

ECON 7005	Microeconomics	L	T	P	C
Version 1.0		4	0	0	4
Pre-requisites/Exposure	- Graduation				
Co-requisites					

Course Objectives

The objectives of this course are. To understand consumer behavior and its application in economics.

- b) To know the producers' behavior and various theories of production.
- c) To know various forms of market structures: competitive market and imperfectly competitive markets.
- d) To know factor market behavior and distribution

Course Outcomes

Upon successful completion of the course, a student will be able to:

- CO1. To give **conceptual clarity** of the theories of Micro Economics.
- CO2. To **apply** the principle of constrained optimization to firms and consumers.
- CO3. To know the **application** of theory of production and cost structure.
- CO4. To **comprehend** various market structure and its real world application.
- CO5. To **extend** the microeconomic principles to factor markets

Catalog Description

Understanding of microeconomics is important for managers to analyze the market, determine prices, evaluate cost, demand and supply, optimize production etc. are important to managerial decision making in the business organizations. It is essential for energy managers to know the overview of international energy market, crude oil market, and natural gas market, interplay of competitive, monopoly and oligopoly market forces. This course aims to provide an understanding of fundamental aspects of the market and issues relevant to the national and international energy market.

Course Content

Unit I: 1-lecture hours Induction to Microeconomics

Theme of Microeconomics; scarcity and choice; optimization and Equilibrium. The Demand curve

Unit II: 5 lecture hours Module II: Demand and Supply: How market works. Individual demand and supply schedules and derivation of market demand and supply. Budget constraint. Individual demand and supply schedules and derivation of market demand and supply.

Unit III: 12 lecture hours
Consumer and Producer Behaviour

Preferences, Indifference curves, Perfect substitutes and Perfect Complements, well-behaved preferences and MRS. Utility: Cardinal and Ordinal, constructing a Utility function, Marginal utility and MRS. Optimal choice, Consumer demand, Estimating utility functions. Demand function estimation, Normal and Inferior goods. Income offer curve and estimation of Engel curve, Slutsky Equation, Price effect, Income effect and Substitution effect. Consumer surplus, Producers surplus, Equilibrium.

Unit IV 10 lecture hours

Theory of Cost, Cost Curves, theory of production

Unit V 14 lecture hours

Perfect competition, Monopoly, Monopoly Behaviour, Oligopoly, Quantity Leadership, Price Leadership, Cournot Equilibrium, Simultaneous Price Setting, Factor Market

Unit V 6 lecture hours

Welfare theorem, Production and Welfare Theorem, Social Welfare Functions.

Text Books

Varian, Hal R (2005) : Intermediate Microeconomics: A Modern Approach. 7th ed. New York, NY: W.W. Norton, ISBN: 9780393927023.

REFERENCE BOOKS

Jehle, Geoffrey A., and Philip J. Reny.(1997) : Advanced Microeconomic Theory. Reading, MA: Addison-Wesley, ISBN: 9780321014368.

Mas-Colell, Andreu, Michael D. Whinston, and Jerry R. (1995): Green. Microeconomic Theory. New York, NY: Oxford University Press, ISBN: 9780195073409.

Varian, Hal R (1992.): Microeconomic Analysis. 3rd ed. New York, NY: W.W. Norton, ISBN: 9780393957358.

Osborne, Martin J (2003.): An Introduction to Game Theory. New York, NY: Oxford University Press, ISBN: 9780195128956.

Krishna, Vijay (2002): Auction Theory. Burlington, MA: Academic Press, ISBN: 9780124262973.

Klemperer, Paul (2004.) : Auctions: Theory and Practice. Princeton, NJ: Princeton University Press, ISBN: 9780691119250.

Modes of Evaluation: Quiz/Assignment/ presentation/ extempore/ Written Examination
Examination Scheme:

Components	Class Test	Assignment	Presentation	ESE
Weightage (%)	20	20	10	50

Relationship between the Course Outcomes (COs) and Program Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	To give conceptual clarity of the theories of Micro Economics.	PO1, PO2, PO3, PO9, PO10, PO11, PO14
CO2	To apply the principle of Micro Economics to firms and consumers.	PO1, PO2, PO3, PO9, PO10, PO11, PO14
CO3	To know the application of Micro Economics and cost structure.	PO1, PO2, PO3, PO8, PO10, PO11, PO14
CO4	To comprehend various market structure and its real world application.	PO1, PO2, PO3, PO5, PO6, PO8, PO9, PO10, PO12, PO13, PO14
CO5	To extend the microeconomic principles to factor markets	PO2, PO3, PO8, PO10, PO14

Program Outcome / Course Outcome mapping


Course Outcomes	CO 1	CO 2	CO 3	CO 4	CO5
PO 1	3	3	3	3	
PO 2	2	3	3	2	3
PO 3	2	3	3	3	3
PO 4					
PO 5				3	
PO 6				2	
PO 7					

PO 8			3	3	3
PSO 9	3	3		3	
PSO 10	2	3	3	3	3
PSO 11	3	2	3		
PSO 12				3	
PSO 13					3
PSO 14	2	2	3	3	3

Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
ECON 7005	Micro Economics	2	3	3		1			2	2	3	2	1	1	3
		Students will be able to develop and evaluate alternate managerial choices and identify optimal solutions.	Students will demonstrate effective application capabilities of their theoretical understanding of economic theories- Microeconomics, Macroeconomics and trade	Students will exhibit effective decision-making skills, employing analytical and critical thinking ability.	Students will demonstrate effective oral and written communication skills in presenting frameworks, models and regulations of the energy sector.	Students will be able to work effectively in teams and demonstrate team-working capabilities.	Students will exhibit leadership and networking skills.	Students will demonstrate sensitivity towards ethical and moral issues and have ability to address them in energy economics.	Students will demonstrate employability traits in line with the needs of changing dynamics of renewable and non-renewable energy sectors.	Students will demonstrate strong conceptual knowledge of economic theory in the context of renewable and non-renewable energy sectors.	Students will demonstrate effective understanding of economics as it is applicable to energy markets, energy pricing, energy trading and risk management.	Students will demonstrate analytical skills in designing solutions for energy efficiency.	Students will exhibit the ability to evaluate working of energy policies.	Students will have domestic and global perspective towards legal frameworks and environmental regulations with respect to energy sectors.	Students will exhibit deployable skills pertinent to the renewable and non-renewable energy sectors.

1=weakly mapped
2= moderately mapped
3=strongly mapped

Model Question Paper

Name: Enrolment No:	
End Semester Examination-March 2017 Program/course: MA – Economics Semester : IV Subject: Renewable Energy and Efficiency Economics Max. Marks : 100 Code : MEDE 811 Duration : 3 Hrs	

Section A (attempt all)				
1.	(i)	Which of the following is the management tool for optimization? (a) Benchmarking (b) Total Quality Management (c) Learning Organization (d) All of the above	[2]	CO1
2.	(ii)	Due to Income effect (a) Real income increases (b) Real income decreases (c) Real income remain constant (d) None of the above	[2]	CO1
3.	(iii)	Important feature of oligopoly market is (a) There are few firms (b) Homogeneous product (c) Differentiated products (d) All of the above	[2]	CO2
4.	(iv)	- $\Delta K / \Delta L$ is called the a) Absolute value of the slope of the isoquant b) Slope of the isoquant c) Marginal Rate of technical substitution d) All of the above	[2]	CO2
5.		To maximize output with production function $Q = f(L,K)$ subject to constraint $C = wL + rK$ will be achieved at (a) $MP_L / MP_k = \frac{w}{r}$ (b) $MP_L / w = MP_k / r$ (c) $MP_L / MP_k = \frac{w}{r} = 0$	[2]	CO3

	(d) $C - wL - rK = 0$		
6.	Define advertising elasticity of demand	[2]	CO1
7.	What do you mean by snob effect?	[2]	CO1
8.	What do you mean by change in demand?	[2]	CO1
9.	Given the following total cost schedule. Derive the average and marginal cost schedule. 0 1 2 3 4 TC = 3 16 18 24 26 (x) Give an example of cross elasticity of demand	[2]	CO5
10.	Give an example of cross elasticity of demand	[2]	CO1
SECTION B (Answer all the questions)			
1.	a) $Q_s = 1800 + 240P$, $Q_d = 3550 - 266P$ Calculate the equilibrium price, quantity, elasticity of demand and elasticity of supply.	[5]	CO1
2.	What are economies of scope? How do they differ from economies of scale?	[5]	CO1, CO4
3.	What do you mean by homogeneous of degree one? Explain with the help of Cobb-Douglas production function.	[5]	CO1, CO5
4.	Show and explain the concept of Deadweight Loss with suitable diagram.	[5]	CO4, CO5
SECTION C (Answer all)			
7.	Distinguish between Accounting cost and Economic cost? Show the minimization of cost function with suitable diagram and equations.	[15]	CO1, CO2
8.	What do you mean by maximization of production? Explain with suitable example and diagram how a producer attains equilibrium.	[15]	CO1, CO2
Section D (Answer all)			
1.	Derive the consumer's equilibrium using following Indifference curve equation and budget constraint. Show how price effect is broken into Income and Substitution Effect with the help of Slutsky's Equation. $U = f(x,y)$ Subject to constraint $B = XP_x + YP_y$	[15]	CO4, CO5
2.	Show the profit maximization condition under Monopoly market. Distinguish between monopolistic competition and monopoly market.	[15]	CO2, CO3

