

COURSE OUTLINE

Course Coordinator	:	Joshua Alexander Lanier
Course Code / Title	:	HE3040 Rational and Irrational Decision Making
Pre-requisites	:	HE2001 Microeconomics II
No. of AUs.	:	3
Contact Hours	:	39

Course Aims

The course will introduce the core models of rational decision making used in economics, discuss their empirical and normative content, and explore how these rational models can be augmented to incorporate common instances of irrational decision making. The course material will draw from research in decision theory, revealed preference theory, behavioral economics, and experimental economics. The course is well-suited for students interested in understanding and analyzing choices to make predictions and perform welfare analysis even when decision makers violate common economic assumptions.

Intended Learning Outcomes (ILO)

1. Rigorously test if a given collection of choices is consistent with standard economic theories.
2. Explain how economists leverage assumptions of rational utility maximizing consumers to make predictions and perform welfare analysis.
3. Discuss the experimental evidence on various notions of rational behavior.
4. Utilize models of 'irrational' decision making to make predictions.
5. Discuss the difficulties of performing welfare analysis without rational decision making.

Course Content

1. Preferences, utility, and decision axioms.
2. Empirical evidence for rational choice.
3. Demand estimation and welfare analysis.
4. Reference dependence, default effects, and just noticeable differences.

- 5.Expected utility, subjective expected utility, and paradoxes.
- 6.Prospect theory, source preferences, incomplete preferences.
- 7.Ambiguity aversion.
- 8.Intertemporal choice, self-control, and temptation.
- 9.Welfare and irrational choice.

Course Assessment

Class Participation	: 5%
Others	: 5%
Continuous Assessment (Quiz)	: 40%
Continuous Assessment (Final Quiz)	: 50%

Total	100%

Reading and References

Dhami, Sanjit. The Foundations of Behavioral Economic Analysis. 2016.

Parmigiani, Giovanni and Inoue, Lurdes. Decision Theory: Principles and Approaches. 2009.

Varian, Hal. Intermediate Microeconomics: A Modern Approach. 8th Edition. 2010.

NOTE: The above listing comprises the foundational readings for the course and more up-to-date relevant readings will be provided when they become available.

Course Instructors

Instructor	Office Location	Email
Joshua Alexander Lanier	SHHK	joshua.lanier@ntu.edu.sg

Planned Weekly Schedule

Week	Topic	Course LO	Readings/ Activities
Week 1	Preferences, utility, and decision axioms	1, 2	Varian Chapters 3,4,7
Week 2	Testing rational behavior in market data, demand, estimation, welfare analysis	1, 2, 3	Varian chapters 7, 14
Week 3	Just noticeable differences, reference dependence, consideration sets	4	Luce, Duncan. "Semioorders and a Theory of Utility Discrimination." <i>Econometrica</i>, 1956. Kahneman, Knetsch, and Thaler. "Anomalies: the endowment effect, loss aversion, and status quo bias", <i>Journal of Economic Perspectives</i>, 1991. Masatlioglu, Nakajima, Ozbay. "Revealed Attention." <i>American Economic Review</i>. 2012.
Week 4	Risk, expected utility, the Allais paradox, prospect theory	2, 3, 4	Varian Chapter 12. Dhami Chapter 2.
Week 5	Testing EU, incomplete preferences, the uncertainty effect	1, 2, 3	Kubler, Selden, Wei. "Asset-based tests of expected utility maximization." <i>American Economic Review</i>. 2014. Polisson, Quah, Renou. "Revealed Preferences over Risk and Uncertainty." <i>American Economic Review</i>. 2020.

			Dubra, Maccheroni, and Ok. "Expected Utility Theory without the completeness axiom." Journal of Economic Theory. 2004.
Week 6	Quiz 1	1, 2, 3, 4	NA
Week 7	Subjective expected utility, Bayesianism, the Ellsberg Paradox	1, 2, 3	Parmigiani, Inoue. Chapter 5. Dhami. Chapter 4
Recess Week			
Week 8	Ambiguity aversion, source preferences, rational inattention	3, 4	Dhami, Chapter 4. Parmigiani, Inoue, Chapter 5.
Week 9	Dynamic consistency, exponential discounted utility, quasi-hyperbolic utility, and commitment devices	2, 4	Dhami, Chapters 9-11
Week 10	Temptation, self-control, procrastination	3, 4	Dhami, Chapter 17
Week 11	Welfare with irrational choice	5	Dhami, Chapter 22
Week 12	Review and Questions	NA	NA
Week 13	Final Quiz	1, 2, 3, 4, 5	NA