# Econ 330 – Industrial Organization Spring 2023

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We may have to revise the course plan according to the reassessment to be made country-wide, regarding higher education, at the beginning of April. The content to be delivered is certain but the method of course delivery, the number and dates of exams, and some other details are subject to change

Course Description:

This course aims to study the main concepts and analytical tools of the theory of industrial organization. Industrial organization studies how firms interact and compete in the market. For instance, when a firm decides the price of its product, it takes into account that this decision affects the profits of other firms in the market, and these firms can react by changing their prices. These interdependences underlie most firms' decisions, such as prices, product design, investment in R&D, advertising campaigns, location of outlets, or merger. The focus is predominantly on markets characterized by imperfect competition, i.e., markets where firms can exercise market power. This course will look at this question from the perspective of firms and public policy. Throughout the course, we will examine an interesting tension or a potential conflict of interest: while successful management of a firm often requires the adoption and implementation of strategies to increase profits, create comparative advantage, increase market share, or gain and sustain market power, these same strategies are sometimes constrained by public authorities because they are

seen as attempts (in the words of European competition law) to "restrain and distort competition" We will therefore examine the impact of firm behavior on social welfare and what government agencies, such as the Competition Authority of Turkey, or supra governmental bodies, such as the European Commission, do (or should and should not do) to regulate rivalry between firms.

The first part of the course will be devoted to monopolistic markets with only one firm and no actual competitors. We will investigate the efficiency losses associated with

monopolistic markets. It will also be essential to understand how the outcome of a monopolistic market depends on the number and characteristics of the products offered by the firm.

From there, we will move to oligopolistic markets, with several firms competing in the market for the same good. The firms' strategic optimal behavior will determine the outcomes of these markets. Firms will anticipate the decisions of other competing firms. Finally, we will study the effects of alternative government interventions in markets: what practices should antitrust law prohibit? Which are the effects of patent regulation on investment in R&D and consumer welfare?

The tools for our analysis will be basic calculus and game theory. An effort will be made to keep the lectures self-contained. Most ideas can be understood with simple math and graphs, but students should be prepared to work with a certain level of formality.

### **Prerequisites:**

Students are required to have attended (and have passed with a minimum grade of D) ECON204 (Microeconomics) and ECON 201 (Games and Strategies). The course will also involve a good deal of mathematical analysis, so you should also be comfortable with introductory algebra and calculus.

# **Suggested Textbooks:**

Luis Cabral's Introduction to Industrial Organization, MIT Press, 2017, 2nd edition, available from the bookstore.

Don Waldman and Elizabeth Jensen's Industrial Organization: Theory and Practice, Pearson Press, 4th edition

### **Course Outline:**

1. Introduction, theory of the firm, review of basic microeconomics

Ch. 1, 2, 3, 6

2. Monopoly, monopoly regulation, and monopoly tactics: Price discrimination, quality, product variety, bundling, tie-ins

Ch. 5, 10

3. Introduction to game theory, Oligopoly, and Collusion

Ch. 4, 7, 8

4. Market Structure and Market Power

Ch. 9

5. Vertical relations

Ch. 11

6. Product Variety

Ch. 12

7. Advertising

Ch. 13

8. Entry and social welfare

Ch. 14

9. Predatory conduct and entry deterrence

Ch. 15.1, 15.2

# **Grading:**

*Exams:* There will be one midterm and a final. Midterm will count for 50 % of overall grade. The final exam constitutes %50 of your final grade and will be cumulative.

Students who fail to show up for the exams indicated in the Syllabus without a valid excuse and not taking the make-up examinations for such exams will receive N/A as their final grade.

#### Exam dates:

Midterm 1: will be announced once the academic calendar is announced.

Final : TBA

Homeworks: There will be ungraded homework assignments.

#### Attendance:

Attendance is crucial for you to learn the course material.

## Academic Integrity:

Receiving help from another student on an exam, giving help to another student on an exam, tampering with a graded exam, presenting another student's work as your own, and lying to the instructor, are all violations of academic honesty. In this course, the penalty for cheating on an exam or homework assignment will be a grade of F in the class.