# Intermediate Microeconomics (IMIC)

## Basic Information

**Class Number**: 99387
**Units (Credits)**: 3
**Instructor**: Ilfan Oh, Ph.D.
**Email**: `ilfanoh@iba.edu.pk`
**Phone (Office)**: 3810-4700, Extension: 3021
**Address (Office)**: Room 208, Fauji Foundation Building, IBA Main Campus
**Office Hour**: 11:00AM-1:00PM & 2:30PM-4:30PM on Wednesday, Fall Semester, 2025 (and by appointment)

## Prerequisites

- Principles of Microeconomics
- Linear Algebra
- Multivariate Calculus

## Time Frame and Location

| **Session Days** | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
|---|---|---|---|---|---|---|---|
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| **Time** | | 1:00PM - 2:15PM | | 1:00PM - 2:15PM | | | |
| **Room** | | MAC-3 | | MAC-3 | | | |

## Grade-Weighting System

The basis of grade-weighting system in this course is as follows:

- Midterm Examination: 40%
- Final Examination: 60%

**Note**:

**N.1**: This course does not offer any *extra assignment* in any form.
**N.2**: In the case of your requesting the **midterm makeup examination**, this course adopts the permission rules set by the IBA Examination Office.
**N.3**: In the case of your requesting the **final makeup examination**, please contact the IBA Examination Office for the details.

# Grading Scale

| Grade | $X$ = Score (Unit = Percentage) |
|---|---|
| A | $90 \leq X$ |
| A- | $82 \leq X < 90$ |
| B+ | $75 \leq X < 82$ |
| B | $68 \leq X < 75$ |
| B- | $61 \leq X < 68$ |
| C+ | $54 \leq X < 61$ |
| C | $47 \leq X < 54$ |
| C- | $40 \leq X < 47$ |
| F | $X < 40$ |

# Academic Policies

Refer to IBA's guidelines specifying academic policies and code of conduct. Particularly, it is strongly recommended that students comply with the guidelines stipulating each of the following items:

- **Academic Honesty and Plagiarism**
- **Attendance and Participation**

# Course Description

The major theme of the course is to consider some key elements of the mainstream microeconomics which is alternatively called the neoclassical economics and the Walrasian general equilibrium theory. In particular, this course closely examines how the mainstream approach that crucially hinges on the methodological reductionism and the concept of individual rationality has been explaining the role of market mechanism in a decentralized economic system with full private-property ownership. After a brief review of the history of economic thought, the course covers the following topics:

- Conditions for and Properties of Optimal Choice by a Rational Consumer
- Properties of Individual Demand and Market (Aggregate) Demand
- Conditions for and Properties of Optimal Choice by a Rational Firm
- Properties of Firm Supply and Industry (Aggregate) Supply
- Models of Firm Competition
- Properties of General Equilibrium in a Decentralized Economic System
- Meaning of Fundamental Theorems of Welfare Economics

Through the entire course, we will place special emphasis on the economic interpretation of each analytical tool proposed in the mainstream microeconomics.

# Learning Goals

A critical perspective is essential for the development of science. In line with this philosophy, this course aims at (i) promoting a solid and precise understanding on the part of students, regarding the analytical tools proposed in the mainstream microeconomics, and (ii) prompting the students to have a critical viewpoint upon the existing body of knowledge in the dominant approach, which will motivate the students to form new and alternative ideas in their understanding of ever-changing actual economies.

# Learning Outcomes

Upon completion of the course, the students should be able to properly interpret and understand a wide spectrum of modeling approaches proposed in economics, using the basic knowledge provided in the course.

# Teaching and Learning Methodology

In-Class Lectures (subject to change under the IBA academic policy)

# Textbooks and Suggested Readings

## Required Textbook

- "*Intermediate Microeconomics with Calculus*" by Hal R. Varian, W. W. Norton & Company, Current (1st or Later) Edition, 2014: Hereafter, IMC.
- **Note**: Additional learning materials and handouts will be uploaded on LMS.

## Supplementary Textbooks

I am going to freely use some chapters from the following:

- "*Fundamental Methods of Mathematical Economics*" by Alpha C. Chiang and Kevin Wainwright, McGraw-Hill, 2005: Hereafter, CW.
- "*Microeconomic Theory*" by Andreu Mas-Colell, Michael D. Whinston, and Jerry R. Green, Oxford University Press, 1995: Hereafter, MWG.
- "*Analytical Methods in Economics*" by Akira Takayama, University of Michigan Press, 1993: Hereafter, Takayama (1993).
- "*Microeconomic Analysis*" by Hal R. Varian, W. W. Norton & Company, 1992: Hereafter, Varian (1992).

## Suggested Readings 1: Philosophy

- "*General Competitive Analysis*" by Kenneth J. Arrow and Frank H. Hahn, North Holland, 1971: This theoretical book elucidates the philosophy of Walrasian general equilibrium theory in a rigorous and deep manner. Please take a look if you're interested.
- "*Theory of Value: An Axiomatic Analysis of Economic Equilibrium*" by Gerard Debreu, John Wiley & Sons, Inc, 1959: Frank H. Hahn - one of the best general equilibrium theorists over the past and current world - viewed the model proposed in this book as the *best developed model* of a Walrasian general equilibrium. Please take a look if you're interested.
- "*Adam's Fallacy: A Guide to Economic Theology*" by Duncan K. Foley, Harvard University Press, 2006: This book is one of the best starting materials for learning the history of economic thought (Trust me: You never waste your important time when reading any article by Dr. Foley).
- "*General Equilibrium Theory: An Introduction*" by Ross M. Starr, Cambridge University Press, 2011: One of the best introductory books for the topic.

## Suggested Readings 2: Mathematics

- "*Mathematical Proofs: A Transition to Advanced Mathematics*" by Gary Chartrand, Albert D. Polimeni, and Ping Zhang, Pearson, Current (4th or Later) Edition, 2018: A very useful book to familiarize yourself with how mathematical proofs work.

- "*An Introduction to Analysis*" by William R. Wade, Pearson, Current (4th) Edition, 2017: Check this book if you would like to study much more rigorous arguments in *Real Analysis* at the undergraduate level.

# Topics

**Note**: The following plan is subject to change due to ups and downs in a pace at which we cover weekly topics.

**Week 01**: **Introduction**

**Theory of Consumer Behavior**

**Week 02**: **The Relationship between Preference Relations, Utility Function, and Choice Rules**
IMC: Chapter 3 (pp.33-52) & Chapter 7 (119-136),
MWG: Chapter 1 (pp.5-14).

**Week 03**: **Types of Utility Function**
IMC: Chapter 4 (pp.54-71), CW: Section 11.5 (pp.320-330),
Takayama (1993): Subsection 1.5.4 (pp.52-56).

**Week 04**: **Utility Maximization and Optimal Choice I:**
**Conditions for Optimal Choice**
IMC: Chapter 5 (pp.73-94),
CW: Section 11.2 (pp293-299) & Chapter 12 (pp.347-382).

**Week 05**: **Utility Maximization and Optimal Choice II:**
**Properties of Slutsky Equation**
IMC: Chapter 8 (pp.137-159), CW: Section 12.5 (pp.375-382).

**Week 06**: **Theory of Demand:**
**Properties of Individual Demand & Market (Aggregate) Demand**
Materials for Week 04 - Week 05.

**Theory of Firm Behavior**

**Week 07**: **Types of Production Function**
IMC: Chapter 19 (pp.353-364),
Varian (1992): Section 1.11 (pp.17-21).

**Week 08**: **Midterm Examination**

**Week 09**: **Mid-Semester Break**

**Week 10**: **Profit Maximization**
IMC: Chapter 20 (pp.366-384).

**Week 11**: **Cost Minimization**
IMC: Chapter 21 (pp.386-398) & Chapter 22 (pp.400-416).

**Week 12**: **Theory of Supply:**
**Properties of Firm Supply & Industry (Aggregate) Supply**
IMC: Chapter 23 (pp.417-432) & Chapter 24 (pp.434-445).

**Week 13**: **Firm Competition: Models of Oligopoly**
IMC: Chapter 28 (pp.516-534),
Varian (1992): Chapter 16 (pp.286-300).
**Market Equilibrium & the Concept of Pareto Efficiency**

**Week 14**: **The Existence of Equilibrium:**
**The Case of Pure Exchange Economy**
IMC: Chapter 32 (pp.602-617),
Varian (1992): Chapter 17 (pp.313-323).

**Week 15**: **Fundamental Theorems of Welfare Economics**
IMC: Chapter 32 (pp.617-627),
Varian (1992): Chapter 17 (pp.323-332).

**Week 16**: **Review of the Course**