

# EC4101

# Microeconomics Analysis III

# (L2)

## Course Information

# What are we going to do today?

- Course Information
- Review: Consumer Theory
  - Preference, Indifference curve and Utility
  - Consumer's optimization problem

# Who am I?

- Instructor:
  - KO Chiu Yu
- Contact information
  - Tel: 6516-5178
  - Office: AS2-04-23
  - E-mail: [ecscyk@nus.edu.sg](mailto:ecscyk@nus.edu.sg)
- Office Hours:
  - By appointment

# Who are you?

Introduce yourself to us

# Why are we here?

- Required for Honours Program
- In-depth studies of microeconomics
  - Rigorous-mathematical analysis
- Foundation for other electives
  - Even for macroeconomics!

# What are we trying to cover?

- Classic Topics
  - Consumer Theory
  - Production Theory
  - General Equilibrium
    - Equilibria in all markets

# What are we trying to cover?

- (New) Topics
  - Uncertainty
  - Externality
  - Game Theory
  - Information Economics
    - Moral Hazard
    - Adverse Selection

# Formal Outline

- begin with a normative perspective
  - how consumers derive their choices from preferences
  - what allocations are efficient
- turn to a positive study
  - competitive markets and strategic interactions
- emphasize
  - development of analytical tools
  - how the theories are constructed
  - working and failure cases of market



# Lecture and tutorial

- Location
  - AS7-0102
- Style
  - Seminar: Lecture 2 hrs + Tutorial 1 hr
- Time
  - Tuesday
  - Lecture : 13.00-15.00
  - Tutorial : 15.00-16.00

# Grading

- (10%) Assignments
- (30%) midterm exam
- (60%) final exam

# Assignment

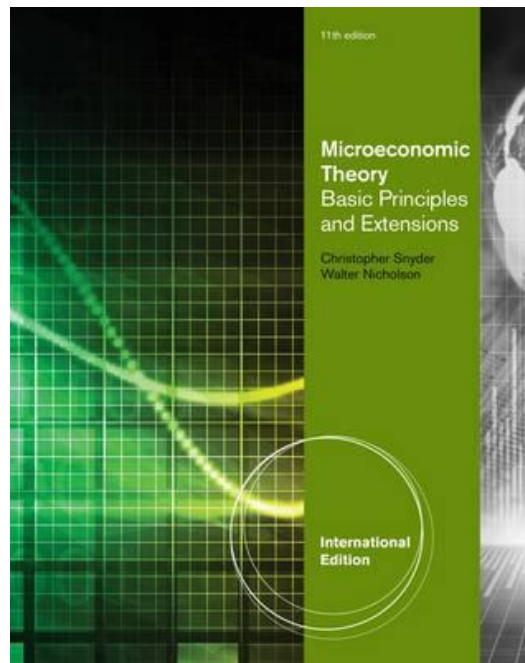
- Weekly problem sets
- From Week 3
  - each group presents a problem set
- 10 Groups
  - 5 students per group
  - Invisible hand:
    - Leaders email group members by **this Friday**
    - market failure (if): intervention

# Exams

- Midterm
  - closed-book
  - 18.00-21.00 on October 2 at LT9
- Final
  - Comprehensive
  - closed-book
  - 09.00 on November 28 (location TBA)
- Both exams are common with L1 (by Prof. Bag)

# Textbook

- Microeconomic Theory: Basic Principles and Extensions, Christopher Snyder & Walter Nicholson, 11th (International) edition, 2012



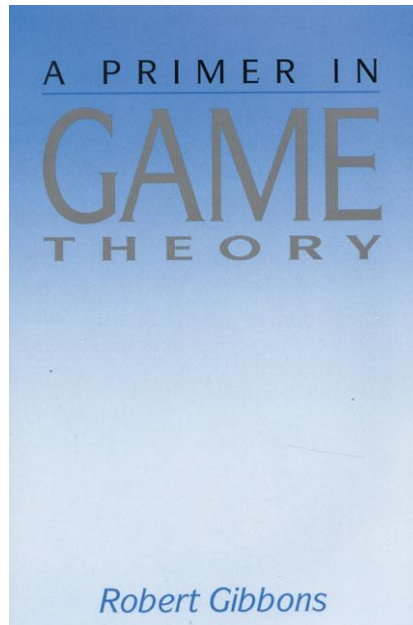
# Supplementary Reading

- Advanced Microeconomic Theory, Jehle/Reny, 3rd edition, 2011



# Supplementary readings:

- A Primer in Game Theory (or Game Theory for Applied Economists), Robert Gibbons, 1992



# Tentative Schedule:

1. Consumer Theory
2. Production Theory
3. General Equilibrium
4. Uncertainty
5. Game Theory
6. Information Economics



# Tentative Schedule: Topic 1

- Consumer theory (6-7 hours):
  - Preferences and utility (chapter 3)
  - Utility maximization and choice (chapter 4);
  - Income and substitution effect (chapter 5);
  - Demand relationships among goods (chapter 6)

# Tentative Schedule: Topic 2

- Production Theory (3 hours):
  - Production function (chapter 9)
  - Cost function (chapter 10)
  - Profit maximization (chapter 11)

# Tentative Schedule: Topic 3

- General equilibrium and welfare (5-6 hours):
  - Chapter 13;
  - Selected parts of chapter 5 of Jehle & Reny
    - Contingent plans
    - Core and equilibria
- Midterm

# Tentative Schedule: Topic 4 & 5

- Uncertainty (2 hours)
  - Chapter 7
- Externalities and public goods (2 hours)
  - Selected parts of chapter 19

# Tentative Schedule: Topic 6

- Game theory (4 hours):
  - chapter 8 and additional handouts
    - Strategic and extensive form games of complete information;
    - Games of incomplete information;
    - Repeated games and the folk theorem;
    - Examples and applications

# Tentative Schedule: Topic 6

- Information economics (4 hours):
  - chapter 18 and additional handouts
    - Adverse selection
    - Signaling
    - Moral Hazard

# Math. Prerequisite

- Read Chapter 2 for Mathematics required for this class