Course title: Microeconomics-I			
Course code: MPE 134	**No. of credits:** 4	**L-T-P:** 44-16-0	**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 1		

Course description:

Microeconomics is the study of decision-making at the level of the individual or the firm and how it relates to market behaviour. It begins with study of decision-making when markets are competitive, i.e., when individuals cannot influencethe market price and there is no information asymmetry. We show that rational decision-making in competitive markets lead to efficient outcomes. Subsequently, we show that markets are no longer efficient when the assumption of competition is withdrawn. We consider three such deviations from competitive markets, viz., monopolistic behaviour, strategic behaviour and asymmetric information, leaving the analysis of public goods andexternalities for courses on environment and natural resources.

Course objectives:

1. To introduce students to models of individual and market behaviour at an advanced level of rigour
2. To familiarise students with mathematical modelling in Microeconomics
3. To emphasize the role of simplifying and critical assumptions in microeconomic modelling

Course contents

Module	Topic	L	T	P
	Group 1			
I	**Consumer Behaviour** Preference and utility representation; utility maximisation and expenditure minimisation; duality; market demand; consumer's welfare.	7	2	
II	**Producer Behaviour** Technology and its representations; profit maximisation and cost minimisation; duality; market supply.	3	2	
III	**Competitive Market: Partial equilibrium** Competitive equilibrium; comparative statics; welfare.	5	2	
IV	**Competitive Market: General Equilibrium and Pareto Optimality** Fundamental Theorems of Welfare Economics.	5	2	
V	**Uncertainty** Expected Utility Theorem, Measures of Risk Aversion; Insurance; General Equilibrium with uncertainty	4	2	
	Group 2			
VI	**Monopoly**	4	2	
VI I	Monopoly pricing; Price Discrimination; durable goods; Coase conjecture;Productdifferentiation. **Strategic Behaviour** Representation of games; Dominant Strategy; Nash Equilibrium; subgame perfection; repeated games; Applications: Cournot,	6	2	

	Bertrand, Stackelberg leadership, Entry deterrence, Rubinstein bargaining.			
	Group 3			
VIII	**Information and Games of Incomplete Information** Information Asymmetry and the "Lemons" problem; Adverse selection; Moral Hazard; Games of Incomplete Information and Bayes-Nash equilibrium; Basic Theory of Auctions; Myerson optimal auction; Dynamic Games of Incomplete Information and Perfect Bayesian equilibrium; Spence job market signalling.	8	2	
IX	**Markets as Institutions** Transaction cost approach: Coase and Williamson	2		
	Total	**44**	**16**	**0**
Evaluation criteria:				

Homework Assignment: 20% [Module I-V]
Minor Test 1: Written Examination : Group 1 40%; [Module I-V] **Minor Test 2:** Written Examination : Group 2: 20%; [Module VI-VII]**Major Test:** Written Examination : Group 3: 20% [Module VIII- IX]

Learning outcomes:

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

1. Understand standard theoretical models of individual and market behaviour at a rigorous level [HomeworkAssignment and Minor test 1]
2. Mathematically formulate key microeconomic problems and salient variations [Homework Assignment, Minortest 2 and Major test]
3. Critically appreciate microeconomic assumptions and their limitations [Minor test 1,2 and Major test]

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

Materials:

Required Texts:

1. Mas-Colell, A., Whinston, M.D. and Green, J.R., 1995. *Microeconomic theory.* New York: Oxforduniversitypress.
2. Jehle, G.A. and P.J. Reny,2011.*Advanced Microeconomic Theory* (3rd Edition), Prentice Hall.
3. Tirole, J., 1988. *The theory of industrial organization*. MIT press.
4. Gibbons, R., 1992. *Game theory for applied economists*. Princeton University Press.
5. Salanié, B., 2005. *The economics of contracts: a primer*. MIT press.

Required papers:

1. Coase, R.H., 1960. The problem of social cost. *The journal of Law and Economics, 3(1), pp.1-40.*
2. Coase, R.H., 1937. The nature of the firm. Economica, 4(16), pp.386-405.
3. Williamson, O.E., 2000. The new institutional economics: taking stock, looking ahead. *Journal ofEconomic Literature*, *38*(3), pp.595-613.

Additional information:

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

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

Course reviewers:

1. Krishnendu Ghosh Dastidar, Professor, Centre for Economic Studies and Planning, Jawaharlal NehruUniversity, New Delhi.
2. Manipushpak Mitra, Professor, Economic Research Unit, Indian Statistical Institute, Kolkata.