

UNIVERSITY OF MELBOURNE
DEPARTMENT OF ECONOMICS
ECON30003: Industrial Economics
Semester 2, 2017

Subject Coordinator: Dr. Jun Xiao **E-mail:** jun.xiao@unimelb.edu.au

Office: Room 351, FBE Building.

Office hours: Wednesday 4pm – 5pm

Lecture schedule:

Monday 9:00-10:00 The Spot-6015

Monday 16:15-17:15 Kwong Lee Dow-227

Tutorial Coordinator: Daniel Tiong **E-mail:** d.tiong@student.unimelb.edu.au

Tutorial schedule: Monday 11-noon, 12-13pm

Tutorial Location: The Spot-3033

Daniel's Consultation: Mondays 1-2pm at Room 418

Subject overview:

This course is an introduction to the field of industrial organization. Industrial organization is a subfield of microeconomics. It deals with the structure, management, and performance of firms and markets when there is imperfect competition. It is concerned with firm behaviour and strategy, the implications of firm behaviour for economic efficiency, and the role public policy plays in promoting efficiency.

Most of the time, models of perfect competition and monopoly fail to explain the composition and behaviour of most industries in modern economies. Our goal in this subject is to depart from those two idealized models and to study imperfectly competitive markets where firms interact strategically. We will be looking at the strategic interactions between firms in a market, and analysing such market phenomena as price discrimination, product differentiation, price wars, mergers, vertical relationships between firms, entry and exit, and research and development. Whenever possible, we will study real-world applications of the theories that we learn in class.

Required readings:

The textbook for the subject is: (available at the Bookshop)

- Pepall, L., D. J. Richards, and G. Norman. 2014. *Industrial Organization: Contemporary Theory and Empirical Applications*, 5th ed., John Wiley & Sons, Inc. (PRN)

I do not lecture directly from the textbook so it is “optional” but I do follow its chapter structure closely so it is a useful secondary source for information. An alternative to those who don't want to spend money would be:

- Church, J. and R. Ware. 2000. *Industrial Organization: A Strategic Approach*, McGraw-Hill. (CW) (Free online at http://works.bepress.com/jeffrey_church/23/)

For those of you who plan on going into honours, the following book may also be useful for an advanced treatment of topics that interest you:

- Jean Tirole. 2003. *The Theory of Industrial Organization*. MIT Press

It is available at the bookstore. In addition, various additional readings will be distributed during the semester as needed.

Other useful sources:

In recent decades, the development of non-cooperative game theory has provided economists with new tools to study strategic behaviour. The following are a good source on game theory:

- Osborne M. 2004. *An Introduction to Game Theory*, Oxford University Press.
- Dixit, A. and S. Skeath. 1999. *Games of Strategy*, W. W. Norton & Company, Inc.

Assessment:

Grades will be based on three problem sets (20%) a closed book midterm (20%) and a cumulative final exam.

The questions on the final examinations will be similar to those in the problem sets, so I encourage you to work on and understand the problem sets as fully as possible. You are encouraged to work in groups on the problem sets. However, you should create (in your own words) and hand in your own solutions after discussing the problem set with your classmates or with the tutor or with me. No late problem sets will be accepted. I am willing to consider emergency situations if you come to talk to me before the due date with the proper documentation.

There is a hurdle that you need at least 50% in the final to pass.

Finally, I expect you to attend and participate in all lectures and tutorials. You are responsible for the material covered in both the lectures and tutorials and are expected to complete readings *prior* to the class that they are to be discussed. Your performance in the lectures and tutorials may help you if you end up with a borderline grade.

Prerequisites: Competition and Strategy or 3rd year Microeconomics

While I am willing to wave prerequisites for motivated students, I will take as given that you have seen utility maximization, the competitive equilibrium, Bertrand and Cournot competition, and the basics of monopoly. If you have not seen any game theory, please come see me early in the semester so that we can get you up to speed.

Tentative Subject Outline

This is a tentative schedule. There will be changes made to this schedule during the semester, which I will announce in class and post on the subject website. Since the subject website will be continually updated with detailed information about what we have covered and will cover in the upcoming classes, you should refer to it for a more detailed version of the subject outline throughout the semester. In general, you should use your lecture notes as a guide in figuring out what sections of the book to focus on. Among the additional readings, I will tell you throughout the semester which ones to focus on.

1. Introduction

- Chapter 1 in PRN: Industrial Organization: What, How, and Why? (skim)
- “The Trustbusters’ New Tools,” *The Economist*, 30 April 1998.

Part 1: Monopoly

2. Monopoly & Price Discrimination

- Chapter 2 in PRN: Some Basic Microeconomic Tools
- Chapter 5 in PRN: Linear Pricing
- Chapter 6 in PRN: Nonlinear Pricing
- Chapter 7 in PRN: Product Variety and Quality Under Monopoly
- P. Fritsch, “[Hard Profits: A Cement Titan in Mexico Thrives by Selling to the Poor—Cemex’s Huge Market Share Lets It Keep Prices High, Expand Around the Globe,](#)” *Wall Street Journal*, April 22, 2002, A1.
- Kremer, M. and Snyder C. *Why Are Drugs More Profitable Than Vaccines?* NBER Working paper: <http://www.nber.org/papers/w9833.pdf>
- Deneckere, Ray and R. Preston McAfee, “Damaged Goods,” *Journal of Economics and Management Strategy* 5, no. 2, Summer, 1996, 149-74.

Part 2: Oligopoly & Static Competition

3. Imperfect Competition – Noncooperative Strategic Behaviour (Static)

- Chapter 9 in PRN: Static Games and Cournot Competition
- Chapter 10 in PRN: Price Competition (First half)
- Chapter 13 in CW: An Introduction to Strategic Behaviour
- Patrick Barron and Ben Olken, The Simple Economics of Extortion: Evidence from Trucking in Aceh. *Journal of Political Economy* 117 (3), 2009 417-252
- Peter Diamond (1971), “A Model of Price Adjustment”, *Journal of Economic Theory* 3, 156-168
- Dale Stahl (1996), “Oligopolistic pricing with heterogeneous consumer search” *International Journal of Industrial Organization* 14, 243-268
- Glenn Ellison and Sara Ellison (2010), “Search, Obfuscation, and Price Elasticities on the Internet. *Econometrica*

4. Product Differentiation

- Chapter 10 in PRN: Price Competition (Second half)
- Chapter 11 in PRN: Dynamic Games – First and Second Movers

- Chapter 15 in PRN: Horizontal Mergers
- M. Noel, "Edgeworth Price Cycles: Evidence from the Toronto Retail Gasoline Market," *Journal of Industrial Economics*, 55 (March 2007): 69-92.
- Douala. The road to hell is unpaved. December 19, 2002. *The Economist*.
- Fudenburg, D. and Tirole, J. "The Fat-Cat Effect, the Puppy-Dog Ploy, and the Lean and Hungry Look." *The American Economic Review*, Vol. 74, No. 2, Papers and Proceedings. May 1984, 361-366.
- CT Hsieh & E Moretti, [Can Free Entry Be Inefficient?](#) *Journal of Political Economy*, October 2003.
- J. Hagarty, ["Feet in the Door: As Home Sales Cool, Ranks Of Realtors Grow Crowded."](#) *Wall Street Journal*, 20 January 2004, A1.

Part 3: Strategic Behaviour and Dynamic Competition

5. Entry and Entry Deterrence

- Chapter 12 in PRN: Limit Pricing and Entry Deterrence
- R.P. McAfee et al. "What is a Barrier to Entry?" *American Economic Review*, 94: 2 (May 2004): 461-465.
- Pankaj Ghemawat, "Capacity Expansion in the Titanium Dioxide Industry," *Journal of Industrial Economics*, 33:2 (December 1984), 145-

6. Imperfect Competition – Cooperative Strategic Behaviour

- Chapter 14 in PRN: Price-Fixing, Repeated Games and Antitrust Policy
- This American Life: "The Fix is In". February 13, 2004. Audio report on price-fixing & ADM case. Go to archives at <http://www.thislife.org>
- S. Albæk, P. Møllgaard, and P. B. Overgaard, "Government-Assisted Oligopoly Coordination? A Concrete Case", *Journal of Industrial Economics* XLV (December 1997): 429-443.

7. Vertical Mergers and Vertical Restraints

- Chapter 16 in PRN: Vertical and Conglomerate Mergers
- ["Big Tooth? Suit Says Dentsply has a Monopoly,"](#) *Wall Street Journal*, April 12, 2002, A13
- S. Sher and S. D. Russell, ["Adding Bite to Exclusive Dealing,"](#) *The Antitrust Source*, www.antitrustsource.com, May 2005.

Part 4: Special Topics

8. Dynamic Competition Revisited

- Steve Levitt. Why do crack dealers still live with their moms? <http://www.youtube.com/watch?v=5UGC2nLnaes&feature=rec-HM-fresh+div>
- Bardsley et al. Recursive Contracts, Firm Longevity, and Rat Races: An Experimental Analysis. *European Economic Review* vol. 61, pages 217-231. July 2013

9. Competition in Australia

- Burke, Kelly. Retailers under fire over website. *The Age*, September 17, 2009, <http://www.theage.com.au/national/retailers-under-fire-over-website-20090916-frp2.html>

- Daniella, Miletic. Watchdog site set to bust shop duopoly. *The Age*, March 14, 2010, <http://www.theage.com.au/national/watchdog-site-set-to-bust-shop-duopoly-20100313-q59d.html>

10. Information Technology

- Hal Varian. 1998. *Information Rules: A Strategic Guide to the Network Economy*. Harvard Business School Press.

Procedures and other Info

Learning Objectives

To view the subject objectives and the generic skills you will develop through successful completion of this subject, please see the University Handbook:

<https://app.portal.unimelb.edu.au/CSCApplication/view/2009/316-303> To view the learning goals, generic skills and graduate attributes for your degree, please locate the University Handbook entry for your degree at: <http://handbook.unimelb.edu.au/>

Email Protocol

Please note that we are only able to respond to student emails coming from a University email address. Please do not use personal email addresses such as Yahoo, Hotmail or even business email addresses. Emails from non-University email addresses may be filtered by the University's spam filter, which means that we may not receive your email. All correspondence relating to this subject will only be sent to your University email address. Note that you must first activate your University email address before you can send or receive emails at that address. You can activate your email account at this link: <http://accounts.unimelb.edu.au/>.

While academic staff endeavor to address queries received via email, it is more appropriate to resolve substantive questions during lectures and tutorials and during normal consultation hours. With this in mind, we encourage students to attend all lectures and tutorials and to familiarise themselves with the consultation hours offered by the lecturers and tutors in this subject.

Enrolling in Tutorials Using Alloc8

Alloc8 is the University's online tutorial allocation system. You must enrol in a tutorial for this subject using Alloc8 as soon as possible. Late enrolment into tutorials is handled by the Commerce Student Centre (Level 1, 198 Berkeley St). More information about Alloc8, including cut-off dates and a link to the login page, can be found on the Faculty's website: <http://www.ecom.unimelb.edu.au/students/undergrad/alloc.html>

Plagiarism and Collusion

Presenting material from other sources without full acknowledgement (referred to as plagiarism) is heavily penalised. Penalties for plagiarism can include a mark of zero for the piece of assessment or a fail grade for the subject.

Plagiarism is the presentation by a student of an assignment identified as his or her own work even though it has been copied in whole or in part from another student's work, or from any other source (eg. published books, web-based materials or periodicals), without due acknowledgement in the text.

Collusion is the presentation by a student of an assignment as his or her own work when it is, in fact, the result (in whole or in part) of unauthorised collaboration with another person or persons. Both the student presenting the assignment and the student(s) willingly supplying unauthorised material are considered participants in the act of academic misconduct.

See <http://www.services.unimelb.edu.au/plagiarism/plagiarism.html> for more information.

The Teaching and Learning Unit has developed a web-based 'Academic Honesty Module' that allows you to learn more about and test your knowledge of plagiarism and collusion. You are strongly encouraged to complete this module, which can be accessed at: <http://tlu.ecom.unimelb.edu.au/AcademicHonestyTest/index.cfm>

Special Consideration

Students who have been significantly affected by illness or other serious circumstances during the semester may be eligible to apply for Special Consideration.

The following website contains detailed information relating to who can apply for Special Consideration and the process for making an application:

<http://www.ecom.unimelb.edu.au/students/special/>

Referencing

All sources used for a written piece of assessment must be referenced. This is to acknowledge that your material is not based entirely on your own ideas, but is based, in part, on the ideas, information, and evidence of others. This is desirable as you are attending University in order to learn from others.

You will be required to use the APA system or Harvard System of referencing. The TLU has prepared a booklet for each system specifically to assist students to reference correctly. Each booklet contains many examples that will help you when preparing your assignments. The booklets can be found here: <http://tlu.ecom.unimelb.edu.au/pdfs/apastyle.pdf> and http://tlu.ecom.unimelb.edu.au/pdfs/The_Harvard_System.pdf

It is important that all material you present for assessment is referenced correctly. Material that has not been referenced correctly may be considered to be plagiarised, and as such may be penalised. We will also look for evidence that material included in the bibliography has been used in the assignment. Including references that have not been used may also result in your assignment being penalised.

Teaching & Learning Unit

The Teaching and Learning Unit offers a wide range of support services to students. If you are having any difficulty in studying for this subject you could arrange a consultation with the Unit's learning skills specialist. The learning skills specialist can review your current approaches to study and offer advice on how to adjust to the demands of tertiary study. If you are a student from a non-English speaking background there is an English as a Second Language specialist who is available to help with your written work. Both of these specialists are available for face-to-face consultations or electronically through email. Go to the Faculty office to arrange for consultations or contact the specialists electronically through the Teaching and Learning Unit web page. The web page also contains a wide variety of study skills topics and information sheets for students, and a timetable of up-coming events, including focussed workshops, designed to support Economics and Commerce students in their study.

The Teaching and Learning Unit is located on the 4th floor of The Spot, 198 Berkeley St. Please visit the TLU's website – <http://tlu.ecom.unimelb.edu.au/>.

Make use of the Teaching and Learning Unit. It is there to help.

Using Lectopia

This subject uses the Lectopia service as a courtesy to foreign students who might have difficulty in understanding the lecture. However, it is **strongly** advised that you come to class as it greatly facilitates learning and promote discussion. Success in this subject is strongly related to attentiveness at lectures and tutorials, and thorough preparation for tutorials. It is strongly recommended that you attend all lectures and tutorials.