

University of Waterloo - ERS 650/475

SUSTAINABLE CITIES IN THE 21ST CENTURY: NAVIGATING A NETWORKED WORLD

In person: June 2-June 13 (daily) 1:00 pm to 4:30 pm

The course site will be open from May 4 onwards for students to do some online work in preparation for two weeks of in-person classes.

Draft – may be subject to minor revisions

COURSE DESCRIPTION

As the 21st century unfolds, cities around the world are becoming transformed by a dynamic tension taking place between burgeoning global and technological forces and those which seek to protect and reaffirm valued cultures and healthy communities. For better or worse, cities and various forms of human interaction are being fundamentally altered by the rapid adoption of information technology (IT) in all aspects of life. Facebook, Twitter, Fast Cities, Smart Grid, E-democracy, the Digital Divide, the Creative Economy, and the Surveillance Society are all recent constructs of the new information society—and they are re-shaping the very fabric of our cities. Sustainable Cities in the 21st Century explores the rights and responsibilities of citizens as they navigate local institutions and socio-ecological environments in the context of a networked world. Field trips, multi-media, presentations from guest speakers, and seminar discussions will enhance a collaborative, interdisciplinary learning approach.

Pre-requisite: Students should have taken a previous course related to one of the following: Canadian local communities, environment, governance, planning or urban design. This is a blended course with preparatory readings and research conducted by distance on-line in advance of two weeks of in-person meeting followed by a project to be completed on-line. (Note: a previous technical knowledge of information technology is **NOT** expected or required for this course.)

COURSE OBJECTIVES AND LEARNING OUTCOMES

You, as a student in this course will investigate how citizens navigate their city when exercising their individual rights as well as their civic responsibilities within different complex spheres of experience: namely the home, the neighbourhood, the community and the global market place.

By the end of the course you will be able to:

Course Instructors:

Mary-Louise McAllister (ERS)
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Mark Groulx (Planning)
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Office Hours:

Instructors will generally be available during the two-week period and via e-mail or appointment throughout the duration of the course

Course Details:

Room: EV2 1001

Time: 1:00 - 4:30 (June 2nd to June 13th)

- effectively analyse and communicate the importance of sustainability and environmental stewardship in an urban context;
- clearly distinguish ways that information technology can be used to empower and disempower citizens within local governance processes; and
- articulate how your role as citizen and environmental professional shapes, and is shaped by, information technology and its influence on spatial, social and knowledge mobility.

READINGS

There is no required textbook for this course. All course readings are available through e-reserves. Required readings are listed by class below. Optional supplementary multimedia content (e.g. podcasts, TEDtalks, Documentaries) will be made available through Learn.

COURSE REQUIREMENTS AND ASSESSMENT

	Assignment*	Due Date	Weight
1	Readings reflections	May 30	15%
2	Digital Evidence Warehouse	June 6	15%
3	Inclusive Urban Spaces: Council Proposal	June 12/13	20%
4	Region of Waterloo 2025: Sustainability Issue Project	July 25	30%
5	Seminar Participation	Assessed throughout the course – online and in person	20%

*Late assignments penalty – 5 marks a day (not percentage points)

Seminar Participation

Active and engaged participation of all members of a course is crucial to a successful seminar environment. This is an intensive, interactive 2-week block course. You are expected to attend every class. As such, only serious personal or health considerations will be accepted as reasons for absence. If this is the case, please inform one of the instructors immediately. Be prepared and willing to share your analyses, interpretation and perspectives related to an issue, to attend to alternative viewpoints, and where appropriate, to explore differences in a respectful but critical manner. This is a collaborative, inclusive learning environment where students and instructors are open to learning from each other.

The readings selected for this course will directly inform this active and engaged participation, which is why all readings need to be done in preparation for each class.

The readings selected are challenging, but evocative. An effort has been made to include a mix of popular and academic sources that promote diverse perspectives on the range of course topics. Marks will be based on demonstrated knowledge of the readings as well as your overall engagement. At the beginning of each class, students will be randomly called upon to discuss the main themes of the readings.

Assignment 1: Reading Reflections

The course site will be open from the beginning of term from May 4 onwards. In the month preceding the two-weeks of in-person meetings, you, as the student should begin your course readings given that we will be meeting every day for two weeks. The reading reflections assignment is a 1,000 word (15%) paper drawing on at least three of the readings from the course. It should reflect your personal research interests illustrated with ideas from some of your real-life examples and experiences. Make sure that you integrate the paper around a particular question or theme. For example, if you are interested in green design, sense of place or civic engagement, you can choose one of those topics illustrated by three or more of the readings. You can use first-person when writing but remember that it is an academic assignment that requires essay form and correct citation formatting. You are encouraged if possible to meet with either instructor or send an e-mail before May 16th to discuss your ideas for the reading reflections paper.

Assignment 2: Inclusive Urban Spaces

Student groups of two or three will select a public space (e.g. downtown core, urban park, etc.) within the Region of Waterloo for the focus of their inclusive urban spaces assignment. (This will be organized in advance on the course website). You will critically assess the space from the perspective of inclusiveness, public engagement, social and/or biophysical sustainability, and social innovation. You will then propose how the site can be enhanced to foster civic engagement through a creative use of media: this could range from storytelling to information and communications technologies (ICTs).

On June, 12th, 2014 each group will have 20 minutes to solicit support for their project through a presentation to a mock panel of local councillors. Presentations should make a strong case for the project's appropriateness given the local context. Elements to address in the presentation should include, but are not limited to:

- an overview describing users of the site and their motivations for its use;
- a critical assessment of the site's current challenges and opportunities for civic participation and inclusivity;
- a brief review of precedents illustrating similar projects in other urban contexts;
- a description of the proposed project, including a discussion of its anticipated impact, contextual fit, and feasibility; and
- a well-designed, evocative presentation.

Assignment 3: Digital Evidence Warehouse (on-line Due June 6)

To facilitate the collection and organization of information and ideas related to your inclusive urban spaces project, you will organize their own project information online.

This digital evidence warehouse should include links to information documenting the site (e.g. reports, local news stories, etc.) including peer-reviewed articles. Each component included should contain 1-2 sentences describing the relevance to the project. The goal is to collaboratively develop a helpful and informative ‘warehouse’ of information that can be accessed by students doing their final project. The digital evidence warehouse will be assessed in terms of the quality of information that has been collected, and how well the organization of the information communicates the team’s proposed project.

Assignment 4: Region of Waterloo 2025 Project

In this course, you will complete an individual project that is a creative exercise in sustainable urban visioning. Using a well-defined sustainability lens, students will critically examine current societal trends in the development and application of information and communications technologies (ICTs), and present an evidence-based argument (supported by academic literature) for how some aspect of the Region of Waterloo will differ in 2025 as a result of these trends. The analysis could examine trends towards or away from sustainability. For example, the focus could include innovations that facilitate energy or water conservation, creative inclusive places, efficient transit systems, public surveillance systems, gated communities, the digital divide, local governance processes, and/or local policies.

As part of this assignment, discuss your role as a citizen and how closely your vision of some aspect of the Region of Waterloo in 2025 fits your worldview, and how this would shape your capacity and approach to promoting sustainability and environmental stewardship as an environmental professional. (Make sure that you use proper citations and academic format in the essay piece). This project can be communicated in a variety of ways. Options include, but are not limited to, a traditional essay (3000 words) or a shorter essay (1000 words) with the addition of a podcast, 10-minute video (i.e. short documentary), infographic, audio story, website, or 3D digital animation.

COURSE OUTLINE

Class	Date	Topic
	May 6 2014	<p>Information session and discussion of course expectations Time 6:00 pm Meeting Location: TBA</p> <p>During May, the course site will be open for course readings and discussions with the instructors.</p>
1	June 2 nd 2014	<p>Virtual places and civic spaces: the 21st century citizen</p> <p>Seminar: <i>Mary Louise McAllister</i> Meeting Location: EV2 1001</p> <p>Required Reading(s):</p>

		<p><i>Effing et al. (2013). Social Media Participation and Local Politics</i> <i>Silva, C. N. (2013). Citizen e-participation in urban governance:</i> <i>Tayebi, A. (2013). Planning activism</i></p>
2	June 3 rd 2014	<p>More digital, less natural? Human landscape interaction in a virtual age</p> <p><i>Seminar: Mark Groulx</i> <i>Meeting Location: EV2 1001 first, and then outdoors on the UW campus – dress for the weather (e.g. if it is raining)</i></p> <p>Required Reading(s):</p> <p><i>Massey, D. (1991). A global sense of place.</i> <i>Relph, E. (2007). On the identity of places.</i> <i>Williams, E. (2011) Environmental effects of information...</i></p>
3	June 4 th 2014	<p>Bringing sustainability and pro environmental behaviour home again</p> <p><i>Field Trip: REEP House for Sustainable Living or approved alternative if you've already visited the site</i> <i>Meeting Location: REEP House</i></p> <p>Required Reading(s):</p> <p>http://reepgreen.ca/ - review the webpage and see how technology is used for sustainable housing decisions</p>
4	June 5 th 2014	<p>Is home a haven? Surveillance and sousveillance in 21st Century cities</p> <p><i>Seminar: Mary Louise McAllister</i> <i>Meeting Location: EV2 1001</i></p> <p>Required Reading(s):</p> <p><i>Galdon-Clavell, G. (2013). (Not so) smart cities?</i> <i>Yiftachel, O. (1998). Planning and social control</i></p>
5	June 6 th 2014	<p>Entrepreneurial cities: Experiences of urban redevelopment and the IT sector in Kitchener, Ontario</p> <p><i>Field Trip: Downtown Kitchener Tour</i> <i>Meeting Location: TBD</i></p> <p>Required Reading(s):</p> <p><i>Fernández-Maldonado, A. M. (2012). Designing: Combining design...</i> <i>Metaxiotis, K. & Ergazakis, K. (2012). Formulating: An integrated strategy...</i> <i>Harvey, D. (2013). The right to the city.</i></p>
6	June 9 th 2014	<p>Transforming the City in the 21st Century</p> <p><i>Speaker: Pierre Filion</i> <i>Meeting Location: EV2 1001</i></p>

		Required Reading(s): <i>Filion, P. & Kramer, A. (2012). Transformative metropolitan development...</i>
7	June 10 th 2014	Civic community mapping (Centre for Community Mapping) <i>Speakers: Don Cowan, Co-map</i> <i>Meeting Location: EV2 1001</i> Required Reading(s): Centre for Community Mapping Website http://www.comap.ca/
8	June 11 th 2014	Gaming the city: The role of gaming technology in 21st Century community engagement <i>Seminar: Mark Groulx</i> <i>Meeting Location: EV2 1001</i> Required Reading(s): <i>Morozov, E. (2013). To save everything click here.</i> <i>Lewis, J. L., Casello, J. M., & Groulx, M. (2012). Effective environmental visualization...</i>
9	June 12 th 2014	Mock Council Presentation <i>Meeting Location: EV2 1001</i>
10	June 13 th 2014	Navigating the City: From the local to the global <i>Meeting Location: EV2 1001</i>

Required Readings List:

Class 1:

Effing, R., Hillegersberg, J. & Huibers, T. C. (2013). Social Media Participation and Local Politics: A Case Study of the Enschede Council in the Netherlands. In *Electronic Participation*, eds. M. Wimmer, E. Tambouris & A. Macintosh, 57-68. Springer Berlin Heidelberg.

Silva, C. N. (2013). *Citizen e-participation in urban governance: Crowdsourcing and collaborative creativity*. Hershey, PA: Information Science Reference.

Tayebi, A. (2013) Planning activism: Using Social Media to claim marginalized citizens' right to the city. *Cities*, 32, 88-93.

Class 2:

Massey, D. (1991). A global sense of place. *Marxism today*, 35(6), 24-29.

Relph, E. (2007). *On the identity of places*. In Carmona, M. & Tiesdell, S. (Eds.), *Urban Design Reader* (103-107). Oxford, United Kingdom: Architectural Press.

Williams, E. (2011) Environmental effects of information and communications technologies. *Nature*, 479, 354-358.

Class 3:

The REEP House website at <http://reepgreen.ca/> - review the webpage and see how technology is used for sustainable housing decisions

Class 4:

Galdon-Clavell, G. (2013). (Not so) smart cities?: The drivers, impact and risks of surveillance-enabled smart environments. *Science and Public Policy*. 40(6), 717-723.

Yiftachel, O. (1998). Planning and social control: Exploring the darkside. *Journal of Planning Literature*, 14(5), 395-406.

Class 5:

Fernández-Maldonado, A. M. (2012). *Designing: Combining design and high-tech industries in the knowledge city of Eindhoven*. In Building prosperous knowledge cities: policies, plans, and metrics, eds. T. Yigitcanlar, K. Metaxiotis & F. J. Carrillo, 175-194. Cheltenham, UK ; Northampton, MA: Edward Elgar.

Metaxiotis, K. & K. Ergazakis. (2012). *Formulating: An Integrated Strategy for the Development of Knowledge Cities*. In Building prosperous knowledge cities: policies, plans, and metrics, eds. T. Yigitcanlar, K. Metaxiotis & F. J. Carrillo, 149-174. Cheltenham, UK ; Northampton, MA: Edward Elgar.

Harvey, D. (2013). *The right to the city*. In Lin, J. & Mele, C. (Eds.), *The Urban Sociology Reader* (429-433). New York, New York: Routledge.

Class 6:

Filion, P. & Kramer, A. (2012). Transformative Metropolitan Development Models in Large Canadian Urban Areas: The Predominance of Nodes. *Urban Studies*, 49, 2237-2264.

Class 7:

Centre for Community Mapping: <http://www.comap.ca/> -review the webpage and see how technology is used to connect and share community information

Class 8:

Lewis, J. L., Casello, J. M., & Groulx, M. (2012). Effective environmental visualization for urban planning and design: Interdisciplinary reflections on a rapidly evolving technology. *Journal of Urban Technology*, 19(3), 85-106.

Morozov, E. (2013). *To save everything, click here: The folly of technological solutionism*. New York, New York: Public Affairs. (Pgs 1-16)

ADDITIONAL IMPORTANT INFORMATION AND UNIVERSITY REQUIREMENTS

Unclaimed assignments will be retained for one month after term grades become official in quest". After that time, they will be destroyed in compliance with UW's confidential shredding procedures.

Academic Integrity: In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility.

www.uwaterloo.ca/academicintegrity/

Students who are unsure what constitutes an academic offence are requested to visit the on-line tutorial at **<http://www.lib.uwaterloo.ca/ait/>**

Research Ethics: Please also note that the 'University of Waterloo requires all research conducted by its students, staff, and faculty which involves humans as participants to undergo prior ethics review and clearance through the Director, Office of Human Research and Animal Care (Office). The ethics review and clearance processes are intended to ensure that projects comply with the Office's Guidelines for Research with Human Participants (Guidelines) as well as those of provincial and federal agencies, and that the safety, rights and welfare of participants are adequately protected. The Guidelines inform researchers about ethical issues and procedures which are of concern when conducting research with humans (e.g. confidentiality, risks and benefits, informed consent process, etc.). If the development of your research proposal consists of research that involves humans as participants, the please contact the course instructor for guidance and see <http://iris.uwaterloo.ca/ethics/>

Note for students with disabilities: The AccessAbility Office located in Needles Hall, Room 1132, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the AccessAbility Office at the beginning of each academic term.

Mental Health: The University of Waterloo, the Faculty of Environment and our Departments consider students' well-being to be extremely important. We recognize that throughout the term students may face health challenges - physical and / or emotional. **Please note that help is available.** Mental health is a serious issue for everyone and can affect your ability to do your best work. Counselling Services (www.uwaterloo.ca/counselling-services) is an inclusive, non-judgmental, and confidential space for anyone to seek support. They offer confidential counselling for a variety of areas including anxiety, stress management, depression, grief, substance use, sexuality, relationship issues, and much more.

Religious Observances: Student needs to inform the instructor at the beginning of term if special accommodation needs to be made for religious observances that are not otherwise accounted for in the scheduling of classes and assignments.

Grievance: A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read Policy 70 - Student Petitions and Grievances, Section 4, www.adm.uwaterloo.ca/infosec/Policies/policy70.htm. When in doubt please contact your Undergraduate Advisor for details. **Discipline (as noted above under 2a):** A student is

expected to know what constitutes academic integrity, to avoid committing academic offence, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offense, or For typical penalties, check Guidelines for Assessment of Penalties.

Consequences of Academic Offences:

A student is expected to know what constitutes academic integrity, to avoid committing academic offenses, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offense, or who needs help in learning how to avoid offenses (e.g., plagiarism, cheating) or about “rules” for group work/collaboration should seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean. When misconduct has been found to have occurred, disciplinary penalties will be imposed under Policy 71 – Student Discipline. For information on categories of offenses and types of penalties, students should refer to Policy 71 - Student Discipline,

<http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm>

Within ENV, those committing academic offences (e.g. cheating, plagiarism) will be placed on disciplinary probation and will be subject to penalties which may include a grade of 0 on affected course elements, 0 on the course, suspension, and expulsion. Students who believe that they have been wrongfully or unjustly penalized have the right to grieve; refer to Policy #70, Student Grievance,

<http://www.adm.uwaterloo.ca/infosec/Policies/policy70.htm>

Appendix 1: Marking Rubric

Assignments will be assessed using the following broad criteria

Name:	
Comprehensiveness: Was the issue defined, thoroughly considered, investigated and researched within the boundaries of its defined scope? Did it address the main themes of the course and draw on relevant material?	
Research: Did the student make good use of the course materials and the government and community websites for their field work	
Organization: Was the assignment well organized? Was the material used in the project directly relevant to the subject at hand? How well does the argument flow?	
Quality of Information: How accurate is the information? Is the information presented in a way that might lead one to some worthwhile conclusions?	
Quality of Recommendations: Was the argument carefully conceived and defended with evidence in a way that would be persuasive in some way to a diverse group of local decision-makers?	
Written Presentation: Was the assignment itself carefully and accurately presented? If the spelling and grammar are inaccurate a reader often wonders about the reliability of the information itself. Were the sources properly cited? Was the assignment concise?	
Bloom's Taxonomy: Does the assignment reflect the higher order skills described in Bloom's Taxonomy? See http://coun.uvic.ca/learning/exams/blooms-taxonomy.html	