1 Course Overview

To analyze horizontal mergers (mergers amongst competitors), we apply microeconomic theory, econometrics, and industry knowledge (acquired through research) within a competition policy framework. In 2004 when Rogers acquired Microcell (seller of the “Fido” brand of mobile wireless telecommunication services) how did that affect competition? Prices subscribers pay? ECO410 falls within Industrial Organization: ECO310 and ECO380 are complementary but not required.

As a 400-level course capped at 35 students, ECO410 emphasizes learning via reading, research, and original analysis. *Success requires substantial preparation every week.* You will give a class presentation (in a team) and prepare an original written analysis. Hence, you will learn how economists assess the competitive impact of horizontal mergers and enhance your ability to do the analysis, writing, reading and presenting that practicing economists regularly engage in.

1.1 Prerequisites and Course Restrictions

You must have *completed* intermediate microeconomic theory and basic econometrics including multiple regression analysis. Your notes/textbook(s) from these prerequisite courses are helpful: ECO200Y1/ECO204Y1/ECO206Y1, ECO220Y1/ECO227Y1/(STA220H1, STA255H1)/(STA257H1, STA261H1). An administrator will remove anyone missing prerequisites. I cannot waive prerequisites: [http://www.economics.utoronto.ca/index.php/index/undergraduate/load/prerequisites](http://www.economics.utoronto.ca/index.php/index/undergraduate/load/prerequisites).

After September 27, our course may not be audited.

1.2 Tuesdays and Thursday

Aside from Fall break (Nov. 9 - 10) and Dec. 8, we meet every Tuesday for class. We meet every Thursday for workshops, tutorials, and a dry-run of your team’s presentation. However, for dry-runs I meet *only* with the presenting team. The course site has a detailed schedule. Also, slides for lectures and workshops are posted ahead of time and can be printed (black and white is fine): these include blank space for your notes.

1.3 Textbook, Required Readings & Supplemental Readings


Most of the readings are academic journal articles, selections from books, working papers, and antitrust filings and guidelines. Section 5 shows the reading list. **Complete required readings before class. Arrive ready to participate.** In contrast, the supplemental readings are optional. However, on your team’s week to present, take the supplemental readings seriously.

## 2 Graded Work

The table below lists the graded work. **There are no term tests and no final examination.**

<table>
<thead>
<tr>
<th>Graded Work</th>
<th>% of Grade</th>
<th>Dates; Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment #1</td>
<td>5 %</td>
<td>Given Oct. 1; Due Oct. 8, 2:10</td>
</tr>
<tr>
<td>Assignment #2</td>
<td>12.5 %</td>
<td>Given Oct. 8; Due Oct. 15, 2:10</td>
</tr>
<tr>
<td>Assignment #3</td>
<td>12.5 %</td>
<td>Given Oct. 20; Due Nov. 5, 2:10</td>
</tr>
<tr>
<td>Dry-run team presentation</td>
<td>15 %</td>
<td>Oct. 22, Oct. 29, Nov. 12, Nov. 19 or Nov. 26</td>
</tr>
<tr>
<td>Class team presentation</td>
<td>20 %</td>
<td>Oct. 27, Nov. 3, Nov. 17, Nov. 24 or Dec. 1</td>
</tr>
<tr>
<td>Class participation</td>
<td>15 %</td>
<td>In classes and workshops: primarily determined during the five classes with team presentations</td>
</tr>
<tr>
<td>Final paper</td>
<td>20 %</td>
<td>Topic given Nov. 5; Annotated sources due Dec. 3, 2:10; Final paper due Dec. 8, 4:00</td>
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### 2.1 Assignments #1 through #3 and Practice Questions

Assignments #1 through #3 ask you to apply some of the microeconomic, econometric, analysis, writing, reading comprehension and other skills needed for the rest of the course. **Submit your own work.** Aside from classes, workshops, tutorials, and readings, I also post ungraded practice questions (PQ) on the course site with solutions. There are six sets of practice questions corresponding to the six weeks of topics in the first half of the course. A goal of these practice questions is to help prepare you for some of the questions on the graded assignments.

### 2.2 Dry-run and Class Team Presentations

After six weeks of lectures, workshops, and tutorials, our course shifts towards team presentations during class time. Class team presentations focus on economic analysis and research: specifically, the merger(s) and readings scheduled for that class. Economists in government agencies, consulting firms, and academia, often share their analyses as presentations, which allow economists to explain and support their ideas and to refine them in response to critical comments and questions. We will recreate this type of interaction in our course. Our goal will be to understand and critically assess the concepts and evidence at play.
Presenters face a challenging task. The team must design a coherent, substantive and clear presentation that assigns a substantive role to each team member. In addition to studying all readings for that week (required and supplemental), the presenting team is expected to do research that uncovers relevant and illuminating information that clearly enhances the main message of the presentation. Importantly, the team presentation must have a coherent overall structure and a clear overall message with well-defined contributions from each team member. Further, it needs to be planned to fit comfortably within the allotted time. Success requires that each member does her/his part and the team works together.

While presenting an economic analysis to the class may sound intimidating, I do not expect that you have previous experience presenting. You will be supported. There is substantial written guidance (including this syllabus, rubrics, outlines, etc.). You can also expect help from your teammates, our TA, and me. Our course TA has hours assigned to help each team with questions about economic concepts, readings, research, and presentation structure: e-mail our TA to schedule your team’s consultation (2 hours). Make sure to give your teammates feedback in your practice runs before your dry-run and class presentation. While you may not be an expert presenter, you are an experienced audience member and you can give valuable comments. Use the “General Presentation Skills Rubric” on our course site and the guide for giving helpful feedback to presenters (i.e. for written comments on the reverse side).

The dry-runs on Thursdays (Oct. 22 - Nov. 26) include only the presenting team and me. For the dry-run, I expect you to deliver a complete and coherent presentation that is planned, rehearsed and polished. The goal is to coach you to do even better with your class presentation. It will be a supportive environment to work on your presenting skills and analysis.

Right after your team’s dry-run presentation, you can expect me to offer comments and make suggestions for each team member (including you) and the team as a whole. To finish by 4:00, it is important that the dry-run presentation is no more than 55 minutes and that your team has put substantial thought into the team presentation outline, has consulted with our course TA, and has sufficiently rehearsed (giving each other feedback) before the dry-run.

The marking rubrics for both the dry-run and class presentation, which are posted on our course site and explained ahead of time, emphasize preparation (including research), the depth/correctness of the economic arguments, responsiveness to suggestions, and overall team performance. At BOTH your team’s dry-run and class presentations, give Prof. Murdock a hard copy of your team’s completed presentation outline and check list created using the template on the course site.

When preparing your team presentation, remember your audience. While I have to assign grades, it is the class, not me, who is your audience. Hence, make sure to clearly explain your points, taking time with conceptually challenging theoretical arguments, econometric specifications, 

1While it is not necessary that each team member speak for exactly the same amount of time, the team should make sure that each member has time for a substantive and important contribution. No team member should be tasked with just presenting facts or background information without any economic analysis.
regression results, etc. When appropriate and enlightening, make explicit links to other course materials that the class is familiar with (e.g. simulation spreadsheets, required readings, assignments, lectures, workshops). Make sure the class understands the big picture before discussing more technical points. At the end of every team presentation class, everyone (including presenters) will prepare written answers to questions about the readings and presentation topic. If the class does well on this, that reflects well on the presenting team.

For Tuesday class presentations (Oct. 27 - Dec. 1), of the 110 minutes of class time, the planned breakdown is about 55 minutes for the team presentation, about 5 minutes of break, about 25 minutes of Q&A (note: we will not interrupt the team with questions during the presentation), about 5 minutes for announcements (including a preview of the reading for the next week), and about 20 minutes for in-class writing. However, the exact time allocation may vary across weeks.

The team presentation weeks are valuable on their own and as preparation for your final paper. One challenge of the final paper is figuring out what constitutes compelling economic evidence. Interactive presentations (including the dry-runs) give opportunities to work with economic arguments, models, academic papers, relevant industry evidence, and to communicate your original critical thinking to others. These are skills needed to write an excellent final paper.

2.2.1 Presentation Scheduling and Team Formation

To inform the presentation scheduling, I will solicit your preferences with an online survey to open on Thursday, Oct. 1 at 4:00 and to close at midnight on Tuesday, Oct. 6. Any submissions during that window will get equal weight: there is no advantage to being first. Instead, you are encouraged to think about your preferences for dates and team members. Before submitting, make sure to review the topics and readings scheduled for each date. In the workshop on Thursday, Oct. 8, I will show a draft schedule and at that time – and at that time ONLY – allow trades. Shortly after the workshop, I will post the finalized presentation schedule on the portal. It is impossible to guarantee that you will not end up with your last choice of dates and/or team members whom you would not have selected. Please be prepared for any schedule. In the unlikely event that I need to change the date of your presentation, you will have two weeks notice (via e-mail) prior to your scheduled dry-run presentation.

2.2.2 Presentation Logistics

Our classroom has a Teaching Station Junior. This requires that you/your team have a properly configured laptop ahead of time to ensure no technology problems. Please read:

http://sites.utoronto.ca/teachingstation/tsj/handbook/TSJr%20Handbook%202013.pdf

2.2.3 Missed Presentations

We (your team, the class, and I) expect you to complete your dry-run and class presentations as scheduled. In the unlikely event of truly exceptional circumstances, you must notify me and your

Those not in attendance on Thursday, Oct. 8 will be presumed indifferent and willing to accept all trades.
team via e-mail immediately, well before your presentation. If your circumstances merit it, I will consider a make-up presentation with a time, date and a topic of my choosing.

2.3 Class Participation

Class participation requires arriving to classes and workshops well-prepared. Participation can involving speaking to the class (or working in smaller groups), but also involves writing. Very heavy weight is given to participation during the five weeks of team presentations (Oct. 27 - Dec. 1), which helps ensure that everyone (not just the presenting team) arrives well-prepared and engages with the case studies and readings. Complete required reading before class, pay careful attention to the presentations, which includes taking notes, and be ready to write and talk about the week’s topic. We will not interrupt presenting teams with questions, so please jot down the slide numbers along with your questions for the Q&A period.

Only a subset of the class can make a meaningful contribution to class discussion in a particular week. You will be assessed partly on the quality of your discussion participation but mostly on in-class writing, which is planned to be at the end of each class during team presentation weeks. All students, including those presenting, must complete in-class writing assignments. A marking rubric for participation is posted on our course site and explained ahead of time. If you must miss a team presentation class, you are responsible for notifying me ahead of time and writing a short paper – two or three pages typed and double-spaced – that addresses a selection of the key study questions posted for that class. It is due within two weeks of the missed class or by December 3, whichever deadline is sooner.

2.4 Final Paper

Economists write and write often. The final paper calls for research and your application of economic analysis. It requires you to effectively convey your arguments and evidence through writing. It may ask you to assess whether a particular merger will substantially lessen competition and/or to critically evaluate existing analyses. These are hard, but realistic, questions where there is genuine disagreement among economists and not one right answer. However, there are many wrong answers based on faulty reasoning and/or evidence. You must support your positions with your own economic analysis and high quality sources, which you have carefully cited. An interactive, customized workshop at Robarts Library on Thursday, Oct. 8 will help you meet the research expectations for both the final paper and the team presentations.

The final paper presents many challenges. It is hard to put together an original analysis and to properly argue and support it. You need to do substantial research and apply economic concepts and analysis to the specifics of the proposed merger and industry. While still taking clear positions, you must confront any important counter-arguments and evidence.

The final paper is fairly short: not more than 3,000 words (excluding references). This is roughly eight double-spaced pages of text. Another challenge is to condense your analysis and facts down

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4 The topic may differ from the missed presentation and the date could be soon or possibly Dec. 3 between 2 - 4. Someone who misses presenting cannot choose the time, date or topic of the make-up.
to the most essential. While it is easier for the writer to create a long meandering piece, readers value conciseness, clarity and coherence. This requires a substantial iterative revision process.

The final paper will be marked with a rubric posted on our course site. We will discuss it in the Nov. 5 and Dec. 3 workshops. A list of 6 to 8 annotated sources – full citations with 1 - 3 sentences for each source describing the relevant information provided for your analysis – is due on Thursday, Dec. 3 at 2:10 and the final paper is due on Tuesday, Dec. 8 at 4:00. While the annotated sources are required and form part of your final paper mark, you are not limited to them (i.e. you can find and include more sources in your final paper). Both will be returned together. While you will not get comments on your sources prior to the final paper deadline, in the Dec. 3 workshop we will discuss sources as a class. Please bring two copies of your annotated sources: one to hand in to me and one to reference during the workshop. Your careful attention to the rubric, the final paper instructions, this syllabus, and our workshops will greatly improve the quality of your submission (and hence your mark) on this challenging project.

2.5 Your academic integrity and assignments, presentations, and final paper

For all graded work including Assignments #1 through #3, presentations, and final paper: **submit your own work and properly cite your sources.** Finding respected sources, integrating them into your analysis, and properly citing them strengthens your analysis. Required reading includes all four topics under “Using Sources” on the “Writing at University of Toronto” website including “How Not to Plagiarize,” “Standard Documentation Formats” (please focus on APA, which is what we use), “Using Quotations,” and “Paraphrase and Summary” ([http://www.writing.utoronto.ca/advice/using-sources](http://www.writing.utoronto.ca/advice/using-sources)).

I presume that you are trustworthy and meet U of T's high expectations regarding integrity. Retain (for at least two months) your drafts and notes to help clear up any concerns that may arise.

Normally, students will be required to submit their course essays to Turnitin.com for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their essays to be included as source documents in the Turnitin.com reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University’s use of the Turnitin.com service are described on the Turnitin.com web site.

2.5.1 Am I allowed any communication with my classmates regarding graded work?

Provided that you are careful and get started early, you may communicate with people in our class about graded work. This is best done at the stage of trying to help each other understand concepts, approaches, and helpful sources. In contrast, if someone sees a draft of your intended submission or you look at someone else’s draft or submission, this will almost surely get both of you into serious trouble. Similarly, do not work with another student(s) to create a draft that you then each base your final submission on.

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4 An exception is working with your team members on your presentations: you need to know exactly what the other members are doing so that your contribution fits in.
2.5.2 What happens if I am suspected of academic misconduct?

Any suspected infractions will be reported to both the Economics Department and the Office of Student Academic Integrity (OSAI). U of T's Code of Behavior on Academic Matters requires that we report all suspected infractions: we cannot be silent even if we feel badly for a desperate person in difficult circumstances. Penalties are imposed higher up. Neither myself nor the TA can say what will happen nor how long it will take. *Submit your own work, protect your work from improper use by others, and properly cite all sources. If you are unsure about the rules, ask us for help BEFORE turning something in.*

2.6 Turning Your Work In On Time (or Early) & Penalties for Lateness

You are expected to submit work on time (or early) as scheduled in Section 2. To submit your work outside the class when it is due (i.e. early or late), give it directly to me in class or office hour or slide it under my office door (GE 312, 150 St George St) between 8:30am and 7:00pm on regular business days when the Economics Department is open. *For Assignments #1 through #3 and the final paper: for each day (or part of a day) that it is late, 5 percentage points are deducted from the mark and it will not be accepted if it is more than six calendar days late.* For the final paper, get started as soon as it is assigned (Nov. 5).

2.7 Re-mark Requests

Before requesting a remark, carefully review your submitted work and any relevant rubrics. For Assignments #1 - #3, the TA may use the symbols below (as well as short comments).

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>Incorrect</td>
</tr>
<tr>
<td>?</td>
<td>Logically unclear, confusing or illegible</td>
</tr>
<tr>
<td>⊕</td>
<td>Imprecise, incomplete, insufficient (Idea: “plus” more)</td>
</tr>
</tbody>
</table>

We can only mark what you actually submitted and not what you intended to express. For partial credit, part of your work must be clearly correct, directly relevant to the question asked, AND not contradicted by other parts of your work. Requests for remarking must: (1) Be made IN WRITING and given to me along with your original marked work, (2) Explain WHY more points are justified, (3) Be submitted WITHIN TWO WEEKS. Your mark can go up, down, or remain unchanged.

3 Communication

I maintain a course site at [http://chass.utoronto.ca/~murdockj/eco410/](http://chass.utoronto.ca/~murdockj/eco410/) and use the portal. We use Piazza ([https://piazza.com/utoronto.ca/fall2015/eco410h1f/home](https://piazza.com/utoronto.ca/fall2015/eco410h1f/home)) to facilitate more communication. Piazza is a substitute for e-mail but a complement to in-person interactions.

For private matters or simply to notify me of problem (e.g. broken link, typo, etc.), my e-mail is jennifer.murdock@utoronto.ca. *For e-mails asking for a reply, if I can answer briefly and it does not require explaining course content or revealing something of general
interest, then I will reply within three business days. For any question that would interest
other people (e.g. a question about an assignment, a course concept, expectations regarding team
presentations, etc.), post on Piazza if you would like an electronic reply.

4 Academic Integrity, Accessibility & Help

You are expected to uphold your academic integrity: see http://www.artsci.utoronto.ca/osai. For accessibility concerns visit http://www.studentlife.utoronto.ca/as. If you have trouble, seek help right away from us, your College Registrar, and/or the Academic Success Centre http://www.studentlife.utoronto.ca/asc. For any issues that extend beyond just our course, contact your College Registrar immediately.

5 Reading List

The stared readings are required. Other readings are supplemental. Complete required readings before class. Our main course site gives hyper-links for some readings. For the rest, see the portal.

September 15 – Introduction to Horizontal Merger Assessment


Freedman, Leora (2012). “Teaching Strategies for Reading Comprehension,” University of Toronto, pp. 1 - 4. (pay particular attention to 1, 9, 11 - 18)

Your ECO200Y/ECO204Y/ECO206Y textbook and notes


September 22 – Classic Oligopoly Models: Bertand and Cournot


September 29 – Antitrust Markets: Hypothetical Monopolist Test


October 6 – Assessing Horizontal Mergers


October 13 – Econometric Analysis and Endogeneity

Your ECO220Y/ECO227Y textbook and notes: especially on multiple regression analysis


**October 27 – Merger of Dollar Tree and Family Dollar and Proposed Merger of Dollar General and Family Dollar (Discount General Merchandise Retail Stores)**


**November 3 – Proposed Merger of Echostar and DirecTV (Satellite TV)**


**November 5 – Writing and Revising Your Final Paper**


**November 17 – Proposed Merger of Staples and Office Depot (Office Supply Superstores)**


November 24 – Merger Retrospectives: Miller and Coors Merger (Beer)


December 1 – Merger of Oracle and PeopleSoft (Enterprise Resource Planning Software)


U.S. Dept. of Justice, Antitrust Case Filings, Oracle Corporation, http://www.justice.gov/atr/cases/oracle.htm (especially Complaint, Plaintiffs’ Post-Trial Brief, Plaintiffs’ Memorandum in Opposition of Defendant’s Motion to Exclude Testimony of Professor Kenneth Elzinga)