1. Course Description
This course introduces students to the subject of economics of taxation. Students will learn how to apply concepts and techniques of economic analysis to tax policies and issues such as efficiency and distribution, tax incidence, and incentive effects. The main focus is on the economics of taxation, rather than politics and laws, accounting practices, or personal finances. The teaching approach is problem-solving designed to help students develop analytical skills in “thinking taxation” and apply economic theory to taxation issues. Such skills take time to develop and students are expected to regularly participate in all class activities including attendance, discussions, readings, and exercises. Warning: this course cannot be crammed in a week or two before the final exam.

2. Course Objectives
At the end of the course, students should be able to
• understand the economic principles of the effects of taxation in the economy;
• apply tools and techniques of modern taxation theory (see how economic theory can be used);
• formulate and solve analytical problems in taxation theory;
• have a bird-eye overview of taxation issues;
• appreciate the role and limitation of taxes in economic policy design;

3. Required Texts
At present, there are no suitable texts for upper-year undergraduates who have taken the intermediate micro-macro theory (ECON 301-302) and/or advanced theory (ECON 401-402). Current texts available in the market are either too elementary requiring only introductory economics (e.g., Harvey Rosen et. al., 2012. Public Finance in Canada, fourth Canadian edition, McGraw-Hill Ryerson) or too advanced requiring strong graduate background in theory (ECON 601-602). There are no middle ground texts. Hence, lectures will be provided and regular class attendance is essential (take good notes). Given that class meets at 8:30 am on Monday and Wednesday, some students might need to adjust their daily schedule for the duration of the term (e.g., early bed time).
4. Topics

The subject of economics of taxation is broad, alive, and growing. It is practically impossible to cover every topic in a short one-term course. We will attempt to have a balanced treatment which covers theory, policy, applications, and institutions. The approach will be a blend of various methods and techniques using mathematics, graphics, computations, logics, and analysis. The following list of selected topics is tentative and could be revised to suit student progress, background, and interest.

1. A World Without Taxes
   Background review: consumer equilibrium; producer equilibrium; market equilibrium; general equilibrium; economic efficiency; welfare measures

2. General Equilibrium Tax Incidence
   General equilibrium without taxes
   General equilibrium with taxes
   Computable general equilibrium tax models; GAMS modeling software (details in class)

3. Optimal Taxation
   Optimal commodity taxes
   Optimal income taxes

4. Tax Effects
   Tax effects on household decisions
   Tax effects on firm decisions
   Tax effects on risk decisions

5. Issues in Tax Policies (time permits)
   Tax competition in a federation economy
   Revenue sharing and equalization
   Environmental taxation

5. Assessments

The mark breakdown is as follows:

<table>
<thead>
<tr>
<th></th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Class attendance</td>
<td>4%</td>
</tr>
<tr>
<td>Assignments</td>
<td>15%</td>
</tr>
<tr>
<td>Midterms</td>
<td>25%</td>
</tr>
<tr>
<td>Final exam</td>
<td>56%</td>
</tr>
</tbody>
</table>

The marking system is designed to promote regular study habit, time management skill, work ethics, and active learning experience (rather than short-term exam cramming). It also allows learning from errors and mistakes by focusing less on mistakes made earlier in the term.

1. Regular class attendance is required. Students are expected to (a) attend all class meetings, (b) remain in class for the while the whole class period, and (c) maintain proper classroom behavior. Casual presence (e.g., reading newspaper or email, chatting during lectures, study other courses in class, sign attendance records and leave) does not count and is treated as absence. Students who miss classes for whatever reasons are responsible to catching up with course materials on their own. Class handouts are distributed in classes only. Students should always sign the same way on the attendance records. Signing for someone else is cheating.

2. Assignments/exercises/quizzes are good learning tools to keep students on track with course work, monitor progress, and help detect warning signs of potential difficulties. Exercises are
small problems to be done regularly before classes. They are good training tools for building active learning and problem-solving skill (don’t come to class unprepared, empty-handed, and expecting answers to be readily given). The idea is to keep working during the term, avoid procrastination, and allow time for skill development.

3. Both midterms are in-class, up to 1½ hrs, closed-book (bring calculator, no sharing). These dates will not be changed. The midterms together are worth 25% with the following mark breakdown: the midterm with lower marks is worth 10% and the midterm with higher marks is worth 15%.

4. The final exam is scheduled by the Registrar’s Office for 2½ hrs, closed-book (bring calculator, no sharing). This date will not be changed. The exam is comprehensive which means that it covers the entire term and all course materials.

6. Important Dates

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>Wed May 2</td>
<td>first class</td>
</tr>
<tr>
<td>Mon May 21</td>
<td>last day to drop without penalty (will get a WD after this date)</td>
</tr>
<tr>
<td>Mon May 21</td>
<td>Victoria Day (university closed)</td>
</tr>
<tr>
<td>Tues May 22</td>
<td>make up class, monday schedule, same time/room (don’t skip)</td>
</tr>
<tr>
<td>Mon May 28</td>
<td>no class (room booked for CHSS congress meetings)</td>
</tr>
<tr>
<td>Wed May 30</td>
<td>no class (room booked for CHSS congress meetings)</td>
</tr>
<tr>
<td>Wed Jun 6</td>
<td>midterm 1</td>
</tr>
<tr>
<td>Mon Jul 2</td>
<td>Canada Day (university closed)</td>
</tr>
<tr>
<td>Wed Jul 4</td>
<td>make up class, monday schedule, same time/room (don’t skip)</td>
</tr>
<tr>
<td>Mon Jul 9</td>
<td>midterm 2</td>
</tr>
<tr>
<td>Mon Jul 9</td>
<td>last day to drop with a WD (will get a WF after this date)</td>
</tr>
<tr>
<td>Thu-Sun Jul 26-29</td>
<td>study days</td>
</tr>
<tr>
<td>Mon-Fri Jul 30-Aug 10</td>
<td>final exam period</td>
</tr>
</tbody>
</table>

7. Rules & Procedures

1. Missing the Final Exam Due to Illness
   Missing the final exam is a very serious matter which automatically results in a zero mark for the exam itself and possibly a failing mark for the course. In case of illness, make sure that you read the Department of Economics policy at [http://economics.uwaterloo.ca/DeferredExams.html](http://economics.uwaterloo.ca/DeferredExams.html) and follow the instructions very carefully.

2. Missing a Midterm Due to Illness During the Term
   By default, the computer automatically assigns zero marks for all missing required course work. In case of illness, an option, at the instructor’s discretion, may include a manual override to shift the weight of the missed work to the final exam. Note that this option is a privilege granted on compassionate ground, not a right. Requests are not automatically approved even with a doctor’s note. Read the following instructions carefully:
   - print and complete the Special Request Form (SFR) on LEARN
   - have your doctor complete the UW Verification of Illness Form (VIF) (the only acceptable proof) [http://www.healthservices.uwaterloo.ca/Health_Services/verification.html](http://www.healthservices.uwaterloo.ca/Health_Services/verification.html)
   - submit both forms to the instructor within five (5) school days of the missed course work
   - if approved, the weight of the missing work will be shifted to the final exam
   Note that
• records of class attendance and other course work will be a factor in the decision,
• only one missing midterm (weight 15%) can be requested (you can’t skip both midterms),
• missing classes/assignments/exercises/quizzes are not considered (if you miss it, you miss it).

3. Rules on Fee-Arranged Issues
Students are responsible for all administrative matters concerning their course registration (e.g., fee-arrangements). No make-up course work and/or remedies will be given for losses of access to LEARN and academic consequences arising from administrative issues with the Registrar’s Office.

4. Rules on Late Submission
Late submission will not be accepted and missed submission will receive zero marks.
• For online testing, the computer usually gives warnings before the end and refuses to accept late submission (even if you miss by a fraction of a second). The time zone is set to be the local Waterloo time.
• For regular paper testing, late submission is not accepted and missed submission will receive zero marks for whatever reason.
• Students must submit exam papers (completely intact) on time in the exam room. Exams not submitted on time or submitted with missing pages or submitted elsewhere will receive zero marks for whatever reason.

5. Rules on Group Work
• Students may elect to study alone or in group depending on preferences and learning styles. In tests, they must work alone and unaided
• Unauthorized collaboration with other students (or non-students like family members and friends) and unauthorized uses of books, notes, study aids, cheat sheets, electronic and communication devices are not permitted. Violations of these rules are considered serious breach of academic integrity. Non-programmable calculators are usually allowed.

6. Rules on Laptop Computers
Laptop computers (including notebooks, netbooks, ipads, iPhones, blackberry, and the likes) may be used during classes subject to the following conditions:
• they are used for learning purposes directly related to the course (e.g., taking notes, solving problems, making calculations, online search for course materials and lectures);
• they are not used in ways that unduly interfere with the study, work or working environment of other students or the class (re: University Policy 33);
• examples of unacceptable uses of laptops during class include: personal email, Facebook, movie, inappropriate surfing, distracting noises, or working on other courses; these activities create distractions to other students (e.g., video of a high-speed car chase).

8. University Statements
1. Cross-Listed Courses
   Please note that a cross-listed course will count in all respective averages no matter under which rubric it has been taken. For example, a PHIL/PSCI cross-list will count in a Philosophy major average, even if the course was taken under the Political Science rubric.

2. Academic Integrity
   Academic Integrity: In order to maintain a culture of academic integrity, members of the University of Waterloo are expected to promote honesty, trust, fairness, respect and responsibility.
Discipline: A student is expected to know what constitutes academic integrity, to avoid committing academic offences, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (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

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

Appeals: A student may appeal the finding and/or penalty in a decision made under Policy 70 – Student Petitions and Grievances (other than regarding a petition) or Policy 71 – Student Discipline if a ground for an appeal can be established. Read Policy 72 – Student Appeals, http://www.adm.uwaterloo.ca/infosec/Policies/policy72.htm

Academic Integrity website (Arts): http://arts.uwaterloo.ca/arts/ugrad/academic_responsibility.html

Academic Integrity Office (University): http://uwaterloo.ca/academicintegrity/

3. Accommodation for Students with Disabilities:

Note for students with disabilities: The Office for Persons with Disabilities (OPD), 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 OPD at the beginning of each academic term.