

## **ENV 307H: Urban Sustainability**

### **Winter 2017**

#### **General information:**

Time: Thursday 1-4 PM

Location: ES B142 (use 5 Bancroft entrance to Earth Sciences Centre)

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#### **Course description and objectives:**

While urban areas represent only 2% of the land mass of the planet, the environmental impacts of this type of land use are enormous and far-reaching. It is estimated, for instance, that urban areas consume 75% of the planet's resources. Currently, just over half of the world population resides in urban areas and, over the next several decades, global urbanization levels are projected to steadily rise, potentially placing further pressure on planetary resources and ecosystems. For these reasons, it is crucial that cities make the transition to more sustainable forms of development that will lessen adverse environmental impacts and, at the same time, maintain or improve the livability of urban areas. At present, from an environmental perspective, cities are a significant part of the problem or challenge inherent to achieving global sustainability, yet also represent a major opportunity for new approaches and solutions. Increasingly, the goal of urban sustainability is considered essential to achieving global sustainability.

The course examines the emerging concept of urban sustainability in theory and application. Course material is drawn from Canadian and international contexts. In the course, examples and case studies are used to illustrate key ideas and themes and to assess the relative success and limitations of sustainability initiatives in the urban context. The main course objectives are for students to:

- Understand the impacts of urban areas on the environment, from local to global scales
- Be familiar with various approaches and best practices for reducing negative environmental impacts and improving the liveability of urban areas
- Appreciate the scope of opportunities for governments, the private sector, civil society organizations and communities to enhance urban sustainability

The format of the classes will be Powerpoint presentations, informal group discussions, and documentary films and YouTube videos on various topics related to urban sustainability.

#### **Course readings:**

A course reader is available for purchase from Mon Jan 9 onwards at The Copy Place, 720 Spadina Ave, Suite 103 (a short walk south of Bloor St) (please note that The Copy Place is closed from Jan 2 to 8). The reader contains about half of the readings, which are chapters from various books on urban sustainability. The remainder of the readings are online journal articles available from the U

of T Library system and other sources obtainable via the Internet, and are not included in the reader to keep the cost down. For a list of which readings are contained in the course reader and which are accessible online, see the Weekly Schedule and Readings section below.

**Accessing the online course readings:**

For the journal articles listed in the Weekly Schedule and Readings below, a good way to access the full text for these sources is to go to the specific journal you are looking for in the U of T library system. For those not familiar with this search method, here are the steps:

1. From the library search home page (<https://onesearch.library.utoronto.ca/>), click on “Catalogue” (shown in red type on upper right side).
2. From the Search Catalogue page, click on “Advanced Search”
3. From the Advanced Search page, choose Option 1, type in the name of the journal (not the article title) in the field shown, specify Journal Title from the drop-down menu to the right of the field, specify Journals, Magazines and Newspapers in the drop-down Format field, click on “Show only online items,” and click on the magnifying glass icon.
4. You should then see the catalogue record for the specific journal. Click on one of the web links listed to be directed to the online journal. Lastly, locate the year, volume and issue number for your article.

As a U of T student, all journal articles in the course are available to you for free and you should not have to pay for any of them.

**Course website:**

The course has a website on Blackboard at: <http://portal.utoronto.ca>. Announcements, assignments, Powerpoints and other course-related material will be posted on the website. All students are advised to visit the website on a regular basis.

**Evaluation scheme and timelines:**

Short paper (10%)	Due Jan 26 (Week 4)
Midterm test (25%)	Feb 9 (Week 6)
Long paper (30%)	Due Mar 23 (Week 11)
Final exam (35%)	During April exam period

Details regarding the written assignments, midterm, and final exam will be provided in class.

**WEEKLY SCHEDULE AND READINGS:**

Date	Weekly Theme and Readings	Notes
Jan 5 (Week 1)	<p><b>PART A: INTRODUCTION TO URBAN SUSTAINABILITY</b></p> <p><b>Course introduction</b></p> <p><i>Readings:</i>            Girardet, H. 2008. Big Feet, Small Planet. In <i>Cities, People, Planet: Urban Development and Climate Change</i>. Chichester, UK: John Wiley &amp; Sons. Pp. 1-19. (Included in reader)</p>	

	<p>Newton, P. W. and Doherty, P. 2014. The Challenges to Urban Sustainability and Resilience. In Pearson, L.J., Newton, P. W., and Roberts, P. (eds.). <i>Resilient Sustainable Cities: A Future</i>. New York and London: Routledge. Pp. 7-18. (Included in reader)</p>	
<b>Jan 12 (Week 2)</b>	<p><b>Global urbanization trends and environmental impacts</b></p> <p><b>Readings:</b>  Benton-Short, L. and Short, J. R. 2013. Global Urban Trends. In <i>Cities and Nature</i>. 2<sup>nd</sup> ed. London and New York: Routledge. Pp. 97-120. (Included in reader)</p> <p>Rees, W. E. 2010. Getting Serious about Urban Sustainability: Eco-footprints and the Vulnerability of Twenty-First-Century Cities. In Bunting, T., Filion, P., and Walker, R. (eds.). <i>Canadian Cities in Transition: New Directions in the Twenty-First Century</i>. 4<sup>th</sup> ed. Don Mills, Ontario: Oxford University Press. Pp. 70-86. (Included in reader)</p>	First assignment handed out
<b>Jan 19 (Week 3)</b>	<p><b>PART B: URBAN SUSTAINABILITY ISSUES</b></p> <p><b>Urban form</b></p> <p><b>Readings:</b>  Blais, P. 2010. The Costs and Benefits of Sprawl. In <i>Perverse Cities: Hidden Subsidies, Wonky Policy, and Urban Sprawl</i>. Vancouver and Toronto: UBC Press. Pp. 27-40. (Included in reader)</p> <p>Fertner, C. and Grobe, J. 2016. Compact and Resource Efficient Cities? Synergies and Trade-offs in European Cities. <i>European Spatial Research and Policy</i> 23(1): 65-79. (Not included in reader – journal article available online from U of T Library)</p>	
<b>Jan 26 (Week 4)</b>	<p><b>Transportation</b></p> <p><b>Readings:</b>  Sagaris, L. 2014. Citizen Participation for Sustainable Transport: The Case of the “Living City” in Santiago, Chile (1997-2012). <i>Journal of Transport Geography</i> 41: 74-83. (Not included in reader – available online from U of T Library)</p> <p>Newman, L. and Waldron, L. 2012. Towards Walkable Urban Neighbourhoods. In Dale, A., Dushenko, W. T., and Robinson, P. (eds.). <i>Urban Sustainability: Reconnecting Space and Place</i>. Toronto, Buffalo and London: University of Toronto Press. Pp. 106-126. (Included in reader)</p>	First assignment due in class today
<b>Feb 2 (Week 5)</b>	<p><b>Water</b></p> <p><b>Readings:</b>  Hering, J. G., Waite, T. D., Luthy, R. G., Drewes, J. E., and Sedlack, D.L. 2013. A Changing Framework for Urban Water Systems. <i>Environmental Science &amp; Technology</i> 47</p>	

	<p>(19): 10721-10726. (Not included in reader – available online from U of T Library)</p> <p>Bassi, N. and Kumar, M. D. 2012. Addressing the Civic Challenges: Perspective on Institutional Change for Sustainable Urban Water Management in India. <i>Environment and Urbanization ASIA</i> 3(1): 165-183. (Not included in reader – available online from U of T Library)</p>	
<b>Feb 9 (Week 6)</b>	<p><b>Midterm test</b></p> <p>No new readings this week</p>	
<b>Feb 16 (Week 7)</b>	<p><b>Green space and biodiversity</b></p> <p><b>Readings:</b>  Jennings, V., Johnson-Gaither, C., and Gragg, R. S. 2012. Promoting environmental justice through urban green space access: A synopsis. <i>Environmental Justice</i> 5(1): 1–7. (Not included in reader – journal article available online from U of T Library)</p> <p>Blay-Palmer, A. and Landman, K. 2015. Food Systems and the City. In Filion, P., Moos, M., Vinodrai, T. and Walker, R. (eds.). <i>Canadian Cities in Transition: Perspectives for an Urban Age</i>. 5<sup>th</sup> ed. Don Mills, Ontario: Oxford University Press. Pp. 401-414. (Included in reader)</p>	Second assignment handed out
<b>Feb 21-24</b>	<b>Reading Week – No class</b>	
<b>Mar 2 (Week 8)</b>	<p><b>Waste management</b></p> <p><b>Readings:</b>  Brown, D. P. 2015. Garbage: How Population, Landmass, and Development Interact with Culture in the Production of Waste. <i>Resources, Conservation and Recycling</i> 98: 41-54. (Not included in reader – available online from U of T Library)</p> <p>Worldwatch Institute. 2016. Source Reduction and Recycling of Waste. In <i>State of the World: Can a City Be Sustainable?</i> Washington, DC: Island Press/Centre for Resource Economics. Pp. 217-229. (Not included in reader – e-book chapter available online from U of T Library at: <a href="http://search.library.utoronto.ca/details?10593523&amp;uuid=18302c99-0bbf-4e8c-a101-e9dbfabcf4a6">http://search.library.utoronto.ca/details?10593523&amp;uuid=18302c99-0bbf-4e8c-a101-e9dbfabcf4a6</a>)</p>	
<b>Mar 9 (Week 9)</b>	<p><b>Housing and basic services</b></p> <p><b>Readings:</b>  Federation of Canadian Municipalities. 2015. <i>Built to Last: Strengthening the Foundations of Housing in Canada</i>. Ottawa: FCM. Pp. 1-21. (Not included in reader – available online at: <a href="http://www.fcm.ca/Documents/reports/FCM/Built_to_Last_Strengthening_the_foundations_of_housing_in_Canada_EN.pdf">http://www.fcm.ca/Documents/reports/FCM/Built to Last Strengthening the foundations of housing in Canada EN.pdf</a>)</p>	

	Nsokimieno Eric, M. M., Shouyu, C., and Qin, Z. L. 2010. Sustainable Urbanization's Challenge in Democratic Republic of Congo. <i>Journal of Sustainable Development</i> 3(2): 242-254. (Not included in reader – available online from U of T Library)	
<b>Mar 16 (Week 10)</b>	<p><b>Energy use and climate change</b></p> <p><b>Readings:</b> Girardet, H. 2008. Solar Cities – From Theory to Practice. In <i>Cities, People, Planet: Urban Development and Climate Change</i>. Chichester, UK: John Wiley &amp; Sons. Pp. 175-194. (Included in reader)</p> <p>Joss, S. and Molella, A. P. 2013. The Eco-City as Urban Technology: Perspectives on Caofeidian International Eco-City (China). <i>Journal of Urban Technology</i> 20(1): 115-137. (Not included in reader – available online from U of T Library)</p>	
<b>Mar 23 (Week 11)</b>	<p><b>PART C: TOWARDS URBAN SUSTAINABILITY</b></p> <p><b>Planning for urban sustainability</b></p> <p><b>Readings:</b> Wheeler, S. 2013. Tools for Sustainability. In <i>Planning for Sustainability: Creating Liveable, Equitable and Ecological Communities</i>. 2<sup>nd</sup> ed. London and New York: Routledge. Pp. 86-104. (Included in reader)</p> <p>Hodge, G. and Gordon, D. L. A. 2014. Community Planning in Canada and the Future. In <i>Planning Canadian Communities: An Introduction to the Principles, Practice, and Participants</i>. 6<sup>th</sup> ed. Toronto: Nelson Education. Pp. 428-445. (Included in reader)</p>	Second assignment due in class
<b>Mar 30 (Week 12)</b>	<p><b>Local approaches to urban sustainability</b></p> <p><b>Readings:</b> Krasny, M. E. and Tidball, K. G. 2012. Civic Ecology: A Pathway for Earth Stewardship in Cities. <i>Frontiers in Ecology and the Environment</i> 10(5): 267-273. (Not included in reader – available online from U of T Library)</p> <p>Penalosa, G. and Pearson, L. J. 2014. How to Move from Talking to Doing. In Pearson, L.J., Newton, P. W., and Roberts, P. (eds.). <i>Resilient Sustainable Cities: A Future</i>. New York and London: Routledge. Pp. 234-41. (Included in reader)</p>	Last class

## Course Policies:

### 1) Assignment submission:

All course assignments must be submitted as a paper copy. Students are required to save their assignments electronically or as photocopies in case a paper is lost. Assignments should be

submitted at the beginning of class on the date they are due. If it is not possible to hand in your assignment in class, please submit it to the drop box for the School for the Environment located inside the administrative office at ES 1016V (in the 33 Willcocks wing of the Earth Sciences Centre). When submitting to the drop box, you must sign in your assignment on the sheet provided. Note that the drop box is accessible on weekdays from 9 AM to 5 PM, but not in the evenings or on weekends when the building is locked.

Assignments will not be accepted by e-mail. Please do not e-mail assignments to the course instructor or TA either to submit your paper or to show proof of completion on a particular date; the submission date for all assignments is considered to be the date on which the paper copy is received (in class or to the drop box).

## **2) Format and referencing for written assignments:**

All papers should be double-spaced, use Times Roman 12-point font, have one-inch margins, and include page numbers. For citations within the text, the author-date system of referencing (APA system) is preferred but, whichever system is used, consistency of format is essential. Any information utilized from websites must be referenced in its entirety, including author of site, full website address, title of website, and date that material was retrieved. Students must adhere to the page or word limit specified for each assignment and edit the length down as necessary; marks could be deducted for exceeding the page or word limit or not following the specified format.

## **3) Requests for extensions:**

Requests for extensions must be made to the course instructor in advance of assignment deadlines. Extensions will be given in cases of documented sickness or other extenuating circumstances. Extensions for medical reasons must be supported with a U of T Verification of Student Illness or Injury form (available at [http://www.illnessverification.utoronto.ca/document/Verification%20of%20Student%20Illness%20\(VOI\)%20-%20Oct%2027%202016.pdf](http://www.illnessverification.utoronto.ca/document/Verification%20of%20Student%20Illness%20(VOI)%20-%20Oct%2027%202016.pdf)). For other types of extenuating circumstances, a Registrar's letter or other official university documentation is acceptable. Other supporting evidence will be considered on an individual basis.

## **4) Late penalties:**

The late penalty on all assignments will be 3% of the assignment grade per day late, excluding weekend days and statutory holidays, and will only be waived with the accompaniment of a University of Toronto Verification of Student Illness or Injury Form, other official university documentation, or other acceptable supporting evidence.

Assignments will not be accepted more than one week past the due date, even if accompanied by official documentation, unless prior approval has been obtained from the course instructor.

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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:*

*<http://www.studentlife.utoronto.ca/as/contact-us> and get information about its services at:*

*<http://www.accessibility.utoronto.ca/>*

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**Academic Integrity:**

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. You are advised to familiarize yourself with the University of Toronto's *Code of Behaviour on Academic Matters* (<http://www.governingcouncil.utoronto.ca/Assets/Governing+Council+Digital+Assets/Policies/PDF/ppjun011995.pdf>). It is the rule book for academic behaviour at the U of T, and you are expected to know the rules.

*You can get further guidance on academic integrity at:* [www.artsci.utoronto.ca/osai/students](http://www.artsci.utoronto.ca/osai/students).

**Note on Plagiarism:**

Please note that according to the University's Code of Behaviour on Academic Matters, it is an offence for a student 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

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>

Cases of suspected plagiarism will be addressed in accordance with the procedure established by the Code of Behaviour on Academic Matters.