



Carnegie Mellon University
Heinz College of Information Systems & Public Policy
School of Information Systems and Management

95710: ECONOMIC ANALYSIS

[K1, L1, and M1 sections]

Course Information for Fall 2021 Semester

Introduction

This course focuses on key microeconomics concepts and analytical techniques for corporate leaders, business consultants, data analysts, and project managers. It covers the mechanic of market forces, consumer behavior, rational decision-making models of consumers and producers, market structure analysis, competitive behavior, and the formulation of market strategies. The key to effective decision-making process is a good understanding of the trade-offs in allocating scarce economic resources and how to optimize the process. These core economic analytics are fundamental to many functional areas of management, including corporate strategy, finance, human resource, information technology, marketing, as well as production and operations.

Prerequisites

No. It is assumed that you have no background in economics.

Course Learning Objectives

After completing this course, you should be able to (a) explain clearly the concepts and techniques of microeconomic analysis; (b) develop and sharpen your analytic abilities on consumer behavior, producer decision, market analysis, and competitive strategies; and (c) to use economic information to make important corporate decisions.

Course Structure

This course is divided into three modules.

Module A – Demand and Supply Analysis - focuses on the mechanics of market demand and supply, concept of elasticities, consumer behavior theory, production decision, cost analysis, and network externalities.

Module B – Market Structure and Conduct Analysis - focuses on (a) types of market competitive structures, such as perfect competition, monopoly, monopolistic, and oligopoly; and (b) market conduct, such as market power, Cournot equilibrium, and collusion.

Module C – Competitive Strategies & Information Management – focuses on game theory, competitive strategies such as Nash equilibrium, first-mover advantage, as well as issue of asymmetric information, adverse selection, and signaling.

Course Schedule: (Subject to change if necessary)

Week One:	Tue 31-Aug and Thu 02-Sep
Class 1:	Demand & Supply Analysis and Market Mechanic
Class 2:	Consumer Behavior
Review One:	Zoom review session and consultation
Reference:	Ch 2, 3 of <i>Microeconomics</i> 8e by Pindyck & Rubinfeld (2013) Pearson
Week Two:	Tue 07-Sep and Thu 09-Sep
Class 3:	Individual and Market Demand
Class 4:	Scale and Cost of Production
Review Two:	Zoom review session and consultation
Reference:	Ch 4, 6 and 7 of <i>Microeconomics</i> 8e by Pindyck
Week Three:	Tue 14-Sep and Thu 16-Sep
Class 5:	Market Competition: Structure, Conduct, & Profit
Class 6:	Monopoly and Revision
Review Three:	Zoom review session and consultation
Reference:	Ch 8 and 10 of <i>Microeconomics</i> 8e by Pindyck
Week Four:	Tue 21-Sep and Thu 23-Sep
Class 7:	Mid-Semester Exam covers Classes 1 to 5
Class 8:	Market Pricing Strategies
Review Four:	Zoom review session and consultation
Reference:	Ch 12 of <i>Microeconomics</i> 8e by Pindyck
Week Five:	Tue 28-Sep and Thu 30-Sep
Class 9:	Market Pricing Strategies
Class 10:	Monopolistic & Oligopolistic Competition
Review Five:	Zoom review session and consultation
Reference:	Ch 11 and 12 of <i>Microeconomics</i> 8e by Pindyck
Week Six:	Tue 05-Oct and Thu 07-Oct
Class 11:	Game Theory
Class 12:	Asymmetric information & Signaling and revision
Review Six:	Zoom review session and consultation
Reference:	Ch 13 and 17 of <i>Microeconomics</i> 8e by Pindyck
Week Seven:	Tue 12-Oct (to be confirmed)
Class 13:	Final Exam covers Classes 6 to 12

*The above schedule is tentative and subject to changes, if necessary.

+ Attendance of Zoom reviews and consultation sessions are not compulsory, but highly recommended.

Course Instructor and Contact Details

Mail to: Dr. T. K. Lim, Ph.D., FCMA, GCHE
Teaching Professor of Finance and Economics
Carnegie Mellon University
220 Victoria Square, Adelaide SA 5000 Australia
Office Tel: 0011-618-81109912
E-mail: tklim@andrew.cmu.edu
Consultation: Tue 17:50-18:50. Other time by appointment.

Teaching Assistant

Name: Mr. Sai Davuluri
Review 1: Friday from 16:30 to 18:00 (Adelaide time)
Review 2: Saturday from 11:00 to 12:30 (Adelaide time)
Consultation: Friday from 18:00 to 19:00 (Adelaide time)
Consultation: Saturday from 10:00 to 11:00 (Adelaide time)
Other consultation sessions via e-mail appointment.
E-mail: vdavulur@alumni.cmu.edu

Zoom Review and Consultation Sessions:

Sai will provide two Zoom review sessions and two consultation sessions per week. Each session takes 90 minutes. Note: participation is not compulsory, but highly recommended. Please consult Sai if you have questions about assignments because he will be the grader.

Below is the Zoom ID for each section. You should attend your assigned section.

95-710 K1 Section

Economic Analysis

Tues 3:30pm - 4:50pm (Adelaide time)
Thurs 3:30pm - 4:50pm (Adelaide time)
Student Zoom ID 8948201862
Student Zoom Link <https://australia-cmu-edu.zoom.us/j/8948201862>
Panopto Recording Link <https://cmu.au.panopto.com/Panopto/Pages/Sessions/List.aspx#folderID=%2247fd08c4-f5bd-4f6b-bf67-ad8d005deaad%22>

95-710 L1 Section

Economic Analysis

Tues 5:30pm - 6:50pm (Adelaide time)
Thurs 5:30pm - 6:50pm (Adelaide time)
Student Zoom ID 7719635878
Student Zoom Link <https://australia-cmu-edu.zoom.us/j/7719635878>
Panopto Recording Link <https://cmu.au.panopto.com/Panopto/Pages/Sessions/List.aspx#folderID=%22a2ecbee9-f40e-4577-85e9-ad8d005df15c%22>

95-710 M1 Section

Economic Analysis

Tues 11:00am - 12:20pm (Adelaide time)
Thurs 11:00am - 12:20pm (Adelaide time)
Student Zoom ID 7966968497
Student Zoom Link <https://australia-cmu-edu.zoom.us/j/7966968497>
Panopto Recording Link <https://cmu.au.panopto.com/Panopto/Pages/Sessions/List.aspx#folderID=%22dc5c8171-dcd4-403b-a915-ad8d005df817%22>

Reference Book:

Microeconomics 9th edition by Robert S. Pindyck & Daniel L. Rubinfeld, (2018) Pearson: available in hardcopy and e-copy, see www.pearson.com

Lecture Notes and Class Conduct:

Weekly lecture and review notes are posted on the Canvas. Other reading materials will be posted as well. All Zoom lecture video would be available on web-site after the class delivery.

Course Assessment

The course assessment components comprise of real-world issues, economic and industry analysis as well as problem-solving. There are two written assignments and two online examinations. You should attend all online lectures as some in-class works may allow participants to earn bonus marks.

The original assessment materials will be kept by the instructor for academic record purpose. After obtaining your marks for assignments and exams or the final grade, you may request a formal second review of the result via sending an e-mail to the instructor. However, the new and final result may vary depends on the outcome of the second assessment.

Please be informed that any late submission of your work will be subjected to a penalty of five marks per day, unless you have obtained prior approval from the instructor. Under certain circumstances, you may request to sit the exam separately from the class. In those cases, you must produce a medical certificate or other relevant documents acceptable by the instructor. Work-related reasons will not be considered. However, even though your request is approved, please note that the questions and problems for this exam will be different from those in the scheduled class exam.

A summary of the 4 assessment components is shown below:

For the 2 assignments, you can work individually or form a team of *not more than two-persons*. Everyone will be assigned two specific products in a country or the same product in two different countries. (the list of products/countries will be provided).

Assignment 1 (total 22 marks)

You will analyze the economic data from a database using economic analytical methods discussed in class, such as demand analysis, consumer preference analysis, costing strategy and market structure analysis. After you have completed the data analysis as per requirements, you need to upload a power-point file and an excel file which contains the analysis, findings and suggestions to Canvas-Assignment by Friday **17-Sep-2021** before 1.00PM (Adelaide time). You are advised to use your own words to explain your analysis, findings and suggestions. You *must not use citations or quotations or copy other person's works or explanations*. A Step-by-step Guide and PPT templates will be posted on Canvas for your reference and download. If you have further question, please consult Sai, who will grade your papers.

Assignment 2 (total 22 marks)

Using the economic data of the assigned product in two different countries, you or your team will continue to perform economic analysis using various analytical techniques discussed in class, such as monopolistic pricing, differential pricing strategies, product differentiation, and signaling methods. After you have completed the analysis as per requirements, you will need to upload a power-point file and an excel file which contains the analysis, findings and suggestions to Canvas-Assignment by Friday **8-Oct-2021** before 1.00PM (Adelaide time). You are advised to use your own words to explain your analysis, findings and suggestions. You

must not use citations or quotations or copy other person's works or explanations A Step-By-Step Guide and PPT templates will be posted on Canvas for your reference and download.

Mid-Semester Exam (total 28 marks)

This is an online exam via Canvas with lock-down browser. The duration is 90 minutes only. There are ten multiple choice questions [10 marks], three short-answer questions [6 marks] and three quantitative problems (12 marks) each. It covers topics discussed from classes 1 to 5.

Final Exam (total 28 marks)

This exam will be conducted online via Canvas as well. The duration is also 90 minutes only. There are ten multiple choice questions [10 marks], three short-answer questions [6 marks] and three quantitative problems (12 marks) each. It covers topics discussed from classes 6 to 12.

Table below shows the distribution of marks. Note that Sai will be marking all assignments.

Components	Assigned marks	Submission dates
Assignment 1	22 marks	17-Sep-2021 before 1.00pm (Adelaide time)
Assignment 2	22 marks	08-Oct-2021 before 1.00pm (Adelaide time)
Mid-Semester Exam	28 Marks	21-Sep-2021
Final Exam	28 Marks	12-Oct-2021
Total score:	100 marks	

Guideline for Grading

Grade	Description	Points	Score Range (in marks)
A+	Exceptional	4.33	97 to 100.00
A	Excellent	4.00	93 to 96.99
A-	Very Good	3.67	90 to 92.99
B+	Good	3.33	86 to 89.99
B	Acceptable	3.00	80 to 85.99
B-	Fair	2.67	76 to 79.99
C+	Poor	2.33	70 to 75.99
C	Very Poor	2.00	66 to 69.99
C-	Minimal Passing	1.67	60 to 65.99
R	Fail	0.00	0 to 59.99

The following descriptive statements are guidelines used to grade your assessment components:

- **Grade A+** (Exceptional) Extraordinary piece of work for a graduate student. Work at this level is distinctively outstanding, ultra high level of critical thinking, innovative ideas, crystal clear yet precise explanations with solid justifications and references, very sophisticated methodologies with professional level of writing and communication skills. Work is extraordinary; attain the highest academic and professional quality.
- **Grade A** (Excellent) Excellent work of a graduate student. Work at this level is unusually thorough, very high-level of critical thinking, innovative, superior explanations/justifications and sophisticated methodologies, well written and superb presentation. Work is of outstanding, professional quality.
- **Grade A-** (Very Good) Strong work for a graduate student. Work at this level shows high-level of critical thinking, some signs of creativity, is thorough and well-reasoned, good presentation, indicates strong understanding of appropriate methodological or analytical approaches, and meet the professional standard.

- **Grade B+ (Good)** Competent and sound work for a graduate student; well reasoned and thorough, good presentation, reasonable level of critical thinking, methodologically sound, but not especially creative or insightful or technically sophisticated. This is the graduate student grade that indicates the student has accomplished the objectives of the course, with acceptable professional standard.
- **Grade B (Acceptable)** Proficient work for a graduate student. Moderately thorough, some level of critical thinking, well reasoned, demonstrating competency in the key course objectives but showing some indications that understanding of some key issues is less than complete. Methodologically or analytical approaches used are adequate but student has shown one or more weaknesses or limitations.
- **Grade B- (Fair)** Basic work for a graduate student. Meets the basic expectations for a graduate student in the course; low level of critical thinking, understanding of salient issues is somewhat incomplete, methodological or analytical work performed in the course is basic, although adequate.
- **Grade C+ (Poor)** Inadequate work for a graduate student; barely meets the basic expectations for a graduate student in the course. Work is inadequately developed or flawed by some errors and misunderstanding of important issues. Methodological or analytical work performed is deficient and barely demonstrates the knowledge or technical competence expected of graduate students.
- **Grade C (Very Poor)** Weak work for a graduate student; hardly meet the basic expectations for a graduate student in the course. Work is very poorly developed or flawed by numerous errors and lack of understanding of important issues. Methodological or analytical work performed is very weak and fails to demonstrate the knowledge or technical competence expected of graduate students.
- **Grade C- (Minimal Passing)** Very weak work for a graduate student; hardly meet the minimal expectations for a graduate student in the course. Work is carelessly developed or full of errors and missing the important issues. Methodological or analytical work performed is mostly wrong and fails to demonstrate the knowledge or technical competence expected of graduate students.
- **Grade R (Fail)** Work fails to meet even minimal expectations for course credit for a graduate student. Performance has been consistently weak in methodology and understanding, with serious limits in many areas. Weaknesses or limits are pervasive.
- **Grade I (Incomplete)**

Academic Integrity

The Heinz College takes very seriously its mission to produce graduates who are committed to ethical behavior in all phases of their professional lives. In this regard, the college views any cheating and plagiarism as serious offences. You are required to review thoroughly the material on academic integrity presented in master's program handbooks at: (<https://www.heinz.cmu.edu/current-students>) and to monitor your own actions carefully to prevent even the appearance of violations of academic integrity guidelines. Any violations of academic integrity in this class will have the following consequences: (a) zero mark for assignments or exams; and (b) in more serious offences, failing the class.

You are, however, allowed to form small study groups to “brain-storm” on assignments and case studies. Group collaboration is defined as “group discussions or brain-storming on the issues of an assignment or a case, followed by submission of independent work”. It is wrong for you to submit an assignment in which one or more answers represent the work of other people.

Course Web Page

This course has set up the following URL: <http://cmu.edu/canvas> which represents an entrance point to an integrated course management system called Canvas.

All students who are registered for 95-710 may login using their Andrew ID and passwords. After log-in, you will enter a Canvas “homepage” with links to all CMU courses (such as this one) that have developed custom Web pages using Canvas LMS technology. Click on “95710-Economic Analysis”, and you will be transferred to a Canvas web site for this course.

The site allows you to access a number of resources, including:

- Course syllabus
- Lecture notes in power point file
- Course updates and announcements
- Threaded discussion sections for all course-related issues
- Links to other Internet resources

You should form a habit to check the course web page at least twice a week to stay current with course issues. Please use the on-line help to familiarize yourself with Canvas features.

Accommodations for Students with Disabilities:

If you have a disability and are registered with the Office of Disability Resources, I encourage you to use their online system to notify me of your accommodations and discuss your needs with me as early in the semester as possible. I will work with you to ensure that accommodations are provided as appropriate. If you suspect that you may have a disability and would benefit from accommodations but are not yet registered with the Office of Disability Resources, I encourage you to contact them at access@andrew.cmu.edu.

Statement of Support for Students’ Health & Well-being

Please take good care of yourself. Do your best to maintain a healthy lifestyle this semester by eating well, exercising, avoiding drugs and alcohol, getting enough sleep and taking some time to relax. This will help you achieve your goals and cope with stress.

If you or anyone you know experiences any academic stress, difficult life events, or feelings like anxiety or depression, we strongly encourage you to seek advice and support from professional Counseling and Psychological Services (CaPS). You are strongly encouraged to make private appointment with the Director of Program or Academic Advisor to seek help and also visit <http://www.cmu.edu/counseling/>. You may also consider reaching out to a friend, faculty or family member you trust for help getting connected to the support that can help.