Course Syllabus: Organization of Industry

Time: Tuesdays and Thursdays 9:30AM - 10:45AM

Location: Oak 105

Website: Listed on HuskyCT (blackboard): https://lms.uconn.edu/

HuskyCT will be used expansively for announcements, posting of problem sets and

solutions, additional course documents, review exams, quizzes and more.

Instructor: Talia Bar Office: Oak Hall 335

Email: <u>talia.bar@uconn.edu</u> Telephone: (860) 486-3550

Office hours: Thursday 11:00AM-12:30PM, or by appointment.

I will also do my best to respond to email questions promptly. Additional office hours may be offered at varying times before exams. Announcements about office hour changes or additions will be made on HuskyCT.

Pre-requisites

1. Intermediate Microeconomics (Econ 2201)

2. Calculus background (in particular, familiarity with derivatives and their use for solving optimization problems). It is sufficient to have fulfilled the math requirements for Econ 2201.

Description:

This course examines models of strategic interactions between firms in oligopoly markets. Topics include static and dynamic oligopoly competition, product differentiation, entry and exit, anticompetitive strategies, collusion between firms, horizontal mergers and government interventions in oligopoly industries (e.g., antitrust laws), If time permits, advertising and R&D behavior. The course will also introduce concepts in game theory as methods for analysis of oligopoly models.

After this course it is hoped that students will be better able to:

- Define and explain important concepts in Industrial Organization (details in minischedules posted during the semester online).
- Describe the models we learned and lessons learned from these models.
- Formally write, and solve profit maximization problems as appropriate given the assumptions on market structure and firm conduct.
- Predict the effect of changes in economic environments (the parameters of the model) on the outcomes of model. (Comparative Statics analysis).
- Identify strategies that help firms gain market power and soften competition.
- Explain the role and important considerations of anti-trust laws.

Lectures: The course meets three times a week. It is mostly lecture based. I write on the board on most lectures, power point presentations are used on occasion. Questions and discussion during class are highly encouraged. There will be occasional short in class activities, time devoted to

problem solving, or lectures of other formats. On some lectures student will be "cold called" to answer questions. Towards the end of the semester, student will present projects in class.

Requirements and Grading:

a. Midterm Exams

There will be two midterm exams. Tentative dates are Thursday, February 25 and Thursday, April 7. The midterms will take place in class. There are no make-ups for midterms. If you miss a midterm for any reason, the weight will be shifted to the final exam.

Students are expected to work on a missed test as practice (although it will not directly count for your grade).

b. Final exam: TBA

All exams are closed books, however one "cheat sheet" (formulas sheet) and a calculator are permitted. Details will be provided closer to exam time.

Exams are cumulative, unless otherwise noted they can cover any material from start of the semester until and including the lecture held one week prior to the test.

A student who is unable to take the final exam at its normal time must get an approval for a makeup exam from the Office of Student Services & Advocacy before the final exam: Wilbur Cross Building, 233 Glenbrook Rd., Unit 4062, Storrs, CT 06269, www.ossa.uconn.edu (860) 486-3426

c. Problem Sets, Quizzes and Active Participation

Problem sets will be assigned about every two weeks. They are crucial for learning! Problem sets are intended to improve your understanding of the material, demonstrate how the abstract concepts learned in lecture can be applied, allow you to learn methodology used by theoretical economists, and improve your analytical skills. Problem sets are also an important means to prepare for exams. I write my own problem sets, these will be posted on blackboard. You are required to hand in problem sets on time. Collaboration among students in working out the exercises is encouraged. Problem sets may be accompanied by an online or an in class quiz. The quiz needs to be answered independently. It is understood there might be a special occasion in which a student would need to submit a late problem set. A late problem set might not be graded, but if the late submission is approved, the student will obtain the average problem sets grade on it. One (lowest or not submitted) problem set grade will be dropped.

Additional optional review is provided in review exams that are posted on HuskyCT. Problems in the text book and in other text books can be used as extra practice.

Students are expected to be active learners in this course. Examples of what I consider aspects of active participation are:

- 1. Regular attendance.
- 2. Serious effort on in-class short assignments or quizzes
- 3. Reading ahead and being prepared for "cold calls" on a few designated lectures (details will follow)
- 4. Showing willingness to help other students in the course, being considerate of others
- 5. Sharing opinions, asking course relevant questions
- 6. Adhering to course conduct expectations (see below)

d. Group project

This class includes a group project assignment which will require a significant effort throughout the semester. Each group will research prepare and present a case study, aimed at providing real like examples related to our course material. More details about the project are available on blackboard in the course information folder. Students are required to attend the presentations of their peers. Students may be asked to provide peer reviews.

Grading Scheme

Final exam: 35% Midterm 1: 20% Midterm 2: 15%

Group assignments, presentations and peer reviews 15%

Problem sets, quizzes and participation 15%

Letter grades (F-A) will be assigned based on the weighted score which can range from 0 to 100. Higher scores will be assigned at least as high a letter grade as lower scores. I finalize letter grade assignments only in the end of the semester, taking both absolute performance and the distribution of grades into account. I will tentatively (but this is subject to change) assign a grade of A- or higher for weighted final scores in the 90-100 range, a grade of B- or higher for weighted final scores in the 80-89 range, a grade of C or higher for grades in the 70-79 range, a grade of C- for 65-69, a grade of D or higher for scores in the 60-64 range, and a grade F for scores below 60.

Academic Integrity

Students in this course are expected follow the code of Academic Integrity. Academic misconduct is dishonest or unethical academic behavior that includes, but is not limited, to misrepresenting mastery in an academic area (e.g., cheating), intentionally or knowingly failing to properly credit information, research or ideas to their rightful originators or representing such information, research or ideas as your own (e.g., plagiarism)." Additionally note that in my course, collaboration on problem sets is allowed, but quizzes must be answered by the student independently; collaboration on some in class quizzes may allowed but only a student who is present for the entire lecture may submit a quiz. Submitting a quiz for a student who is not present is considered a violation of academic integrity. Absolutely no collaboration or outside help is permitted on midterms or the final exam. Student may not use any devise that connects to the internet during an exam, and may not talk to other students for any reason. The university policy can be found in the Responsibilities of Community Life: The Student Code. The policy also details the procedures the University uses to resolve academic misconduct cases. Students are responsible to become familiar with its provisions.

Additional course conduct Expectations:

- To make the most of the time we spend in this class, I encourage all students to be active participants, ask questions, express opinions, and listen to others. Please honor the uniqueness of your fellow classmates, and appreciate the opportunity we have to learn from each other. Please respect your fellow students' opinions and refrain from personal attacks or demeaning comments of any kind. Be polite and considerate.
- To avoid disturbing others who are still taking a test, students are expected to remain seated quietly until the end of each midterm, even if they finish the test earlier. Don't leave the classroom before the end of exam time only unless you absolutely must.

- Students are expected to regularly attend the lectures. Students who miss class are responsible to make up the material they missed with the help of a classmate and/or the text book.
- Students are encouraged to engage in the material in various ways, and experiment different learning styles to find what works best for them. Work independently, and work in groups. Attend lectures. Practice, practice, practice. Problems sets, review exams and quizzes offer plenty of opportunities to practice. Text book readings are helpful too. Students can choose if they prefer to read them ahead or after lecture, either way, I recommend reading regularly rather than attempting to read everything close to exam time.
- Check your schedule for exam conflicts and discuss conflicts with me before add/drop period ends and before you make travel arrangements. Let me know about other reasons to need a makeup final as soon as possible.

Text book:

The recommended text for this class is Industrial Organization Contemporary Theory Empirical applications, by Pepall, Richards, Norman. The latest edition is 5th. It is also fine to use the fourth edition, or the third edition (which was titled Industrial Organization Contemporary Theory and Practice). See more details about the text book choice on blackboard. **I do not follow the book very closely**. The book will mostly be used as a reference book, I will not usually assign required readings or problems from the book, but I will refer students to relevant chapters for better understanding of the material covered in class. In addition there will be occasional required readings which will be handed out, posted on the web or in one of the recommended texts. Students who need to save on costs are encouraged to get a used book, share a book, or even just look at the copy that will be on reserve in the library. If you are unable to obtain a copy of the book due to its cost, please feel free to discuss this with me.

Students may choose a different text book if it better fits their personal learning style. I recommend the following text books as needed: Shy *Industrial Organization* (which has a more technical and advanced analysis and stronger emphasis on the law), Cabral *Introduction to Industrial Organization* (which is less technical and has additional examples, was aimed at business school students). Also, some of the course material and in particular our initial review is covered in any Intermediate Microeconomic text book cover similar material. For example, the text books by Hal Varian (fairly concise) or by David A. Besanko, Ronald R. Braeutigam (more real world examples and nicer graphics); or by Nicholson (slightly more formal). The course text book will be in library reserve.

Getting Help: You are encouraged to take advantage of office hours and to ask questions by email, or in class. Ask your classmates for help, and offer help to others. Form study groups. Students are also welcome to schedule an appointment to discuss any personal issues. I appreciate your willingness to raise issues that may stand in the way of your success in this course.

Disabilities and Accommodations

In compliance with the University of Connecticut policy and equal access laws, I am available to discuss appropriate academic accommodations that may be required for students with disabilities. Requests for academic accommodations are to be made during the first three weeks of the semester, except for unusual circumstances, so arrangements can be made. Students in need of

accommodations should go to the center for students with disabilities (see http://www.csd.uconn.edu/) to verify their eligibility for appropriate accommodations.

If you are eligible for accommodations such as extra time during exams, please provide documentation and coordinate with me no later than a week prior to every exam, please verify that any needed arrangements were made.

<u>Course Outline</u> (Readings from Pepall, Richards, Norman text. Chapter numbers here are based on the 4th edition, they may vary in the different editions.)

- 1. Introduction and Basic Microeconomics
 - a. Introduction to Industrial Organization
 - b. Review of basic microeconomics concepts: perfect competition, monopoly (chapter 2 or any intermediate microeconomics text).
 - c. Market structure and market power (Chapter 3)
- 2. Oligopoly Markets
 - a. Game theory: simultaneous games (chapter 9, or any intermediate microeconomics text).
 - b. Static Oligopoly models with homogenous products (Chapters 9-10)
 - c. Markets with differentiated products (Chapter 10 and notes)
 - d. Game theory sequential/dynamic games, first and second mover advantage (chapter 11)
- 3. Anticompetitive strategies
 - a. Entry & exit behavior,
 - b. Limit pricing and predation (Chapters 12, 13)
 - c. Dynamic oligopoly price fixing/collusion (Chapters 14, 15)
- 4. Horizontal merger (Chapter 16)
- 5. Non-price competition (if time permits)
 - a. Advertising
 - b. R&D and patents (Chapters 22, 23)
- 6. Student presentations and case studies

Mini-schedule

Periodically, a more detailed outline and reading recommendations will be posted for the section covered at that time. These mini-schedules will be posted on blackboard, in a subfolder that can be found in the course information folder.