THE UNIVERSITY OF THE WEST INDIES MONA CAMPUS Department of Economics Kingston 7 Jamaica, W.I.

ECON9002: Advanced Microeconomics II

Academic year:	Semester 2, 2020/2021
Pre-requisite:	ECON9001
Lecture hours:	Mondays 3–5 pm (online), Tuesdays 5–6 pm (online)
Lecturer:	Dr. Alrick K. Campbell
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Office location:	Alister McIntyre Building, E207
Office hours:	Tuesdays 11am – 1pm, Wednesdays 11am – 12pm

Course Description

This course is the second part of the Advanced Microeconomics sequence at the Ph.D. level. It is designed to provide you with an understanding of the core elements of game theory, imperfect competition and information economics. Information economics is becoming increasingly important and has found applications in every field of economics and beyond. The course concludes with a brief introduction to the theory of mechanism design and social choice.

Learning Outcomes

At the completion of this course, students should:

- 1. understand the main game-theoretic tools used in contemporary economics.
- 2. master the tools of analysing optimal behaviour of an economic agent under market imperfections and market failure.
- 3. have developed mathematical and modelling skills that are essential in pursuing theoretical and independent research in economics.

Course Content

This course is divided into three (3) parts and eight (8) units. The units to be covered in this course are as follows:

Part I – Non-cooperative Game Theory

- 1. Simultaneous-move games MWG 7, 8 $\,$
- 2. Dynamic games MWG 9

Part II – Market Imperfections

- 3. Externalities and public goods MWG 11.B, 11.C
- 4. Market power: Monopoly and oligopoly MWG 12.B, 12.C, 12.D
- 5. Information economics: Moral hazard and the principal-agent problem MWG 14.B, 14.C
- 6. Information economics: Adverse selection and signalling MWG 13.B, 13.C

Part III – Social Choice Theory and Mechanism Design

- 7. Social choice theory MWG 21.A, 21.B, 21.C, 21.D
- 8. Incentives and mechanism design MWG 23.B, 23.C, 23.D

Weeks	Date	Day	Activity	Units	Readings
1	Jan 18	М	Lecture	Unit 1	MWG 7 – 8
	Jan 19	Т	Lecture	Unit 1	MWG $7-8$
2	Jan 25	М	Lecture	Unit 1	MWG 7 – 8
	Jan 26	Т	Lecture	Unit 1	MWG $7-8$
3	Feb 01	М	Lecture	Unit 2	MWG 9
	Feb 02	Т	Lecture	Unit 2	MWG 9
4	Feb 08	М		Problem set 1 due	
	Feb 09	Т	Lecture	Unit 2	MWG 9
5	Feb 15	М	Lecture	Unit 3	MWG 11.B – 11.C
	Feb 16	Т	Lecture	Unit 3	MWG 11.B – 11.C
6	Feb 22	М		Problem set 2 due	
	Feb 23	Т	Lecture	Unit 4	MWG 12.B – 12.D
7	Mar 01	М	Lecture	Unit 4	MWG 12.B – 12.D
	Mar 02	Т	Lecture	Unit 5	MWG 14.B – 14.C
8	Mar 08	М		In-class Exam	
	Mar 09	Т	Lecture	Unit 5	MWG 14.B – 14.C
9	Mar 15	М		Problem set 3 due	
	Mar 16	Т	Lecture	Unit 6	MWG 13.B – 13.C
10	Mar 22	М	Lecture	Unit 6	MWG 13.B – 13.C
	Mar 23	Т	Lecture	Unit 7	MWG 13.B – 13.C
11	Mar 29	М	Lecture	Unit 7	MWG 21.A – 21.D
	Mar 30	Т	Lecture	Unit 7	MWG 21.A – 21.D
12	Apr 05	М		Problem set 4 due	
	Apr 06	Т	Lecture	Unit 8	MWG 23.B – 23.D
13	Apr 12	М	Lecture	Unit 8	MWG 23.B – 23.D
	Apr 13	Т	Lecture	Unit 8	MWG 23.B – 23.D

Course Schedule¹

Mode of Delivery

Two to three lecture hours and one tutorial hour bi-weekly.

Assessment

To establish student understanding of the course material and encourage ongoing engagement in the course, several assessment strategies will be utilised throughout delivery of this course. The assessment summary is provided below:

 $^{^1{\}rm Tentative}$ Schedule – may change due to unforeseen circumstances.

Assessment Items	Mode of Submission	Weighting
One (1) mid-term exam	Administered in class	30%
Four (4) graded problem sets (5% each)	Bi-weekly problem sets submitted prior	20%
	to the beginning of the tutorial session	
Final Exam		50%
Total		100%

Student Responsibility

Your regular attendance at lectures and participation in tutorials is expected. All communication about this course will be made through the OurVLE course site and/or your official email provided by the University. Announcements made via OurVLE and your official email are deemed to be made to the entire class.

Resources

Required Text

Mas-Colell, Andreu, Michael D. Whinston, and Jerry R. Green, 1995. *Microeconomic Theory*, Oxford University Press, New York. (Referred to as MWG)

Recommended Text

 Varian, Hal, 1992. *Microeconomic Analysis*, 3rd edition, W. W. Norton & Company. (Referred to as Varian)