 29th – assignment due

Dec 6th – classes end

Dec 9-20 – exam period

COURSE POLICIES

Submission of assignments:

We will be using Turnitin.com AND the online assignment function in Blackboard for submission of the written assignment in this course. Normally, students will be required to submit their course essays to **Turnitin.com** for review of textual similarity and detection of possible plagiarism. In doing so, students will allow their essays to be included as source documents in the Turnitin.com reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of the Turnitin.com service are described on the Turnitin.com web site.

If a student does not wish to participate in Turnitin, the student **MUST** advise the instructor or TA immediately as alternate arrangements for screening the assignment must be arranged.

To avoid late penalties the essay assignment must be submitted **in class** on **Dec 6th** AND the Turnitin.com site before **midnight of Dec 6th, 2017**.

You will need to visit the Turnitin.com website and follow student instructions to submit your assignment for vetting. We will supply you with the code and password to identify the appropriate course to which the assignment should be submitted.

In formatting your assignment it should:

- Include the following information on the front page: the assignment title (feel free to be creative, but representative), the course title and number, the instructor's name, your name and student number
- Be double spaced, using 12 point font, in black ink with 1" (2.5cm) margins;
- include page numbers

Late penalties

The late penalty on all assignments will be 5% of the assignment grade per day late, including weekends and will only be waived with the accompaniment of a completed official University of Toronto **Verification of Student Illness or Injury Form** which can be found at:

<http://www.illnessverification.utoronto.ca/>

Please note that the certificate must cover the period of time you missed, e.g. the week before the assignment/essay is due, etc. and must supply sufficient detail and appropriate support to warrant any special consideration.

Assignments will NOT be accepted one week past the due date even if accompanied by a medical certificate unless prior approval has been obtained from the course instructor(s).

Academic Integrity

The following is taken from the Faculty of Arts and Science Academic Integrity website (<http://www.artsci.utoronto.ca/osai/students>):

Academic integrity is fundamental to learning and scholarship at the University of Toronto. Participating honestly, respectfully, responsibly, and fairly in this academic community ensures that the U of T degree that you earn will be valued as a true indication of your individual academic achievement, and will continue to receive the respect and recognition it deserves.

Familiarize yourself with the University of Toronto's *Code of Behaviour on Academic Matters* (<http://www.governingcouncil.utoronto.ca/policies/behaveac.htm>). It is the rule book for academic behaviour at the U of T, and you are expected to know the rules. Potential offences include, but are not limited to:

In papers and assignments:

- Using someone else's ideas or words without appropriate acknowledgement.
- Copying material word-for-word from a source (including lecture and study group notes) and not placing the words within quotation marks.
- Submitting your own work in more than one course without the permission of the instructor.
- Making up sources or facts.
- Including references to sources that you did not use.
- Obtaining or providing unauthorized assistance on any assignment including
 - working in groups on assignments that are supposed to be individual work,
 - having someone rewrite or add material to your work while "editing".
- Lending your work to a classmate who submits it as his/her own without your permission.

On tests and exams:

- Using or possessing any unauthorized aid, including a cell phone.
- Looking at someone else's answers
- Letting someone else look at your answers.
- Misrepresenting your identity.
- Submitting an altered test for re-grading.

Misrepresentation:

- Falsifying or altering any documentation required by the University, including doctor's notes.
- Falsifying institutional documents or grades.

The University of Toronto treats cases of academic misconduct very seriously. All suspected cases of academic dishonesty will be investigated following the procedures outlined in the *Code*. The consequences for academic misconduct can be severe, including a failure in the course and a notation on your transcript. If you have any questions about what is or is not permitted in this

course, please do not hesitate to contact me. If you have questions about appropriate research and citation methods, seek out additional information from me, or from other available campus resources like the [U of T Writing Website](#). If you are experiencing personal challenges that are having an impact on your academic work, please speak to me or seek the advice of your college registrar.

See also the handout “How Not to Plagiarize,” Margaret Proctor, 2009, available online at <http://www.writing.utoronto.ca/advice/using-sources/how-not-to-plagiarize>

Evaluation criteria

The primary criteria used in evaluating written work are the following.

Form:

Defined as freedom from spelling and grammatical errors. Students are expected to include thorough, accurate and consistent references in any academic referencing style that includes page numbering which is included in the document “Standard Documentation Formats” available at: www.utoronto.ca/writing/document.html

Writing style:

Defined as clarity, succinctness, appropriate diction and tone.

Structure:

Defined as coherence of the organization of the paper. The logic of the structure is determined by the purpose, which is to test a hypothesis, answer a research question or defend a thesis statement.

Precision and accuracy:

Precision means saying exactly and specifically what you mean, avoiding vague generalities. Accuracy refers to absence of major factual errors.

Analysis:

Student essays are expected to include critical distance, reflection and originality of thought. The written assignments will be evaluated on the defensibility of their analysis in terms of their use of evidence and logical coherence.

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Accessibility Needs:

The University of Toronto is committed to accessibility. If you require accommodations for a disability, or have any accessibility concerns about the course, the classroom or course materials, please contact Accessibility Services as soon as possible:

disability.services@utoronto.ca or <http://studentlife.utoronto.ca/accessibility> .

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