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website: [www.economics.utoronto.ca/damiano/eco316.html](http://www.economics.utoronto.ca/damiano/eco316.html)

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ECO316H1  
WINTER 2014

CLASSES: We meet Thursday 2-4 in UC 140. We will use the third scheduled class hour (Friday 1-2, SS 2135) for tutorial sections or to make up cancelled lectures. Tutorials will start on Friday January 17.

TEACHING ASSISTANT: Graham Beattie ([graham.beattie@utoronto.ca](mailto:graham.beattie@utoronto.ca)) is the TA for the class. Graham will conduct the tutorial sections and hold office hours every Monday 2-4 in GE40.

TEXTBOOK: The recommended text for this class is *Games, Strategies, and Decision Making*, by Joseph E. Harrington, 2009 Worth Publishers. One other possibly useful (not required) book, which presents the material at a more formal but still approachable level is *An introduction to Game Theory* by Martin J. Osborne (Oxford University Press).

REMARKS: The class webpage at <http://www.economics.utoronto.ca/damiano/eco316.html> will be used for important announcements. You are responsible for checking it frequently.

GOALS: The main goal of this course is to introduce you to the most fundamental concepts of (non-cooperative) game theory. The stress will be on applications that illustrate the usefulness of the modelling tools of Game Theory across areas in economics, as well as other disciplines including politics, biology and sociology. The broad objective is to enable students to recognize the strategic element of social interactions. The modelling tools and concepts of Game Theory can then be applied to gather insights on the behaviour in these interactions and to understand how changes to the rules of interactions will likely affect social outcomes.

STRUCTURE: The course material organized around three main components:

- The **theory** component, which include the main modelling tools and theoretical concepts.
- **Applications** will illustrate the main concepts through examples drawn from a variety of fields/disciplines.
- In the **design** component we will use Game Theory to guide us in the design of institutions effective at achieving given objectives. Auction and other examples of market design will provide the main illustrations.

On the course website a log with material and topics covered in each lecture will be provided.

EVALUATION: Your grade in the course will be based on your marks in a midterm test and a final exam. The term test will receive a weight of 40% in the final grade, and the final exam will receive a weight of 60%. The final exam will cover the entire term's work. A low but passing mark in the term test will be redeemable by a high mark on the final exam, and a mark between 40% and 50% on the term test will be partly redeemable. Specifically, if your mark on the term test is at least 50% and is lower than your mark on the final exam, the 40% weight for the test will be transferred to the final exam. If your mark on the term test is between 40% and 50% and is lower than your mark on the final exam, your term test mark, say  $x$ , will receive a weight of  $4*(50-x)\%$  and the weight  $(40- 4*(50-x))\%$  will be transferred to the final exam. (For example, if you score 45% on the midterm test, then that test will receive a weight of 20% and the remaining 80% of the weight for the test will be transferred to the final exam.) If you do not take the term test or if you receive a mark of less than 40%, no weight for the test will be transferred to the final exam. The midterm will be held on Thursday February 13 at 2pm. Location of test: TBA.

Every student is required to write the midterm test on February 13. In exceptional circumstances when for documented serious medical reasons a student is unable to write the test, a make-up test will be provided. To be eligible to write a make-up test you: i) **MUST** contact me **via email** within 24 hours of the date of the missed test; ii) **MUST** provide appropriate explanation of the nature of your illness and documentation. I will set a date and time for the make-up test shortly after I receive your email. A student who fails to comply with any of the above requirements will not be allowed to write a make-up test and will receive a grade of 0 for the missed midterm.

I will post assignments on the class website. These assignments will not be collected and will not be part of your grade. However, material covered in the problem sets might be included in the midterm or final exam, it is in your best interest to work on the assignment every week, and I urge you to do so.