University of Kalyani

Syllabus for B.A./B.Sc. (Major) in Economics

Semester-wise Distribution of Courses and Credits in B.A./B.Sc. (Major) in Economics

<u>**Semester I**</u>

Paper 1: MAC 1 (Major Course 1): Introductory Microeconomics

Paper2: MIC 11 (Paper 1, Minor Course 1): Principles of Microeconomics

Paper 3: MDC 1 (Multidisciplinary Course 1): Basic Economics

Paper 4: SEC 1 (Skill Development Course 1): Basic Mathematics

Paper 5: VAC 1 (Value Added Course 1)

<u>**Semester II**</u>

Paper 6: MAC 2 (Major Course 2): Introductory Macroeconomics

Paper 7: MIC 12 (Paper 1, Minor Course 2): Principles of Microeconomics

Paper 8: MDC 2 (Multidisciplinary Course 2):

Paper 9: AECC (Ability Enhancement Course):

Paper 10: SEC 2 (Skill Development Course 2): Basic Statistics

<u>**Semester III**</u>

Paper 11: MAC 3 (Major Course 3): Statistics for Economics

Paper 12: MIC 21 (Paper 2, Minor Course 1): Principles of Macroeconomics

Paper 13: MDC 3 (Multidisciplinary Course 3):

Paper 14: SEC 3 (Skill Development Course 3): Computer Applications in Economics

Paper 15: VAC (Value Added Course)

Semester IV

Paper 16: MAC 4 (Major Course 4): Development Economics

Paper 17: MAC 5 (Major Course 5): Indian Economics

Paper 18: MIC 22 (Paper 2, Minor Course 2): Principles of Macroeconomics

Paper 19: AECC 2 (Ability Enhancement Course 2)

Semester V

Paper 20: MAC 6 (Major Course 6): Advanced Mathematics

Paper 21: MAC 7 (Major Course 7): Intermediate Microeconomics

Paper 22: MIC 3 (Paper 3, Minor Course 1 and 2): Development Economics

 Paper 23: Other Minor Course

Semester VI

Paper 24: MAC 8 (Major Course 8): Intermediate Macroeconomics

Paper 25: MAC 9 (Major Course 9): Advanced Statistics

Paper 26: MAC 10 (Major Course 10): International Economics

Semester VII

Paper 27: MAC 11 (Major Course 11): Public Economics

Paper 28: MAC 12 (Major Course 12): Basic Econometrics

Paper 29: MAC 13 (Major Course 13): Public Policies in India

Paper 30: MIC 4 (Paper 4, Minor Course 1 and 2): Indian Economics

Paper 31: Other Minor Course

Semester VIII

Paper 32: MAC 14 (Major Course 14): Growth Economics

Paper 33: MAC 15 (Major Course 15): General Equilibrium

Paper 34: MAC 16 (Major Course 16): Economic History of India

For UG Honours without Research:

Paper 35: MAC 17 (Major Course 17): Money, Banking and Finance

Paper 36: MAC 18 (Major Course 16): Environmental Economics

For UG Honours with Research:

Research Project/ Dissertation

Content of the papers (Economics Major, Minor, Multidisciplinary and Skill Enhancement courses)

<u>**Semester 1**</u>

Paper 1: MAC 1 (Major Course 1): Introductory Microeconomics – 6 credits

Unit 1: Exploring the subject matter of Economics

Why study economics? Scope and method of economics; Wants, Scarcity, Competing Ends and Choice - Defining Economics, the economic themes: scarcity and efficiency; fundamental questions of Economics-what to produce, how to produce and how to distribute output; marginal benefits and marginal costs; opportunity cost (private and social); the basic competitive model. Microeconomics and Macroeconomics, Normative Economics and Positive Economics. Definition of market, Competitive vs Non-competitive markets (concepts only)

12 Classes

Unit 2: Supply and Demand: How Markets Work

Elementary theory of demand: determinants of household demand, market demand, and shifts and change in demand curve

Elementary theory of supply: factors influencing supply, individual and market supply curve, and shifts in the supply curve

The elementary theory of market price: determination of equilibrium price in a competitive market; the effect of shifts in demand and supply; the excess demand function: Existence, uniqueness, and stability of equilibrium; consumer surplus and producer surplus;

Concepts of Elasticity, Method of Calculation- Arc Elasticity, Point Elasticity-definition , Demand and supply -types of elasticity and factors affecting elasticity, Demand Elasticity , Long run and Short run elasticities of Demand and Supply, Income and Cross Price Elasticity

20 Classes

Unit 3: Consumer Theory

Utility in Cardinal Approach- Utility and choice, Total Utility and Marginal Utility, Utility and choice-maximization, theory of demand; Ordinal utility: Assumptions on preference ordering, different utility functions and their properties- quasi-linear, perfect substitute and perfect complements, indifference curve, marginal rate of substitution and convexity of IC, budget constraint, consumer's equilibrium, price consumption curve, income consumption curve; compensating and equivalent variation, Slutsky equation,   20 Classes

Unit 4: Production and Costs

Concept of production function; returns to factor and returns to scale, isoquants and diminishing rate of factor substitution – elasticity of substitution –fixed proportion, perfect substitute, Cobb-Douglas Production Function, CES Production Function, General concept of homogeneous and homothetic production function and their properties; production with one and more variable inputs; isocost line and firm's equilibrium and expansion paths; short run and long run costs; cost curves in the short run and long run: relation between short run and long run costs.

20 Classes

References

N. Gregory Mankiw, Economics: Principles and Applications, Indian edition by South Western, a part of Cengage Learning, Cengage Learning India Private Limited, 4th Edition, 2007

Pyndick and Rubenfeld, Microeconomic Theory

Karl E. Case and Ray C. Fair, Principles of Economics, Pearson Education Inc., 8th Edition, 2007.

Samuelson and Nordhaus, Economics, Mc-Graw Hill

Joseph E. Stiglitz and Carl E. Walsh, Economics, W.W. Norton and Company Inc., New York, International Student Edition, 4th Edition, 2007.

Lypsey and Christal, An Introduction to Positive Economics

Hal R. Varian, Intermediate Microeconomics, A Modern Approach, W.W. Norton and Company/Affiliated East-West Press (India), 8th Edition, 2010. The workbook by Varian and Bergstrom may be used for problems

C. Snyder and W. Nicholoson, Fundamentals of Microeconomics, Cengage Learning (India), 2010

Paper2: MIC 11 (Paper 1, Minor Course 1): Principles of Microeconomics – 4 credits

Semester 1: Principles of Microeconomics

Unit 1: Introduction   12 Classes

Problem of scarcity and choice: scarcity, choice and opportunity cost; production possibility frontier; economic systems.

Demand and supply: law of demand, determinants of demand, shifts of demand versus movements along a demand curve, market demand, law of supply, determinants of supply, shifts of supply versus movements along a supply curve, market supply, market equilibrium.

Consumer surplus-using demand curve to measure consumer surplus, producer surplus.

Elasticity: price elasticity of demand, calculating elasticity, determinants of price elasticity, income elasticity, elasticity of supply and its determinants

Unit 2: Consumer Theory   15 Classes

Utility in Cardinal Approach- Utility and choice, Total Utility and Marginal Utility, Utility and choice-maximization, marginal utility, theory of demand reference; Ordinal utility:indifference curve, marginal rate of substitution and convexity of IC, budget constraint, income and substitution effects; derivation of demand curve from indifference curve and budget constraint.

Unit 3: Production and Cost: 15 classes

Behaviour of profit maximising firms, production process, production functions, law of variable proportions, choice of technology, isoquant and iso-cost lines, cost minimizing equilibrium condition.

Costs: costs in the short run, costs in the long run,relation between short run and long run costs.

Unit 4: Perfect Competition   6 Classes

Assumptions: theory of a firm under perfect competition, demand and revenue; marginal cost curve and supply decision of the firm, equilibrium of the firm in the short run and long run; long run industry supply curve: increasing, decreasing and constant cost industries.

1. G.Mankiw. Principles of Microeconomics, Cengage,

2. Case, Karl E. & Ray C. Fair, Principles of Economics, Pearson Education, Inc., 8th edition, 2007.

3. Samuelson, P. & Nordhaus, Economics,

4. Lipsey and Chrystal: An Introduction to Positive Economics

Paper 3: MDC 1 (Multidisciplinary Course 1): Basic Economics - 3 credits

Unit 1: Introduction to Micro and Macro Economics   2 Classes

1.1` Problem of scarcity and choice: scarcity, choice and opportunity cost

1.2 Meaning of microeconomics and macroeconomics; positive and normative economics

1.3. What is an economy? Central problems of an economy: what, how and for whom to

Produce.

Unit 2: Utility, Demand and Supply: How Markets Work.   8 Classes

2.1 Meaning of Utility, Marginal Utility, Law of Diminishing Marginal Utility

2.2. Elementary theory of demand: determinants of household demand, market demand, and shifts in the market demand curve

2.3. Elementary theory of supply: factors influencing supply, derivation of the supply curve, and shifts in the supply curve

2.4. The elementary theory of market price: determination of equilibrium price in a competitive market;

Unit 3: Producer Behaviour and Supply   5 Classes

3.1. Meaning of Production Function – Short-Run and Long-Run Total Product, Average Product and Marginal Product. meaning and their relationships. Returns to a Factor

3.2. Meaning of Cost function – Short run costs - Total Cost, Total Fixed Cost, Total Variable Cost; Average Cost; Average Fixed Cost, Average Variable Cost and Marginal Cost - meaning and their relationships.

Unit 4: Analysis of Market 5 Classes

4.1. Revenue – Total Revenue, Average Revenue and Marginal Revenue - meaning and their relationship.

4.2: Definition, Classification on the basis of nature of competition & its Features, Role of strategic behaviour

Unit 5: National Income and Related Aggregates 8 Classes

5.1. Circular flow of income (two sector model); Methods of calculating National Income - Value Added or Product method, Expenditure method, Income method.

5.2. Aggregates related to National Income: Gross National Product (GNP), Net National Product (NNP), Gross Domestic Product (GDP) and Net Domestic Product (NDP) - at market price, at factor cost; Real and Nominal GDP ,GDP Deflator, GDP and Welfare

5.3. Concept of Equilibrium and multiplier in Simple Keynesian Model

Unit 6: Money and Banking 4 Classes

6.1. Money – Different definitions of Money

6.2. Commercial Bank and its function

6.3. Central bank and its functions (example of the Reserve Bank of India): Bank of issue,

Govt. Bank, Banker's Bank, Control of Credit through Bank Rate, Cash Reserve Ratio

(CRR), Statutory Liquidity Ratio (SLR), Repo Rate and Reverse Repo Rate, Open Market Operations, Margin requirement.

Unit 7: Inflation and Unemployment 4 Classes

7.1. Concept of inflation; Types of inflation; Reasons of Inflation, Methods of combating Inflation

7.2 Concept of Unemployment, different types of unemployment, Relation between inflation and unemployment

Suggested readings:

1. Karl E. Case and Ray C. Fair, Principles of Economics, Pearson Education Inc., 8th Edition, 2007.

2.N. Gregory Mankiw, Economics: Principles and Applications, Indian edition by South Western, a part of Cengage Learning, Cengage Learning India Private Limited, 4th Edition, 2007

3.Samuelson and Nordhaus, Economics, Mc-Graw Hill

4.Soumyen Sikdar, Principles of Macroeconomics, Oxford University Press.

5. L. M. Bhole and J. Mahukud, Financial Institutions and Markets, Tata McGraw Hill, 5th edition, 2011.

6. Suraj.B. Gupta-Monetary Economics, Institution, Theory and Policy, S.Chand Publishers

Paper 4: SEC 1 (Skill Development Course 1): Basic Mathematics – 3 credits

Unit 1: Basic Concepts of Functions   4 Classes

Definition and examples of functions including graphs; classification of functions; function types

Reference: R.G.D. Allen – Mathematical Analysis for Economics (Chapter II)

Unit 2: Limits and Continuity of Functions   6 Classes

Concept of limit with examples, definition of the limit of a single-valued function; properties of limit; concept of continuity of functions with examples

Reference: R.G.D. Allen – Mathematical Analysis for Economics (Chapter IV)

Unit 3: Derivatives   14 Classes

Concept of derivatives with examples, Derivatives and tangents to curves; Second order derivatives; power function and its derivative, rules for the evaluation of derivatives, function of a function rule, inverse function rule; the evaluation of second order derivatives, partial and total derivatives, L'Hopital's (L'Hospital's) rule.

Reference: R.G.D. Allen – Mathematical Analysis for Economics (Chapter VI and VII)

Unit 4: Integrals of functions of one variable   6 Classes

Definition of indefinite integral; basic rules of integration; concept of definite integral including examples

Reference: R.G.D. Allen – Mathematical Analysis for Economics (Chapter XV)

Unit 5: Matrix and Determinants   6 Classes

Concept of matrix; matrix operations and different laws; concept of identity matrix and null matrix

Concept of determinants and basic properties

Reference: Alpha C. Chiang, Fundamental Methods of Mathematical Economics, Third Edition, (Chapter 4)

Suggested Readings:

1. R.G.D Allen, Mathematical Analysis for Economics
2. Alpha C. Chiang, Fundamental Methods of Mathematical Economics, Third Edition
3. G.C. Archibald and Richard G. Lipsey, An Introduction to A Mathematical Treatment of Economics, Third Editi