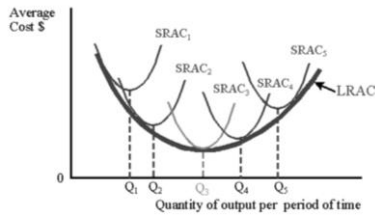


SYLLABUS - LOGISTICS

Economics 20100

The Elements of Economic Analysis II
Autumn Quarter 2022



Economies of Scale Image by James R Martin

Prerequisites

This class will assume you are comfortable with Econ 20000 and its prerequisites.

Measured Learning Objectives

Identify economic concepts of the firm and general equilibrium (GE).

Construct a firm-choice problem or a GE problem from a provided scenario.

Translate a provided firm or GE problem into different analysis settings.

Solve a firm or GE problem under different specifications or scenarios.

Synthesize solutions with economic knowledge to extrapolate the implications for agents in the economy.

Description

Department Website: This course is a continuation of ECON 20000. The first part of this course discusses markets with one or a few suppliers. The second part focuses on demand and supply for factors of production and the distribution of income in the economy. This course also includes some elementary general equilibrium theory and welfare economics.

Explained: In Econ 20000 you studied consumer choice – you examined how to mathematically model people’s choices. In this class, we begin by thinking about producer choice – how do firms make choices about how much to produce? How does the market structure (the number of firms and consumers) impact that decision? What are the costs and benefits to an economy from having a monopoly, or a duopoly, or competitive market through the lens of economic analysis?

Textbooks

I will post references to chapters by Banerjee, Lima, and Varian in the Topic Summaries to augment or provide details for topics from class. I do not assign mandatory homework or reading from any textbook, though there may be mandatory topical readings assigned in the homework. Those, however, will be provided on Canvas and do not need to be purchased.

| | |
|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | (L) Lima, Victor. <u>Lecture Notes for Econ 20100 Honors</u> . Available for purchase from the Social Sciences Copy Room (SS 103). It is generally at a level that is too high for this course. |
| | (V) Varian, Hal. <u>Intermediate Economics with Calculus</u> . (There is a non-calculus version available, but don’t get that one). A classic that is too low-level in some chapters and can skip some steps. |
| | (B) Banerjee, Samiran. <u>Intermediate Microeconomics: A Tool-Building Approach</u> . A newer book that is better than Varian at emphasizing the underlying math, but can omit some nuance that Varian discusses. |
| | (TR) Topical Readings. Articles or news stories that integrate the course content with current events or context. Will be distributed on Canvas or referenced in homework if a required reading. |

Econ 20100 SCHEDULE

| | CLASS / Discussion | Course Office Hours | | Department Drop-In Hours |
|----|------------------------|-----------------------------------|--------------------------------------|--------------------------|
| MO | 1:30-2:50pm (SHFE 146) | - | - | 10am-Noon SHFE 428 |
| TU | - | 2:00pm-4:00pm Zoom Appointment | - | - |
| WE | 1:30-2:50pm (SHFE 146) | - | 5:00-7:00pm Area outside SHFE 146 | - |
| TH | - | 10:00am-Noon SHFE 428 | - | - |
| FR | 1:30-2:20pm (HM 140) | - | - | - |
| | | Dr. G.C. Pieters | Eliot Weinstein | |

preferred salutation

Dr. Pieters//Prof. Pieters
she/her/hers

Eliot

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CALENDAR

The following represents an outline of the due dates. As the course progresses, the Lecture Topics will be updated to reflect what was covered. If the material changes, the date of assessments will **NOT** change, rather the content will be altered. Corresponding textbook and supplementary readings should be determined from the summary associated with each lecture that is posted on Canvas along with the class slides and practice problems.

| Week | Date | Summary ^s | Lecture Topic | Due |
|-----------------|-------------------------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| | M, Sep 26 | | (Pre-Quarter) | |
| 1 | W, Sep 28 F, Sep 30 | 1 | Technology & Production Functions <i>Discussion: Lagrangian/FOC Math Review (Pieters)</i> | QRE 1 - |
| 2 | M, Oct 3 W, Oct 5 F, Oct 7 | 2 3 | Cost Curves Cost Minimization <i>Discussion: Homework 1</i> | QRE 2 QRE 3 Homework 1 |
| 3 | M, Oct 10 W, Oct 12 F, Oct 14 | 4 5 | Profit Maximization Firm Supply <i>Discussion: Quiz Administered</i> | QRE 4 QRE 5 Quiz 1 |
| 4 | M, Oct 17 W, Oct 19 F, Oct 21 | 6 7 | Partial Equilibrium General Equilibrium Production Economy <i>Discussion: Homework 2</i> | QRE 6 QRE 7 Homework 2 |
| 5 | M, Oct 24 W, Oct 26 F, Oct 28 | 8 9 | Monopoly Game Theory <i>Discussion: Quiz Administered</i> | QRE 8 QRE 9 Quiz 2 |
| 6 | M, Oct 31 W, Nov 2 F, Nov 4 | 10 11 | Simultaneous Oligopoly (Bertrand and Cournot Models) Sequential Games and Stackleberg Oligopoly <i>Discussion: Homework 3</i> | QRE 10 QRE 11[‡] Homework 3 |
| 7 | M, Nov 7 W, Nov 9 F, Nov 11 | 12 13 | Industry Supply Welfare Theorems and the Social Planner Problem <i>Discussion: Quiz Administered</i> | QRE 12[‡] QRE 13[‡] Quiz 3 |
| 8 | M, Nov 14 W, Nov 16 F, Nov 18 | 14 15 | Externalities Public Goods <i>Discussion: Homework 4</i> | QRE 14[‡] QRE 15[‡] Homework 4[‡] |
| | | | (Thanksgiving Break) | |
| 9 | M, Nov 28* W, Nov 30 F, Dec 2 | 16 | Asymmetric Information Market Interventions <i>Discussion: Quiz Administered</i> | QRE 16[‡] - Quiz 4 |
| Finals** | F, Dec 9, 12:30-2:30pm | | 50 minutes, 20 minute break, 50 minutes | Quiz 5[‡] , Quiz 6[‡] |

*You need to request a W from your **advisor** by email by 5:00pm. They will email me.

Pass/Fail must be declared by email **at the start of the final exam time slot time.

‡ These assessments may be optional for you: see “Disruption Accommodation” on the Policies Syllabus.

STRUCTURE

In most classes, I will show relevant theory with an application to a real-world situation. Each class meeting contains a “Quick Response Exercise” (QRE): an economic question to be discussed in groups with analysis ultimately shared with the entire class. Discussion sections revisit mathematical techniques and problems from class and introduce or revisit sample problems closely related to the homework. Discussion section material is selected and designed by the TA.

Homework questions are not a regurgitation of in-class examples. I design the biweekly homework assignment to evaluate whether you comprehend the material sufficiently to: (1) understand the question, and (2) complete the economic analysis of that question. The expectation is the same for quiz questions as you must understand the material, not simply memorize definitions or techniques.

In addition to class attendance, I assume you will work the provided practice problems, attend the discussion sections, and visit office hours or post on the Discussion board as needed.

GRADES CALCULATION

Aggregate Individual Score, AIS_i

Your *aggregated individual score* (AIS_i) will not be rounded and is calculated from the combination of the three graded components of this class: (1) homework, (2) quick response exercises (QRE), and (3) quizzes.

- Each homework assignment is worth at least 5 points. All your homework scores are added together for a *Homework Component* that cannot exceed 20 points.
- Each QRE is worth 1 point. All your QRE scores are added together for a *QRE Component* that cannot exceed 10 points.
- Each quiz is worth 30 points. Your 4 highest quizzes are added together for a *Quiz component* out of 120 points.

$$AIS_i = \text{Homework Component (20)} + \text{QRE Component (10)} + \text{Quiz Component (120)}$$

| | D | D+ | C- | C | C+ | B- | B | B+ | A- | A |
|-------------------------------------------------------------------------------------|---------------------------|---------------------------|---------------------------------------|---------------------------|---------------------------|------------------------------------------------|---------------------------|---------------------------|---------------------------------------|---------------------------|
| <u>Default</u> | | | | | | | | | | |
| Fixed (% out of 150) | 90 60% | 99 66% | 102 68% | 105 70% | 114 76% | 117 78% | 120 80% | 129 86% | 132 88% | 135 90% |
| <u>Course Curves (cutoff used if lower than “Default”)</u> | | | | | | | | | | |
| Curve 1: Distribution $\mu = \text{Average } S_i$ $\sigma = \text{Std. Dev.}$ | $\mu - \frac{3}{2}\sigma$ | $\mu - \frac{5}{4}\sigma$ | $\mu - \sigma$ | $\mu - \frac{3}{4}\sigma$ | $\mu - \frac{1}{4}\sigma$ | μ | $\mu + \frac{1}{4}\sigma$ | $\mu + \frac{3}{4}\sigma$ | $\mu + \sigma$ | $\mu + \frac{5}{4}\sigma$ |
| Curve 2: Share of Grades | | | C-: S_i of the top 75 th | | | B-: Median S_i (50 th percentile) | | | A-: S_i of the top 25 th | |

Grade Cutoffs

You will receive the highest letter grade for which your *aggregated individual score*, AIS_i , exceeds the grade cutoff score: $AIS_i \geq C_g$. If the entire class demonstrates mastery of the material (all scores are higher than the cutoff for an A grade), the entire class gets an A: there is no grade rationing—you are not in a grade competition with other students in this class. I will not certify your understanding as mastery (an A grade) if it is not deserved.

The highest AIS_i you need to **guarantee** a grade is given by the “Fixed” cutoff (If you have 80% you will receive no less than a B). I “curve the class” using one of the two curved cutoffs only if the cutoff is lower than the fixed cutoff. I *will never increase the cutoff above the fixed value*.

A “Pass” for a Pass/Fail grade is a D. For the course to count towards any track of the economics major, you must earn a quality (letter) grade of a C- or higher.

Other Grading Notes

- All your grades and graded work will be available on Gradescope. I will not post scores to Canvas because it cannot calculate grades correctly.
- The class average on assessments may vary greatly from assignment to assignment. Individual assessments will not be curved.
- No “Individual-Only” Extra Credit or “Grade Nudges”. There will be NO additional grade assistance unless offered to the entire class. I ignore (and find insulting) all emails that ask for bonus assignments or a “grade nudge”. **Everyone has equal opportunity to earn an A grade or to avoid an F.** Grades will not be adjusted to reflect the hours you report working on the course material, your effort, your class participation, your office hours or discussion section attendance, your financial aid status, etc. Your grades reflect only your understanding of the material as evaluated by assessments. Some students may be able to study for 10 minutes and obtain an A, while others can spend an entire week studying and receive an F.

POLICIES AND RESOURCES

Documentation posted on Canvas:

Econ 20100 Syllabus: Policies - Fall 2022 &
Econ 20100 Syllabus: Resources - Fall 2022