



Prof. Chrystie Burr  
chrystie.burr@colorado.edu  
Economics 11  
(303)492-0863  
D2L course website

**Economics 4697-001**  
Industrial Organization  
TTH, 12:30-1:45  
HLMS 141  
Office Hours: TTH 2:00-3:00

**Course Description:**

Industrial organization is the study of competition and monopoly power and how they affect efficiency and innovation that occur in markets. Using the basic tools of microeconomic theory and game theory, this course explores the relationships among firms in an industry or across industries by examining the nature of strategic interaction among firms. The central issue concerns firms' choice of price, quantity, and quality in markets where the assumptions behind perfect competition do not hold.

Topics to be covered include: monopoly pricing, collusion and cartels, oligopoly behavior, product differentiation, price discrimination, firm entry and barriers to entry, mergers, network externalities

All exams will be held in the usual classroom. All exams are closed book, closed notes. **Please bring a calculator.** *There will be no make-up exams.* Exams will test your cumulative knowledge with emphasis on the latest material.

Problem sets, each composed of 3-4 problems will be posted on the class web page and it's due at the beginning of the class a week after being posted. Collaboration on assignments is allowed and encouraged, but final solutions must be written independently. Each student should participate fully in solving each problem and understand the answer. This is the preparation for the exams and at the same time it is meant for you to identify which concepts from the lecture is not clear to you.

In-class activities include short presentations

{ Make-up exams for the midterms will not be given. Midterm exam absences will only be excused for compelling circumstances (family emergencies or documented illness), in which case the other course material will be re-weighted. Students anticipating conflict with an exam due to religious observance or over-scheduling (3 or more exams on the same day) should bring these to my attention within the first 3 weeks of class.

#### Special Accommodation:

{ If you require special accommodation because of disability, please submit a letter from Disability Services in a timely manner (at least two weeks before the exams or other due dates). Disability Services determines accommodations based on documented disabilities. You may contact Disability Services at 303-492-8671 or by email at dsinfo@colorado.edu. If you have a temporary medical condition or injury, see Temporary Injuries for guidelines and discuss your needs with your professor.

#### Topics to be covered:

##### Intro & Review

- { Unit 1: Introduction to Industrial Organization (Ch. 1)
- { Unit 2: Review of Microeconomic tools (Ch. 2)
- { Unit 3: Concepts of costs (Ch. 4 and notes on costs)
- { Unit 4: Perfect competition (Ch. 2.1.1. and notes on perfect competition)
- { Unit 5: Monopoly (Ch. 2.1.2. and notes on monopoly)
- { Unit 6: Market structure and market power (Ch. 3)

##### Imperfect (oligopolistic) Competition

- { Unit 7: Introduction to game theory (Ch. 9 and notes on game theory)
- { Unit 8: Normal form games (Ch. 9 and notes on game theory)
- { Unit 9: Extensive form games (Ch. 9 and notes on game theory)
- { Unit 10: Nash equilibrium and backward induction (Ch. 9 and notes on game theory)
- { Unit 11: Cournot models (Ch. 9 and notes on Cournot and Bertrand models)
- { Unit 12: Stackelberg models/Dynamic games (Ch. 11)
- { Unit 13: Bertrand models (Ch. 10 and notes on Cournot and Bertrand models)

##### Firm Practice

- { Unit 14: Hotelling models (Ch. 7 and notes on Hotelling model)
- { Unit 15: Price discrimination (Ch. 5 & 6 and notes on price discrimination)
- { Unit 16: Collusion and Cartels (Ch. 14 & 15 and notes on cartels)
- { Unit 17: Horizontal mergers (Ch. 16 and notes on mergers)
- { Unit 18: Vertical mergers (Ch. 17)
- { Unit 19: Networks (Ch. 24)
  
- { Unit 20: Limit Price (Ch. 12)

{ Unit 21: Predatory pricing (Ch. 13)

Nonprice Competition (if time permitted)

{ Unit 23: Advertising and Information (Ch.21 & 22)

{ Unit 24: Research and Development (Ch.22)

{ Unit 25: Patents (Ch. 23)