School of Economics

Academic Year 2024-25 Term 1

PhD in Economics

ECON754 Topics in Mechanism Design

Associate Professor Li Jiangtao
jtli@smu.edu.sg
+65 6826 1351
School of Economics, Level 5, Room 5049

COURSE DESCRIPTION

This is a topics course in mechanism design. We will cover some cutting-edge research questions in mechanism design with an emphasize on robust mechanism design and behavioral mechanism design. We analyze the design of mechanisms when the designer does not have detailed information about the environment, the design of mechanisms when agents are unsophisticated, and the design of mechanisms when agents are boundedly rational.

LEARNING OBJECTIVES

The students will learn cutting-edge research directions and modeling techniques in mechanism design.

PRE-REQUISITE/CO-REQUISITE/MUTUALLY EXCLUSIVE COURSES:

Nil. The course will be self-contained as much as possible. Some familiarity with mechanism design will come in handy.

GRADED BASIS: Graded

COURSE UNIT: 1CU

COURSE AREA: ART

ASSESSMENT METHODS

Class Participation	: 20%
Presentation	: 80%
Total	**: 100%**

CLASS TIMINGS

The course comprises twelve 3-hour sessions.

RECOMMENDED/REQUIRED TEXTS AND READINGS

There is no text book for the course; different articles will be referred to assigned as readings. but the following books are good references:

1. **An Introduction to the Theory of Mechanism Design, by Tilman Borgers.**
2. **Bounded Rationality and Industrial Organization, by Rani Spiegler.**

WEEKLY LESSON PLAN

Week No	Topic	Readings
1	Various approaches towards mechanism design	
2	The revenue guarantee approach	
3	The revenue guarantee approach	
4	The revenue guarantee approach	
5	The revenue guarantee approach	
6	The regret minimization approach	
7	The undominated mechanism approach	
8	Unsophisticated agents	
9	Unsophisticated agents	
10	Behavioral mechanism design	
11	Behavioral mechanism design	
12	Behavioral mechanism design	
	Exam	

ACADEMIC INTEGRITY

All acts of academic dishonesty (including, but not limited to, plagiarism, cheating, fabrication, facilitation of acts of academic dishonesty by others, unauthorized possession of exam questions, or tampering with the academic work of other students) are serious offences.

All work (whether oral or written) submitted for purposes of assessment must be the student's own work. Penalties for violation of the policy range from zero marks for the component assessment to expulsion, depending on the nature of the offense.

When in doubt, students should consult the instructors of the course. Details on the SMU Code of Academic Integrity may be accessed at http://www.smuscd.org/resources.html.

ACCESSIBILITY

SMU strives to make learning experiences accessible for all. If students anticipate or experience physical or academic barriers due to disability, please let the instructor know immediately. Students are also welcome to contact the university's disability services team if they have questions or concerns about academic provisions: included@smu.edu.sg.

Please be aware that the accessible tables in the seminar room should remain available for students who require them.

DIGITAL READINESS FOR TEACHING AND LEARNING (DRTL)

As part of emergency preparedness, instructors may conduct lessons online via the Zoom platform during the term, to prepare students for online learning. During an actual emergency, students will be notified to access the Zoom platform for their online lessons. The class schedule will mirror the current face-to-face class timetable unless otherwise stated.

ASSESSMENTS

Faculty have been instructed not to reuse questions verbatim from past year papers or published test banks, for the graded continuous assessments and examinations in this course.