

REAL*4870 Sustainable Real Estate

Fall 2020
0.5 Credits

General Course Information

Instructor Rogier Holtermans
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Office Location Virtual meeting room on Zoom
Office Hours By appointment only
Department/School Marketing and Consumer Studies

Class Schedule Mondays 2:30 P.M. – 5:20 P.M.

Room Virtual meeting room on Zoom

Pre-requisites 14.00 credits

Disclaimer

Please note that the ongoing COVID-19 pandemic may necessitate a revision of the format of course offerings and academic schedules. Any such changes will be announced via CourseLink and/or class email. All University-wide decisions will be posted on the [COVID-19 website](#) and circulated by email.

Illness

The University will not normally require verification of illness (doctor's notes) for fall 2020 or winter 2021 semester courses. However, requests for Academic Consideration may still require medical documentation as appropriate.

Course Description and Objectives

This course is designed to give students an understanding of how topics in sustainability and climate change affect and are affected by real estate and urban economics. Students will develop an understanding of the reasons for and benefits of sustainability practices in real estate and planning.

1. Understanding the reasons for and benefits of sustainability in real estate and planning;
2. Identifying the commercial, residential, and governmental players in sustainable real estate and their roles;
3. Developing a knowledge of the major environmental building certification programs worldwide;
4. Examining the cause and effect of individual real estate decisions on cities in terms of density and sprawl;
5. Evaluating historic, current, and proposed real estate sustainability solutions.

The structure of this course requires significant individual study and preparation outside of class. Each class session will cover major points and concepts contained in the readings, as well as much material not covered in the readings (e.g. from documentaries, guest speakers, and additional literature). Moreover, class discussion and debate will comprise a large portion of this course. Therefore, **thorough and consistent preparation and participation are necessary to succeed in this class.**

Course Resources

This course uses a variety of materials and resources. One of your primary resources will be the course website (<http://courselink.uoguelph.ca>). All announcements, required and optional readings, assignments and updates will be posted here. Check this site often. The first two readings are books, available at any bookstore or as eBooks, and may be available used.

Abbreviation	Reference
WWC	<u>The Water Will Come: Rising Seas, Sinking Cities, and the Remaking of the Civilized World.</u> Goodell, J., 2018.
SN	<u>Suburban Nation: The Rise of Sprawl and the Decline of the American Dream.</u> Duany, A., Plater-Zyberk, E., and Speck, J., 2010. 10th Anniversary Edition.
F1-R1	Eichholtz, P., Kok, N., & Quigley, J. M. (2010). Doing well by doing good? Green office buildings. <i>American Economic Review</i> , 100(5), 2492-2509.
F1-R2	Bond, S. A., & Devine, A. (2016). Certification matters: Is green talk cheap talk?. <i>The Journal of Real Estate Finance and Economics</i> , 52(2), 117-140.
F1-R3	Brounen, D., & Kok, N. (2011). On the economics of energy labels in the housing market. <i>Journal of Environmental Economics and Management</i> , 62(2), 166-179.
F1-O1	Measurabl. (2020) Top ten green building certifications . Report.
F1-O2	Holtermans R., Kok, N., & Levy, S. (2019). Green Building Adoption Index for Multifamily Buildings 2019 . Report.
F2-R1	Eichholtz, P., Kok, N., & Quigley, J. M. (2013). The economics of green building. <i>Review of Economics and Statistics</i> , 95(1), 50-63.
F2-R2	Chegut, A., Eichholtz, P., & Kok, N. (2014). Supply, demand and the value of green buildings. <i>Urban Studies</i> , 51(1), 22-43.
F2-R3	Holtermans, R., & Kok, N. (2019). On the value of environmental certification in the commercial real estate market. <i>Real Estate Economics</i> , 47(3), 685-722.
F2-O1	Fuerst, F., & McAllister, P. (2011). Green noise or green value? Measuring the effects of environmental certification on office values. <i>Real estate economics</i> , 39(1), 45-69.
F2-O2	Miller, J. (2013) Green building and property value - A primer for building owners and developers . Report
F2-O3	Eichholtz, P. M., Kok, N., & Quigley, J. M. (2016). Ecological responsiveness and corporate real estate. <i>Business & Society</i> , 55(3), 330-360.
F2-O4	Holtermans R., Kok, N., & Levy, S. (2019). Green Building Adoption Index for Office Buildings 2019 . Report.
F3-R1	Devine, A., & Kok, N. (2015). Green certification and building performance: Implications for tangibles and intangibles. <i>The Journal of Portfolio Management</i> , 41(6), 151-163.
F3-R2	Eichholtz, P., Holtermans, R., & Kok, N. (2019). Environmental Performance of Commercial Real Estate: New Insights into Energy Efficiency Improvements. <i>The Journal of Portfolio Management</i> , 45(7), 113-129.
F3-R3	Clayton, J., Devine, A., & Holtermans, R. (2020) Beyond building certification: The impact of environmental interventions on commercial real estate operations. Working Paper

F3-O1	Allcott, H., & Mullainathan, S. (2010). Behavior and energy policy. <i>Science</i> , 327(5970), 1204-1205.
F3-O2	World Economic Forum (2016). Environmental sustainability principles for the real estate industry . Report
F3-O3	Chegut, A., Eichholtz, P., & Kok, N. (2019). The price of innovation: An analysis of the marginal cost of green buildings. <i>Journal of Environmental Economics and Management</i> , 98, 102248.
F3-O4	CaGBC (2019). Making the case for building to zero carbon . Report.
F4-R1	Eichholtz, P., Kok, N., & Yönder, E. (2012). Portfolio greenness and the financial performance of REITs. <i>Journal of International Money and Finance</i> , 31(7), 1911-1929.
F4-R2	Eichholtz, P., Holtermans, R., Kok, N., & Yönder, E. (2019). Environmental performance and the cost of debt: Evidence from commercial mortgages and REIT bonds. <i>Journal of Banking & Finance</i> , 102, 19-32.
F4-O1	An, X., & Pivo, G. (2020). Green buildings in commercial mortgage-backed securities: The effects of LEED and Energy Star certification on default risk and loan terms. <i>Real Estate Economics</i> , 48(1), 7-42.
F4-O2	Eichholtz, P., Barron, P., & Yönder, E. (2018). REIT environmental performance and the cost of equity. <i>The Routledge REITs Research Handbook</i> .
F5-R1	Allen, J. G., MacNaughton, P., Satish, U., Santanam, S., Vallarino, J., & Spengler, J. D. (2016). Associations of cognitive function scores with carbon dioxide, ventilation, and volatile organic compound exposures in office workers: a controlled exposure study of green and conventional office environments. <i>Environmental health perspectives</i> , 124(6), 805-812.
F5-R2	World Green Building Council (2018). Doing right by planet and people: The business case for health and well being in green building . Report.
F5-R3	Palacios, J., Eichholtz, P., Kok, N., & Aydin, E. (2020). The impact of housing conditions on health outcomes. <i>Real Estate Economics</i> .
F5-O1	Harvard University (2020). The impact of green buildings on cognitive health . Website.
F6-R1	Bond, S. A., & Devine, A. (2016). Incentivizing green single-family construction: Identifying effective government policies and their features. <i>The Journal of Real Estate Finance and Economics</i> , 52(4), 383-407.
F6-R2	Chegut, A., Eichholtz, P., & Holtermans, R. (2016). Energy efficiency and economic value in affordable housing. <i>Energy Policy</i> , 97, 39-49.
F6-R3	Rana, A., Sadiq, R., Alam, M. S., Karunathilake, H., & Hewage, K. Evaluation of financial incentives for green buildings in Canadian landscape. <i>Renewable and Sustainable Energy Reviews</i> , 135, 110199.
F6-O1	Dastrup, S. R., Zivin, J. G., Costa, D. L., & Kahn, M. E. (2012). Understanding the solar home price premium: Electricity generation and "green" social status. <i>European Economic Review</i> , 56(5), 961-973.
F6-O2	Chegut, A., Eichholtz, P., Holtermans, R., & Palacios, J. (2020). Energy efficiency information and valuation practices in rental housing. <i>The Journal of Real Estate Finance and Economics</i> , 60(1), 181-204.
F6-O3	Institute for Market Transformation (2019) Comparison of U.S. commercial building energy benchmarking and transparency policies. Overview
F6-O4	IEA (2020), Tracking Buildings 2020 . Website.
F7-R1	Thompson, D. (2013) Suburban sprawl: Exposing hidden costs, identifying innovations . Report.
F7-R2	Crane, R., Chatman, D.G. (2003). As jobs sprawl whither the commute? Report
F7-O1	Condon, P.M. (2004). Canadian cities American cities: Our differences are the same. Report
F7-O2	Diamond, J., Thompson, D. (2013). The true costs of suburban sprawl. Opinion
F8-R1	Leinberger, C.B. (2007). Footloose and fancy free: A field survey of walkable urban places in the top 30 U.S. metropolitan areas. Report
F8-R2	Gilderbloom, J. I., Riggs, W. W., & Meares, W. L. (2015). Does walkability matter? An examination of walkability's impact on housing values, foreclosures and crime. <i>Cities</i> , 42, 13-24.
F8-R3	Hall, J. D., Palsson, C., & Price, J. (2018). Is Uber a substitute or complement for public transit?. <i>Journal of Urban Economics</i> , 108, 36-50.
F8-O1	Gaffney, D. (2013). Widen Main St.? Community had other ideas, and thrived. Article
F8-O2	Silver, N., Fischer-Baum, R. (2015). Public transit should be Uber's new best friend. Report
F9-R1	Bernstein, A., Gustafson, M. T., & Lewis, R. (2019). Disaster on the horizon: The price effect of sea level rise. <i>Journal of financial economics</i> , 134(2), 253-272.
F9-R2	Rajapaksa, D., Wilson, C., Managi, S., Hoang, V., & Lee, B. (2016). Flood risk information, actual floods and property values: a quasi-experimental analysis. <i>Economic Record</i> , 92, 52-67.
F9-R3	Belanger, P., & Bourdeau-Brien, M. (2018). The impact of flood risk on the price of residential properties: the case of England. <i>Housing Studies</i> , 33(6), 876-901.
F9-O1	Atreya, A., & Czajkowski, J. (2019). Graduated flood risks and property prices in Galveston County. <i>Real Estate Economics</i> , 47(3), 807-844.

F9-O2	Bosker, M., Garretsen, H., Marlet, G., & van Woerkens, C. (2019). Nether Lands: Evidence on the price and perception of rare natural disasters. <i>Journal of the European Economic Association</i> , 17(2), 413-453.
F9-O3	Hindlian, M., Lawson, S., Banerjee, S., Duggan, D., & Hinds, M. (2019). Taking the Heat: Making cities resilient to climate change. <i>Goldman Sachs</i> .
F10-R1	Baum, A., Saull, A., & Braesemann, F. (2020) PropTech 3.0: The future of real estate . Report.
F10-R2	Braesemann, F., & Baum, A. (2020). PropTech: Turning real estate into a data-driven market?. Working Paper.
F10-O1	Lecamus, V. (2017). PropTech: What is it and how to address the new wave of real estate start-ups . Blog.
F10-O2	McKinsey (2018). Smart cities: Digital solutions for a more livable future . Report.

Course Assessment

Method and Timing of Evaluation

Your performance will be evaluated based on the following:

Assignment/Examination	Weight	Due Date
Class Facilitation (group)	15%	On-going
Readings Quizzes (individual)	10%	On-going
Critical Book Review (individual)	15%	October 5
Investor Certification Proposal (group)	15%	November 2
Government Policy Debate (individual)	15%	On-going
City Sustainability Analysis (individual)	30%	December 4

Assignments are due in Dropbox on CourseLink at the beginning of class. Assignments are not accepted after they have been discussed in class. Readings quizzes will frequently be administered at the beginning of class. The lowest quiz grade will be dropped.

Course Philosophy and Approach

This is structured as a readings course, and the quality will depend largely on what each student puts into the class. A large portion of the course consists of a “flipped” classroom, which means that student groups are in charge of facilitating sessions. Most of the assignments in this course are focused on interactive learning, through class discussions, debates, and presentations. Do not mistake a lack of examinations for an easier course.

Student Preparation for Class and Class Participation: Expectations

The demeanor in the class, despite being on-line, will adhere to the four Ps, namely, **Preparation, Participation, Presence, and Professionalism**. Demonstrating a commitment to these four qualities will factor into the evaluation of student performance.

Preparation: To obtain the full benefit from the course it is important that students read and watch the assigned material, attend class, be well prepared, and participate fully in the discussions and assignments. The structure of this course requires significant study and preparation outside of class.

Class Participation: Students are expected to attend every class, to be on time, to be respectful, to be prepared, to be constructive, and to engage. Expect to be called upon.

Online Education

It is the first time for the instructor, and likely the first time for you, that all teaching is delivered through the lens of a webcam. We will be using Zoom for all sessions; please familiarize yourself with the platform. Below are some “ground rules” for the sessions:

- Switch on your camera. Seeing a face makes interaction much easier. Plus, it allows to see that everybody is truly engaged and not dozing off. Not having your camera on needs a very good reason;

- Be engaged. The online classroom brings unique challenges. Ask questions, participate, speak up. There is no wrong answer, participation is valued over performance.
- Mute when you are not actively engaged in communication. Background noise is disturbing. Importantly, do not consider being muted as an excuse for not participating.
- Raise your virtual hand if you want to ask a question. Zoom has a great set of “emoticons” that you can use to digitally communicate with the presenter.

Tentative Course Schedule

Class	Date	Topic	Readings (see course resources)	Assignment DUE
1	September 14	Syllabus review Introduction to Sustainable Real Estate		
2	September 21	F1: Environmental Building Certification and Labeling	F1-R1 to F1-R3	
3	September 28	F2: Environmentally Certified Office Buildings	F2-R1 to F2-R3	
4	October 5	F3: Executing Environmental Sustainability in Commercial Real Estate <i>Debate – Scenario A</i>	F3-R1 to F3-R3	Book Review
5	October 12	NO CLASS – Thanksgiving		
6	October 19	F4: Environmentally Certified Buildings: Financing and Firm Performance <i>Debate – Scenario B</i>	F4-R1 to F4-R2	
7	October 26	F5: Health and Well-Being in the Built Environment <i>Debate – Scenario D</i>	F5-R1 to F5-R3	
8	November 2	Guest Speaker – Anna Murray, BentallGreenOak <i>Investor certification proposal pitches</i>		Investor Certification Proposal
9	November 9	F6: Government Policy in the Residential Market <i>Debate – Scenario C</i>	F6-R1 to F6-R3	
10	November 16	Guest Speaker F7: Cities – Sprawl	F7-R1 to F7-F2	
11	November 23	F8: Cities – Density <i>Debate – Scenario E</i>	F8-R1 to F8-R3	
12	November 30	F9: Adaptation and Resilience to Climate Change	F9-R1 to F9-R3	
13	December 4	F10: PropTech <i>We do not meet during the final</i>	F10-R1 to F10-R2	City Sustainability Analysis

Note: The schedule of learning activities may require modification from time to time. Any changes will be announced in class and/or on CourseLink.

Assignments

Flipped Classroom

Throughout the semester we will make use of a “flipped” classroom setting for the majority of the classes. This implies that you are in charge of facilitating the entire session and moderating the discussion. Your group is expected to present a summary and discussion of the topic, linking the different materials and addressing potential differences in their findings and conclusions. The assigned literature must be covered in the class. You are encouraged to go beyond the assigned literature, using the optional readings and/or related content based on your own research.

Importantly, all students are expected to have read the assigned literature.

When you are in charge of the session it is important to be creative. These sessions are supposed to be a group discussion of the topic and the literature, rather than a passive meeting in which the facilitator presents the content.

Getting the group to actively participate will be more challenging in an online setting. Zoom allows you to share your screen, whether that is a PowerPoint presentation, Excel spreadsheet, a movie, or a quiz. Use the digital technology to your advantage. Zoom also allows you to set up breakout rooms during a session, if you want to use this feature. The grading and evaluation of your group's session will reward experimentation.

Your session should last between 60 to 90 minutes. Every group member is expected to speak, and the presentation and other materials used to facilitate the session should be submitted to CourseLink after the class.

Groups: Facilitation of the class should be completed in groups of five students – sign up together on CourseLink once you have formed your group. Based on enrollment up to two groups will be allowed six members. Approval for groups of six members will be allocated by the instructor via email on a first-come first-serve basis. **Reference your group number on all submitted materials.**

Critical Book Review (one – WWC or SN)

This review should be 3 to 5 pages (Times New Roman 12-point font with 1 inch margins) long, double spaced (absolutely no longer than 5 pages – concision is an important skill to master), and structured as follows:

- *Opening:* summarize the main point of the author. (Establish empathy with the author so you can understand the author's purpose in writing the book.)
- *Body:* comment on supporting, contradicting, and missing evidence.
- *Conclusion:* restate the author's main idea and determine if the evidence presented in the book is strong enough to support the author's main point.

Note: this assignment is a CRITICAL book review, which is a very different assignment from a book review. The goal of a critical book review is to evaluate and explain what you thought of the book's effectiveness, not to simply summarize the book. There are often first person statements in a critical book review (I found the author's story..., I have trouble accepting...given the evidence provided, I concur with the author point of view because...). But critical does not mean you need to find fault in the book – simply that you have just critically evaluated it, rather than accepted the story it tells.

Investor Certification Proposal

This assignment will extend your knowledge of real estate certification programs and help you put it into the real estate investment context. The assignment takes the form of an RFP. In each scenario (see the following page), an investor (the Professor and guest judge) is considering two certification-related options for their property. Student groups will serve as consultants, presenting why the investor should select their proposal. While this format will put the two certification options in head-to-head competition, it should be considered that presentation tone matters here as much as the facts: carefully manage the amount of effort spent supporting the strengths of your own proposal and the weaknesses of your competitor's proposal (mud-slinging must be done in a refined way, to not alienate your possible investor).

Students will form their own teams of five members each, please see the instructions in the Flipped Classroom section for details on how to sign-up on CourseLink. The scenarios will be assigned in-class, and while efforts will be made to match students with the desired scenarios, there is no guarantee that you will be assigned your preferred scenario.

Each student team will be assigned to recommend one of the ten certification positions described below. Proposals to the investor will be given in-class in two parts: a 8-minute oral presentation by the group to the investor (and rest of the class), and a written report; the group should be prepared to answer questions from the investor, and possibly the class. Both the oral and written report are due in-class on that day; the oral and written presentations are worth 5% and 10% of your final grade, respectively.

The proposals should educate the investor on the details of your suggested action. This includes a description of the program's history and successes, market penetration, and why it is a good fit for the investor's upcoming activity. A good way to attack the assignment might be a SWOT approach, so that you actively ID your strengths and your competitors weaknesses, and speak well to both. Remember, this is a sales pitch. The report should be 8-10 double-

spaced pages of (Times New Roman 12-point font with 1 inch margins) text PLUS pictures, charts, graphs, maps, and projections, as required. Number the pages in your report and label/reference all exhibits carefully.

The five scenarios (with two students teams assigned to each, one team for each option) are:

Scenario A: Special Use, To Certify or not to Certify

Ten Lives Club is a humane society for animals, encouraging spay/neuter programs to control unwanted animal populations, helping place pets in loving homes while operating under a no-kill policy, and promoting the animal-human bond through outreach, education, and therapeutic programming. The organization has been meeting these goals since 1943, and having outgrown their current home, is about to construct a new facility. This facility will be situated in the outskirts of Burlington, ON in a 30,000 sq. ft. building situated on 4.4 acres of land. The facility will be comprised of creative kennelling for homeless pets, a veterinary clinic, a classroom, pet therapy suites, a resource library, and other specialized uses. The organization would like to incorporate sustainability features into their construction process. However, they are unsure whether or not they will pursue certification given their non-profit budget and highly specialized property type.

Note: The student group recommending certification may select a program of their choice to endorse.

Scenario B: New Construction, LEED vs. BREEAM

VHS is a North American property company with a portfolio in the United States and Canada. The company differentiates their strategy from their competition with a strong focus on sustainability. Many of the buildings in their portfolio are certified under some of the leading environmental building certification programs. The firm owns multiple office buildings in the GTA. They are currently planning construction of a trophy asset in downtown Toronto. Once completed, this Class AAA office building includes 800,000 sq. ft. of space over 35-stories. The company is considering LEED and BREEAM certification for this new construction project.

Scenario C: Existing Building, LEED Existing Buildings: Operations & Management vs. BOMA BEST

Edinburgh Products is a privately held, family-managed company that produces components used in PVR boxes and graphics cards. The firm's global headquarters, situated in Pickering, ON, is a 2-story mixed-use facility constructed in 2002. The building floor area is 66,000 sq. ft., of which 70% is office and 30% is research and manufacturing space. Due to the MacDonald family's commitment to sustainability, the building was designed and constructed using green-building principles, including high-energy efficiency technology, extensive use of natural lighting, and individual control of workspace environments. The company is considering an on-going commitment to green operations and management certification program – either through LEED or BOMA BEST.

Scenario D: Alternatives, FitWel vs. Well Certification

Gordon Properties has plans to develop a new (infill) 52-story mixed-use property in midtown section of Old Toronto. The building will have first and second floor retail (16,000 sq. ft.), office space on floors 3-20 (150,000 sq. ft.), and rental apartments on floors 21-52 (202 units, studios through 4-bedroom penthouses); all space will be leased at market rates. As part of the company's on-going effort to incorporate the latest advances in sustainable building design and technology they are considering FitWel and Well certification for this new construction project.

Scenario E: Housing Development, LEED for Homes vs. Net Zero Home Labelling Program

Woolwich Homes is an established home builder in the Kitchener-Waterloo region of Southwest Ontario known for their commitment to developing high quality homes. In an effort to reduce the environmental footprint of one of their projects, they are contemplating certifying all homes in a proposed housing development. The development encompasses a total of 85 homes, ranging from detached single family homes to rowhouses. Woolwich Homes is considering the Canada Green Building Council's LEED for Homes program and the Canadian Home Builders' Association's Net Zero Home Labelling Program.

Government Policy Debate

Student groups as signed-up on CourseLink will each debate one side of a proposed sustainability-related policy. The topics and affirmative/negative positions will be assigned in class. While efforts will be made to match students with the desired scenario, there is no guarantee that you will be assigned your preferred topic or position. This assignment provides students an opportunity to demonstrate their understanding of class concepts and readings, practice discussing issues in a respectful and effective manner, and expand their critical thinking skills.

Student groups should divide up the tasks of presenting underlying issues, the support position, the opposition, and any alternative policies/positions that could arise. Each team member must speak at least once in the debate, and each speaking opportunity must be presented by one team member only (see Format description below for more information). In cases where one team is larger than their opponent, a team member on the smaller team may speak a second time to balance the rebuttals.

This assignment is evaluated completely based on the debate presented in class; there is no report associated with this assignment. **This means that you will have less than 10 minutes total, per person, to earn 15% of your grade. Preparation will be KEY for this assignment.** The debate is evaluated in terms of clarity, use of supporting evidence, effective rebuttals, and overall preparedness. The winner of each debate (which will be determined by the professor, with input from the class) need not represent the concept which may seem a better choice based on our classwork, but rather the team that does a better job of presenting and defending their position. Not winning the debate does not necessarily indicate a poor grade on the debate. However, winning the debate will result in additional marks on the assignment.

In each case, teams represent groups of citizens in support and opposition of the proposed policy, and will debate the topic for the benefit of the specified governing body (represented by the Professor), as the council considers the implementation of this law.

Style: Formal Debate

House Rules: No Grace Periods, No Interruptions, No Heckling, No Visual Aids

Format:

1. The first speaker on the affirmative team presents arguments in support of the resolution. (5 – 7 minutes)
2. The first speaker on the opposing team presents arguments opposing the resolution. (5 – 7 minutes)
3. The second speaker on the affirmative team presents further arguments in support of the resolution, identifies areas of conflict, and answers questions that may have been raised by the opposition speaker. (3 – 5 minutes)
4. The second speaker on the opposing team presents further arguments against the resolution, identifies further areas of conflict, and answers questions that may have been raised by the previous affirmative speaker. (3 – 5 minutes)
5. A short recess for teams to prepare their rebuttals. (5 minutes)
6. The opposing team begins with the rebuttal, attempting to defend the opposing arguments and to defeat the supporting arguments without adding any new information. (3 – 5 minutes)
7. First rebuttal of the affirmative team (3 – 5 minutes)
8. Each team gets a second rebuttal for closing statements with the affirmative team having the last opportunity to speak. (3 – 5 minutes each)

Note: Steps six and seven will be repeated until every team member has had a chance to speak.

Guidelines to help you prepare for a debate: <http://www.sfu.ca/cmns/130d1/HOWTODEBATE.htm>

Scenarios which may be debated are:

Scenario A:

In 2016 the Toronto City Council approved the 10-year Cycling Network Plan to connect, grow and renew infrastructure for Toronto's cycling routes. A Cycling Network Plan Update was approved in 2019, providing a new timeframe to improve road work coordination, accountability and implementation. Teams represent stakeholders in

support and opposition of the Cycling Network Plan and its subsequent update. The team in support will argue continuation of the plan in its current form, and the team in opposition will argue for its discontinuation

Scenario B:

The City of Mississauga is considering adopting a Pilot Green Building Incentive Program using the standards established by the LEED Green Building Rating System. The program would grant bonus densities and/or heights to building projects which received LEED certification. The threshold for consideration of the density and height bonuses includes the full range of LEED certifications (Certified, Silver, Gold and Platinum). Achieving the LEED Certified level does not guarantee a density bonus, but will be considered on a case-by-case basis, and can potentially earn a bonus of .05 floor area ratio (FAR) for office buildings (.10 FAR for residential). Office buildings achieving LEED Silver can be eligible for up to .15 FAR (residential .20 FAR). Office buildings achieving LEED Gold can be considered for .35 FAR (residential .40 FAR) and office buildings achieving LEED Platinum can be considered for .45 FAR (residential .50 FAR). Retail and industrial buildings are not eligible for this program, but mixed use buildings with a dominant office and/or residential use are eligible.

Scenario C:

In an effort to decrease emissions and traffic while increasing walkability, pedestrian safety, and desirability of the City's core, the City of Toronto is considering a Congestion Pricing Law. The policy would implement a flat \$5 charge for motorists driving in central Toronto on weekdays between 7:00 A.M. and 6:30 P.M. There would be exemptions for motorcycles, licensed taxis, vehicles used by disabled people, some alternative fuel vehicles, buses and emergency vehicles. Area residents would receive a 90% discount on annual passes. The charging area would be indicated by roadside signs and symbols on the roadway.

Scenario D:

The 2005 *Greenbelt Act* governs the implementation of the 2017 Greenbelt Plan. The three Greenbelt land use plans work together with "A Place to Grow: Growth Plan for the Greater Golden Horseshoe" to protect the natural environment and determine where and how growth should be accommodated in the region. Teams represent groups of citizens in support and opposition of continuing the Greenbelt Policy. Those in support will argue for the continuation of the policy in its current form, and those in opposition of the policy will argue for its discontinuation.

Scenario E:

As of July 2019, the City of Toronto allows the construction of Laneway Suites across the City on residential properties that share a property line with a public lane. A Laneway Suite is a self-contained residential unit located on the same lot as a detached house, semi-detached house, townhouse, or other low-rise dwelling. A Laneway Suite is typically located in the rear yard next to a public laneway and is generally smaller in scale and completely detached from the main house on the lot. The program will provide new rental housing opportunities and increase density within established neighbourhoods. Those in support will argue for the continuation of the policy in its current form, and those in opposition of the policy will argue for its discontinuation.

City Sustainability Analysis

A sustainable city is designed with consideration given to environmental impact. It is inhabited by people dedicated to minimizing their use of finite resources and waste and emission creation. It should meet the needs of the present occupants without sacrificing the right of the future occupants to meet their own needs. Throughout this class we have heard example of cities from around the world. Good examples (Portland, OR; Masdar, UAE; Singapore), poor examples (cancer villages, China; Atlanta, GA; New York City of the 1970s), and developing examples (Mumbai, India; Beijing, China). For this assignment, each student will complete an analysis of the sustainability of a SW Ontario community.

Given the breadth of the concept, each student has great latitude in the completion of this assignment. Some things to consider are:

- Does the community have renewable energy sources? What percent of the power for the city comes from those sources? How are those sources being developed?
- How large an ecological footprint does the city produce? How much pollution and waste is the city creating?

- **What urban planning techniques are currently in place to encourage sustainable building construction? What public/mass transit options are currently available/in planning stages?**
- **How are density and sprawl being propagated and managed in the city?**
- What policies has the local government(s) enacted to encourage sustainability? **Where can the city spend the least and make the most difference (geographically, improving walkability, etc.)**
- Are there private sector leaders in the city encouraging sustainability?

This is about analysis, not just reporting. I do not want a parroting of the community's sustainability plan. However, I am happy to hear an evaluation of it. Focus on the bolded topics is highly suggested, other areas of analysis may be determined based on the nature of the chosen community. Many case studies of sustainable cities are available online – reading some of these studies may assist you in preparing your own analysis.

Each student will INDIVIDUALLY complete this analysis for one community. There will be a limit to the number of students which may choose each community. You are welcome to coordinate your research with other students working on the same city. However, your analysis and report must be unique. Co-authorship or group-think is considered Academic Misconduct. The report should be 8-10 (double-spaced Times New Roman 12-point font with 1" margins) pages of text PLUS pictures, charts, graphs, maps, and projections, as required. Number the pages in your report and label/reference all exhibits carefully.

The cities will be assigned in-class, and while efforts will be made to match students with the desired cities, there is no guarantee that you will be assigned your preferred scenario.

- | | | |
|---------------|-----------------------|----------------------------|
| 1. Barrie | 7. Kitchener/Waterloo | 13. Peterborough |
| 2. Brantford | 8. London | 14. St. Catharines/Niagara |
| 3. Burlington | 9. Mississauga | 15. St. Thomas |
| 4. Guelph | 10. Orillia | 16. Stratford |
| 5. Hamilton | 11. Oshawa | 17. Windsor |
| 6. Kingston | 12. Ottawa | |

Course Policies

All students are expected to abide by the University's academic regulations in the completion of their academic work, as set out in the [Undergraduate Calendar](#). Some regulations are highlighted below:

Academic Misconduct

The University of Guelph is committed to upholding the highest standards of academic integrity and directs all members of the University community – faculty, staff and students – to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. The University of Guelph takes a serious view of academic misconduct and it is your responsibility as a student to be aware of and to abide by the University's policy. Included in the definition of academic misconduct are such activities as cheating on examinations, plagiarizing literature, misrepresentation, and submitting the same material in two different courses without written permission.

To better understand your responsibilities, read the [Undergraduate Calendar](#). You are also advised to make use of the resources available through the [Learning Commons](#) and to discuss any questions you may have with your course instructor, teaching assistant, Academic Advisor or Academic Counselor.

Students should be aware that faculty have the right to use software to aid in the detection of plagiarizing or copying and to examine students orally on submitted work. For students found guilty of academic misconduct, serious penalties, up to and including suspension or expulsion from the University can be imposed.

Academic Consideration

Students who find themselves unable to meet course requirements by the deadline or criteria expected because of medical, psychological or compassionate circumstances beyond their control, should review the regulations on Academic Consideration in the [Undergraduate Calendar](#) and discuss their situation with the instructor, Program Counsellor or Academic Advisor as appropriate.

Religious Holidays

Should a student need to miss scheduled tests, mid-term examinations, final examinations, or requirements to attend classes and participate in laboratories for religious reasons, please advise the instructor within two weeks of the distribution of this course outline so that alternate arrangements can be made. For further information see: <http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-accomreliq.shtml>

University Grading Scheme

This course follows the University grading scheme outlined in the University Calendar:

A+	90-100%	Excellent: An outstanding performance in which the student demonstrates a superior grasp of the subject matter, and an ability to go beyond the given material in a critical and constructive manner. The student demonstrates a high degree of creative and/or logical thinking, a superior ability to organize, to analyze, and to integrate ideas, and a thorough familiarity with the appropriate literature and techniques.
A	85-89	
A-	80-84	
B+	77-79	Good: A more than adequate performance in which the student demonstrates a thorough grasp of the subject matter, and an ability to organize and examine the material in a critical and constructive manner. The student demonstrates a good understanding of the relevant issues and a familiarity with the appropriate literature and techniques.
B	73-76	
B-	70-72	
C+	67-69	Acceptable: An adequate performance in which the student demonstrates a generally adequate grasp of the subject matter and a moderate ability to examine the material in a critical and constructive manner. The student displays an adequate understanding of the relevant issues, and a general familiarity with the appropriate literature and techniques.
C	63-66	
C-	60-62	
D+	57-59	Minimally acceptable: A barely adequate performance in which the student demonstrates a familiarity with the subject matter, but whose attempts to examine the material in a critical and constructive manner are only partially successful. The student displays some understanding of the relevant issues, and some familiarity with the appropriate literature and techniques.
D	53-56	
D-	50-52	
F	0-49	Fail: An inadequate performance.

Code of Conduct – The Top Ten

As a student in the Department of Marketing and Consumer Studies, Gordon S. Lang School of Business and Economics at the University of Guelph, you are a member of a scholarly community committed to improving the effectiveness of people and organizations, and the societies in which they reside, through groundbreaking and engaging scholarship and pedagogy. We seek to promote a comprehensive, critical and strategic understanding of organizations, including the complex interrelationship between leadership, systems (financial and human) and the broader social and political context. And, we prepare graduates for leadership roles in which organizational objectives, self-awareness, social responsibility and sustainability are primary considerations.

In keeping with this commitment, we expect all of our students (indeed – all members of our community) to act in a professional and respectful manner to fellow students, staff and faculty, as well as to members of the broader university and local community. This expectation is very much in keeping with your preparation for a professional career.

The following conduct is expected of all of our students:

1. Come to class prepared to learn and actively participate (having completed assigned readings, learning activities etc.).
2. Approach your academic work with integrity (avoid all forms of academic misconduct).
3. Arrive on time and stay for the entire class. If you happen to be late, enter the classroom as quietly as possible. At the end of class, apologize to the faculty member for the interruption. If you have to leave class early, alert the faculty member in advance.
4. If you know in advance that you are going to miss a class, send an email to the faculty member letting him/her know that you will be absent, with a brief explanation.

5. While in class, refrain from using any written material (e.g., newspaper) or technology (e.g., the Internet, computer games, cell phone) that is not relevant to the learning activities of that class. Turn off your cell phone at the start of each class.
6. Listen attentively and respectfully to the points of view of your peers and the faculty member. Do not talk while others have the floor.
7. Raise your hand when you wish to contribute and wait to be called upon. Challenge others appropriately, drawing on reason and research rather than unsubstantiated opinion, anecdote and/or emotion. Keep an open mind and be prepared to have your point of view challenged.
8. When sending emails to faculty, apply principles of business writing; use a professional and respectful style (use a formal salutation, check for spelling and grammatical errors, and avoid slang and colloquial short forms).
9. When making a presentation, wear business dress.
10. Provide thoughtful feedback at the completion of all courses (we are committed to continuous improvement but need your input to help us decide what to focus on).