ECO 610: Managerial Economics

September 2018 UK-TEI Piraeus Joint MBA Program

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Course Description:

In this course we will apply economic theory to managerial decision making and analysis. We will employ many of the traditional tools of microeconomics and see how they can be used to evaluate practical business problems. We will pay particular attention to the strategy of firms in the marketplace. ECO 610 is a core course and is intended to help you understand basic economic concepts that underlie the other applied business courses in the MBA program.

Reading Assignments:

There is no assigned textbook in the course. Instead, I have assembled a set of web-based lectures, readings, and videos on basic economic principles from the Khan Academy, Inflate Your Mind, and other sources. Class lectures and discussions will assume that you understand basic economics at that level.

There will also be assigned readings for each class taken from business periodicals such as the *Wall Street Journal*, which can be accessed through the UK library system by clicking on the links in the course outline and reading list.

Grading:

Grades will be determined on the basis of your performance on nightly in-class assignments and on a take-home final exam. The in-class assignments will count 40% and the final exam will count 60% toward your letter grade in the course.

Class Structure

Since this course is so compact and concentrated, we have to be very efficient in our use of class time. Also, I recognize that many students will have already put in a full day at work before coming to class. We will typically break each evening into three sessions. In the first session, from 6:00 p.m. until 7:15, I will introduce the evening's topic and provide some examples to motivate interest. After a fifteen-minute break, I will provide further theoretical discussion of the topic. The second session will typically last from 7:30 until 8:45. After another fifteen-minute break, we will finish off the evening with an in-class assignment where students will work in small groups. Then each student will turn in their own individual answer to the assignment.

Course Outline and Reading Assignments:

Monday, September 10

Introduction, basics of market systems, demand and supply analysis.

Background Resources:

Investopedia:

Basics of supply and demand,

http://www.investopedia.com/university/economics/economics3.asp#axzz2114HK4Fc

Khan Academy:

Law of demand, <a href="http://www.khanacademy.org/science/microeconomics/supply-demand-equilibrium/demand-curve-tutorial/v/law-of-demand-equilibrium/demand-curve-tutorial/v/law-of-demand-equilibrium/demand-curve-tutorial/v/law-of-demand-equilibrium/demand-curve-tutorial/v/law-of-demand-equilibrium/demand-curve-tutorial/v/law-of-demand-equilibrium/demand-curve-tutorial/v/law-of-demand-equilibrium/demand-curve-tutorial/v/law-of-demand-equilibrium/demand-curve-tutorial/v/law-of-demand-equilibrium/demand-curve-tutorial/v/law-of-demand-equilibrium/demand-curve-tutorial/v/law-of-demand-equilibrium/demand-curve-tutorial/v/law-of-demand-equilibrium/demand-curve-tutorial/v/law-of-demand-equilibrium/demand-curve-tutorial/v/law-of-demand-equilibrium/demand-curve-tutorial/v/law-of-demand-equilibrium/demand-curve-tutorial/v/law-of-demand-equilibrium/demand-curve-tutorial/v/law-of-demand-equilibrium/demand-curve-tutorial/v/law-of-demand-equilibrium/demand-curve-tutorial/v/law-of-demand-equilibrium/d

Shifts in demand, <a href="http://www.khanacademy.org/science/microeconomics/supply-demand-equilibrium/demand-curve-tutorial/v/change-in-expected-future-prices-and-demand-and-http://www.khanacademy.org/science/microeconomics/supply-demand-equilibrium/demand-curve-tutorial/v/changes-in-income--population--or-preferences

Normal and inferior goods, http://www.khanacademy.org/science/microeconomics/supply-demand-equilibrium/demand-curve-tutorial/v/inferior-goods-clarification

Law of supply, http://www.khanacademy.org/science/microeconomics/supply-demand-equilibrium/supply-curve-tutorial/v/law-of-supply

 $Shifts \ in \ supply, \ \underline{http://www.khanacademy.org/science/microeconomics/supply-demand-equilibrium/supply-curve-tutorial/v/factors-affecting-supply}$

Market equilibrium, http://www.khanacademy.org/science/microeconomics/supply-demand-equilibrium/market-equilibrium-tutorial/v/market-equilibrium

Changes in market equilibrium, http://www.khanacademy.org/science/microeconomics/supply-demand-equilibrium/market-equilibrium-tutorial/v/changes-in-market-equilibrium

Outside readings:

Two countries going in different directions RE markets vs. central planning:

"As Economy Grows, North Korea's Grip on Society is Tested," *New York Times*, 5/1/17. http://search.proquest.com.ezproxy.uky.edu/docview/1893439516/6B98A8736BF04FEAPQ/2?accountid=11836

"Venezuela is Starving—Hobbled by Economic Policies, Latin America's Once-Richest Country Can No Longer Feed its People," *WSJ*, 5/6/17.

 $\underline{\text{http://search.proquest.com.ezproxy.uky.edu/docview/1895499247/5CF40B45C8B34BBDPQ/1?a} \\ \text{ccountid=} 11836$

"Corn's Rally Sends Ripples," *WSJ*, 1/18/07: contemplating a career picking winners and losers in the stock market? When you play chess, do you think two moves ahead or six moves ahead? http://ezproxy.uky.edu/login?url=http://search.proquest.com/docview/398983538?accountid=118

Additional resources (optional, not required):

 $\label{lem:markets} \begin{tabular}{ll} Milton Friedman: Story of the Pencil—how markets work to allocate resources. \\ $\underline{$http://www.youtube.com/watch?v=4ERbC7JyCfU}$ \end{tabular}$

How long does it take to buy basic products in Venezuela? (if you want to see more amusing (to those not living in Caracas) videos, type in "price controls and shortages in Venezuela"). https://www.youtube.com/watch?v=1CMEmKe5mS0

CNN report on London terror attack: Is there a socially desirable supply response that might result from price gouging (surge pricing) by Uber? http://money.cnn.com/2017/06/04/technology/uber-london-attack-surge-pricing/index.html

Economic development in four minutes. Alternatively, you could take a month and read *The Wealth of Nations* by Adam Smith. http://www.youtube.com/watch?v=jbkSRLYSojo

CIA World Factbook: comparative economic systems—all the facts in one convenient place. https://www.cia.gov/library/publications/the-world-factbook/

Tuesday, September 11

Determinants of demand, estimating demand, elasticity.

Background Resources:

Investopedia:

Elasticity, http://www.investopedia.com/university/economics/economics4.asp#axzz2114HK4Fc

Khan Academy:

Own-price elasticity of demand,

http://www.khanacademy.org/science/microeconomics/elasticity-tutorial/price-elasticity-tutorial/v/price-elasticity-of-demand,

http://www.khanacademy.org/science/microeconomics/elasticity-tutorial/price-elasticity-tutorial/v/more-on-elasticity-of-demand, and

http://www.khanacademy.org/science/microeconomics/elasticity-tutorial/price-elasticity-tutorial/v/perfect-inelasticity-and-perfect-elasticity-of-demand,

Elasticity and total revenue, http://www.khanacademy.org/science/microeconomics/elasticity-tutorial/v/total-revenue-and-elasticity, and

 $\underline{http://www.khanacademy.org/science/microeconomics/elasticity-tutorial/price-elasticity-tutorial/v/more-on-total-revenue-and-elasticity}$

Cross-price elasticity, http://www.khanacademy.org/science/microeconomics/elasticity-tutorial/price-elasticity-tutorial/v/cross-elasticity-of-demand

Outside readings:

"PepsiCo Pushes Breakfast in Bid to Heat Up Oatmeal," WSJ, 7/28/10: imagine that you are named brand manager for this newly acquired product line and are tasked with pumping up demand for Quaker Oats.

http://ezproxy.uky.edu/login?url=http://search.proquest.com/docview/732571063?accountid=118 36

"Thrill parks try to boost attendance: Some lower their fees to attract crowds," *Lexington Herald-Leader*, 5/27/06: to increase our revenues, should we raise or lower the price of admission? http://bit.ly/odthLq

"For Dollar Stores, a Mixed Bag," *WSJ*, 7/11/13: do all companies suffer in a recession? http://ezproxy.uky.edu/login?url=http://search.proquest.com/docview/1399253185/13FBAC776B 7259CDD87/82?accountid=11836

<u>Additional resources (optional, not required):</u>

"India Has 1.2 Billion People, But Not Enough Drink Coke," *WSJ*, 6/27/12: ascertaining consumer tastes and other determinants of demand in foreign markets. http://ezproxy.uky.edu/login?url=http://search.proquest.com/docview/1022247231/1387395E12915B8BA98/79?accountid=11836

"Economy's Future Plays Out in Rust Belt," *WSJ*, 4/6/18: using the concept of income elasticity, can you explain why Elkhart, IN has such a boom or bust economy? https://search-proquest-com.ezproxy.uky.edu/docview/2022065136/D2753C5DA5746A0PQ/3?accountid=11836

Wednesday, September 12 Thursday, September 13

Production, economic costs, economic profit.

Background Resources:

Inflate your mind:

http://inflateyourmind.com/?option=com_content&view=article&id=112&Itemid=143

Click on Unit 4 and read the sections on:

Introduction

Production functions and short-run diminishing returns

Relationship between production and costs.

Then click on Unit 5 and read the sections on:

Introduction

Explicit costs and implicit costs

Accounting versus economic profits

Total and per unit costs

Cost calculations

Cost curves

The long-run average cost curve

Increasing, decreasing, and constant returns to scale

Khan Academy:

Marginal product of labor, http://www.khanacademy.org/science/microeconomics/firm-economic-profit/labor-marginal-product-rev/v/a-firm-s-marginal-product-revenue-curve

Accounting profit vs. economic profit,

http://www.khanacademy.org/science/microeconomics/firm-economic-profit/economic-profit-tutorial/v/economic-profit-vs-accounting-profit, and

http://www.khanacademy.org/science/microeconomics/firm-economic-profit/economic-profit-tutorial/v/depreciation-and-opportunity-cost-of-capital

Outside readings:

"Amazon Robots Get Ready for Christmas," *WSJ*, 11/20/14: could you head up a project to determine the cost-minimizing mix of robots vs. workers in the peak and off-peak seasons? http://search.proquest.com.ezproxy.uky.edu/docview/1626121572/92A2AB457DB74662PQ/67?accountid=11836

"Subaru's Got a Big Problem: It's Selling Too Many Cars," *WSJ*, 8/21/13: short-run law of diminishing returns can bite when plant size is too small. http://search.proquest.com.ezproxy.uky.edu/docview/1426497632/D37A78AD1E014597PQ/73?accountid=11836

"Small Talk," WSJ 5/30/06: thinking about buying an existing business so you can be your own boss? Here are some things to consider.

 $\underline{\text{http://ezproxy.uky.edu/login?url=http://search.proquest.com/docview/399047133?accountid=118}}{36}$

"Accounting's 21st Century Problem," *WSJ*, 3/22/16: it was also a problem during the 20th century. http://search.proquest.com.ezproxy.uky.edu/docview/1774739976/CC673B578D9941CEPQ/69?accountid=11836

Additional resources (optional, not required):

Production functions and the law of diminishing returns, http://www.youtube.com/watch?v=FBkfTZikIdU

Robots come to dairy farming, $\underline{\text{http://www.nytimes.com/2014/04/23/nyregion/with-farm-robotics-the-cows-decide-when-its-milking-time.html}$

"The Market's Tough Love Delivers," WSJ, 5/22/17: you issue pieces of paper giving a claim to future profits; you can use that capital to do anything and don't even have to pay it back; but if you want more . . .

http://search.proquest.com.ezproxy.uky.edu/docview/1900666215/C1DD15FA68BF4EB2PQ/41?accountid=11836

"Amazon Adds That Robotic Touch," WSJ, 3/20/12: tradeoff between capital and labor in the production process.

http://ezproxy.uky.edu/login?url=http://search.proquest.com/docview/929078080/13873A065957 AB4D7/74?accountid=11836

See the robots in action at: http://www.youtube.com/watch?v=6KRjuuEVEZs

Individual assignment (for your personal edification): take a virtual plant tour of Toyota's Georgetown manufacturing facility (http://www.toyotageorgetown.com/tourvid.asp). As you tour this plant, try to understand how various different inputs are used in the production process to produce different outputs. Connect theoretical concepts with something you observe in the plant tour. If you were plant manager, how would you go about increasing output over a short time horizon? Over a longer time horizon? How difficult would it be to change the amounts of different inputs? How specialized are the human or physical capital inputs used in this particular production process? How much of the investment in plant and equipment is fixed and irreversible? Contrast the Toyota plant with auto manufacturing in an earlier era:

Ford Model T's: http://www.youtube.com/watch?v=IXkxl8dSXb4

1936 Chevrolets: http://www.youtube.com/watch?v=VvAH-Yskyio&feature=related

Friday, September 14

Horizontal and vertical boundaries of the firm.

Background Resources:

Nothing is available that is as good as attending your professor's lecture this evening.

Outside readings:

"Power Pork: Corporations Begin to Turn Hog Business into an Assembly Line," WSJ, 3/28/94: what happened to chicken production in the 1960s comes to pigs. http://ezproxy.uky.edu/login?url=http://search.proquest.com/docview/398373847?accountid=118 36

"Meet the World's Largest Cargo Ships," WSJ, 1/8/13: How do you think the widening of the Panama Canal is going to affect the supply chains of companies in the eastern U.S? http://ezproxy.uky.edu/login?url=http://search.proquest.com/docview/1266990140/13FBAE3E92 3680778EB/71?accountid=11836

"New Role for the Gator: Chicken Farmer's Friend," New York Times, 6/18/2000: read this and you will never forget the concept of economies of scope. http://www.nytimes.com/2000/06/18/us/camilla-journal-new-role-for-the-gator-chicken-farmer-sfriend.html?pagewanted=all&src=pm

"Plane Makers Want a Bigger Part of Parts," WSJ, 9/8/17: value chain, make or buy, supplier power, supply chain management—this article has it all. https://search-proquestcom.ezproxy.uky.edu/docview/1936420682/3B95B99B20C4FF6PO/60?accountid=11836

Additional resources (optional, not required):

One approach to growing and selling vegetables like carrots:

https://www.youtube.com/watch?v=bKCs23drsRs

Alternatively, growing carrots: https://www.youtube.com/watch?v=Ebc-FsJsbII, processing carrots: https://www.youtube.com/watch?v=LDOFidrTGvU, and distributing carrots: https://www.youtube.com/watch?v=H-CtcK6lOXU

"Kraft Picks Leaders for Split," WSJ, 12/6/11: economies of scope or diseconomies of scope, and implications for mergers and divestitures.

http://ezproxy.uky.edu/login?url=http://search.proquest.com/docview/908477763/13873A4DA7C 70384EF8/83?accountid=11836

Major consumer goods producers and the scope of their product lines: http://www.convergencealimentaire.info/map.jpg

Should GM make or buy diesel engines for its pickup trucks?

https://www.trucks.com/2017/10/16/gm-duramax-diesel-engine-assembly-video/

Monday, September 17

Markets and market structure.

Background Resources:

Inflate your mind:

http://inflateyourmind.com/?option=com_content&view=article&id=112&Itemid=143

Click on Unit 6 and read the sections on:

Introduction

Four industry types and four characteristics of perfect competition

Then click on Unit 7 and read the sections on:

Introduction

Barriers to entry and types of monopolies

Finally, click on Unit 8 and read the sections on:

Introduction

Characteristics of a monopolistically competitive industry

Characteristics of an oligopoly industry

Outside readings:

"Greece is the Word," WSJ, 7/30/04: how would you describe this market and what type of market structure is it?

http://www.sailingissues.com/online.wsj.com/article_email/0,,SB109112801159177914-INje4Nplad3oZunaoKGbauBm4,00.html

"Boeing, Airbus Confront Crowded Skies," WSJ, 7/17/17: can the tight duopoly market for large passenger jet airplanes last forever?

https://search-proquest-

com.ezproxy.uky.edu/docview/1919400529/1A3F32BEECF54CB3PQ/57?accountid=11836

"Show Stopper: How Plastic Popped the Cork Monopoly," WSJ, 5/1/10: you've got a good thing going, and then some innovator comes along and disrupts it.

 $\underline{\text{http://ezproxy.uky.edu/login?url=http://search.proquest.com/docview/220157523?accountid=118}}{36}$

Additional resources (optional, not required):

From his own mouth, Michael Porter's five forces model: http://www.youtube.com/watch?v=mYF2_FBCvXw

and the original March/April 1979 *Harvard Business Review* article on how competitive forces shape strategy, which summarizes a lot of what we cover in this course:

http://eds.b.ebscohost.com.ezproxy.uky.edu/ehost/pdfviewer/pdfviewer?vid=7&sid=9edd6e1d-6b7a-4459-8ba5-f3511c29c2dd%40sessionmgr103

Summary diagram of different types of market structure:

https://murphonomics.wikispaces.com/file/view/structuremap.gif/289935065/structuremap.gif

"In Land of Sweets, Turkish Nutcracker," *WSJ*, 12/6/14: how would you characterize the market structure of upstream hazelnut farming? downstream confectionary? https://search-proquest-

com.ezproxy.uky.edu/docview/1632441777/A3E695A55BE944E9PQ/72?accountid=11836

Tuesday, September 18

Perfectly competitive markets.

Background Resources:

Inflate your mind:

http://inflateyourmind.com/?option=com_content&view=article&id=112&Itemid=143

Click on Unit 6 and read the sections on:

Average revenue and marginal revenue

Profit maximization using a purely competitive firm's cost and revenue curves

Profit maximization using data from a table

Long-run output and profit determination

Khan academy on marginal cost and marginal revenue, marginal revenue below average total cost, long term supply and economic profit, and perfect competition: http://www.khanacademy.org/finance-economics/microeconomics/v/perfect-competition

Outside readings:

"Alligator Farming Shows There's a Lot to be Said for Cows," WSJ, 8/2/89: your professor's all-time favorite Wall Street Journal article!!

http://ezproxy.uky.edu/login?url=http://search.proquest.com/docview/398158016?accountid=11836

"'Green Gold' Rush Eludes Greeks," WSJ, 12/19/17: unbranded olive oil vs. branded olive oil—which market structure model is appropriate for analyzing each? https://search-proquest-

com.ezproxy.uky.edu/docview/1978204751/5057514BD29A4D70PQ/18?accountid=11836

"Glencore Masters the Zinc Market and Revival Ensues," WSJ, 3/18/17: what paradigm or model would you use to analyze a commodity market like zinc?

 $\underline{\text{http://search.proquest.com.ezproxy.uky.edu/docview/1878357029/F19DDE3AD06A4BDDPQ/2?}} \\ accountid=11836$

or natural gas? "Long a Promise, Gas Goes Global," WSJ, 6/7/17.

 $\underline{http://search.proquest.com.ezproxy.uky.edu/docview/1906346922/FFFDCE8C1817464DPQ/1?accountid=11836}$

Additional resources (optional, not required):

Shutting down in the short run when price drops below min AVC: http://abcnews.go.com/WN/strawberry-farmers-destroy-crops/story?id=10219820

One of dozens of alligator farming videos on YouTube: http://www.youtube.com/watch?v=k3Ei3JK8v8M.

"Shell Shock: Chinese Demand Reshapes U.S. Pecan Business," WSJ, 4/18/11: another perfectly competitive market example.

http://ezproxy.uky.edu/login?url=http://search.proquest.com/docview/862237747?accountid=11836

Wednesday, September 19

Monopoly, pricing with market power.

Background Resources:

Inflate your mind:

http://inflateyourmind.com/?option=com_content&view=article&id=112&Itemid=143

Click on Unit 7 and read the sections on:

The monopolist's revenue curves

Profit maximization (or loss minimization) for a monopolist

Click on Unit 8 and read the section on:

Short-run and long-run profit maximization for a firm in monopolistic competition

Khan academy on monopoly: http://www.khanacademy.org/finance-economics/microeconomics/v/monopoly-basics (five video clips).

Outside readings:

"Gillette, in Change, Shaves Prices," *WSJ*, 4/5/17: how much do you love your Fusion five-bladed razor, and has that love been diminished by the entry of Harry's and Dollar Shave Club into the market?

 $\underline{http://search.proquest.com.ezproxy.uky.edu/docview/1883999799/20A8A4C4F1674000PQ/57?a}\\ \underline{ccountid=11836}$

"Seeking Perfect Prices, CEO Tears Up the Rules," WSJ, 3/27/07: textbook example of implementing the inverse-elasticity pricing rule, with huge results.

http://ezproxy.uky.edu/login?url=http://search.proquest.com/docview/399036795?accountid=118 36

"Restaurants Burned by Oversupply, Rivals," *WSJ*, 10/17/16: what type of market structure and expected long-run profitability in the restaurant industry in the U.S? in Athens? http://search.proquest.com.ezproxy.uky.edu/docview/1829442259/72E60390CBF94A2EPQ/64?accountid=11836

<u>Additional resources (optional, not required)</u>:

If you were in charge, how would you go about setting price for local tourist sites? http://odysseus.culture.gr/h/3/eh355.jsp?obj_id=2384 https://www.nashville.gov/Parks-and-Recreation/Parthenon.aspx

Microsoft monopoly: http://www.youtube.com/watch?v=dLKVeFau6vo What do you think of the Windows monopoly these days?

How the railroads sorted customers in the 1800's: "It is not because of the few thousand francs which would have to be spent to put a roof over the third-class carriage or to upholster the third-class seats that some company or other has open carriages with wooden benches ... What the company is trying to do is prevent the passengers who can pay the second-class fare from traveling third class; it hits the poor, not because it wants to hurt them, but to frighten the rich ... And it is again for the same reason that the companies, having proved almost cruel to the third-class passengers and mean to the second-class ones, become lavish in dealing with first-class customers. Having refused the poor what is necessary, they give the rich what is superfluous." How airlines sort customers today: "The Basic Economy Blackout," WSJ, 4/5/18: https://search-proquest-

com.ezproxy.uky.edu/docview/2021656304/30F03182957F48BAPQ/30?accountid=11836

Thursday, September 20

Oligopoly, rivalry, strategic behavior.

Background Resources:

Khan academy on oligopoly, collusion, game theory, Nash equilibrium, and cartel theory: http://www.khanacademy.org/finance-economics/microeconomics/v/oligopolies-and-monopolisite-competition (six video clips)

Inflate your mind:

http://inflateyourmind.com/?option=com_content&view=article&id=112&Itemid=143 Click on Unit 8 and read the section on: Oligopoly and game theory

Outside readings:

"Cruise Lines Slash Their Prices as War Fears Rattle Travelers," *WSJ*, 1/29/03: schedules are established, capacity is committed, and then an unanticipated drop in demand occurs. https://search-proquest-production

com.ezproxy.uky.edu/docview/398887154/33DE6F31F3364532PQ/115?accountid=11836

"Upstart's Tactics Allow it to Fly in Friendly Skies of a Big Rival," WSJ, 6/23/99: some pretty shrewd strategists at Frontier Airlines.

http://ezproxy.uky.edu/login?url=http://search.proquest.com/docview/398729938?accountid=118

"Bigger Proves Far From Better for Canadian Jet Maker," WSJ, 1/9/15: maybe Bombadier needs to hire someone who understands backward induction.

http://search.proquest.com.ezproxy.uky.edu/docview/1643323053/8A341AD473946EAPQ/6?accountid=11836

Additional resources (optional, not required):

Prisoner's dilemma game: http://www.youtube.com/watch?v=zpahL4fu5R8

The dating game: http://www.youtube.com/watch?v=TDtwsShOTjw

"Huge Cruise Ships Prepare for Launch but Face Uncertain Waters," WSJ, 12/04/09: how cruise lines have to make capacity commitments before they know the exact state of demand. Do you see the connection with the earlier reading on price wars?

http://ezproxy.uky.edu/login?url=http://search.proquest.com/docview/399127167/138B03F609C59AFF144/53?accountid=11836

Take-home Final Exam to be handed out at the end of class, Thursday, September 20.