



BIRLA INSTITUTE OF TECHNOLOGY AND  
SCIENCE, Pilani

Hyderabad Campus  
**SECOND SEMESTER, 2018-  
2019**

07/01/2019

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-in-Charge : **Dushyant Kumar**

**1. Scope and objective of the course:**

**Course**

**Rationale:**

This course extends the tools of modern microeconomic theory and discusses their application to utility and demand; production functions and cost; pricing of output under perfect competition, monopoly, oligopoly, etc.; pricing of productive services; inter-temporal decision-making; the economics of uncertainty; efficiency, equity, general equilibrium; externalities and public goods.

**Specific**

**Objectives:**

- To provide an analytical and quantitative background in the fundamentals of microeconomic analysis.
- To explain students with the economic concepts and theories surrounding the micro topics identified above.
- To provide students with some of the recent development of microeconomics and research methods used by economists.
- To acquaint students with individuals and firms economic behavior in a context of scarcity and how it relates to the operation of markets reflecting group behavior.
- To give students opportunities to use microeconomic concepts and tools in analysis and problem solving.

The course uses the fundamental concepts of microeconomics and basic mathematic techniques to develop a theory of consumer behaviour and markets.

**2. Text Book (TB):**

Varian, Hal R.: *Microeconomic Analysis*, Viva-Norton Student Edition, 2009.

**3. Reference Book:**

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

**R2.** Mas-Colell, Andrew, Michael D. Whinston & Jerry R Green: *Microeconomic Theory*, Oxford University Press, India, 2012.

**R3.** Snyder, Christopher and Walter Nicholson: *Fundamentals of Microeconomics*, Cengage Learning,

India Edition

(2008 by South-Western).

**R4.** Perloff, Jeffrey M: *Microeconomics*, Pearson Education, Addison Wesley Longman (Singapore) Pte. Ltd., Delhi, Low Priced Edition, 2001 or Fourth Edition, 2007

**R5.** Cowell, Frank: *Microeconomics: Principles and Analysis*, Oxford University press, New Delhi, Indian Edition, 2007.

**R6.** Pindyck, Robert S & Daniel L Rubinfeld: *Microeconomics*, Prentice-Hall Inc., Upper Saddle River, New Jersey, 2001, Fifth Edition.



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### 4. Course Plan:

Lecture	Learning Objectives	Topics to be covered	Chapter in the Text notes
1	Introduction to Microeconomics; Overview of the course, Economic Models	Introduction: Scope and Coverage	notes
<b>Theory of Consumer Behaviour:</b>			
2-3	Modeling of individual behaviour; Construction of Utility functions from Preferences	Preference relation, Axioms of Rational Choice, Utility Functions, Special consumer preferences	Ch. 7
4-7	Determination of optimal behaviour of consumers; Utility Maximization	Indirect Utility Function, Expenditure Functions, Relationships between the two.	Ch. 7
8-10	Properties of consumer demands, Study of consumer's behaviour changes in responses to changes in prices and income	Relative prices and real income, Individual Demand Curve and Compensated Demand Curve, Elasticity, Substitution and Income Effects; Slutsky Equation	Ch. 8, 9
11	How to predict the consumer's behaviour without specification of an explicit utility function	Revealed Preference Theory	Ch. 8, notes
12-13	Estimating consumer's surplus as an outcome of market mechanism	Consumer's Surplus	Ch. 10
14-16	Understanding Demand Relationships among Goods	Substitutes and Complements, Composite Commodities, Attributes of Goods and Implicit Prices	Ch. 8, 9
17-20	Measurement of degree of risk and likely profit from risky undertaking; Decision making under uncertainty	Choice under Risk, VNM Theorem, Risk and Insurance; Decision making under Uncertainty	Ch. 11
<b>Theory of Production, Cost and Supply:</b>			
21-22	To study the nature of production function, input and output measurement; to examine the different technologies for production	Specification of technology Production Functions, The technical rate of substitution, Returns to Scale, Homogenous and homothetic production function	Ch. 1
23-24	To study the profit maximizing behavior of the firms; derivation of supply function and factor demand functions and	Profit maximization, Profit function and its properties, Supply function, The envelope Function, Comparative statics.	Ch. 2, 3



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25-26	To study cost minimization procedure of firms and derive the cost functions, to understand the nature of short and long run cost functions.	Analysis of cost function, Conditional factor demand functions, Algebraic approach to cost minimization, Average and marginal cost function, Factor prices and cost functions	Ch. 4 & 5
<b>Theory of Firm:</b>			
27-29	To study the characteristics of a perfectly competitive market; estimation of market demand and supply functions in the short run and long run; market equilibrium analysis and profit maximization	The Partial equilibrium, Competitive Firms and Markets	Ch. 13,
30-32	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. 17
33-35	Study of traditional theory of monopoly; price discrimination; pricing and output determination under monopoly; welfare effects of monopoly; cost advantages;	Monopoly & Pricing, Profit Maximization, Pricing and Output Determination, Price Discrimination	Ch. 14
36-38	Theories of imperfect competition; concept of Duopoly and Oligopoly; pricing and output determination in Oligopolistic competition; co-operative and non-cooperative Oligopoly models and Stackelberg model; The Cournot Solution;	Monopolistic Competition; Pricing and Output Determination, Oligopoly models, Bertrand and Cournot Model, Stackelberg Model;	Ch. 16, notes
<b>Market Failures:</b>			
39-40	To examine the inefficiency of competition with externalities; market structure and externalities; allocating property rights to reduce externalities	Asymmetric Information Externalities, Commons and Public Goods	Ch. 23, 24 & 25

### 5. Learning Outcomes:

#### Topic 1: Introduction

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; how are the demand for two or more goods linked to each-other; how does this all analysis change 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, Cost and Supply

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

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 properties of a competitive market,



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what conditions do we need to achieve it; what are some of the oligopolistic market forms, what are their properties; the students will be able to analyze all these issues after going through this module.

### Topic 5: Market Failures

What happens when production and consumption of one goods impact production and consumption of another good (like consider a factory emitting heavy smoke which negatively impact nearby residents as well as other firms), how does market work in these cases; what happens when firms don't know employee productivity (type) and/or can't monitor employee's work (effort), how does it impact firm-employee relationship, the students will be able to analyze all these issues after going through this module.

### 6. Evaluation Scheme:

EC No.	Evaluation Component	Duration	Weightage	Date & Time	Nature of Component
1	Mid-sem	90 mts	30	15/3 1.30 -3.00 PM	<b>OB</b>
2	Quizzes- (02)	-	15		<b>CB</b>
3	Assianment- (02)	-	15		<b>OB</b>
4	Comprehensive	3 hrs	40	11/05 FN	<b>CB</b>

### 7. Chamber Consultation hours: to be announced in class

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

### 9. Make-up policy

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. 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**  
**ECON F242**