**Industrial Organization: Economics of Imperfect Competition**  
*(ECON 0360)*  
**Fall 2011**

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**Office Hours:**  
Tuesday 2 - 3:30 pm  
Thursday 2 – 3:30 pm  
And by appointment

**Course Description:** Industrial organization is the study of how industries function and how firms interact within an industry. While this is part of the general agenda of microeconomics, industrial organization distinguishes itself by its emphasis on the study of firm behavior in imperfectly competitive markets. The primary objective of this course is to investigate how firms acquire market power or the ability to influence the price of their product; the strategic behavior of firms that possess market power; and the effect of policy intervention in such industries.

**Course Material:** The required text for this course is *Introduction to Industrial Organization* by Luis M.B. Cabral (The MIT Press). This being said, I must confess that I shall occasionally depart from the material in the book. That is, I may decide to probe deeper into a particular topic than the text does. I may also decide to cover a topic that the text does not consider at all. In these situations, you will have to rely on the supplementary material I make available and, of course, the notes you take down yourself in class. Any additional material that I want you to look at will be posted in the Handouts folder on the Classes server. Needless to say, you will be responsible for the entire content of each chapter of the text covered in the course as well any additional material I cover.

**Course Outline:** The topics I intend to cover over the course of the semester fall into four general sections:

**A. Introduction to Basic Market Structures:** The first topic we shall take up pertains to the scope of Industrial Organization as a discipline and how the nature of the discipline has evolved from the conventional Structure Conduct Performance (SCP) paradigm to the modern game-theoretic perspective. Thereafter, we shall move on to a brief analysis of the canonical market structures, namely, *perfect competition; monopoly;* and *monopolistic competition*. This part of the course approximately corresponds to Chapters 1, 2, 5, and 6 in your text, with the introductory topic being supplemented by my own lecture notes.

**B. Introduction to Strategic Interaction:** This section will introduce the study of strategic behavior or *game theory* and provide a necessary perspective for the material to follow. We shall briefly cover the basic tools of game theory and then move on to the last major market structure, namely, *oligopoly*, which explicitly
looks at the strategic interaction between firms. We shall end this section with the study of collusion or how firms attempt to reach agreements between themselves with a view to increasing their market power. This part of the course approximately corresponds to Chapters 4, 7, and 8. However, I will supplement the material in Chapter 4 with my own lecture notes on game theory.

C. Strategic Behavior of Firms: This area defines the scope of modern industrial organization. What we cover in this section, therefore, is by no means a compendium of existing knowledge in the field, but a list of topics intended to give you the briefest of glimpses into the discipline. Tentatively, we shall look into price discrimination by a monopolist (Chapter 10); the impact of differentiated products (Chapter 12); entry and exit decisions from an industry (Chapters 14 and 15); the impact of advertising (Chapter 13); the decision to invest in research and development (Chapter 16); and if time permits, the behavior of a durable goods monopoly (my own lecture notes).

D. Theory of the Firm: A key question that industrial organization tries to answer is what exactly is a firm? You will certainly have an idea about this from past courses in microeconomics, but I hope to convince you about the need to look deeper into the question. This part of the course will draw mainly on my own lecture notes, which will subsume Chapters 3 and 11 of the text.

Problem Sets: I will assign approximately 6 problem sets over the course of the semester. I consider this an absolutely vital part of your learning experience. The problem sets are intended to give you greater familiarity with the concepts we cover in class. Equally importantly, they are intended to give you regular feedback about your own progress in the course.

Each problem set will be posted in the Handouts folder on the Classes server a week before the due date, and I expect to receive your submission at my office by 5:00 pm on the date it is due. Please make sure that you keep the deadline. I do not accept a late submission unless there is an absolutely unavoidable circumstance which gets you excused by a Dean. On a more positive note, I will drop your worst score on the problem sets and the rest will count towards your final grade for the course.

Feel free to collaborate on the problem sets. All I ask is that each of you should submit a separate assignment.

Examinations: There will be one midterm and a final examination. The midterm will be held between 7:00 and 9:00 pm on October 20 and will cover Sections A and B listed above (Chapters 1 – 8). Please note that while the date of the midterm is fixed, there may be changes in the coverage, depending on our rate of progress. In the event of any such change, I shall inform you well in advance.

* Note the word approximately.
The date of the final is yet undetermined and I will let you know as soon as I decide. The final exam is not cumulative and will cover Sections C and D.

**Grading:** Your final grade in the class will depend on the problem sets, the midterm and the final exam. The problem sets count for 30% of your total score in the course; the midterm counts for 35%; and the final counts for 35%.

The final letter grade you receive will be determined according to the following scale:

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<th>Total Course Percentage</th>
<th>Letter Grade</th>
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<td>93 – 100</td>
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Please note that there is no grade of C-. Nor is there a scope for extra points.

† Remember I drop your worst score on the problem sets.