

# Oligopoly Theory (1)

## Introduction

### Organization of Lecture (1)

#### Course Description

- (1) Requirement
- (2) Purpose
- (3) Grading
- (4) Schedule

# Materials

All materials including the slide files are available through ITC-LMS.

# Email

My main email address is  
matsumur[at]iss.u-tokyo.ac.jp

I will respond to your email within 24 hours.

If you will not receive a response, your email may not reach me. In this case, try my secondary email address

matsumur[at]g.ecc.u-tokyo.ac.jp

# Language

This class is presented in English if and only if at least one UTIPE student expresses their intention to participate in this class, at latest 48 hours prior to the class.

The following has been announced by the syllabus and web page of this class.

If no UTIPE student expresses their intention to participate in this class by 12:00 on April 3, the first class held on April 5 (syllabus day) is presented in Japanese.

# Requirements for qualification for participants in this class

- (1) Students who are requested to participate in this class (Students who are under my supervision).
- (2) Doctoral course students and researchers who finished the doctoral course.
- (3) Master students who are planning to enter the doctoral course.
- (4) Students who are interesting in theoretical analysis on oligopolies.

If none of (1)-(3) is satisfied, contact me before participating in the class.

# Requirements for qualification for participants in this class

For M2 students, I regard only students who took both Micro and Macro core courses in **Graduate School of Economics**, not those of Graduate School of Public Policy, as students who are planning to enter the doctoral course.

For M1 students, only students who take, will take or took both Micro and Macro core courses in **Graduate School of Economics**, not those of Graduate School of Public Policy, as students who are planning to enter the doctoral course.

# Purposes of This Lecture (1)

(a) To learn **basic models (the models that will be standard even in distant future)** for analyzing oligopoly markets such as Cournot, Bertrand, Stackelberg and so on.

~ Welcome the students who are interested in theoretical (applied) microeconomics such as Industrial Organization, Public Economics, Regional Science, International Economics, Contract Theory, Law and Economics, Environmental Economics, Labor Economics and so on, **especially who are Doctoral course students or Master course students who are planning to go to Doctoral course.**

# Purposes of This Lecture(2)

To obtain some examples which may be useful for writing more theoretical papers (such as pure game theory or microeconomic theory), or empirical papers.

## Caution

If you want to learn real world examples in Japanese economies, do not take this course. Instead, you should take “Regulation Policy” at Graduate School of Public Policy of this university, which will be held in A(A1-A2) semester in 2023. This class must be much better for this purpose (but the class is presented in Japanese).



# Purposes of This Lecture(3)

(c) To obtain some ideas to write papers in the related fields.

# Papers related to purpose (3) by the participants of this past lectures

Ikuo Ishibashi (Ryukoku University)

IJIO(2003, 2008), EER(2006), JoE (2009)

Daisuke Shimizu (Gakushuin University)

EL(2002, 2005), EB(2003,2009), SEJ(2005),  
RSUE(2005), PIRS(2006,2011), JER(2008),MS(2010),  
BER(2013)

# Papers related to purpose (3) by the participants of this past lectures

Hiroaki Ino (Kwansei Gakuin University)

ET(2009), JoE(2010), IER (2012), BEJTE(2016),  
EL(2019,2021, 2022), EE(2021), REE(2022)

Kazuhiko Kato (Asia University)

EB(2006), JoE(2006, 2013), EL(2007)

Akira Ogawa (ICU)

EB(2006), JoE(2009), AEP(2010, 2017), ORL(2011),  
EL(2012), SEJ(2014), EB(2016), JICT(2017)

# Papers related to purpose (3) by the participants of this past lectures

Tomohiko Kawamori (Meijo University)

EL(2004), ET(2009)

Minoru Kitahara (Osaka City University)

JER(2006), JoE(2006), AEP(2008), MS(2013)

Susumu Cato (The University of Tokyo)

EB(2008a,b,c), MS(2011,2019), BER(2012),  
EM(2011,2013), JoE (2012), JITE (2012,2019), EL  
(2013), FA(2013), ER(2015)

# Papers related to purpose (3) by the participants of this past lectures

Daisuke Hirata (Hitotsubashi University)

ORL (2010), JoE(2011)

Takeshi Murooka (Osaka University)

ORL(2011), EL(2012)

Takeaki Sunada (Rochester)

EL(2013)

# Papers related to purpose (3) by the participants of this past lectures

Junichi Haraguchi (Kanagawa University)

EL(2018), RiE(2014), JoE (2016), IREF(2018),  
MS(2020), RIE(2020), EM(2020), SEJ(2021)

Kosuke Hirose (Osaka University of Economics)

APJAE(2016), EB(2018), JoE(2019), EP(2020),  
JITE(2020),EE(2022)

Susumu Sato (Hitotsubashi University)

JoE (2018), MS(2019), NAJEF(2019), EL(2020)

# Schedule(1)

1. Introduction: Course description
2. Quantity competition (Cournot model)
3. Price competition and endogenous competition structure (Bertrand model, Endogenous price-quantity contract model)
4. Market structure and competitiveness of the markets (HHI, Payoff-Interdependence Approach)
5. Sequential-move game and endogenous timing games (Stackelberg model, Observable delay game)

# Schedule(2)

6. Multi-stage strategic commitment games
  7. Competition in quality
  8. Environmental policies in oligopolies
  9. Mixed oligopolies 1 : Overview
  10. Mixed oligopolies 2: Endogenous timing in mixed oligopolies.
  11. Paper presentation 1
  12. Paper presentation 2
  13. Paper presentation 3
- subject to change as needed.



# Possible re-scheduling

I will skip the following subjects that were presented in the past lectures:

- (a) Spatial competition and product differentiation,
- (b) Vertically related markets, (c) Entry deterrence,
- (d) Free entry markets, (e) **Collusion**

However, according to the requests from the participants, I will be able to replace some of the subjects above, such as Market Structure and Competitiveness of the Markets, competition in quality, and/or Environmental policies in oligopolies with them. Or, I may reduce paper presentation slots.

# Grading

- There is no written examination and report. Grade is based on class participation only.
- I will never provide grade C. In this case, I will provide F (fail).
- Comments in the class are welcome. Students are required to attend the class after agreeing that they are expected to make contributions to the class.

# Grading

Open discussions among participants are enthusiastically welcome. However, closed (private) communications among neighbors are not. Participation in open discussions are most positively evaluated for grading, but in closed (private) talks among neighbors are negatively evaluated.

If a participant keeps silent during the class, they will not get a good grade.

I may prepare some quizzes in the class to make sure that the students understand the lecture if some students are silent.

# Off-Line participation

Following the instruction of the university, I will provide off-line (face-to-face) lectures. Off-line participation is welcome.

I will provide offline lectures, not hybrid lectures, if no student expresses their intention of on-line participation.

If the university would change its strategy and recommend online lectures, I follow it. In this case, only online lectures are provided.

# On-Line participation

If you participate in the class remotely (by online),

- keep the microphone on only while you express your opinion.
- if possible, keep a camera on during the class, regardless of whether you are expressing your opinion or not. Or at least, keep the camera on when you express your opinion, to make sure who express their opinion. **Remember that grading is based only on class participation, and thus, I must check who express their opinions without the hidden assist of others.**

# On-Line participation

If you are planning to participate in the online (remote) class, you should email me by 15:00 on April 7. I will provide some options to take this class remotely. **If no one expresses their plan to participate in this class remotely, only off-line classes are provided.**

If you will have unexpected troubles and cannot participate in the off-line class, you should email me. I will provide a supplementary online lecture for you on next Saturday (16:00-17:45 or 18:00-19:45), Sunday (10:30-12:15, 13:00-14:45, or 18:30-20:15), or Monday (8:15-10:00) if you want. You can choose any slot above.

# Hybrid lecture

If at least one participant requests hybrid lectures (combination of off-line and on-line lectures), I provide them.

If hybrid lectures are provided, supplementary online lectures are canceled. In other words, the options mentioned in the previous slide are not available.