

COURSE CONTENT

Course Coordinator	Asst Prof Yeo Xiong Wei, Jonathan
Course Code	HE3001
Course Title	Microeconomics III
Pre-requisites	HE2001 Microeconomics II
No of AUs	3
Contact Hours	39 hours (2 hours lecture, 1 hour tutorial per week)

Course Aims

In Microeconomics 1 and 2, we have covered the core tenets of decision making by firms and individuals, and how perfect competition translates this into efficient outcomes under specific conditions.

The main aim of this course is to extend our framework to contexts with less than “perfect” settings. We will first study the basics of game theory, analysing strategic interactions between small numbers of agents and discuss its applications. Subsequently, we will study various kinds of market frictions and how they can lead to sub-optimal outcomes in the market, covering possible solutions. This will include classical ones like asymmetric information, classical externalities and common access and also newer ones like information technology. Lastly, we will also introduce behavioural economics and how social and psychological elements can be applied to traditional topics in Economics.

Intended Learning Outcomes (ILO)

By the end of this course, you (as a student) would be able to:

1. Use microeconomics concepts and theories to describe individual and social choice under strategic interactions and imperfect market settings.
2. Apply fundamental microeconomic models to analyse decision-making by agents in these contexts and the impacts on efficiency and social welfare.
3. Identify and understand the possible solutions to problems created by the strategic/imperfect nature of the decision context.
4. Communicate economic reasoning, in speech and writing to explain and evaluate the different processes behind agents’ decisions, how they affect efficiency and policy solutions.

Course Content

Lecture 1: Game Theory 1: Static Games of Complete Information. Normal form, Dominance solvability, Nash Equilibria.

Lecture 2: Game Theory 2: Mixed Strategy Nash Equilibria, Applications of Static Games of Complete Information, Sequential Games of Complete Information, Extensive form

Lecture 3: Game Theory 3: Subgame Perfect Nash Equilibria., Repeated games. Simple Static Games of Incomplete Information, Bayesian Nash Equilibria.

Lecture 4: Auctions: Auction Rules, Auction Outcomes, Auction Equilibria. Revenue Equivalence.

Lecture 5: Asymmetric information, Adverse Selection: Hidden Information and Adverse Selection. The Market for Lemons. Signalling.

Lecture 6: Asymmetric Information, Moral Hazard: Hidden actions and Moral Hazard. Moral Hazard and Insurance. Moral Hazard and Employment. Incentives and Second-best solutions.

Lecture 7: Externalities: Positive and negative externalities. Externalities and Efficiency. Property Rights, Incomplete Markets and the Coase Theorem.

Lecture 8: Information Technology 1: Systems Competition, Complementarities. Competition with complementarities, Lock in. Competition with Network Externalities.

Lecture 9: Information Technology 2: Market Dynamics with Network Externalities, Two sided Markets, Rights Management, Intellectual Property.

Lecture 10: Common property and Public goods: Rivalry and Excludability in Goods. Tragedy of the Commons. Public Goods and Free Riding. Implementing Public Goods.

Lecture 11: Behavioural Economics: Deviations from the "Rational" Model. Social preferences. Psychological "biases". Nudging and Libertarian Paternalism.

Assessment (includes both continuous and summative assessment)

Continuous Assessment	:	<u>100%</u>
Total		<u>100%</u>

Reading and References**Textbook:**

Intermediate Microeconomics: A Modern Approach, 9th Edition by H.R. Varian.
W.W.Norton & Company.

Course Instructors

Instructor	Office Location	Email
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Planned Weekly Schedule

Teaching Week	Topic	Course LO	Readings/ Activities
Week 1	Game Theory 1	1,2,3	Varian Ch29, Ch30, Slides
Week 2	Game Theory 2	1,2,3	Varian Ch29, Ch30, Slides
Week 3	Game Theory 3	1,2,3	Varian Ch29, Ch30, Slides
Week 4	Auctions	1,2,3	Varian Ch 18, Slides
Week 5	Asymmetric information, Adverse Selection	1,2,3	Varian Ch 38
Week 6	Asymmetric information, Moral Hazard	1,2,3	Varian Ch 38
Week 7		1,2,3	Bi-semester 1
Recess Week			
Week 8	Externalities	1,2,3	Varian Ch35
Week 9	Information Technology 1	1,2,3	Varian Ch36,
Week 10	Information Technology 2	1,2,3	Varian Ch36
Week 11	Common Property and Public Goods	1,2,3	Varian Ch37
Week 12	Behavioural Economics	1,2,3	Varian Ch31, Slides
Week 13		1,2,3	Bi-semester 2