

Morigaon College (Autonomous)

Morigaon: Assam



SYLLABUS

Economics

FYUGP

(3rd Semester)

Course Title : Advanced Microeconomics

Course Code: ECO-CORE-(MJ/MN)-MC-0300104

Nature of Course : Major & Minor

Total Credits : 4 credits

Distribution of Marks : 60 (End-Sem.) + 40 (In-Sem.)

Course Objectives: The objectives of this Course are:

1. To nurture students on the advanced microeconomic theory
2. To enlighten the learners about the situation where decisions on consumption and production are made.

Learning Outcomes: On completion of this Course, the student will be able to understand the advanced microeconomic theories, functioning of different forms of market, consumers' choice over time, game theory and general equilibrium of the economy. In addition, the student will learn about distributive justice in a society.

Unit – I

Theory of Production and Cost:

Elasticity of Production; Forms of Production Function: Linear, Fixed Coefficients, Cobb-Douglas, CES; Derivation of Cost Function from Production Function; Production Efficiency Locus, Production Possibility Frontier; Optimum Factor Combination; Long-Run Total Costs and Expansion Path, The Learning Curve

Unit – II

Consumer Theory and Information Economics: Derivation of demand curve from indifference curve, Income effect and substitution effect, Slutsky equation, Revealed Preference Theory, Inter-temporal choice, Choice under risk, Expected Utility Hypothesis, Adverse Selection and Moral Hazard

Unit – III

Markets with Imperfect Competition:

Monopoly: Equilibrium under monopoly, Price Discrimination, Regulation of Monopoly
Monopolistic Competition: Product differentiation, Perceived and Proportional Demand Curves, group equilibrium, equilibrium with selling costs, excess capacity
Oligopoly: collusive oligopoly (cartels and price leadership), non-collusive oligopoly (the Cournot model)

Unit – IV

Game Theory:

Origin of Game Theory, competitive strategy, pay-off, dominant and dominated strategy, prisoner's dilemma, Nash equilibrium, Application of Game Theory: Price Wars

Unit - V

General Equilibrium Analysis:

Partial Versus General Equilibrium Approaches, Equilibrium and efficiency in exchange and production; overall efficiency (input and output Markets); concepts of equity; Existence, uniqueness and stability of equilibrium; Walras's law; Welfare economics: Criteria of Social Welfare (concepts only), social welfare function and the theory of second best

MODES OF IN-SEMESTER ASSESSMENT: (40 Marks)

- One Internal Examination - 20 Marks
- Others (Any Two) - 10+ 10 Marks
 - Home assignment
 - Viva voce
 - Seminar
 - Group discussion
 - Quiz

Suggested Readings:

Ahuja, H. L., Advanced Economic Theory, S. Chand Publishing, New Delhi

Koutsoyiannis, A., Modern Microeconomics. Macmillan, London

Maddala, G.S. & Ellen Miller, Microeconomics: Theory and Applications, McGraw Hill Education, New Delhi

Jhingan, M. L., Microeconomic Theory, Vrinda Publications, Delhi

Mukherjee, S. & D. Miller, Analytical Microeconomics (Exchange Production Pricing and Welfare), Global Net Publication, New Delhi

Brdmi.
Head
Department of Economics
Morigaon College (Autonomous)

Course Title : Mathematical Economics

Course Code: ECO-CORE-(MJ)-MC-0300204

Nature of Course : Major

Total Credits : 4 credits

Distribution of Marks : 60 (End-Sem.) + 40 (In-Sem.)

Course Objectives: The objectives of this Course are:

1. To introduce students about the basic principles of mathematical economics
2. To enlighten the learners about the mathematical applications on computer

Learning Outcomes: On completion of this Course, the student will be able to understand the basics formulas of mathematical economics, calculation of differentiation, maxima, minima and integration. In addition, the student will develop computer skill in mathematical operations.

Unit – I

Sets, Relations and Functions:

Sets: Concept, Set Operations

Relations and Functions: Ordered Pairs, Types of Functions, Limit of a Function

Static-Equilibrium Analysis: Market Model, National Income Model

Unit – II

Matrix Algebra:

Matrices and Vectors, Matrix Operations, Types of Matrices, Transpose, Matrix Inversion, Determinants, Simultaneous Equation System, Cramer's Rule

Economic Applications of Matrix Algebra: Market Model, National Income Model, Equilibrium of an Economy, Input-Output Analysis

Unit – III

Differentiation:

Simple: Rules of Differentiation, Summation, Multiplication, Division, Economic Applications

Partial: Rules of Partial Differentiation, Second Order Derivative, Economic Applications

Total Differentials (Concept)

Unit – IV

Maxima and Minima:

Relative and Absolute Extrema, Extreme Values- maximization and minimization, Economic Applications: Cost Minimization, Profit Maximization, Revenue Maximization

Unconstraint Maxima and Minima with more than one Variable, Economic Applications

Unit - V

Integration:

Concept, Basic Rules, Definite Integral, Economic Applications: Derivation of Total Function from Marginal Function, Estimation of Consumer's Surplus & Producer's Surplus

MODES OF IN-SEMESTER ASSESSMENT: (40 Marks)

- One Internal Examination - 20 Marks
- Home assignment- 10 Marks
- Application on Computer- 10 Marks

Suggested Readings:

Baruah, S., *Basic Mathematics and its Application in Economics*, Macmillan, Calcutta

Chiang, A. C. and K. Wainwright, *Fundamental Methods of Mathematical Economics*, McGraw Hill International Editions

Patri, D. and D. N. Patri, *Quantitative Methods for Economic Analysis*, Kalyani Publisher

Dowling, E. T., *Introduction to Mathematical Economics*

Allen, R. G., *Mathematical Analysis for Economics*,


Head
Department of Economics
Morigaon College (Autonomous)

3rd Semester
Skill Enhancement Course
Basics of Research Methodology
Course Code: SEC-ECO-MC-0300103

UNIT I: Introduction

Meaning of research, objective of research, significance of research, research process. Research problem and research design (concepts). Concept of hypothesis testing.

UNIT II: Sample Survey

Meaning of sample survey, steps involved in sample survey, selection of random sample. Sampling and its different types.

UNIT III: Analysis and Report Writing

How to analyse/interpret the data. Use of AI in data analysis. Different steps in report writing. Mechanics of writing a research report.

UNIT IV: Project/Assignment

Readings:

1. C. R Kothari, *Research Methodology: Methods and Techniques*, new Age International Publishers
2. R.P. Mishra, *Research Methodology: A Handbook*, Concept Publishing Company Pvt. Ltd.

Bal
Head
Department of Economics
Morigaon College (Autonomous)