

University of Alberta
Department of Economics
Econ 570 - B2
Strategic Behavior of the Firm
WINTER 2020

Instructor:	Corinne Langinier	Time:	Tues-Thur 3:30-4:50 pm
Office:	Tory 9-28	Location:	Room T1 108
Phone:	(780) 492-2989	Office Hours:	Tue 2:00-3:20 pm
E-mail:	langinie@ualberta.ca		and by appointment

Webpage: https://sites.ualberta.ca/~langinie/courses/570_2020/ECON_570_2020.html

Main Textbook

Industrial Organization: A strategic Approach, Church, J. and Ware, R.
<http://homepages.ualgary.ca/~jrchurch/page4/page5/page5.html>

Recommended Textbook

The Theory of Industrial Organization (tenth Edition), by Jean Tirole, the MIT Press, 1998.

Complementary Textbooks

1. *Industrial Organization: Contemporary Theory and Practice (Third Edition)*, by Line Pepall, Daniel Richards and George Norman, South-Western College Publishing, 2005.
2. *Industrial Organization, Theory and Applications*, by Oz Shy, the MIT Press, 1996.
3. *Introduction to Industrial Organization*, by Luís Cabral, the MIT Press 2000.
4. *The Structure of American Industry*, by Walter Adams and James Brock, Prentice Hall, 2009.

Complementary Readings

1. *Economics, Organization and Management*, by Paul Milgrom and John Roberts, Prentice Hall, 1992.
2. *Handbook of Industrial Organization*
 - *Volumes 1 and 2 (1989)*, ed. R. Schmalensee and R. Willig.
 - *Volume 3 (2007)*, ed. M. Armstrong and R. Porter.
3. *The Economist*.

Web links

- IO Resources: <http://www.helsinki.fi/WebEc/>

Grading: There will be 4 homework assignments, one midterm exam and one final exam. They will count toward the grade as follows:

Assignments (4)	40%
Midterm (Tuesday, February 25)	20%
Final (Wedn., April 15)	40%

Final letter grades will be assigned in accordance with university and departmental policies.

Course Overview and Policies

Economics 570 will cover traditional topics in Industrial Organization such as monopoly and oligopoly theory, game theory, dynamic price competition, product differentiation and advertising, entry and strategic entry deterrence, research and development.

There will be **one midterm exam** and **one final exam**. There will be no make-up exams. If students miss the midterm exam and have a well-documented, university-approved excuse (such as a severe illness), the grade weights for the final exam will be scaled up appropriately. Students who miss the midterm exam because of a medical reason must submit the Medical Declaration Form to the Faculty. All students must take the final exam to be assigned a grade. The final exam will be cumulative. Students who miss the final exam may apply to the Faculty for a deferred exam.

There will be four (4) **homework assignments** and every homework assignment will be included in the final grade calculation. Homework assignments 1 and 3 will be problem solving. They will be assigned on Tuesday and will be due on Tuesday the following week (see schedule below). They will not be accepted late for any reason. Homework assignment 2 will be the presentation of a **published paper** during the 6th week of class. Homework assignment 4 will be the presentation of a referee report written on an **unpublished paper** during the 13th-14th weeks of class. For homework assignments 2 and 4, students can either choose a paper on their own, or choose one from a suggested list that will be provided in class.

Homework		Assigned Date	Due on
Hom # 1	Problem solving	Thurs., Jan. 23	Thurs., Jan. 30
Hom # 2	Presentation Published Paper	Now	Presentations Feb. 11 and 12
Hom # 3	Problem solving	Thurs., Mar. 12	Thurs., Mar. 19
Hom # 4	Presentation Referee Report	Now	Presentations April 2 and 7

Access to Past and Present Evaluative Materials

Midterm and final exams from previous years (or sample exams) will be posted on the webpage of the class.

Policies

Class attendance is **mandatory**. Students are encouraged to collaborate on homework assignments, but only with classmates currently enrolled in this course. Students must not use answers from previous years; if I determine that a student did, he/she will get a zero for that assignment. All exams are closed book/closed notes/no collaboration.

Policies concerning **connected devices: laptops and tablets are not allowed in class; phones must be turned off at all times and stored in your bag.**

Audio or video recording, digital or otherwise, of lectures, labs, seminars or any other teaching environment by students is allowed only with the prior written consent of the instructor or as part of an approved accommodation plan. Student or instructor content, digital or otherwise, created and/or used within the context of the course is to be used solely for personal study and is not to be used or distributed for any other purpose without prior written consent from the content author(s).

Outline of Topics and reading list (may be subject to changes – new reading may be added)

1. Introduction – What is a firm? The theory of the firm

- Church and Ware – Chapter 1
- Tirole – Introduction, The theory of the firm
- Pepall, Richards and Norman – Chapter 1
- Complementary Readings
 - Holmstrom, B. and J. Tirole (1989) “The Theory of the Firm,” *Handbook of Industrial Organization*, Volume 1, ed. Schmalensee and R. Willig. Amsterdam (North Holland), 61-127.
- Complementary Readings on Contract and Organization of the firm
 1. Holmstrom B. and J. Roberts (1998), “The Boundaries of the Firm Revisited”, *Journal of Economic Perspectives*, 12, 4, 73-94.
 2. Masten S. (1998), “Contractual Choice”, *Encyclopedia of Law and Economics*, B. Boukaert and G. De Geest (ed.), Edward Elgar Publishing and the University of Ghent.
- Complementary Readings on Incentives: Prendergast C. (1999), “The Provision of Incentives in Firms”, *Journal of Economic Literature*, XXXVII, 7-63.

2. Monopoly

- Church and Ware – Chapter 4
- Tirole – Chapter 1
- Pepall, Richards and Norman – Chapter 2

3. Game Theory

- Church and Ware – Chapters 7 and 9
- Tirole – Chapter 11
- Pepall, Richards and Norman – Chapters 9 and 11

- Complementary Readings
 - Fudenberg, D. and J. Tirole (1989) “Noncooperative Game Theory for Industrial Organization: An Introduction and Overview,” *Handbook of Industrial Organization*, Volume 1, ed. Schmalensee and R. Willig. Amsterdam (North Holland), 259-323.

4. Oligopoly – Static models

- Church and Ware – Chapter 8
- Tirole – Chapter 5
- Pepall, Richards and Norman – Chapters 9 and 10
- Complementary Readings
 - Berry, S. and P. Reiss (2007) “Empirical Models of Entry and Market Structure,” *Handbook of Industrial Organization*, Volume 3, ed. M. Armstrong and R. Porter, Elsevier B. V., 1846-1886.
 - Bresnahan, T. (1989) “Empirical Studies of Industries with Market Power,” *Handbook of Industrial Organization*, Volume 1, ed. Schmalensee and R. Willig. Amsterdam (North Holland), 1011-1057.
 - Davidson C., and R. Deneckere (1983) “Long-Run Competition in Capacity, Short-Run Competition in Price and the Cournot Model,” *RAND Journal of Economics*, 17:404-415.
 - Kreps, D. and J. Scheinkman (1983) “Quantity Precommitment and Bertrand Competition Yield Cournot Outcomes,” *Bell Journal of Economics*, 14:325-337.
 - Slade, M. (1995) “Empirical Games: The Oligopoly Case,” *Canadian Journal of Economics*, 28:368-402.

5. Product Differentiation

- Church and Ware – Chapters 11 and 17
- Tirole – Chapters 2 and 7
- Pepall, Richards and Norman – Chapters 7, 20 and 21
- Complementary Readings

- Eaton, B. and R. Lipsey (1989) “Production Differentiation,” *Handbook of Industrial Organization*, Volume 1, ed. Schmalensee and R. Willig. Amsterdam (North Holland), 723-768.
- Bester H. (1998), “Quality uncertainty mitigates product differentiation”, *RAND Journal of Economics*, 29, 4, pp. 828-844.
- van Dijk T. (1996) “Patent Height and Competition in Product Improvements”, *The Journal of Industrial Economics*, vol. XLIV, 2, 151-167.

6. Strategic Behavior, Entry and Exit

- Church and Ware – Chapters 13 and 14
- Tirole – Chapter 8 and section 9.1. in Chapter 9
- Pepall, Richards and Norman – Chapters 11 and 12
- Complementary Readings
 - Fudenberg, D. and J. Tirole (1984) “The Fact Cat Effect, The Puppy Dog Ploy and the Lean and Hungry Look,” *American Economic Review, Papers and Proceedings*, 74:361-368.

7. Research and Development

- Church and Ware – Chapter 18
- Tirole – Chapter 10
- Pepall, Richards and Norman – Chapter 22
- Complementary Readings
 - Langinier and Moschini (2002) “The Economics of Patents: An Overview” in “*Intellectual Property Rights and Patenting in Animal Breeding and Genetics*,” edited by Scott Newman and Max Rothschild.
- Readings on Optimal scope of Patents
 1. Klemperer (1990) “How Broad should the scope of protection be?” *RAND Journal of Economics*, 21, pages113-130.

2. Gilbert and Shapiro (1990) “Optimal Patent Length and Breadth” *RAND Journal of Economics*, 21,106-112.
3. Gallini N. (1992) “Patent Policy and Costly imitation” *RAND Journal of Economics*, 23, 52-63.

- Readings on the pace of R&D, patent race

1. Reinganum (1989) “The timing of Innovation, Research Development and Diffusion”, *Handbook of Industrial Organization*, Volume 1, ed. Schmalensee and R. Willig. Amsterdam (North Holland), .

- Readings on Patents and R&D and Network

1. Robert Mazzoleni and Richard Nelson (1998) “The Benefits and Costs of Strong Patent Protection: a contribution to the current debate”, *Research Policy*.
2. Economides (1996) “The Economics of Networks”, *International Journal of Industrial Organization*, 14, 2.

Other Notes

As per request of the University administration, please familiarize yourself with the following:

- Policy about course outlines can be found in the Evaluation Procedures and Grading System section of the University Calendar.
- The University of Alberta is committed to the highest standards of academic integrity and honesty. Students are expected to be familiar with these standards regarding academic honesty and to uphold the policies of the University in this respect. Students are particularly urged to familiarize themselves with the provisions of the Code of Student Behaviour (online at www.governance.ualberta.ca) and avoid any behaviour which could potentially result in suspicions of cheating, plagiarism, misrepresentation of facts and/or participation in an offence. Academic dishonesty is a serious offence and can result in suspension or expulsion from the University.
- The Faculty of Arts is committed to ensuring that all students, faculty, and staff are able to work and study in an environment that is safe and free from discrimination and harassment. It does not tolerate behaviour that undermines that environment.
- If you have a condition that may require some classroom or exam modifications, please contact Accessibility Resources to obtain a determination as to what accommodations should be made.
- The Academic Success Centre offers a variety of learning resources, including a variety of workshops in learning effective study and exam strategies.