GEOG/PLAN 349
Urban Form and Internal Spatial Structure

Instructor: Shuping Zhang  
Class Time: Monday and Wednesday, 2:30PM – 3:50PM  
Class Location: RCH 105  
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Office: EV3 – 3307  
Office Hours: Monday and Wednesday, 1:00PM – 2:00PM

Teaching Assistant:  
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Course Outline

Calendar Description

This course is an examination of the major factors giving rise to distinctive styles of urban spatial organization. Focus moves from city-wide scale to subareas/sectors - inner city, housing, retailing, etc., with emphasis on understanding and planning for the dynamics of complex environments. Applied issues or problems are dealt with throughout the course. This is a one-term course with credit weight 0.5 units.

Prerequisite: One of GEOG 101, 202/202A, PLAN 100

Introduction

United Nations sources project that at a global scale, near 95 percent of the earth’s population increase between 2000 and 2030 will be concentrated in cities. Such tremendous urban transitions throughout the world will have important consequences that challenge conventional notions of the city and its subareas/sectors.

With globalization, nations as well as their cities are becoming increasingly interdependent. The best planning practices from developing countries are being used in some western industrialized countries, and vice versa. There is a convergence of urban problems faced by cities in different world regions, such as deteriorating inner city environment, affordable housing, urban sprawl, governance and institutional weaknesses, etc.

Based on current globalization and learning from best planning practices worldwide, this course will offer comparative analysis of urban spatial structure and urban form, as well as administrative and regulatory implications of urbanization around the world. Besides, it will cover topics such as urban renewal, state territorial restructuring, sustainable urban environment, transportation and land use planning, affordable housing, peri-urbanization, urban poverty, etc. It draws urban issues and planning solutions from both industrialized and developing countries.

1 Citation and use. This course syllabus is the property of the School of Planning at the University of Waterloo with some rights reserved 2017. Authored by “Shuping Zhang,” any appropriate use of this outline or parts thereof must acknowledge the author through proper citation.
Course Objectives:

By the end of the term, students will be able to:

- Be knowledgeable of the preconditions for urbanization to take place.
- Analyze how and why urbanization proceeds at different cities in different regions worldwide.
- Be aware of the evolution of the urban systems in each world region.
- Become familiar with urban form and internal urban structure and how they may be demonstrated in different world cities.
- Appreciate a comprehensive set of tools for understanding the changing urban forms.
- Be aware of the socioeconomic consequences of urban forms at various scales.
- Understand the common urban problems and their possible solutions in many cities.
- Be aware of a comprehensive set of planning tools for sustainable urban forms and development.
- Become familiar with critical thinking in urban problems and internal structure.

In addition, this course addresses a few goals for general education. They include:

- **Critical thinking skills**: Students should be able to think clearly and critically. They can expect to learn the elements of clear thinking and to be nurtured in their development to be careful, critical, and innovative thinkers.
- **Global knowledge of urban issues and overseas experience**: Students should be able to demonstrate an awareness of the environmental, economic, social diversities and interdependences that exist among nations and regions.
- **Collaborative learning and advanced writing skills**: Students should be able to communicate ideas clearly and cogently both individually and as a group. They should be able to write effectively within their disciplines.
- **Effective research skills**: Students are expected to learn effective academic research skills, including literature search, accurate and in-depth summary of existing literature, and proper applications of knowledge being learned.

Learning Modes:

Students build up their knowledge base in understanding worldwide urban spatial organizations and structures by reading the assigned chapters of the required textbook. Although the recommended readings are optional for students to read, these materials are chosen from very well respected references contributed by scholars who did in-depth research on a specific sub-area or sector. These readings serve as extensive resources for students to further investigate the features and socioeconomic consequences of a physical pattern, layout, or structure manifested in a particular urban region.

The lectures are intended to expand upon text discussion. The weekly lecture consists of two parts. The first half will cover only part of the assigned chapters from the required text book, with the intention to clarify some of the issues in the text materials. The second half will expand the text discussion through introducing selected contents from the recommended readings or from other real world research findings. Students are expected to read the weekly assigned readings ahead of attending class. The weekly quizzes will cover the lecture contents of that week. Students are also encouraged to utilize the recommended readings when writing their assignments and group research essays.
**Schedules**

**Class Meetings**

The lectures take place each week in J.R. Coutts Engineering Lecture Hall (RCH), room 105 from 2:30pm to 3:50pm on Monday and Wednesday.

**Scheduled Office Hours or Consulting**

Instructor: Monday and Wednesday, 1:00PM-2:00PM at EV3-3307.
Teaching Assistants: TBA

Students are encouraged to use office hours for consulting instead of email.

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**Sequence of Course Topics**

**May 6/ May 8: Week 1. General Introduction; Concepts and Definitions**

Required readings: Chapter 1 of *Cities of the World*

Recommended Readings:
- Chapter 1 of *Introduction to Cities*: Cities as places and spaces

**May 13/May 15*: Week 2. Cities of the United States and Canada; Towards Globalization**

*Quiz #1 taken at the end of the lecture on May 15*

Required readings: Chapter 2 of *Cities of the World*

Recommended Readings:
- Chapter 7 of *Introduction to Cities*: Changing metropolitan landscapes after World War II

**May 22*: Week 3. Cities of Russia; Urban Renewal**

(*May 20 - Victoria Day; No classes will be held*)

Required readings: Chapter 6 of *Cities of the World*

Recommended readings:

**May 27/May 29*: Week 4. Cities of Europe; State Territorial Restructuring**

*Quiz # 2 taken at the end of the lecture on May 29*
Assignment #1 due on May 29 (uploaded on LEARN Dropbox)

Required readings: Chapter 5 of Cities of the World
Recommended readings:

June 3/June 5*: Week 5. Cities of Middle America and the Caribbean; Informality and Vulnerability

*Quiz #3 taken at the end of the lecture on June 5

Required readings: Chapter 3 of Cities of the World
Recommended readings:

June 10/June 12*: Week 6. Cities of South America; Integrated transportation and land use planning

*Quiz #4 taken at the end of the lecture on June 12

Required readings: Chapter 4 of Cities of the World
Recommended readings:
- Chapter 4 of Introduction to Cities: Methods and rules for the study of cities

June 17/June 19*: Week 7. Cities of the Greater Middle East; Sustainable Urban Environment

*Quiz #5 taken at the end of the lecture on June 19

*Two-page group research proposal due by the end of the lecture on June 19 (hard copy submitted to the instructor)

Required readings: Chapter 7 of Cities of the World
Recommended readings:
- Chapter 13 of Introduction to Cities: Urban environments and sustainability
June 24/June 26*: Week 8. Cities of Sub-Saharan Africa; People as Infrastructure

*Quiz # 6 taken at the end of the lecture on June 26

Required readings: Chapter 8 of Cities of the World
Recommended readings:
- Chapter 9 of Introduction to Cities: Inequality and diversity in the post-World War II metropolis

July 2*/July 3*: Week 9. Cities of South Asia; Affordable Housing

(*July 2 is a make-up day for Canada Day)

*Quiz # 7 taken at the end of the lecture on July 3)

*Assignment # 2 due on July 3 (uploaded on LEARN Dropbox)

Required readings: Chapter 9 of Cities of the World
Recommended readings:
- Chapter 3 of Introduction to Cities: Social theories of urban space and place: Perspectives in the post-World War II era

July 8/July 10*: Week 10. Cities of Southeast Asia; Peri-urbanism and Metropolitan Regions

*Quiz # 8 taken at the end of the lecture on July 10

Required readings: Chapter 10 of Cities of the World
Recommended readings:
- Chapter 11 of Introduction to Cities: Urbanization and cities in developing countries

July 15/July 17*: Week 11. Cities of East Asia; Community, Space, and Everyday Life

*Quiz # 9 taken at the end of the lecture on July 17

Required readings: Chapter 11 of Cities of the World
Recommended readings:
- Chapter 14 of Introduction to Cities: The remaking and future of cities

All group research slides must be sent to the instructor by noon of July 22.

July 29*: Week 13. Cities of Australia and the Pacific Islands; Urban Poverty

(*July 29 is a make-up day for Victorial Day)

*Group research essay and peer evaluation forms due at the end of the lecture on July 29 (hard copy submitted to the instructor)

*Quiz # 10 (map quiz) taken at the end of the lecture on July 29

Required readings: Chapter 12 of Cities of the World

Recommended readings:

Quizzes, Assignments, and Group Research Project

Quizzes (25%)

There will be ten in-class closed-book weekly quizzes (2.5 % for each quiz). The weekly quizzes will be taken at the end of the lectures on Wednesdays. There will be no quizzes during Week 1, Week 3, and Week 12.

Each of the first nine quizzes contains five questions in the format of multiple-choice and/or true-false test. Each of these nine quizzes will take three to five minutes to complete and it covers the lecture contents of that week (3-4 questions from the first half of the weekly lecture and 1-2 questions from the second half of the weekly lecture). The last quiz will be a map quiz that tests students’ knowledge about the geographic locations of 10 selected cities that have been discussed in previous lectures.

The aim of the quizzes is not to challenge the students, but to help them review the weekly topics. Except for very special cases, no “make up” quizzes are provided.

Assignment 1: Reflection on Urban Form (20 %)

Assigned: May 13 in lecture
Due: May 29 (uploaded on LEARN Dropbox)

An important part of being a conscientious planner or geographer is being aware of how urban forms affect people’s experiences with cities. Students are to write a reflection on their experiences with or perceptions of one particular urban form. Each reflection needs to provide a brief description of a selected urban form and a more in-depth explanation of how such urban form has positively and/or negatively affected people’s experiences with cities. The reflections could be drawn from your own personal observations or real cases that you have learned from other sources. The suggested length for this assignment is 1500 words (excluding references). More instructions and grading guidelines for this assignment will be provided in a separate document (uploaded on LEARN Dropbox on May 13).
Assignment 2: Evaluating Planning Tools for Achieving Sustainable Urban Form (20%)

Assigned: June 10 in lecture
Due: July 3 (uploaded on LEARN Dropbox)

Problem-solving mentality and skills are crucial for planners and geographers. To date, there are planning initiatives (e.g., intensification, increasing community connectivity, brownfields redevelopment, promoting public and/or active transportation) and tools (e.g., zoning, financial incentives, public land banking, transfer of development rights) being implemented to achieve sustainable urban forms at various scales. With the purpose of enabling students to become more familiar and critical on these planning initiatives and tools, this assignment asks students to review one planning initiative being implemented to achieve sustainable urban forms, identify and evaluate one associated planning tool being adopted, and provide your own reflections. The suggested length for this assignment is 1500 words (excluding references).

Please note: Students must focus on one planning tool for an in-depth evaluation, even if multiple tools are involved in your case. For the chosen tool, student should discuss its features (advantages and disadvantages) and socioeconomic consequences, which are drawn from other literature that goes beyond your case. The focus of the study can be at any geographical scales. More instructions and grading guidelines for this assignment will be provided in a separate document (uploaded on LEARN Dropbox on June 10).

Group Research Project (35%)

Assigned: June 3 in lecture
Due: June 19 (proposal); July 22 (presentation slides); July 29 (research essay)

This course emphasizes collaborative learning through a group research project. Each group will have five or six members assigned by the instructor. With some guidelines, you will be asked to peer-rate your group members and submit peer evaluation forms at the end of the term. Peer evaluation marks received from your teammates will influence the final grade received by each member on the group project.

Proposal (10% of the group research project) : The main purpose of the research project is to address a significant question of a sub-topic covered in this course and other relevant topics about urban forms and internal spatial structures. Potential topics, for example, could be: applicability of integrated transportation in densely populated cities; peri-urbanism and its impacts on city landscape; and strengths of affordable housing in building socially cohesive communities. Each topic will then be narrowed down in the research proposal (2 pages, single-spaced) that provides more information about: the geographical scale of the research, relevant urban form/spatial structure to be assessed, and brief arguments to be addressed. The proposal will also list 10 external references. [Note: Web searches may be helpful in identifying up-to-date factual material and empirical illustrations, but do not qualify towards an item count of references].

Presentation (20 % of the group research project) : The in-class group presentations are scheduled on July 22 and July 24. Each presentation will take 8 to 10 minutes. All slides need to be sent to the instructor by noon of July 22. Guided by an evaluation form, each student is responsible for submitting their feedback on another group’s presentation to the instructor at the end of the class. Students are encouraged to incorporate the presentation feedback in their group research essays.

Essay (70% of the research project): The research essay is a short research paper (12 font size; 1.5 spaced; 15-20 pages including references and footnotes) that rely on resources beyond the textbook. You are highly encouraged to work on a project with international focus. The essay should at least consist of an introduction briefly introducing your topic and arguments, a literature review relevant to your
arguments, a middle portion presenting major findings, a recommendation section for policy improvement and/or professional applications, and a consices summary or conclusion of the research. The essay should illustrate synthesis and critical analysis of your topic and references. Purely descriptive essays are not acceptable.

List all sources of information used in your essay alphabetically. For footnoting and bibliographic entries, please consult APA (American Psychological Association) Style Reference Formats. You are encouraged to use forms of presentation other than text in your essays, such as tables, graphs, charts, maps, or photos. The non-text contents will not be counted towards the required paper length.

Make sure: The work you hand in is your own and has been done only for this course. More instructions and grading guidelines for this group project will be provided in a separate document (uploaded on LEARN Dropbox on June 3).

**Student Evaluation**

Student success in this course will be evaluated through ten in-class quizzes, two individual assignments, and a group research project. Brief descriptions and allocated marks are shown below. Guidelines and grading schemes for the assignments and group research project will be posted on LEARN.

The instructor determines the content and establishes the grading rules for the quizzes, the assignments, and the group research project. Teaching assistant will assist instructor with grading course work.

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

The component which makes up the final grade is:

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<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td><strong>Quizzes</strong></td>
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<tr>
<td>Quiz 1-10 (each contains 3 % of the final grade)</td>
<td>25 %</td>
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<tr>
<td><strong>Assignments</strong></td>
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<tr>
<td>Assignment #1</td>
<td>20 %</td>
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<td>Assignment # 2</td>
<td>20 %</td>
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<td><strong>Group Research Project</strong></td>
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<td>Research Proposal (15 % of the project grade)</td>
<td>5.25 %</td>
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<tr>
<td>Research Presentation (20 % of the project grade)</td>
<td>7 %</td>
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<tr>
<td>Research Essay (65 % of the project grade)</td>
<td>22.75 %</td>
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<tr>
<td><strong>Total</strong></td>
<td>100 %</td>
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**Requirements, Grade Penalties and Special Considerations:**

**Lateness penalty:** all assignments are due on the date set by the instructor. Teaching assistants are NOT allowed to change the due dates. The first day an assignment is late brings about a 5% penalty. An additional 5% penalty is assessed for each additional late day. A student's assignment more than 4 calendar days late will not be accepted and a grade of zero will be recorded for that assignment.

**Computer Use:** Assignments must be completed by using a computer. Assignments may not be accepted or penalties assessed if a computer is not used.

**Requests for exemptions or compassionate considerations:** are to be discussed with the professor in advance or as soon as possible.
**Texts**

**Required Texts**

Available at the university book store and course reserves at Dana Porter Library (three hours loan) and used extensively in this course:


[In this book, the authors lead students on an in-depth exploration of global urbanization. Using a comparative regional approach, the authors first discuss the recent history of global urbanization, then dissect its problems, and finally offer possible solutions. The track of this global expedition weaves through nine major regions of the world, exploring significant urban patterns, processes, and internal spatial structure. There’s even an eye-opening glimpse into the future. Overall, it is an incisive examination of the global nature of today’s cities.]

**Recommended Texts**

Available at the university book store and course reserves at Dana Porter Library (three hours loan)


[This book covers theory from the historical to the cutting edge, and offers a balanced account of life in cities, highlighting both positive and negative themes. It takes a global approach with dozens of examples. Additional features include a glossary of key terms, critical thinking questions, and suggestions for further readings. The book addresses a wide array of topics such as social inequalities, race, globalization, and sustainability.]

Other recommended weekly readings will be available on the library’s course reserves system.

*Please visit the book related website and the UN HABITAT website (Series: Global Report on Human Settlements) as some of the resources for your group essays: www.wiley.com/go/cities; https://unhabitat.org/series/global-report-on-human-settlements/

**Optional Texts**

An optional study aid, designed to help students develop their research essays. Feel free to consult other resources. Texts listed here will be in the course reserves at the Data Porter Library.

University Rules

**Intellectual Property:** Students should be aware that this course contains the intellectual property of their instructor, TA, and/or the University of Waterloo. Intellectual property includes items such as:

- Lecture content, spoken and written (and any audio/video recording thereof);
- Lecture handouts, presentations, and other materials prepared for the course (e.g., PowerPoint slides);
- Questions or solution sets from various types of assessments (e.g., assignments, quizzes, tests, final exams); and
- Work protected by copyright (e.g., any work authored by the instructor or TA or used by the instructor or TA with permission of the copyright owner).

Course materials and the intellectual property contained therein, are used to enhance a student’s educational experience. However, sharing this intellectual property without the intellectual property owner’s permission is a violation of intellectual property rights. For this reason, it is necessary to ask the instructor, TA and/or the University of Waterloo for permission before uploading and sharing the intellectual property of others online (e.g., to an online repository). Permission from an instructor, TA or the University is also necessary before sharing the intellectual property of others from completed courses with students taking the same/similar courses in subsequent terms/years. In many cases, instructors might be happy to allow distribution of certain materials. However, doing so without expressed permission is considered a violation of intellectual property rights. Please alert the instructor if you become aware of intellectual property belonging to others (past or present) circulating, either through the student body or online. The intellectual property rights owner deserves to know (and may have already given their consent).

**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. The University’s guiding principles on academic integrity can be found here: [http://uwaterloo.ca/academicintegrity](http://uwaterloo.ca/academicintegrity). ENV students are strongly encouraged to review the material provided by the university’s Academic Integrity office specifically for students: [http://uwaterloo.ca/academicintegrity/Students/index.html](http://uwaterloo.ca/academicintegrity/Students/index.html)

Students are also expected to know what constitutes academic integrity, to avoid committing academic offenses, and to take responsibility for their actions. Students who are unsure whether an action constitutes an offense, or who need 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. Students may also complete the following tutorial: [https://uwaterloo.ca/library/get-assignment-and-research-help/academic-integrity/academic-integrity-tutorial](https://uwaterloo.ca/library/get-assignment-and-research-help/academic-integrity/academic-integrity-tutorial)

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: [https://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/policy-71](https://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/policy-71).

Students who believe that they have been wrongfully or unjustly penalized have the right to grieve; refer to Policy #70, Student Grievance: [https://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/policy-70](https://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/policy-70)
Note for students with disabilities: Access Ability Services, located in Needles Hall, Room 1401, 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 AccessAbility Services at the beginning of each academic term.

Mental Health: The University of Waterloo, the Faculty of Environment and our Departments/Schools 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 http://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: Students need 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. See 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.

Appeals: A decision made or penalty imposed under Policy 70 - Student Petitions and Grievances (other than a petition) or Policy 71 – (Student Discipline) may be appealed if there is a ground. A student who believes he/she has a ground for an appeal should refer to Policy 72 (Student Appeals): www.adm.uwaterloo.ca/infosec/Policies/policy72.htm.

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

Communications with Instructor and Teaching Assistants: All communication with students must be through either the student’s University of Waterloo email account or via Learn. If a student emails the instructor or TA from a personal account they will be requested to resend the email using their personal University of Waterloo email account.

Turnitin: Text matching software (Turnitin®) may be used to screen assignments in this course. Turnitin® is used to verify that all materials and sources in assignments are documented. Students’ submissions are stored on a U.S. server, and are subject to the USA PATRIOT ACT, 2001; therefore, students must be given an alternative (e.g., scaffolded assignment or annotated bibliography) if they are concerned about their privacy and/or security. Students will be given due notice, in the first week of the term and/or at the time assignment details are provided, about arrangements and alternatives for the use of Turnitin® in this course.
Research Ethics: 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 https://uwaterloo.ca/research/office-research-ethics

Recording lectures: Use of recording devices during lectures is only allowed with explicit permission of the instructor of the course. If allowed, video recordings may only include images of the instructor and not fellow classmates. Posting of videos or links to the video to any website, including but not limited to social media sites such as: facebook, twitter, etc., is strictly prohibited.

Co-op interviews and class attendance: Co-op students are encouraged to try and choose interview time slots that result in the least amount of disruption to class schedules. When this is challenging, or not possible, a student may miss a portion of a class meeting for an interview. Instructors are asked for leniency in these situations; but, a co-op interview does not relieve the student of any requirements associated with that class meeting. When a co-op interview conflicts with an in-class evaluation mechanism (e.g., test, quiz, presentation, critique), class attendance takes precedence and the onus is on the student to reschedule the interview. CECA provides an interview conflict procedure to manage these situations. Students will be required to provide copies of their interview schedules (they may be printed from WaterlooWorks) should there be a need to verify class absence due to co-op interviews.