

**ECON105 INDUSTRIAL ORGANIZATION AND FIRM STRATEGY
UNIVERSITY OF CALIFORNIA AT SAN DIEGO
SUMMER SESSION I 2020
SYLLABUS**

Professor:

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The Course

Industrial Organization uses non-cooperative game theory to analyze the strategic behavior and interaction of firms in imperfectly competitive markets. Topics include pricing strategies, collusive behavior, entry decisions, entry deterrence, advertising, research and development, firm structure and merger activity. Special attention will be given to teaching the skills of economic modeling. Students will learn how to develop models and solve them for the profit-maximizing strategies of firms under a variety of market situations and the social-welfare-maximizing outcomes promoted by government.

Course Modifications due to COVID-19

An unusual time indeed...we are in the middle of a global COVID-19 pandemic, which has required dramatic changes to how we teach and learn. To keep us all safe, all instruction will be conducted remotely using the Zoom app and Canvas. Although nothing quite replicates the experience of face-to-face interaction in the classroom, my goal is to provide as high quality and interactive an experience for all of you as if it were any other quarter. There will be some trial and error as we go, and no doubt a few unexpected IT issues, and I appreciate your understanding as we work out any bugs. Here is the current plan, subject to modification as best practices start to emerge.

Lectures

All lectures will take place at the regular scheduled time for the class using Zoom. Lectures will generally be recorded. **By attending classes, you both acknowledge and accept that your image and voice may be recorded.** To protect the privacy of students, as well as the t.a. and the

instructor, **it is strictly prohibited to redistribute these videos, in any form, on the internet or in any other way.** The videos are for your personal educational use, as registered students in the course, and may not be used for any other purpose nor distributed to any other person in any way. It is a copyright and privacy violation to redistribute course materials, including the videos.

As we begin the course, students will not be muted and may, at appropriate pauses, speak up and ask questions without raising hands, etc. I will encourage open class discussion, which may or may not work well in an online environment, so we will see how it goes and make adjustments as needed.

Office Hours

Office hours will also be held on Zoom. It is important that, when you attend office hours, you “arrive” at the beginning, or advise the professor if you will be late (by email).

Exams

I will likely use Zoom/LockDown Browser for proctoring this quarter. Among other things, you will be required to record yourself (video and audio) as you take the exams (via Zoom) to prevent academic integrity issues. Detailed instructions will be given and posted to Canvas. Video and audio recording and other personal information are captured for the purpose of facilitating the course and/or test environment. UC San Diego does not allow vendors to use this information for other purposes.

The recordings will be thoroughly reviewed by the instructor and t.a. for signs of academic dishonesty. **Please do not even consider running afoul of academic dishonesty policies, it is not worth it.** If cheating is suspected, the recording may become part of the student’s administrative disciplinary record. Recordings will be deleted when no longer necessary. If academic integrity problems are suspected, I reserve the right to give an oral test instead.

All students will be required to sign (and date) the Excel in Academic Integrity pledge and email it to the t.a. (or upload as a Canvas assignment) by the end of the first week of class.

Required Textbook

Pepall, L., G. Norman and D. Richards. Industrial Organization: Contemporary Theory and Empirical Applications, 5th edition. Cincinnati, OH: Southwest College Publishing, 2013.

Grading

There will be one minor term test (5%) held on July 8th, one major term test (45% of the total grade) held on July 15th, and one final exam (50%) held on July 31st. The minor term test is very short, consisting of only a few questions, and is largely a means to ensure that each student’s computer is properly set up for more significant tests and exams to follow.

The only allowable reasons for missing a test or exam is a medically documented and unexpected illness on test day, a death in the family immediately preceding test day, or as permitted under the university policy on religious observances, disabilities, and UCSD athletics conflicts. There are no other exceptions. For religious observances, disabilities, and UCSD athletic conflicts, notice must be given in the first week of class and alternate arrangements will be made. For illness, you must provide within one week of the test date a note from a physician stating that he/she evaluated you the same day as the test and that your illness reasonably prevented you from taking the test. For a death in the immediate family, provide documentation within two weeks.

If you do miss a term test with a valid excuse, there will be no makeup and your grade will be based on remaining work. If you miss the final exam, you will be given a grade of incomplete if your major term test is of passing quality and an F if not (as required under university grading policies). You cannot be assigned a passing grade on the basis of the minor term test only.

The test and exam are open book. Calculators are allowed. No phones, no iPods, no headphones, etc., no electronics of any kind and no communication of any kind (except to the professor or t.a.) is allowed. The final exam is cumulative.

Problem Sets

Problem sets will be distributed on Canvas weekly but are not graded because of the tight summer schedule. Therefore there is no due date, but we strongly suggest you attempt every problem before you access the solutions and to see us in office hours to work through ones you are having trouble with. Experience has shown that simply reading the solutions without working through the problems first leads to a false sense of understanding and is a set up for disaster. Exams draw very heavily from these problem sets but to do well, memorizing answers is useless, you need to really understand what's going on.

Academic Dishonesty

There is a zero tolerance policy in this class for academic dishonesty. Any student found guilty of academic dishonesty will receive an F in the course. If you are unsure what constitutes academic dishonesty, please ask or consult with your college dean. In all cases, the student's name and test or exam will be immediately forwarded to the Academic Integrity Office, who will impose an additional penalty, up to and including expulsion from the university. Please do not even *consider* doing this. It is not worth it.

Some Advice

Begin studying for the test and exam starting on the first day of class. Do all the problem set questions and keep up with them. Summer moves very, very (very) fast. We cover a full week of material each class. That means if you take a Tuesday off, by Wednesday night you may find yourself two weeks behind! Office hours are available, and experience shows that it is in your best interest to use them early and use them often! We are here to help.

Topics

All readings from the Pepall, Norman, Richards text.

I. Introduction

- Industry Structures and Welfare Analysis
- Structure-Conduct-Performance and the New I/O

Chapter 1-2

II. Single Product Monopoly

- Uniform Pricing, Two Part Tariffs, and Price Discrimination
- Multiplant Monopolist
- Durable Goods and Leasing

Chapter 5-6

III. Multi-product Monopoly

- Pricing
- Spatial Models
- Tie-Ins and Bundling

Chapter 7-8

IV. Oligopoly

- Intro to Game Theory and Nash Equilibrium
- Static Models of Oligopoly and Spatial Models
- Measures of Industry Concentration

Chapter 3, 9-11

V. Collusion and Cartels

- Repeated Games, Threats, and Subgame Perfect Nash Equilibrium
- Cartels, Undercutting, and Price Wars

Chapter 14

VI. Entry and Strategic Investment

- Contestable Markets
- Capacity Expansion and Other Strategic Investments
- Brand Proliferation and Predatory Pricing

Chapter 12-13

VII. Mergers

Chapter 15

VII. Vertical Restraints

Chapter 16