

**ASSAM DON BOSCO UNIVERSITY**  
**SCHOOL OF COMMERCE AND MANAGEMENT**  
**DEPARTMENT OF ECONOMICS**  
**Modified Course Structure/Syllabus in SPRING 2019**

**BACHELOR OF ARTS - HONOURS IN ECONOMICS**

Type of Course/Category	Course Code	Course Name	Credits
<b>Semester II</b>			
Core Paper 3/DC	ENMS0010	Quantitative Methods in Economics-II	6
Core Paper 4/DC	ENQS0011	Micro Economics-II	6
Ability Enhancement compulsory Course - 1/IC	CHES0002	Environmental Studies	2
General Elective -II/IE/SE	ENIM0008	Indian Monetary System	3
	ENIN0009	Indian Economics-II	
	LSEC0019	English-II	
<b>Total Credits</b>			<b>20</b>

**ENMS0010: MICRO – ECONOMICS II**

**(6 Credits – 75 Hours) (L-T-P: 5-1-0)**

**Objective:** The objective of the course will be on giving conceptual clarity to the student coupled with the use of mathematical tools and reasoning. It covers general equilibrium and welfare, imperfect markets conditions for business firms.

**Module I: Forms of Market (22 Hours)**

Perfect competition - Equilibrium of the market, price determination in the short-run and long-run, Applications - effects of taxes and subsidies.

Monopoly - Equilibrium; price determination in the short-run and long run; monopoly power; deadweight loss; price discrimination; bundling; Monopolistic Competition - Product differentiation; equilibrium of the firm in the industry - with entry of new firms and with price competition, Comparison with pure competition.

**Module II: Oligopoly and Game Theory (20 Hours)**

- a) Cournot model and reaction curves; Stackelberg's model, Bertrand model; quantity leadership; price leadership; Non collusive stable equilibrium; collusion; cartels
- b) Concepts of Game Theory - Dominant strategies and Nash Equilibrium; Mixed strategies; Prisoner's Dilemma, Specification of oligopoly models in game theoretic terms.

**Module III: Factor Markets (18 Hours)**

Factor pricing in the case of single and many variable factors; demand for labor in a product market with perfect competition and monopoly, Monopsony, bilateral monopoly and role of labour unions;

Economic rent and quasi rent; theory of interest; theory of profits.

**Module IV: General Equilibrium (15 Hours)**

Edgeworth box - 2 good, 2 factor, 2 consumer analysis and Pareto optimality conditions; market trade; Walras Law; Relative prices; Equilibrium and efficiency; Grand Utility possibility frontier; Implication of first and second welfare theorem

**Module V: Welfare (8 Hours)**

Social welfare function - welfare maximization; Fair allocation; Envy and equity; Arrow's Impossibility Theorem.

**COURSE/LEARNING OUTCOMES**

After learning this course, the students will be able to:

CO1: Differentiate between various market forms and explain price determination under these market forms.

CO2: Assess the various theories of distribution in terms of determination of wages, rent, interest and profits.

CO3: Understand the application of game theory.

CO4: Explain the significance of welfare economics

CO5: Differentiate between general and partial equilibrium analysis.

**Suggested Readings**

1. Dr. Robert E. Hall and Dr. Marc Lieberman, Microeconomics- Principles and applications
2. Joseph E. Stiglitz and Carl E. Walsh, Principles of Microeconomics
3. Arthur O' Sullivan and Steven M. Sheffrin, Microeconomics - Principles, Applications and Tools
4. Varian, Hal R., Intermediate Microeconomics (Sixth edition)
5. Mankiw, Gregory N., Principles of Economics (Sixth edition)
6. Pindyck, Robert S. & Rubinfeld, Daniel L.: Microeconomics Sixth Edition [PHI]
7. Browning, Edgar K. & Zupan, Microeconomic Theory and Applications

**ENQS0011: QUANTITATIVE METHODS IN ECONOMICS II**

**(6 Credits – 75 Hours) (L-T-P: 5-1-0)**

**Objective:** *The objective of this course is to accustom the students with the concepts of mathematical techniques and their applications which are used to elucidate the problems of economic theory and help in better choices.*

**Module I: Integral Calculus (14 hours)**

Integration of a function - basic rules of integration Methods of Integration, derivation of total function, definite integrals – application in case of consumer's surplus and producer's surplus.

**Module II: Differential Equations (17 Hours)**

- a) Kinds of differential equations, order, degree, first order and first degree differential equations, linear homogeneous differential equations, exact differential equations, differential equations of second degree.
- b) Applications of differential equations – market price functions, dynamic multiplier, Harrod-Domar Model, Neo-Classical Model.

**Module III: Difference Equations (17 Hours)**

- a) Difference Equations; first-order difference equations – iterative method, general method; geometrical representation of the solution of first-order difference equations.
- b) Applications of difference equations – The Cobweb model, dynamic multiplier, multiplier-accelerator model.

**Module IV: Input-Output Analysis (15 Hours)**

- a) Input-output Analysis – assumptions, the technological coefficient matrix, closed and open input-output model, The Hawkins-Simon conditions, The Leontief Matrix.
- b) Consumption Function Analysis – The Leontief Production Function, Dynamic input-output model.

**Module V: Elements of Linear Programming (12 Hours)**

Inequality Constraints and formulation of Linear Programming: General Formulation of Production Problem and Diet Problem, Graphical Solution of Production and Diet Problem, Simplex Method of Solution of Production and Diet Problem

**COURSE/LEARNING OUTCOMES**

After learning this course, the students will be able to:

- CO1: Apply integral calculus in case of consumer's surplus and producer's surplus.
- CO2: Understand different kinds of differential equations and apply it in the growth theories.
- CO3: Explain the concept of difference equations and relate it with the concept of accelerator and multiplier.
- CO4: Use the Leontief Matrix in production function.

**Suggested Readings**

1. Chiang, A.C & Wainwright, K., Fundamental Methods of Mathematical Economics, McGraw Hill Education.
2. J.M. Henderson and R.E. Quandt, Micro – Economic Theory – A Mathematical Treatment, McGraw Hill.
3. R.G.D. Allen, Mathematical Economics for Economists, Biblio Bazaar.
4. Sydsaeter, Knut & Hammond, Peter J., Mathematics for Economic Analysis, Pearson Education.
5. J.K. Sharma, Operations Research: Theory and Applications, Trinity Press.