Course title: Advanced Microeconomic Theory			
Course code: UEO 403	**No. of credits:** 4	**L-T-P:** 48-12-0	**Learning hours:** 60
Department: Department of Policy and Management Studies			
Course coordinator: Dr. Aditi Singhal	**Course instructor:** Dr. Aditi Singhal		
Contact details: aditi.singhal@terisas.ac.in			
Course type: Core	**Course offered in:** Semester 7		

This course builds systematically on intermediate microeconomic theory to equip 7th-semester Economics students with the conceptual depth and analytical tools needed for advanced study and professional work. Beginning with a rigorous treatment of consumer and producer optimization, it proceeds through competitive and non-competitive market structures. The course blends formal modelling with applied policy analysis, drawing on contemporary examples to ground abstract theory in observable market behaviour.

Course objectives:

By the end of this course, students will be able to:

- Attain a rigorous understanding of models of individual decision-making and market equilibrium at an advanced undergraduate level.
- Formulate key microeconomic problems mathematically and solve optimization problems using calculus and algebraic reasoning.
- Critically assess the assumptions underlying standard models and appreciate their policy implications and real-world limitations.

Course contents

Module	Topic	L	T	P
1	**Consumer Behavior** Preference and utility representation; utility maximization and expenditure minimization; duality; market demand; consumer's welfare.	14	2	
2	**Producer Behavior** Technology and its representations; profit maximization and cost minimization; duality; market supply	8	2	
3	**Competitive Market: Partial equilibrium** Competitive equilibrium; comparative statics; welfare.	4	2	
4	**Competitive Market: General Equilibrium and Pareto Optimality** Fundamental Theorems of Welfare Economics.	10	2	
5	**Uncertainty** Expected Utility Theorem, Measures of Risk Aversion; Insurance	2	0	
6	**Asymmetric information: Basic framework** Hidden information vs. hidden action; adverse selection vs. moral hazard; introduction to incentive compatibility and individual rationality constraints	6	2	
7	**Monopoly** Monopoly pricing; Price Discrimination; regulation under natural monopoly - subadditivity of costs; first-best vs. second-best	4	2	
	Total	**48**	**12**	**0**

Evaluation criteria:

Minor Test I: Written Examination: 25%
Minor Test II: Written Examination: 25%
Class Participation: 10%
Major Test: Written Examination: 40%

Learning outcomes:

At the end of this course, students will be able to

1. Understand standard theoretical models of individual and market behavior at a rigorous level [Minor test I]
2. Mathematically formulate key microeconomic problems and salient variations [Minortest and Major test]

Critically appreciate microeconomic assumptions and their limitations
[Minor test and Major test]

Pedagogical approach: Classroom teaching; interactive sessions; tutorials for problem solving.

Materials:

Required Texts:

- Varian, H.R. (1992). Microeconomic Analysis (3rd ed.). W.W. Norton.
- Mas-Colell, A., Whinston, M.D., & Green, J.R. (1995). Microeconomic Theory. Oxford University Press.
- Jehle, G.A., & Reny, P.J. (2011). Advanced Microeconomic Theory (3rd ed.). Prentice Hall.

Module wise references:

Module	Chapter References
Consumer Behaviour	**Varian:** Ch. 7, Ch. 8, Ch. 10, Ch. 11, Ch. 14 & Ch. 15 **Jehle & Reny:** Ch. 1 & Ch. 2 **MWG:** Ch. 1 & Ch. 3
Producer Behaviour	**Varian:** Ch. 1, Ch. 2, Ch. 4, Ch. 5, Ch. 6 & Ch. 13 **Jehle & Reny:** Ch. 3 **MWG:** Ch. 5
Competitive Market: Partial Equilibrium	**Varian:** Ch. 13, Ch. 14 & Ch. 15 **Jehle & Reny:** Ch. 4 **MWG:** Ch. 10
Competitive Market: General Equilibrium & Pareto Optimality	**Varian:** Ch. 17 & Ch. 18 **Jehle & Reny:** Ch. 5 **MWG:** Ch. 15 & Ch. 16
Uncertainty	**Varian:** Ch. 11 **Jehle & Reny:** Ch. 2 **MWG:** Ch. 6
Asymmetric information: Basic framework	**Jehle & Reny:** Ch. 8 **MWG:** Ch. 13 &14
Monopoly	**Varian:** Ch. 14, Ch. 23 & Ch. 25 **Jehle & Reny:** Ch. 4 **MWG:** Ch. 12

Additional information:

Lecture notes and problem sets will be provided.
Knowledge of high school calculus is required to follow most of the topics.

Course prepared by: Dr. Aditi Singhal

Student responsibilities: Attendance, feedback, discipline: as per university rules.

Course reviewers:

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2. Divya Gupta, Associate Professor, Jindal Global Law School, O.P. Jindal Global University, Sonepat, India