



BIRLA INSTITUTE OF TECHNOLOGY AND
SCIENCE, Pilani

Hyderabad Campus
FIRST SEMESTER, 2023-2024

11/08/2023

In addition to part-I (General Handout for all courses appended to the timetable) this portion gives further specific details regarding the course

Course No. : **ECON F242**
Course Title : **MICROECONOMICS**
Instructor : **Vivekananda Mukherjee**

1. Scope and objective of the course:

Course Rationale:

This course discusses the modeling of behavior of the consumers and the firms at the market. It discusses functioning of different kinds of markets like perfect competition, monopoly, oligopoly, monopsony etc.

Specific Objectives:

- To acquaint the students about modeling of economic behavior
- To acquaint students with the functioning of markets.

2. Text Book (TB):

TB1. Hal R. Varian: *Intermediate Microeconomics: A Modern Approach*, Eighth Edition, Affiliated East-West Press, WW Norton (2010)

TB2. Hal R. Varian: *Microeconomic Analysis*, Viva-Norton Student Edition (Third Edition).

3. Reference Books:

R1. Geoffrey A. Jehle and Philip J. Reny: *Advanced Microeconomic Theory*, Pearson.

R2. Hugh Gravelle and Ray Rees: *Microeconomics*, Longman.

R3. Oz Shy: *Industrial Organization: Theory and Applications*, MIT Press.

R4. Robert Pindyck and Daniel Rubinfeld, *Microeconomics*, Pearson

R5. Douglas Bernheim and Michael Whinston, *Microeconomics*, McGraw Hill.

R6. Andreu Mascolell, Michael Whinston and Jerry Green, *Microeconomic Theory*, Oxford University Press.



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4. Course Plan:

Lecture No.	Learning Objectives	Topics to be covered	References
1	Introduction; Overview of the course.	Scope and Coverage	Ch. 1 (TB1) Notes
<u>Theory of Consumer Behaviour</u>			
2	Budget constraint	Modeling of feasibility set of choice; how they are affected by product prices, income and government policies	Ch. 2 (TB1) Notes
3-4	Construction of utility functions from preferences	Preference relation, Axioms of rational choice, Utility functions, Special preferences	Ch. 3-4 (TB1) Ch. 7 (TB2) Notes
5-7	Determination of optimal behaviour of consumers; Utility maximization	Indirect utility function, Expenditure functions, Relationships between the two.	Ch. 5 (TB1) Ch. 7 (TB2) Notes
8-12	Properties of demand function, Study of consumer's behaviour changes in responses to changes in prices and income, Understanding demand inter-dependence among goods	Comparative statics, Slutsky equation, Properties of demand functions, Duality, Endowments in the budget constraint, Inverse demand functions, Elasticity, Substitution and income Effects, Substitutes and complements	Ch. 6-8 (TB1) Ch. 8-9 (TB2) Notes
13-15	Analysing consumers' welfare	Consumer's surplus, Compensating and equivalent variations, Applications	Ch. 14 (TB1) Ch. 10 (TB2) Notes
15-17	Buying and Selling	Labor Supply and Savings	Ch. 9-10 (TB1) Notes
17-20	Decision making under uncertainty	Expected utility function-existence and uniqueness, Risk aversion, Risk and insurance, First order stochastic dominance, Second order stochastic	Ch. 12 (TB1) Ch. 11 (TB2) Notes
<u>Theory of Production</u>			



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21-22	To study the nature and basic properties of production function, To examine the different technologies for production used widely in economic theory.	Specification of technology, Production functions, Technical rate of substitution, Returns to scale, Homogeneous and homothetic production function	Ch. 18 (TB1) Ch. 1 (TB2), Notes
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23-25	To study the profit maximizing behavior of the firms; derivation of supply function and factor demand functions	Profit maximization, Profit function and its properties, Supply function, The envelope theorem, Comparative statics.	Ch.19 (TB1) Ch. 2-3 (TB2) Notes
26-28	To study cost minimization procedure of firms and derive the cost functions, To understand the properties of cost functions.	Cost minimization, Conditional factor demand functions, Algebraic approach to cost minimization, Average and marginal cost function, Factor demand functions prices and cost functions, Duality between cost function and production function, Firm's behavior under uncertainty.	Ch. 20-21 (TB1) Ch. 4-6 (TB2), Notes
<u>Theory of Firm and Market Structures</u>			
29-30	To study the characteristics of a perfectly competitive market; derivation of market equilibrium in the short run and long run; welfare and efficiency analysis of competitive equilibrium.	The partial equilibrium, Welfare analysis, Pareto efficiency, Taxes and subsidies.	Ch.22-23 (TB1) Ch. 13 (TB2), Notes
31-33	To study the competitive price system, General equilibrium and factor prices, introduction to welfare economics, output and efficiency determination commodity-market equilibrium.	The General equilibrium, The First and the Second Theorem of Welfare Economics	Ch. 31-33 (TB1) Ch. 17-18 (TB2) Notes
34-36	To study the monopoly market form, price Discrimination, welfare effects of monopoly.	Monopoly profit maximization, Price discrimination- first degree, second degree and, third degree, welfare effects.	Ch. 24-25 (TB1) Ch. 14 (TB2) Notes
37-40	To study some oligopolistic market forms, pricing and output determination in oligopolistic competition.	Bertrand model, Cournot model, Stackelberg Model.	Ch. 27 (TB1) Ch. 16 (TB2) Notes
41-42	To study factor markets	Monopsony	Ch. 26 (TB1) Notes

5. Learning Outcomes:

Topic 1: Introduction



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The students will be introduced to the field of microeconomics. They will get to know its applications, scope and relevance.

Topic 2: Theory of Consumer Behaviour

How does (or rather should) a consumer decide about his consumption basket; what are the factors that impact consumers' decisions; how can we represent the consumption preferences of different consumers;



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how are the demand for two or more goods linked to each-other; how does this all analysis changes when a consumer is faced with risk and uncertainty; the students will be able to analyze all these issues after going through this module.

Topic 3: Theory of Production

How can we represent a production process through the production function, how does different inputs impact the output; given the production function and input prices, how should we choose the output level, what are the conditions that govern the profit maximization and the cost minimization; the students will be able to analyze all these issues after going through this module.

Topic 4: Theory of Firm and Market Structures

How does a firm operate under different market conditions; what role does competition plays in determine market outcome; why is monopoly considered to be 'bad'; what are the 'good' properties of a competitive market, what conditions do we need to achieve it; what are some of the oligopolistic market forms, what are their properties, how do firms strategically interact with each-other; the students will be able to analyze all these issues after going through this module.

6. Evaluation Scheme:

EC No.	Evaluation Component	Duration	Weight s	Date & Time	Nature of Component
1	Mid-sem	90 minutes	30	11/10 - 4.00 - 5.30PM	CB
2	Quizzes (surprise/announced quizzes)	-	30	To be announced	OB
3	Comprehensive Examination	180 minutes	40	13/12 AN	CB

7. **Chamber Consultation hours:** To be announced in the class.

8. **Notices:** Notices would be displayed on **CMS**.

9. Make-up policy

No Make-up will be allowed for quizzes. For other examinations, make-up will be given only on Doctor's/Warden's recommendation and with prior (at least 01 day before the test/exam) permission of the Instructor-in-Charge/Instructor. Request for make-up made by phone/sms or during/after the test/exam would NOT be entertained at all. You need to communicate your requests through the official email only. If a student is representing the Institute in a seminar/conference/sports event etc., they need to produce a valid proof of the same to apply for make-up.

10. **Academic Honesty and Integrity Policy:** Academic honesty and integrity are to be maintained by all the students throughout the semester and no type of academic dishonesty is acceptable.

Instructor-in-Charge



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