CBCS SYLLABUS

FOR

THREE YEARS UNDER-GRADUATE COURSE

IN

…………………ECONOMICS…………….. (HONOURS)

(*w.e.f. 2017*)

BANKURA UNIVERSITY

BANKURA

WEST BENGAL

PIN 722155

❖ <u>General Information</u>

- <u>Eligibility Criterion:</u> Only Students who have passed Mathematics at the Class XII level are eligible for admission to B.Sc. Honours Course in Economics.

- Syllabus has been structured following the **Choice Based Credit System (CBCS)** introduced by the University Grants Commission.

- A total no. of 26 courses/papers consisting of 14 Compulsory Core Courses, 02 Ability Enhancement Compulsory Courses (AECC), 04 Discipline Specific Elective Courses (DSE), 02 Skill Enhancement Courses (SE) and 04 Generic Elective Courses (GE) will be covered in six semesters spread over three years. GE Papers are to be chosen from courses offered by other departments.

- Each paper is of 50 marks (40 marks for End Semester Examination (ESE) and 10 marks for Internal Assessment (IA)). For practical based courses 25 marks will be for theory, 15 marks will be for practical and 10 marks for internal assessment.

❖ *Semester-Wise Sequencing of Courses*

Semester	Course Title				
I	Introductory Micro & Macro Economics (UG/ECO/101/C-1)	Mathematical Methods in Economics -I (UG/ECO/102/C-2)	Course From Other Dept. (UG/SC/103/GE-1)	Environmental Studies (UG /104/AECC-1)	----
II	Intermediate Microeconomics–I (UG/ECO/201/C-3)	Intermediate Macroeconomics–I (UG/ECO/202/C-4)	Course From Other Dept. (UG/SC/203/GE-2)	English/ MIL (UG /204/AECC-2)	-----
III	Intermediate Microeconomics–II (UG/ECO/301/C-5)	Intermediate Macroeconomics–II (UG/ECO/302/C-6)	Mathematical Methods in Economics -II (UG/ECO/303/C-7)	Course From Other Dept. (UG/SC/304/GE-3)	Data Analysis **OR** Research Methodology (UG/ECO/305/SEC-1)
IV	Statistical Methods For Economics -I (UG/ECO/401/C-8)	Indian Economy (UG/ECO/402/C-9)	Development Economics (UG/ECO/403/C-10)	Course From Other Dept. (UG/SC/404/GE-4)	Entrepreneurship Development **OR** Basic Computer Applications (UG/ECO/405/SEC-2)
V	Statistical Methods For Economics -II (UG/ECO/501/C-11)	International Economics (UG/ECO/502/C-12)	Economics of Health & Education **OR** Economic History of India (UG/ECO/503/DSE-1)	Issues in Indian Economy **OR** Money & Financial Markets (UG/ECO/504/DSE-2)	-----
VI	Introductory Econometrics (UG/ECO/601/C-13)	Public Economics (UG/ECO/602/C-14)	Political Economy **OR** Environmental Economics (UG/ECO/603/DSE-3)	Issues in Development Economics **OR** Project (UG/ECO/604/DSE-4)	------

Syllabus for Three Years Under-Graduate Course in Economics Honours (Programme) With Effect From Academic Session 2017-2018

FIRST YEAR: SEMESTER−I

(UG/ECO/101/C-1)   *Core 1: Introductory Micro & Macro Economics*

Credit- 06   Full Marks: 50   Classes: 60 (Lecture) + 15 (Tutorial)

Foreword: This course is designed to expose first-year students, who may be new to economics, the basic concepts and principles of micro & macro economic theory. The emphasis will be on thinking like an economist and the course will illustrate how micro & macro economic concepts can be applied to analyse real-life situations.

Course Description

A. **Exploring The Subject Matter of Economics**   **(09 Lectures)**
- Nature & Significance of Economics - Economics as a Social Science
- Definition of Economics – Problem of Scarcity & Optimal Choice – Scarcity, Choice and Opportunity Cost – Production Possibility Frontier – Trade-Offs & Efficiency - The Cost Benefit Approach to Decisions – Rationality and Self Interest – The Concept of Margin & Marginal Analysis
- Methodology of Economics: Theories & Models – Role of Assumptions - Positive & Normative Economics - Microeconomics and Macroeconomics: Distinction & Interdependence
- Three Fundamental Economic Questions: What to Produce and in What Quantities – How to Produce – For Whom to Produce – Various Forms of Economic Systems – The Role of the Government.
- Some Basic Concepts: Commodity, Consumer, Firm, Industry, Market – Value & Price - Free Goods & Economic Goods - Consumption Goods & Capital Goods – Public Goods & Private Goods - Endogenous & Exogenous Variables – Stocks & Flows – Real & Nominal Variables – Equation & Identity - Ex-Ante & Ex-Post Values.
- Reading Graphs: Functional Relations – Graphs, Slopes & Intercepts – Average & Marginal Values.
  (Note: Brief Discussion of the Concepts)

B. **Elementary Theories of Demand, Supply & Market**   **(11 Lectures)**
- Demand Analysis: Definition of Demand – Individual & Market Demand - Determinants of Demand – Demand Schedule - Law of Demand, Demand Function and The Demand Curve - Derivation of the Market Demand Curve from Individual Demand Curves – Shifts of Demand Curves Versus Movements along a Demand Curve
- Elasticities of Demand: Price Elasticity of Demand – Definition, Calculation, Determinants and Uses –Cross Price Elasticity & Income Elasticity of Demand – Definition, Calculation and Uses – Concepts of Normal & Inferior Goods and Substitutes & Complements
- Supply Analysis: Definition of Supply – Determinants of Supply – Law of Supply, Supply Function and the Supply Curve – Shifts of Supply Versus Movements along Supply Curve – Market Supply – Elasticity of Supply: Definition & Uses.
- Market Equilibrium: Interaction between Market Demand & Market Supply and Determination of Equilibrium Price & Quantity - The Concept of Stability of Equilibrium (Walrasian Version).
- Comparative Static Analysis: Consequences of Shifts in Demand & Supply.
- Applications of Demand & Supply Analysis: Price Rationing, Price Floors, Consumer's Surplus, Producer's Surplus
  (Note: Brief Discussion & Simple Graphical Analysis)

C. Theory of Consumer Preferences & Choice   (06 Lectures)

- Marshallian Approach – Concept & Cardinal Measurement of Utility – Total & Marginal Utility - Law of Diminishing Marginal Utility – Consumer's Equilibrium: Law of Equi-Marginal Utility – Diminishing Marginal Utility and The Law of Demand.
- Indifference Curve Approach: Concept of Ordinal Utility and Assumptions of Indifference Curve Approach – Definition & Properties of Indifference Curves – The Budget Line & its Intercept and Slope - Consumer's Equilibrium - The Concept of Tangency Solution
- Comparative Statics: Price Effect, Income Effect and Substitution Effect - Price-Consumption, Income-Consumption & Engel Curves – Classification of Commodities: Normal, Inferior and Giffen Goods
  (Note: Brief Discussions & Simple Graphical Analysis)

D. Theory of Firm: Production, Cost & Revenue   (10 Lectures)

- Production: Input-Output Relationships & The Production Function – Law of Variable Proportions – Total, Average & Marginal Product Curves – Short Run & Long Run Production – Return to Factor & Returns to Scale – Choice of Technology: Isoquants & their Properties – Iso-Cost lines – Simple Derivation of the Equilibrium - Cost Minimising & Output Maximising Input Combination – Expansion Path.
- Cost: Fixed Cost, Variable Cost & Sunk Costs – Cost Function - Total, Average and Marginal Cost Curves
- Revenue: Concepts of Total Revenue (TR), Average Revenue (AR) & Marginal Revenue (MR)
- MC, MR & Equilibrium of the Firm – Profit Maximisation.
  (Note: Brief Discussion & Simple Graphical Analysis)

E. Market Morphology   (03 Lectures)

- Classification of Markets - Different Criteria for Classification of Markets: Nature of Product, Number of Buyers & Sellers, Control Over Price, Conditions of Entry & Exit - Perfect Competition, Monopoly, Bilateral Monopoly, Monopsony, Monopolistic Competition, Duopoly and Oligopoly *(Definitions, Examples & Discussion of Basic Features Only).*

F. Macroeconomic Problems & Policies   (03 Lectures)

- Major Macroeconomic Issues
- Macroeconomic Policies - Goals, Targets & Instruments
- Basic Ideas of Classical & Keynesian Macroeconomics

G. Circular Flow & National Income Accounting   (10 Lectures)

- Circular Flow of Income: Circular Flow of Income in a Closed Economy Without Government Activities & With Government Activities - Circular Flow of Income in an Open Economy – Withdrawal & Injections.
- Definitions, Concepts & Measurement of National Income: GDP, GNP. NDP, NNP At Market Price & Factor Cost - Concepts of Disposable Income, Personal Income, Per-capita Income.
- Three Methods of National Income Accounting – Output, Income and Expenditure Methods – Concepts Final Products, Intermediate Products & Value-Added
- Real & Nominal GDP ---the Concept of GDP Deflator and Price Indices
- The Accounting Identity Between Saving & Investment
- Problems of Using National and Per-capita Income as a Measure of Economic Welfare.

H. Money, Inflation & Unemployment   (08 Lectures)

- Definition & Functions of Money
- Components of Money Supply – Determinants of Money Supply
- Inflation: Types, Causes (Demand & Cost or Supply Side Factors), Measures (WPI Vs. CPI), Economic Effects & Control (Anti-Inflationary Policies) of Inflation

- Types & Characteristics of Unemployment – Concept of Natural Rate of Unemployment(or NAIRU)
- Short-Run Trade-Off Between Inflation & Unemployment – Policy Implication
  (Note: Brief Discussions of Basic Ideas Only)

REFERENCES

1. Samuelson & Nordhaus: *Economics* (Mc-GrawHill)
2. Soumyen Sikdar: *Principles of Macroeconomics* (Oxford University Press)
3. N. Gregory Mankiw: *Economics- Principles & Applications* (Cengage Learning India Pvt. Ltd., 2007)
4. Karl E. Case & Ray C. Fair: *Principles of Economics* (Pearson Education, 8th Edn.2007)
5. Joseph E, Stiglitz & Carl E. Walsh: *Economics* (W. W. Norton & Company, 2007)
6. Lipsey & Chrystal: *Economics* (Oxford University Press)
7. Robert S. Pindyck, Daniel L. Rubinfeld, Prem L.Mehta: *Microeconomics* (7th Edn. Pearson).
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FIRST YEAR: SEMESTER–I

(UG/ECO/102/C-2)   *Core 2: Mathematical Methods in Economics-I*

<u>Credit- 06</u>   <u>Full Marks: 50</u>   <u>Classes: 60 (Lecture) + 15 (Tutorial)</u>

Foreword

Economics is increasingly becoming quantitative in nature. The students are to develop skills in mathematical techniques that are required for a meaningful study of both Theoretical and Applied Economics. These courses in Mathematical Methods in Economics I & II are supposed to cover the essential topics in Mathematics needed for Economic analysis. The primary purpose, however, is to understand Economics, for which Mathematics serves only as a useful tool. So emphasis should be given not on rigorous development of the mathematical concepts but on how these concepts are and could be applied for a more logical presentation of Economics.

Course Description:

A. Sets & Set Operations   **(03 Lectures)**
- Set Notations - Universal set – Subsets - Null Set - Finite & Infinite Sets - Convex Sets - Basic Set Operations.
- <u>Application in Economics</u>: Consumer Preferences and Budget in Terms of Sets.

B. Some Preliminary Mathematical Concepts   **(07 Lectures)**
- Concepts of Arithmetic, Geometric and Harmonic Progression- Formulae of Sum of AP and GP Series- Permutations and Combinations - The Binomial Theorem – Logarithms - Common Logarithms, Natural Logarithms and the Number *e* - Basic Log Operations.
- <u>Applications</u>**:** Calculations of Population Growth, Compound Interest, Depreciation & Present Value

C. Matrix Algebra   **(08 Lectures)**
- Concepts of Scalar, Vector & Matrices - Systems of Equations and their Representation through Vectors and Matrices – Order & Rank of a Matrix
- <u>Some Specific Matrices</u>: Diagonal, Triangular, Identity, Null, Symmetric, Idempotent
- <u>Elementary Matrix Operations</u>: Addition, Subtraction & Multiplication of Matrices
- Determinants - Minor & Cofactor - Transpose & Inverse of Matrices
- <u>Techniques of Solving Systems of Linear Equations</u>: Matrix Method & by Cramer's Rule.
- Jacobian Determinant & Existence of Solutions.

- Applications: Partial Market Equilibrium Model - Simple National Income Determination Model & Comparative Static Analysis.

D. Functions & Derivatives   (16 Lectures)

- Functions of One Variable: Different Types of Functions & Their Graphs: Linear, Quadratic, Cubic, Exponential & Logarithmic Functions.
- First & Second Order Derivatives: Slope & Curvature - Increasing, Decreasing & Constant Functions - Convex, Concave & Linear Functions
- Functions of Several Variables: Continuous & Differentiable Functions – Total & Partial Derivatives - Homogeneous & Homothetic Functions – Euler's Theorem - Implicit Function Theorem.
- Application in Economics: The Utility Function - Demand & Supply Functions - Production & Cost Functions - Revenue Function – Consumption Function – Saving Function - Marginal Utility - Marginal Product - Marginal Cost - Marginal Revenue – Marginal Propensity to Consume – Marginal Propensity to Save - Elasticity of Demand - Relation between Average Revenue, Marginal Revenue & Elasticity - Slope and Curvature of Indifference Curves and Isoquants - Elasticity of Factor Substitution - Returns to Scale - Properties of Cobb-Douglas - Product Exhaustion Theorem- Market Equilibrium - Equilibrium in National Income Analysis – Comparative Static Analysis in One-Commodity Market Model & National Income Model.

E. Optimisation Techniques   (16 Lectures)

- Concepts of Maxima & Minima (Local & Global)
- Unconstrained Maximisation & Minimisation: Derivation of First Order & Second Order Conditions – Second Order Condition with Hessian Determinant.
- Application in Economics: Relation between Average & Marginal Products – Relation between Average & Marginal Costs - Profit Maximisation in Different Markets.
- Constrained Maximisation & Minimisation: Lagrange Multiplier Method - Derivation of First Order & Second Order Conditions - Second Order Condition with Bordered Hessian Determinant.
- Application in Economics: Utility Maximisation Subject to Budget Constraint – Output Maximisation Subject to Cost Constraint - Cost Minimisation Subject to Output Constraint

F. Techniques of Integration   (10 Lectures)

- Indefinite & Definite integrals
- Application in Economics: Finding Total Functions When Marginal Functions are Given- Consumer's Surplus- Producer's Surplus

REFERENCES

1. Knut Sydsaeter & Peter J. Hammond: *Mathematics for Economic Analysis* ((Pearson Educational Asia, Delhi, 2002)
2. Alpha C. Chiang & Kevin Wainwright: *Fundamental Methods of Mathematical Economics* (McGraw Hill International, 2005)
3. Lawrence Blume & Carl P. Simon: *Mathematics for Economists* (Viva Norton Student Edition, 2010; Viva Books Pvt. Ltd)
4. Henderson and Quandt: *Microeconomic Theory: A Mathematical Approach* (McGraw-Hill)
5. E.T. Dowling: *Introduction to Mathematical Economics***,** *Schaum's Outline Series* (McGraw- Hill)
6. Taro Yamane: *Mathematics for Economics*
7. M.D. Intriligator: *Mathematical Optimization and Economic Theory (* Prentice Hall)

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FIRST YEAR: SEMESTER–I
(UG/SC/103/GE-1) *GE-1: Course to be Chosen from Other Discipline*

Credit- 06   Full Marks: 50   Classes: TBD

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FIRST YEAR: SEMESTER–I
(UG/104/AECC-1) *AECC-1: Environmental Studies*

Credit- 04   Full Marks: 50   Classes: TBD

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FIRST YEAR: SEMESTER–II
(UG/ECO/201/C-3) *Core 3: Intermediate Microeconomics-I*

Credit- 06   Full Marks: 50   Classes: 60 (Lecture) + 15 (Tutorial)

Course Description:

A. Theory of Consumer Behaviour- Alternative Approaches   **(25 Lectures)**
- Cardinal Utility Approach: Assumptions – Utility Function – Total & Marginal Utility - Law of Diminishing Marginal Utility – Consumer's Equilibrium – Law of Equi-Marginal Utility - Derivation of the Marshallian Demand Curve – Limitations of the Cardinal Approach.
- Ordinal Utility Approach: Preference & Indifference - General Axioms of Choice – Lexicographical Ordering - Derivation of Indifference Curve from the Axioms - Indifference Curve and its Properties – The Diminishing Marginal Rate of Substitution - Budget Constraint & The Budget Line - Consumer's Equilibrium - Pathological Cases – Price-Consumption, Income-Consumption and Engel's Curves - Price Effect, Income Effect and Substitution Effect (Hicks & Slutsky Measures) – Shape of Price-Consumption Curve in case of Normal, Inferior and Giffen Goods - Derivation of Demand Curve from Price-Consumption Curve – Compensated & Uncompensated Demand Curves – The Slutsky Equation – Consumer's Surplus Under Indifference Curve Approach - Limitations of the Indifference Curve Approach.
- The Revealed Preference Approach: Strong and Weak Axioms of Revealed Preferences - Derivation of Demand Curve – Evaluation of Revealed Preference Approach
- Choice Under Uncertainty - Utility Function and Expected Utility - Risk Aversion and Risk Preference (*Concepts Only*)
- Relation between Price Elasticity of Demand, Price and Marginal Revenue – Relation between Price Elasticity and Total Expenditure.

B. Theory of Production and Cost   **(20 Lectures)**
- Production: General Concept of Production Function – Relation between Total Product, Average Product and Marginal Product – Law of Variable Proportions – The Fixed Proportion Production Function – Isoquants & their Properties - Marginal Rate of Technical Substitution - Economic Region of Production – Elasticity of Substitution - Return to Factor & Returns to Scale - Homogeneous and Homothetic Production Functions - The Cobb Douglas and CES Production Functions.

- <u>Optimising Behaviour of The Firm</u>: Iso-Cost Line - Constrained Output Maximization and Constrained Cost Minimization - Expansion Path.
- <u>Cost</u>: Different Concepts of Costs – Economic / Opportunity Cost and Accounting Cost - Concept of Sunk Cost - Cost Function – Relation between the Expansion Path and Cost Function – Time dimension of costs: Short Run Cost Analysis– Total, Fixed and Variable Costs – Derivation of Short Run Total, Average and Marginal Cost Curves – Long Run Cost Analysis: Long Run Total and Average Cost Curves as Envelope of Short Run Cost Curves – Derivation of Long Run Marginal Cost Curve from Short Run Marginal Cost Curves.

C. Theory of Perfect Competition   **(15 Lectures)**
- Perfect Competition and Pure Competition—Short Run and Long Run Equilibrium of a Competitive Firm – Short Run and Long Run Supply Curves — Long Run Equilibrium of the Competitive Industry – Price Determination in a Competitive Industry – Existence, Uniqueness and Static Stability of Equilibrium – Long Run Supply Curves of the Industry - Effects of External Economies and Diseconomies – Effect of Change in Cost – Effect of Imposition of Tax – Deadweight Loss of a Tax - Effect of Price Control.

REFERENCES
1. Robert S. Pindyck, Daniel L. Rubinfeld, Prem L.Mehta: *Microeconomics* (7th Edn. Pearson.)
2. Samuelson and Nordhaus : *Economics*
3. Koutsoyiannis: *Microeconomic Theory*
4. Ferguson and Gould: *Microeconomic Theory*
5. H. Varian: *Intermediate microeconomics,* 7th edn. (East-West Press)
6. Henderson and Quandt: *Microeconomic Theory*
7. Anindya Sen: *Microeconomics- Theory and Applications* (Oxford University Press)
8. Hugh Gravelle & Ray Rees: *Microeconomics* (Pearson)
9. Jaydeb Sarkhel: *Microeconomic Theory* (Book Syndicate, 2013)

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FIRST YEAR: SEMESTER–II

(UG/ECO/202/C-4)	*Core 4: Intermediate Macroeconomics-I*	
<u>Credit- 06</u>	<u>Full Marks: 50</u>	<u>Classes: 60 (Lecture) + 15 (Tutorial)</u>

<u>Course Description:</u>

A. Simple Keynesian System   **(14 Lectures)**
- Keynesian Consumption Function & its Properties – Factors Affecting Consumption Expenditure --- Saving Function & its Properties
- Determination of Equilibrium Level of National Income – Nature of Equilibrium – Stability of Equilibrium
- Comparative Static Analysis: The Multiplier Analysis With and Without Governmental Sector – Investment Multiplier, Government Expenditure Multiplier, Balanced Budget Multiplier - Limitations of the Multiplier Analysis - The Paradox of Thrift.

B. Introduction of the Money Market   **(12 Lectures)**
- <u>Demand for Money</u>: Three Motives of Holding Money --- Transactions, Precautionary & Speculative Motives

- Keynesian Liquidity Preference Theory – Indeterminacy of Rate of Interest in the Liquidity Preference Theory – The Liquidity Trap
- The Inventory Theoretic Approach to Transactions Demand for Money
- <u>Supply of Money</u>: Components of Money Supply - Credit Creation by Commercial Banks – High-Powered Money or Monetary Base & Money Multiplier.

C. The IS-LM Model (Interaction between Commodity Market & Money Market)   (14 Lectures)
- Commodity Market Equilibrium and Construction of the IS Curve – Slope and Shifts of IS Curve - Money Market Equilibrium and Derivation of the LM Curve – its Slope and Shifts - Determination of Equilibrium Level of Income and Rate of Interest in Terms of the IS-LM Model – Stability of Equilibrium
- <u>Comparative Static Analysis:</u> Effects of Shifts in Saving, Investment, Government expenditure, Taxation, Money Demand & Money Supply Schedules
- Relative Effectiveness of Monetary & Fiscal Policies in terms of IS-LM model.

D. The Complete Keynesian System   (20 Lectures)
- <u>Basic Concepts of Aggregate Demand (AD) and Aggregate Supply (AS):</u> Construction of the AD Curve from the IS-LM Model – Economic Analysis of its Slope and Shifts - Introduction of the Labour Market and Derivation of the Aggregate Supply Curve – its Slope and Shifts – the Short Run and Long Run AS Curves.
- Interaction between Commodity Market, Money Market and Labour Market - Determination of equilibrium in terms of the AD-AS Model – Stability of equilibrium and comparative statics especially effects of monetary and fiscal policies.
- Underemployment and its Causes – Possible Solutions – Price Flexibility – Real Balance Effect and Full Employment.

REFERENCES

1. Dornbusch, Fischer and Startz: *Macroeconomics* (McGraw Hill, 11th edition, 2010).
2. N. Gregory Mankiw: *Macroeconomics* (Worth Publishers, 7th edition, 2010).
3. Olivier Blanchard: *Macroeconomics* (Pearson Education, Inc., 5th edition, 2009).
 4. Richard T. Froyen: *Macroeconomics* (Pearson Education Asia, 2nd edition, 2005).
5. Andrew B. Abel and Ben S. Bernanke: *Macroeconomics* (Pearson Education, Inc., 7th edition, 2011).
6. Errol D'Souza: *Macroeconomics* (Pearson Education, 2009).
7. Hall & Taylor: *Macroeconomics* (W. W. Norton & Company 5th edn. 1997)
8. Soumyen Sikdar: *Principles of Macroeconomics* (Oxford University Press)
9. William Branson: *Macroeconomic Theory & Policy* (East West Press, 3rd edn. 2014)
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FIRST YEAR: SEMESTER–II		
(UG/SC/203/GE-2)	*GE-2: One Course to be Chosen from Other Discipline*	
Credit- 06	Full Marks: 50	Classes: TBD

FIRST YEAR: SEMESTER–II		
(UG/204/AECC-2)	*AECC-2: English/ MIL*	
Credit- 02	Full Marks: 50	Classes: TBD

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SECOND YEAR: SEMESTER–III		
(UG/ECO/301/ C-5)	*Core 5: Intermediate Microeconomics-II*	
Credit- 06	Full Marks: 50	Classes: 60 (Lecture) + 15 (Tutorial)

Course Description:

A. Theory of Imperfect Competition   **(18 Lectures)**
- Monopoly: Sources & Major Features of Monopoly - AR and MR Curves Under Monopoly – Relation between AR, MR and Elasticity of Demand – Short Run & Long Run Equilibrium under Monopoly – Absence of Supply Curve under Monopoly - Price Discrimination – First, Second & Third Degree – Equilibrium under Price Discrimination – Multiple Plant Monopolist – Equilibrium under Bilateral Monopoly - Concept & Measures of Monopoly Power – Natural Monopoly
- Monopolistic Competition: Assumptions – Product Differentiation & Demand curve – Concept of Industry and Group - Short Run and Long Run Equilibrium – Excess Capacity and Selling Cost.

B. Theory of Oligopoly   **(10 Lectures)**
- Characteristics of Oligopoly - Non-Collusive Oligopoly Models: Cournot's Model of Duopoly - Stackelberg's Model & Price Leadership – Collusive Oligopoly – Collusion, Formation of Cartel and Market Sharing – Price Rigidity under Oligopoly: Kinked Demand Curve Model.

E. Theory of Factor Pricing   **(20 Lectures)**
- Demand for Factors of Production – Determinants of Price Elasticity of Demand for a Factor – Marginal Productivity Theory and its Limitations
- Theory of Wage: Choice between Work and Leisure – Derivation of Individual Labour Supply Curve – Total Labour Supply Curve – Demand for Labour – Determination of Equilibrium in a Competitive Labour Market - Collective Bargaining and Wage Rate.
- Theory of Rent: Ricardian Theory of Rent - Transfer Earning and Economic Rent – Quasi Rent – Rent and Price
- Theory of Profit: Gross and Net Profit- Elements of Profit - Risk and Uncertainty Theory - Innovation Theory of Profit – Theory of Monopoly Power.

F. General Equilibrium and Welfare Economics   **(12 Lectures)**
- Partial and General Equilibrium – A Formal Statement of General Equilibrium Approach
- The Concept of Pareto Optimum – Pareto Optimality in Consumption – Pareto Optimality in Production – General Pareto Optimality Condition – Concepts of Externalities & MarketFailure.

REFERENCES
1. Robert S. Pindyck, Daniel L. Rubinfeld, Prem L.Mehta: *Microeconomics* (7th Edn. Pearson.)
2. Samuelson and Nordhaus : *Economics*

3. Koutsoyiannis: *Microeconomic Theory*
4. Ferguson and Gould: *Microeconomic Theory*
5. H. Varian: *Intermediate microeconomics,* 7th edn. (East-West Press)
6. Henderson and Quandt: *Microeconomic Theory*
7. Anindya Sen: *Microeconomics- Theory and Applications* (Oxford University Press)
8. Hugh Gravelle & Ray Rees: *Microeconomics* (Pearson)
9. Jaydeb Sarkhel: *Microeconomic Theory* (Book Syndicate, 2013)

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SECOND YEAR: SEMESTER–III		
(UG/ECO/302/ C-6)	*Core 6: Intermediate Macroeconomics-II*	
Credit- 06	Full Marks: 50	Classes: 60 (Lecture) + 15 (Tutorial)

Course Description:

A. The Classical System   **(15 Lectures)**
- The Classical View of Macroeconomics in Respect of the Determination of Employment, Output and Prices – Wage-Price Flexibility and Full Employment
- The Classical Quantity Theory of Money and its Criticism- Friedman's Restatement of Quantity Theory
- Say's Law and Walras' law - The Dichotomy between the Real and Monetary Sectors -Neutrality of Money.
- Comparison between Keynesian & Classical Systems.

B. Theories of Consumption   **(10 Lectures)**
- Empirical Findings Regarding Consumption Function – Kuznets' Findings and The Consumption Puzzle - Alternative Theories of Consumption – Fisher's Theory of Optimal Intertemporal Choice - Absolute income Hypothesis, Relative Income Hypothesis, Permanent Income Hypothesis & Life Cycle Hypothesis.

C. The Investment Function   **(10 Lectures)**
- The Keynesian Analysis of Investment – MEC and MEI - Shortcomings of Keynesian Analysis.
- Net Present Value criterion and Marginal Efficiency Criterion of Investment
- The Fixed Acceleration Principle of Investment – its Implications and Limitations.
- The Flexible Acceleration Principle of Investment – its Implications and Limitations.

D. Theories of Inflation   **(15 Lectures)**
- The Quantity Theory Approach to Inflation
- Demand Pull Inflation - Inflationary Gap Analysis and its Shortcomings
- Concepts of Cost Push & Mark Up Inflation
- Distinction between Demand Pull & Cost Push Inflation
- The Philips Curve and the Trade-off between Inflation and Unemployment – Short Run and Long Run Philips Curve.

E. Economic Growth   **(10 Lectures)**
- Harrod and Domar's Model of Economic Growth – Assumptions – Implications – Actual, Warranted and Natural Rates of Growth – The Knife Edge Problem
- Solow One Sector Model of Economic Growth (without technological change)

REFERENCES

1. Dornbusch, Fischer and Startz: *Macroeconomics* (McGraw Hill, 11th edition, 2010).
2. N. Gregory Mankiw: *Macroeconomics* (Worth Publishers, 7th edition, 2010).
3. Olivier Blanchard: *Macroeconomics* (Pearson Education, Inc., 5th edition, 2009).
4. Richard T. Froyen: *Macroeconomics* (Pearson Education Asia, 2nd edition, 2005).
5. Andrew B. Abel and Ben S. Bernanke: *Macroeconomics* (Pearson Education, Inc., 7th edition, 2011).
6. Errol D'Souza: *Macroeconomics* (Pearson Education, 2009).
7. Hall & Taylor: *Macroeconomics* (W. W. Norton & Company 5th edn. 1997)
8. Soumyen Sikdar: *Principles of Macroeconomics* (Oxford University Press)
9. W. H. Branson: *Macroeconomics* (Harper & Row, 3rd edn. 1989)

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SECOND YEAR: SEMESTER–III

(UG/ECO/303/ C-7)   *Core 7: Mathematical Methods in Economics-II*

<u>Credit- 06</u>   <u>Full Marks: 50</u>   <u>Classes: 60 (Lecture) + 15 (Tutorial)</u>

<u>Course Description:</u>

A. Difference Equations   **(8 Lectures)**
- Finite Difference; Equations of First & Second Order and their Solutions.
- <u>Applications in Economics</u>: Cobweb Model - Samuelson's Multiplier-Accelerator Interaction Model.

B. Differential Equations   **(8 Lectures)**
- Differential Equations of First & Second Orders and their Solutions
- <u>Application in Economics</u>: Excess Demand Functions & Price Dynamics in a Single Market.

C. Linear Programming   **(15 Lectures)**
- Optimisation Problem - Linear Programming Technique as a Tool for Optimisation - General Formulation of the Linear Programming Problem - Objective Function, Structural Constraints, Non-Negativity Restrictions – Feasible Region – Optimum Solution — Application in Economics.
- Graphical Solutions of Some Standard Maximisation & Minimisation Problems
- Concepts of Slack Variable, Feasible Solutions, Basic Solutions & Basic Feasible Solution
- The Dual Problem – Economic Interpretation of Duality.

D. Input-Output Analysis   **(8 Lectures)**
- Basic Concept of Input-Output Analysis
- Assumptions & Structure of the Leontief Static Open Model (2 x 2 case) – Solution in Such a Model
- Hawkins-Simon Condition & its Economic Interpretation

E. Basic Game Theory   **(15 Lectures)**
- Basic Concepts & Assumptions of Game Theory
- Two-person Zero-Sum game with Saddle Point
- Concept of Dominance
- Elements of Non-Zero-sum Game
- Prisoner's Dilemma
- Concept of Nash Equilibrium

- <u>Application in Economics</u>: Theory of Oligopoly

F. Decisions Under Uncertainty   **(6 Lectures)**
- Maximin, Maximax, Hurwicz, Laplace & Savage Criteria for Optimal Decision

REFERENCES
1. Knut Sydsaeter & Peter J. Hammond: *Mathematics for Economic Analysis* ((Pearson Educational Asia, Delhi, 2002)
2. Alpha C. Chiang & Kevin Wainwright: *Fundamental Methods of Mathematical Economics* (McGraw Hill International, 2005)
3. Lawrence Blume & Carl P. Simon: *Mathematics for Economists* (Viva Norton Student Edition, 2010; Viva Books Pvt. Ltd)
4. Dorfman, Samuelson & Solow: *Linear Programming & Game theory: A n Economic Analysis*
5. N. D. Vora: *Quantitative Techniques in Management* (Tata McGraw-Hill)
6. Sharma: *Operation Research-Theory and Applications* (Macmillan India Ltd)
7. E.T. Dowling: *Introduction to Mathematical Economics*, *Schaum's Outline Series* (McGraw- Hill)
8. Taro Yamane: *Mathematics for Economics*
9. W. J. Baumol: *Economic Theory and Operations Analysis* (Prentice Hall, 4th Edn. 2009)

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SECOND YEAR: SEMESTER–III
(UG/SC/304/GE-3) *GE-3: One Course to be Chosen from Other Discipline*

Credit- 06	Full Marks: 50	Classes: TBD

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SECOND YEAR: SEMESTER–III
(UG/ECO/305/SEC-1) *SEC-1: One Course to be Chosen from the Following Two:*

SEC–1.1   DATA ANALYSIS
Credit- 02   Full Marks: 50   Classes: 30 (Lecture)

<u>Course Description</u>

A. Statistical Data: Classification, Collection & Presentation
- Meaning of Statistical Data – Classification of Data -Variable & Attribute - Primary Data & Secondary Data - Methods of Collection of Data - Population & Sample - Complete Enumeration (Census) & Sample Survey- Random Sampling (Concept only).
- Tabulation & Diagrammatic Presentation of Data – Line, Bar & Pie Diagram.
- Frequency Distribution and its Diagrammatic Presentation: Construction of Frequency Distribution (Simple & Grouped) –Histogram, Ogive & Frequency Polygon.

B. Introductory Descriptive Statistics
- Measures of Central Tendency – Mean, Median & Mode (Concepts & Formulae Only)

- Measures of Dispersion – Range, Mean Deviation, Standard Deviation, Coefficient of Variation (Concepts & Formulae Only)
- Concepts of Skewness & Kurtosis
- Concept of Simple Correlation & Regression

C. Interpretation of Indian Data

- Economic Surveys – RBI Bulletins – Handbook of Statistics for the Indian Economy (RBI) – ASI Data – Census Data - Foreign Trade Statistics – NSS Data

REFERENCES

1. N. G. Das – *Statistical Methods (* (Tata McGrawhill)
2. Nagar and Das – *Basic Statistics for Business and Economics*
3. Goon, Gupta and Dasgupta: *Basic Statistics*
4. R Spiegel and L.J. Stephen: *Statistics (Schaum Series)*
5. Official Websites of RBI, Govt. of India, CSO, NSS, ASI
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SEC–1.2   RESEARCH METHODOLOGY
Credit- 02   Full Marks: 50   Classes: 30 (Lecture)

Course Description

Unit-1
1. Understanding the Nature of Research
2. Formulation of the Research Topic
3. Review of Literature

Unit-2
1. Approaches to Research and Research Strategy
2. Research Ethics
3. Using Secondary Data
4. Using Primary Data – Collecting Data Through Observations/ Interviews/ Questionnaire

Unit-3
1. Sample Selection Methods
2. Analysing Data
3. Writing Project Report - Referencing Styles

REFERENCES
1. Ranjit Kumar: *Research Methodology-A Step by Step Guide for Beginners* (Sage Publications, 4th Edn.)
2. Uwe Flick: *Introducing Research Methodology- A Beginner's Guide to Doing a Research Project,* (Sage Publications)
3. J. Bethlehem: *Applied Survey Methods- A Statistical Perspective* (Willey)
4. Wilkinson & Bhandarkar: *Methodology & Techniques of Social Research* (Himalaya Publishing)
5. C.R.Kothari: *Research Methodology*
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SECOND YEAR: SEMESTER–IV
(UG/ECO/401/ C-8)   *Core- 8: Statistical Methods for Economics- I*
<u>Credit- 06</u>   <u>Full Marks: 50</u>   <u>Classes: 60 (Lecture) + 15 (Tutorial)</u>

Course Description

A. Tabular and Diagrammatic Presentation of Data **(08 Lectures)**
- <u>Statistical Data:</u> Classification and Presentation (Tabular & Diagrammatic) – Difference between Variable and Attributes – Primary Data & Secondary Data - Methods of Collection of Data - Population & Sample - Complete Enumeration (Census) & Sample Survey.
- <u>Frequency Distribution and its Diagrammatic Presentation</u>: Construction of Frequency Distribution (Simple & Grouped) – Choice of Class Interval – Diagrammatic Representation of Frequency Distribution – Histogram & Frequency Curve – Cumulative Frequency Distribution (More Than and Less Than) – Ogive
- (Simple Numerical Exercise).

B. Measures of Central Tendency **(10 Lectures)**
- Arithmetic Mean, Median and Mode (for both Grouped and Ungrouped Data) – Comparison of Mean, Median and Mode – Geometric Mean and Harmonic Mean (for both Grouped and Ungrouped Data) – Composite Mean – Properties of All these Measures of Central Tendency
- (Simple Numerical Exercise).

C. Measures of Dispersion **(10 Lectures)**
- Absolute Measures – Range, Mean Deviation, Standard deviation and Quartile Deviation – Relative Measures of Variability – Coefficient of Variation, Coefficient of Mean Deviation & Coefficient of Quartile Deviation - Curve of Concentration - (Simple Numerical Exercise)
- <u>Measurement of Economic Inequality:</u> Gini Coefficient and Lorenz Curve-(Simple Numerical Exercise)
- <u>Moments, Skewness and Kurtosis</u>: Definitions – Relationship between Central and Non-central Moments – Sheppard's Correction – Different Measures of Skewness & Kurtosis - (Simple Numerical Exercise).

D. Correlation and Regression Analysis **(08 Lectures)**
- Scatter diagram – Covariance - Simple Correlation Coefficient and its Properties - Calculation of Simple Correlation Coefficient from Grouped and Ungrouped Data- Limitations of Correlation Coefficient.
- Simple Regression Analysis – Properties of Regression Line – Relationship between Correlation Coefficient and Regression Coefficient.
- Concept of Rank Correlation - Spearman's Rank Correlation Coefficient (Without Tie) - (Simple Numerical Exercise).
- Multiple & Partial Correlation (Concepts Only)

E. Index Numbers **(08 Lectures)**
- Definition, Purpose and Uses of Index Numbers - Problems in the Construction of Index Numbers - Different Formulae for Price and Quantity Index Numbers - Tests for Index Numbers - Chain Index - Cost of Living Index Number
- (Simple Numerical Exercise)

F. Time Series   **(10 Lectures)**
- Components of Time Series – Additive and Multiplicative Models - Analysis of Trend— Polynomial Trend – Exponential Trend – Non-linear Growth Curves – Measurement of Secular Trend: Free Hand Curve Fitting - Moving Average Method - Fitting Mathematical Curves
- Measurement of Seasonal Variation: Monthly (or Quarterly) Averages - Ratio to Moving Averages - Ratio to Trend
- (Simple Numerical Exercise)

G. Population Statistics   **(06 Lectures)**
- <u>Measurements of mortality:</u> Crude Death Rate - Specific Death Rate - Standardized Death Rate - Mortality Index - Infant Mortality Rate.
- <u>Measurements of Fertility:</u> Crude Birth Rate - General fertility rate - Age-specific Fertility Rate - Total Fertility Rate - Gross Reproduction Rate - Net Reproduction Rate.
- Life Table & its Uses.

REFERENCES

1. Goon, Gupta and Dasgupta: *Basic Statistics*
2. Goon, Gupta and Dasgupta: *Fundamentals of Statistics, Vol. I & Vol. II*
3. Nagar and Das – *Basic Statistics for Business and Economics*
4. N. G. Das – *Statistical Method* (Tata McGrawhill)
5. Mathai & Rathie – *Probability and Statistics*
6. R Spiegel and L.J. Stephen: *Statistics (Schaum Series)*
7. Yule and Kendall – *An Introduction to the Theory of Statistics*
8. Gupta and Kapoor – *Fundamental of Mathematical Statistics.*

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SECOND YEAR: SEMESTER–IV

(UG/ECO/402/ C-9)   *Core- 9: Indian Economy*

<u>Credit- 06</u>	<u>Full Marks: 50</u>	<u>Classes: 60 (Lecture) + 15 (Tutorial)</u>

Course Description

A. India as a Developing Economy   **(4 Lectures)**
- Basic Features of the Indian Economy as a Developing Economy – Causes of Underdevelopment – Major Issues of Development

B. Structural Changes in Indian Economy   **(06 Lectures)**
- Growth & Trends in National and Per Capita Income in India during the Post-independence Period - Sectoral Distribution of National Income and its Change Over Time.
- Occupation Structure & Economic Development - Changes in Occupation Structure in India Over Time (Post-independence period).

C. Population and Human Development   **(07Lectures)**
- Study of Trends in Demographic Features in India from Different Census Data: Size & Growth Rate of Population – Density of Population - Birth & Death Rates – Infant Mortality Rate – Sex Ratio – Life

Expectancy at Birth –Literacy Rates – Age Composition – Rural-Urban Distribution of Population & the Degree of Urbanisation Over Time.
* Three Stage Theory of Demographic Transition in the Indian context.
* Demographic Dividend and the Window of Opportunity
* Population Policy

D. Distributional Issues in India   (15 Lectures)
* <u>Inequality in the Distribution of Income & Wealth:</u> Evidences of Inequalities and Concentration of Wealth & Economic Power – Causes of Inequality.
* <u>Poverty:</u> Concept and Measurement Issues – Extent & Trends – Poverty Eradication Policy – Evaluation of Major Poverty Eradication Programmes undertaken by the Govt. Of India.
* <u>Unemployment:</u> Nature, Types and Extent of Unemployment in India - Government Policy in Removing Unemployment
* <u>Unorganized Labour Market:</u> Size & Nature of Unorganised Sector in India – Problems of Female Labour and Child Labour.

E. Planning in India   (10 Lectures)
* Definition of Economic Planning – Basic Types: Comprehensive & Partial Planning – Centralised Planning & Decentralised Planning – Structural Planning & Financial Planning – Rolling Plan & Fixed Plan – The Rationale for Planning in Mixed Developing Economies like India.
* Planning Authority in India: National Development Council – Planning Commission – NITI Aayog
* Broad Objectives of Planning in India: Evolution of India's Development Goals & Strategies
* Achievements & Failures of India's Five Year Plans.

F. Macroeconomic Policies & Policy Reforms   (18 Lectures)
* <u>Monetary Policy:</u> Structure of Indian Money Market – Objectives & Instruments of RBI's Monetary Policy – Bank Nationalisation & its Achievements – Reforms in the Banking Sector & Non-Bank Financial Intermediaries since 1991 – Capital Market in India and its Reforms since 1991.
* <u>Fiscal Policy:</u> Objectives and Components of Fiscal Policy – Preparation of Union Budgets – Different Components of the Budget & Different forms of Budget Deficits - Fiscal Federalism in India: Centre –State Financial Relations – Tax Reforms since 1991.

REFERENCES
1. Datt and Sundharam: *Indian Economy* (S. Chand, Latest Edition)
2. Misra and Puri: *Indian Economy* (Himalaya Publishing House, Latest Edition)
3. Uma Kapila (Ed.): *Indian Economy Since Independence* (Academic Foundation, 19th Edn.)
4. Sukhamoy Chakraborty: *Development Planning: The Indian Experience* (OUP)
5. Ahluwalia & Little (Ed.): *India's Economic Reforms and Development* (OUP)
6. Joshi & Little: *India's Economic Reforms1991-2001* (OUP)
7. Bimal Jalan (Ed.):*The Indian Economy* (OUP)
8. T. N. Srinivasan: *Eight Lectures on India's Economic Reforms* (OUP)
9. C D. Wadhwa: *Some problems of India's Economic Policy* (Tata McGraw Hill).
10. J. Sachs, A Varshney and N Bajpai (ed): *India in the Era of Economic Reforms* (Oxford University Press).
11. Y.V. Reddy: *Economic Policies & India's Reform Agenda – New Thinking* (Orient Blackswan)

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SECOND YEAR: SEMESTER–IV

(UG/ECO/403/ C-10)　　　*Core- 10: Development Economics*

Credit- 06　　　　　　　Full Marks: 50　　　　Classes: 60 (Lecture) + 15 (Tutorial)

Course Description

A. Meaning of Economic Development: Alternative Approaches　　　　　**(08 Lectures)**
- Traditional View of Economic Development: The Income Approach: Use of National & Per Capita Income as Index of Economic Development – Difference between Growth and Development - Shortcomings of the Income Approach.
- The Modern View of Economic Development: PQLI– Basic Needs Approach – Sen's Capabilities Approach – Three Core Values of Development - Human Development Index: Construction & Interpretation – Objectives of Development & The Millennium Development Goals.
- Some Concepts of Development: Top-Down Development, Participatory Development, Inclusive Development & Sustainable Development

B. Characteristics of Underdevelopment & Obstacles to Development　　　　**(10 Lectures)**
- Defining the Developing World – Common Features of Underdevelopment
- Obstacles to Development: Trap Models – Vicious Circle of Poverty - Critical Minimum Effort Thesis – Low Level Equilibrium Trap – Dualism - Process of Cumulative Causation

C. Classic Theories of Economic Growth & Development　　　　　　　**(12 Lectures)**
- Development as Growth & the Transition Theories: Clark and Fisher Theory on Change in Sectoral Share - Rostow's Stages of Economic Growth
- Structural–Change Models: The Lewis Theory of Economic Development with Unlimited Supplies of Labour
- Dependency School: Development & Underdevelopment as a Historical Process - Dependency Theory of Baran – Frank's Theory of Colonial Exploitation – Merchant Capital in Shaping Underdevelopment (Kay's theory) – Emmanuel's Theory of Unequal Exchange

D. Development Strategies　　　　　　　　　　　　　　　　　　　**(10 Lectures)**
- Balanced Growth Vs. Unbalanced Growth – The Big Push Theory of Development
- Concept of Surplus Labour & Disguised Unemployment – Surplus Labour as Potential Saving
- Capital Intensive Vs Labour Intensive Technique – Choice of Technique in a Labour Surplus Economy.
- Export Promotion Vs Import Substitution.

E. Poverty, Inequality & Development　　　　　　　　　　　　　　**(10 Lectures)**
- Concepts & Measurement of Poverty: (i) Income Measure of Poverty – Poverty Line - Headcount Index (HI) – Poverty Gap Measure – Income Gap Measure – (ii) Capability Measure of Poverty: Human Poverty Index (HPI)
- Concepts & Measurement of Inequality: (i) Distributional Inequality of Income – Size Distribution of Income – Lorenz Curve & Gini Coefficient – (ii) Functional Distribution of Income
- Inequality & Development: Kuznets' Inverted-U Hypothesis.
- Gender Discrimination: Women and Poverty – Measures of Women Development: Gender related Development Index (GDI) – Gender Empowerment Measure (GEM)

F. The Roles of Market & State in Development Policymaking   **(10 Lectures)**
- <u>The Role of The State</u>: Arguments for State Intervention in LDCs
- <u>Development Planning:</u> Meaning & Nature of Development Planning - The Rationale for Development Planning in Mixed Developing Economies
- <u>The Crisis in Planning</u>: Problems of Plan Implementation & Plan Failure – Reasons thereof
- Govt. Failures & The Resurgent Preference for Markets over Planning – The Market Economy: Merits & Demerits - Role & Limitations of the Market in LDCs
- Concept of Decentralised Planning

<u>REFERENCES:</u>
1. M. P. Todaro & Stephen C. Smith: *Economic Development* (Pearson, 10th Edn. 2012)
2. A. P. Thirlwall: *Growth and Development* (Macmillan)
3. Debraj Ray: *Development Economics* (Oxford University Press, 2009)
4. Meier & Rauch (ed): *Leading Issues in Economic Development* (Oxford University Press)
5. K. Basu: *A Critique of Less Developed Economy*
6. Partha Dasgupta: *Economics, A Very Short Introduction* (Oxford University Press, 2007)
7. Amartya Sen: *Development as Freedom* (OUP, 2000)
8. Sampat Mukherje: *Contemporary Development Economics* (New central Book agency)
9. Misra & Puri: *Economics of Development & Planning* (Himalaya Publishing)
10. Debes Mukherjee: *Development, Policies, Problems and Institutions* (New Central Book Agency)

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SECOND YEAR: SEMESTER–IV

(UG/SC/404/GE-4) *GE-4: One Course to be Chosen from Other Discipline*

Credit- 06   Full Marks: 50   Classes: TBD

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SECOND YEAR: SEMESTER–IV

(UG/ECO/405/SEC-2) *SEC-2: One Course to be Chosen from the Following Two:*

SEC–2.1   ENTREPRENEURSHIP DEVELOPMENT

Credit- 02   Full Marks: 50   Classes: 30 (Lecture)

<u>Course Description</u>

A. Evolution of the Concept of Entrepreneur   **(05 Lectures)**
- Basic Features - Entrepreneurship and Economic Development - Growth of Entrepreneurship in India— Role of Entrepreneurship in Economic Development - Problem of Rural Entrepreneurship in India – Opportunities for an Entrepreneurial Career.

B. Entrepreneurship Motivation   **(06 Lectures)**
- Meaning of Motivation – Basic Elements of the Process of Motivation – Motivating Factors: Internal Factors & External Factors – Ambitious, Compelling & Facilitating Factors
- Motivation Theories: Maslow's Need Hierarchy Theory – McCelland's Acquired Needs Theory

- Achievement Motivation – The Kakinada Experiment

C. Project Identification & Selection   **(05 Lectures)**
- Meaning of Project- Attributes of a Project – Project Classification
- Project Selection
- Project Report/ Business Plan – Meaning & Significance of Project Report – Contents of a Project Report
- Planning Commission's Guidelines for Formulating a Project Report

D. Financial Resources For New Ventures   **(09 Lectures)**
- Need for Finance in A Business Enterprise - Sources of Finance – Internal & External
- Capital Structure -   Difference between Capital Structure & Financial Structure – Optimum Capital Structure – Factors Determining Capital Structure.
- Institutional Support to Enterprises – Need For Institutional Support - National Small Industries Board – State Small Industries Development Corporation--- District Industries Centre--- Industrial Estates

E. Growth Strategies in Small Business   **(05 Lectures)**
- Enterprise Life Cycle: Stages of Growth
- Types of Growth Strategies: Internal & External - Expansion, Diversification, Joint Venture, Merger, Subcontracting & Franchising.

REFERENCES:
1. S.S Khanka: *Entrepreneurial Development* (S. Chand & Company Ltd)
2. Bill Bolton and John Thompson: *Entrepreneurs: Talent, Temperament and Technique* (Butterworth and Heinemann).
3. David .H Holt: *Entrepreneurship- New Venture Creation*
4. Poornima .M. Charantimath: *Entrepreneurship Development and Small Business Enterprises* (Pearson)
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SEC–2.2 BASIC COMPUTER APPLICATIONS		
Credit- 02	Full Marks: 50	Classes: 15 (Lec.) +15 (Prc.)

Course Description

A. File Creation and Management System
- The File Tree - File Naming Conventions

B. Word Processing
- Basic Features of Text formatting - Creating Documents - Heading Styles - Creating Reference Lists.

C. Introduction to Excel/Spreadsheet for Economic Analysis of Data
- Types of Data – Time Series, Cross Section –Excel Basic – Data Entry & Creation of Tables - Formula and Functions - Sort and Filter.

D. Graphical Representation of Data Sets
- Pie Chart, Bar Chart, Histogram, Frequency Polygon, Ogive, Bivariate Scatter Diagram.

E. Using Spreadsheet / Excel for Calculation of Descriptive Statistics
- Mean, Median, Mode, Standard Deviation, Simple Correlation, and Regression.

F. Presentations

- Creating Presentations - Pasting Charts etc in Presentations - Exporting Presentations as PDF.

REFERENCES:

1. Ash Narayan Sah: *Data Analysis Using Microsoft Excel* (Excel Books India)
2. Gray Koop: *Analysis of Economic Data* (John Wiley & Sons Ltd)
3. Richard L.Kerns: *Essentials of Microsoft Windows, Word & Excel* (Prentice Hall India)
4. V. RajaRaman: *Fundamentals of Computers* (PHI, New Delhi)
5. Stephan Levine & Krehbiel Berenson: *Statistics for Managers Using Microsoft Excel* (PHI Learning)
6. Leon & M. Leon: *Introduction To Computers with MS Office* (TMH)

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THIRD YEAR: SEMESTER-V

(UG/ECO/501/ C-11) *Core- 11: Statistical Methods for Economics- II*

Credit- 06	Full Marks: 50	Classes: 60 (Lecture) + 15 (Tutorial)

Description of Course

A. Theory of Probability   (10 Lectures)

- Basic Concepts: Meaning of Probability - Random Experiments – Trials - Sample or Outcome Space – Events - Mutually Exclusive, Equally Likely & Exhaustive Events – Complement of an event.
- Definitions of Probability: Classical Definition & its Limitations – Frequency or Empirical Definition - Axiomatic Definition
- Theorems of Probability: Theorem of Total Probability - Theorem of Compound Probability
- Conditional Probability & Statistical Independence - Bayes' Theorem.
- (Simple Numerical Exercise).

B. Random Variables and Mathematical Expectation   (06 Lectures)

- Definition of Random Variables – Discrete & Continuous Random Variables - Distribution Functions of Random Variables – Probability Mass and Density Functions – Expectation and Variance of Random Variables.

C. Univariate Probability Distributions   (11 Lectures)

- Discrete Probability Distribution: Binomial and Poisson Distributions – Properties - Mean, Variance & Moment Generating Functions.
- Continuous Probability Distribution: Normal & Standard Normal Distribution - Properties - Mean, Variance, Skewness & Kurtosis – Importance of Normal Distribution in Statistics.

D. Joint Probability Distribution   (05 Lectures)

- Joint Probability Distribution of Two Random Variables – Marginal and Conditional Distribution - Idea of Independence - Expectation of the Product of Two Variables - Covariance between Two Variables as a Measure of Association

E. Sampling Theory and Sampling Distributions   **(12 Lectures)**
- Elementary Sampling Theory: Population and Sample – Parameter and Statistic – Random Sampling – SRSWR & SRSWOR - Practical Methods of Drawing Random Samples – Random Sampling Numbers – Sampling Distribution – Standard Error
- Sampling Distributions: Sampling Distributions Associated with Normal Population - Expectation and Standard Error of Sample Mean - Chi-Square Distribution, Student's t Distribution, F-Distribution (Definition and Important Properties and Uses only)

F. Estimation and Testing of Hypothesis   **(16 Lectures)**
- Fundamental ideas of Statistical Inference – Difference between Estimation and Testing of Hypothesis
- Basic Concepts of Estimation: Desirable Properties of Estimators – Unbiasedness, Minimum Variance, Efficiency, Consistency – Simple Methods of Point Estimation – Maximum Likelihood Estimators and their Properties – Interval Estimation – Confidence Intervals – Confidence Coefficient.
- Testing of Hypothesis: Null Hypothesis & Alternative Hypothesis– Level of Significance & Critical Region – Two-tailed & One-tailed Tests – Type-I and Type-II Errors– p-value – Steps in Testing of Hypothesis– Simple Applications of Tests for the Mean and Variance of a Univariate Normal Population.

REFERENCES
1. Nagar and Das – *Basic Statistics for Business and Economics*
2. Mathai & Rathie **–** *Probability and Statistics*
3. Goon, Gupta and Dasgupta: *Fundamentals of Statistics, Vol. I & Vol. II*
4. R Spiegel and L.J. Stephen: *Statistics (Schaum Series)*
5. Sheldon Ross: *A First Course in Probability* (Pearson 9th Edn.)
6. E. Rukmangadachari: *Probability and Statistics (* Pearson)
7. R. V. Hogg, E. A. Tanis & J. M. Rao: *Probability and Statistical Inference* (Pearson)
8. N. G. Das – *Statistical Method (Vol. II),* (Tata McGrawhill)

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THIRD YEAR: SEMESTER–V

(UG/ECO/502/ C-12)   *Core- 12: International Economics*

Credit- 06   Full Marks: 50   Classes: 60 (Lecture) + 15 (Tutorial)

Course Description

A. Introduction   **(01 Lecture)**
- Nature & Scope of International Economics

B. Basic Concepts & Tools of Trade Theory   **(06 Lectures)**
- Internal and International Trade - Inter-Industry and Intra-Industry Trade – Free Trade & Protection
- Basis of Trade: Arbitrage as Basis of International Trade – Sources of Cross-country Price Difference and Arbitrage - Absolute and Comparative Advantages – Sources of Comparative Advantage: Genuine & Perverse.
- Analytical Tools: Community Indifference Curves – Opportunity Cost & Production Possibility Curves – Offer Curves – Concepts, Derivation & Properties.

C. Classical Theories of Trade   (06 Lectures)
- Assumptions of Classical Theories of Trade – Absolute Advantage Theory of Adam Smith and Gains from Complete Specialisation - Comparative Advantage Theory of David Ricardo and Gains from Complete Specialisation – Limitations of Classical Theory of Trade
- Generalization of Ricardian Model by Introducing More than Two Commodities and More than Two Countries.

D. Neoclassical Modification of The Ricardian Theory   (06 Lectures)
- Analysis of Comparative Advantage and Gains From Trade (GFT) by Introducing the Concept of Opportunity Cost Instead of Labour Theory of Value – The Case of Incomplete Specialisation
- <u>Decomposition of GFT:</u> Specialisation and Exchange Gains – Substitution Possibilities and Magnitude of GFT – GFT of a Small Country.

E. International Equilibrium and Terms of Trade   (02 Lectures)
- Offer Curves and Equilibrium Terms of Trade – Static Stability

F. Neoclassical Trade Models: Factor Endowment & Trade   (15 Lectures)
- Heckscher–Ohlin Theory – Physical Vs. Price Definition of Factor Abundance – Differences in Factor Endowment as the Basis of Comparative Cost Difference and Basis of Trade.
- Commodity and Factor Prices under Trade – Factor Price Equalisation Theory (Heckscher–Ohlin–Samuelson Model)
- Rybczynski Theorem
- Empirical Studies – Leontief Paradox & its Explanations
- Factor Intensity Reversal and Factor Price Equalisation.

G. Theories of Trade Restriction   (10 Lectures)

- Tariff & Non-Tariff Barriers
- Partial Equilibrium Analysis of Tariff & Quota – Dead-weight Loss of Tariff – Comparison between Tariff and Quota
- General Equilibrium Analysis of Tariff – The Stolper-Samuelson Theorem - Welfare effects of Tariff on Small Country and Large Country - Tariff-ridden Offer Curves and Optimum Tariff - Tariff war
- The Infant Industry Argument

H. Balance of Payments and Exchange Rate   (14 Lectures)
- Balance of Payments Accounts in an Open Economy – Fixed and Flexible Exchange Rates
- <u>Balance of Payments & Problems of Adjustment</u>: The Mechanism of Adjustment under Fixed Exchange Rates – Expenditure Reducing and Expenditure Switching Policies – Devaluation: the Elasticity and Absorption Approaches – Marshall–Lerner Condition - Mechanism of Adjustment under Flexible Exchange Rates.

REFERENCES
1. Rajat Acharyya: *International Economics* (Oxford University Press)
2. Soderstein, Bo: *International Economics*, (Macmillan, 2nd Edition)
3. R.Caves, J. Frankel and R. W. Jones: *World Trade and Payments* (Pearson Education, 9th Edn)
4. P. Krugman and M. Obstfeld: International Economics (Pearson Education, 8th Edn.)
5. Dominick Salvatore: *International Economics Trade & Finance* (Willey Student Edition)

THIRD YEAR: SEMESTER–V
(UG/ECO/503/DSE-1) *DSE-1: One Course to be Chosen from the Following Two:*

DSE-1.1: ECONOMICS OF HEALTH & EDUCATION
Credit- 06   Full Marks: 50   Classes: 60 (Lecture) + 15 (Tutorial)

Course Description
UNIT -I

A. Role of Health & Education in Economic Development   **(04 Lectures)**
- Health and Education as the Basic Objectives as well as Vital Components of Growth & Development
- Investing in Health and Education – The Human Capital Approach - Physical Capital vs. Human Capital
- Education & Health as Joint Investments for Development – Linkages between Investments in Health & Education
- Importance of Health & Education in Poverty Alleviation

B. Introduction To Health Economics   **(04 Lectures)**
- Definition & Scope of Health Economics
- Distinguishing Features of Health Economics
- General features of Health Care: Distinction Between Health & Health Care – Perspectives of Health: Health as a Right – Health as a Consumption as well as an Investment Good
- Economic, Social and Cultural Factors Determining Health Status - Income, Consumption Patterns, Education, Occupational Hazards, Social Status, Gender, and Family Size etc.

C. Microeconomic Foundations of Health Economics: Demand and Supply of Health Care (08 Lectures)
- Demand for Health Care – A Derived Demand From Demand For Health – Determinants of Demand for Health & Health Care - The Problem of Supplier-Induced Demand
- Supply of Health Care: Health Care Delivery System – Production & Cost
- Economic Valuation of Health Care Programmes: Cost Effectiveness & Cost-Benefit Analysis of Health Care

D. Health Care Financing   **(07 Lectures)**
- Different Sources of Health Care Funding: Public Sources - Private Sources – External Financing
- Scope of Health Insurance: Alternative Insurance Mechanisms - Social Health Insurances Sponsored or Mandated by the Government - Private (Voluntary) Health Insurance - Employers Based Health Insurance
- Difference between Private & Social Health Insurance
- The Role of Information, Uncertainty, Adverse Selection and Cost of Moral Hazard in Health Insurance Market

E. Market Failure & Rationale for Govt. Intervention   **(07 Lectures)**
- Health Systems & Their Problems: Issues of Equity & Inequality, Misallocation, Inefficiency and Cost Explosion or Escalation
- Causes of Market Failure in the Provision of Health Services: Risk & Uncertainty, Asymmetric Information, Moral Hazard, Adverse Selection, Supplier-induced Demand, Externalities.
- The Role of Government: Encouragement of Schemes with Positive Externalities & Discourage Those with Negative Externalities –Compensate for Problems Generated by Uncertainty & Insurance Market Failure -

Provision of Cost-Effective Health Services to the Poor – Formulation of Effective Govt. Policies for Achieving Health for All.

Unit II

A. Education as Investment in Human Capital   (06 Lectures)
- Investment Costs : Private & Social Costs - Direct Costs & The Opportunity Cost of Foregone Wages, Time & Effort
- Yield or Returns on Investment: Private & Social Returns - Effects on Income and Productivity – Positive Externalities
- Estimating Contribution of Education to Growth: The Denison Index – The Production Function Approach – The Ideas of Schultz – Arrow's Ideas of Learning by Doing

B. Demand For Education, Provision & Financing   (12 Lectures)
- Demand for Education: A Derived Demand for High-Wage Employment Opportunities – Determinants of Demand: Wage or Income Differential, Probability of Getting Modern Sector Job, The Direct & Indirect Costs of Education, Gender, Social Status, Size of Family & So on
- Demand For Education & Economic Theory of Signaling: Acquiring Educational Credentials as Signal of Ability – Problem of Asymmetric Information & the Role of Signaling.
- Public vs. Private Provision & Funding: Education as a Public Sector Responsibility– Govt. Through Policies Produce Education Services – Private Sector Organizations Respond to Consumer Demand
- Debate on Public Funding of Education – The Issues of Efficiency & Equality & Social Cohesion
- Pre-Primary Education Financing: Early Childhood Care and Education as a Holistic and Multi-Sectoral Service – Economic Benefits Public Investment in Early Childhood Care & Education – Barriers & Challenges – Problem of Child Labour
- Education Policy: Governance of the Operation of Education Systems – Examples of Areas of Debate in Education Policy
- Supply-Demand Debate on Education Achievement

C. Credentialism & Educational Inflation   (02 Lectures)
- Signaling, Increased Demand for Formal Educational Qualifications & The Devaluation of These Qualifications
- Concepts of Credential Creep/ Academic Inflation/ Degree Inflation & Grade inflation – Possible Problems of Grade Inflation –Arguments Against Taking Action on Grade Inflation.

Unit – III

An Overview of Health & Education Sectors in India   (10 Lectures)
- Health Outcomes: Trends in Health Indicators - Infant Mortality Rate, Life Expectancy, Maternal Mortality Rate, TFR etc. – Poor Health of an Average Indian – Disease Burden in India
- Health Systems: Health Care Infrastructure in India & a Brief Account of Shortfall in Comparison to Social Need – Disparity in Rural/Urban Health Care Facilities – Major Initiatives To Ensure Availability of Health Facilities for the Poor: NRHM, NUHM & AYUSH.
- Health Financing: Health Financing by The Centre & States – Health Insurance
- Literacy Rates, School Participation, School Quality Measures: Trends in Literacy Rates Over Time – Progress of Elementary Education – Enrolment Rates & Drop-Out Rates – Major Primary Education Schemes: Sarva Siksha Abhiyan, National Programme of Mid-Day Meals in Schools
- Overall Achievements & Failures of Education System in India

- Gender & Caste Discrimination in Health & Education in India

REFERENCES

1. William Jack: *Principles of Health Economics For Developing Countries* (World Bank Institute Development Studies, 1999)
2. Michael P. Todaro & Stephen C. Smith: *Economic Development* (Pearson, 10th Edn.)
3. Debraj Ray: *Development Economics* (Oxford University Press, 2009)
4. A. P. Thirlwall: *Growth & Development* (Lynne Rienner Publishers)
5. Gerald M. Meier & James E. Rauch: *Leading Issues in Development* (Oxford University Press)
6. Sampat Mukherjee: *Contemporary Development Economics* (New Central Book Agency)
7. Blaug Mark: *Introduction to Economics of Education* (Penguine, London, 1972)
8. J. E. G. Tilak: *Economics of Inequality in Education* (Sage, New Delhi)
9. Datt & Sundharam: *Indian Economy* (S. Chand & Co., Latest Edition)
10. Misra & Puri: *Indian Economy* (Himalaya Publishing)
11. World Development Report, Investing in Health, The World Bank, 1993.

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DSE–1.2: ECONOMIC HISTORY OF INDIA (1857–1947)

Credit- 06	Full Marks: 50	Classes: 60 (Lecture) + 15 (Tutorial)

Course Description

A. Introduction   **(02 Lectures)**
- India's Colonial Background – Overview of the Colonial Economy

B. Macro Trends   **(05 Lectures)**
- National Income – Population - Occupational Structure.

C. Agriculture   **(15 Lectures)**
- Agrarian Structure and Land Relations – A Brief Review of Land Settlements - Major Tenancy Reforms & their Implications
- Commercialisation of Agriculture- Causes & Effects
- Famines & Famine Relief in India – Frequency, Nature and Causes of Famines.

D. Development of Railways and Irrigation   **(08 Lectures)**
- Causes & Economic Effects of Development of Railways – Development of Irrigation System -Railway Vs Irrigation Debate

E. Deindustrialization & Growth of Modern Industries   **(15 Lectures)**
- Meaning, Causes & Consequences of Deindustrialization - The Deindustrialization Debate
- Process of Industrial Transition in India - Evolution of Entrepreneurial and Industrial Structure - Nature of Industrialisation in the Interwar Period - Constraints to Industrial Breakthrough.

F. Economy and State in the Imperial Context   **(15 Lectures)**
- The Imperial Priorities and The Indian Economy: Forms & Consequences of Colonial Exploitation – Exploitation through International Trade and Capital Flows – Government and Fiscal policy – Theory of Economic Drain.

REFERENCES
1. R.C. Dutt: *Economic History of India (Vols. I & II)*
2. Dhiresh Bhattacharya: *A Concise Economic History of India*
3. V. B. Singh: *Indian Economic History*
4. Tirthankar Roy: *The Economic History of India 1857-1947* (Oxford University Press, 3rd edition)
5. বরুন চক্রবর্তী: ভারতের সংক্ষিপ্ত অর্থনৈতিক ইতিহাস (পশ্চিমবঙ্গ রাজ্য পুস্তক পর্ষদ)
6. সব্যসাচী ভট্টাচর্য্য: ঔপনিবেশিক ভারতের অর্থনীতি (আনন্দ পাবলিশার্স)
7. রণেশ রায়: ঔপনিবেশিক ভারতের রাষ্ট্রীয় অর্থনীতি (প্রোগ্রেসিভপাবলিশার্স)

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THIRD YEAR: SEMESTER–V
(UG/ECO/504/DSE-2) *DSE-2: One Course to be Chosen from the Following Two:*

DSE–2.1: ISSUES IN INDIAN ECONOMY
Credit- 06   Full Marks: 50   Classes: 60 (Lecture) + 15 (Tutorial)

Course Description

A. Agriculture: Performance & Policies   **(18 Lectures)**
- <u>Production & Productivity</u>: Trends in Agricultural Production & Productivity in India – Causes of Low Productivity – Farm Size & Productivity Debate
- <u>Land Reforms</u>: Meaning, Importance, Objectives & Salient Features - Evaluation of the Land Reform Measures.
- <u>Green Revolution</u>: Meaning and Features – Impact of Green Revolution on Agricultural Production & Productivity, Distribution of Income and on Regional Distribution – Causes of Uneven & Limited Spread.
- <u>Rural Credit & Capital Formation in Agricultural Sector</u>: The Problem of Rural Indebtedness and Need for Rural Credit – Different Sources of Short-term & Long-term Credit – Role of Cooperatives, Commercial Banks & Regional Rural Banks – Rural Credit & the Role of NABARD - Microfinance.
- <u>Agricultural Marketing</u>: Problems / Defects of Agricultural Marketing in India – Role of Co-operatives in Agricultural Marketing – Warehousing Facilities in India – Reforms in Agricultural Marketing with Special Reference to APMC Act.
- <u>Food Security</u>: Concept and Present State of Food Security in India – The Role of Public Distribution System in Providing Food Security
- Globalisation and Indian Agriculture.

B. Industry: Performance & Policies   **(18 Lectures)**
- <u>Industrial Production & Patterns</u>: Trends in Industrial Production and Changes in Industrial Pattern during the Plans – Globalisation and Indian Industry.
- <u>Industrial Policy and its Change Over Time</u>: Features of Industrial Policy, 1956 and New Industrial Policy, 1991 – Industrial Licensing Policy – Competition Policy
- <u>Public Sector</u>: Meaning, Role, Performance & Problems of Public Sector Enterprises in India – Privatisation & Disinvestment Policy
- Problem Industrial Sickness & the Exit Policy

- Small Scale & Cottage Industries: Definition of Cottage and Small Scale Industrial Units – Role, Performance & Problems of Small-Scale and Cottage Industries in Indian Economy – Government Policy in respect of Small-Scale and Cottage Industries.

C. Service Sector in India   **(06 Lectures)**
- Growth & Performance of Service Sector - Problems of Service-led Growth in India
- Indian IT Industry: Problems & Prospects

D. Foreign Sector Policy Reforms in India   **(18 Lectures)**
- GATT, WTO and India
- Reforms in Foreign Trade Policy since 1991 – Exim Policies since 2000 - SEZ Policy
- Exchange Rate Policy: Changes in the System of Exchange Rate Management Over Time – (i) Par Value System (1947-71) – (ii) Pegged Regime (1971-92) – (iii) Liberalised Exchange Rate Management System (1992 -93) – (iv) Market Determined Exchange Rate Regime (1993 onwards)
- Current & Capital Account Convertibility of Rupee
- Reforms in Policy towards Foreign Direct Investment – FERA (1973) Vs. FEMA (1999)
- Impact of Policy Reforms on Foreign Trade and Balance of Payments.

REFERENCES

1. Datt and Sundharam: *Indian Economy* (S. Chand, Latest Edition)
2. Mishra and Puri: *Indian Economy* (Himalaya Publishing House, Latest Edition)
3. Uma Kapila: *Indian Economy – Issues in Development & Planning and Sectoral Aspects* (Academic Foundation, Latest Edn.)
4. Ahluwalia & Little (Ed.): *India's Economic Reforms and Development* (OUP)
5. Joshi & Little: *India's Economic Reforms1991-2001* (OUP)
6. Bimal Jalan (Ed.):*The Indian Economy* (OUP)
7. T. N. Srinivasan: *Eight Lectures on India's Economic Reforms* (OUP)
8. C D. Wadhwa: *Some problems of India's Economic Policy* (Tata McGraw Hill).
9. J. Sachs, A Varshney and N Bajpai (ed): *India in the Era of Economic Reforms* (Oxford University Press).
10. Y.V. Reddy: *Economic Policies & India's Reform Agenda – New Thinking* (Orient Blackswan)
11. Soumyen Sikdar. *Contemporary Issues in Globalisation. An Introduction to Theory and Policy in India*. (Oxford University Press).

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DSE–2.2: MONEY & FINANCIAL MARKETS		
Credit- 06	Full Marks: 50	Classes: 60 (Lecture) + 15 (Tutorial)

Course Description

A. Money   **(06 Lectures)**
- Definition of Money – Kinds of Money: Fiduciary/ Debt/ Credit Money – Coins, Paper Currency & Deposit Money - Legal Tender or Fiat Money and Non-legal Tender or Credit Money Proper - Limited & Unlimited Legal Tender – e-Money & Plastic Money – Functions of Money – Money Vs. Near Money – Examples of Near Money - Value of Money – High-powered Money or Monetary Base - Measures of Money Supply.

B. Overview of The Financial System   (08 Lectures)

- Meaning & the Role/Functions of the Financial System - Constituents of the Financial System: Financial Assets/ Instruments; Financial Intermediaries/ Institutions; and Financial Markets
- Definition & Role of Financial Markets – Distinction between Money Market & Capital Market
- Definition & Role of Financial Intermediaries – Classification of Financial Intermediaries: Banks and Non-Bank Financial Institutions (NBFIs)
- Financial Assets/Instruments: Distinction between Primary & Secondary Securities – Debt & Equity Instruments of Various Types – Bonds, Shares, Debentures etc. - Various Forms of Derivative Instruments (Forward Contract, Future Contract, Options, Swaps)
- Problem of Asymmetric Information - Adverse Selection & Moral Hazard.

C. Money Market   (06 Lectures)

- Features, Importance & Functions of the Money Market - Characteristics of Developed and Underdeveloped Money Markets
- Components of Money Market: Call Money Market - Commercial Bill Market - Treasury Bill Market – Repo & Reverse Repo Markets.

D. Capital Market   (14 Lectures)

- Features, Importance & Functions of the Capital Market - Characteristics of Developed and Underdeveloped Capital Markets
- Components of Capital Market: Gilt-edged Market and the Industrial Securities Market – Distinction between Primary Market and Secondary Market
- Features, Role & Functions of Stock Market or Stock Exchange – Stock Index – SENSEX & NIFTY
- Indian Stock Market & the Role of SEBI

E. Banks: Commercial Banks & The Central Bank   (15 Lectures)

- Definition & Functions of Commercial Banks – Asset or Portfolio Management by Commercial Banks - Concepts of Primary & Derivative Deposits and the Process of Credit Creation by Commercial Banks – Role of Commercial Banks in Economic Development.
- Definition & Functions of Central Bank – Distinction between Central Bank & Commercial Banks – Central Bank & Monetary Policy: Definition, Goals, Targets, Indicators & Instruments of Monetary Policy – Various Types of Quantitative & Qualitative Instruments of Monetary Control.

F. Non-Bank Financial Intermediaries   (05 Lectures)

- Distinction Between Commercial Banks & NBFIs – Validity of the Distinction - Examples of NBFIs – Development Banks, Mutual Funds, Insurance Companies - Central Bank's Control Over NBFIs.

G. Financial Markets and Interest Rates Behaviour   (06 Lectures)

- Concept of Interest: Gross & Net Interest - Real & Nominal Interest Rates – Sources of Interest Rate Differentials – Meaning of Term Structure of Interest Rates - Theories of Term Structure of Interest Rates: The Expectations Theory – The Liquidity or Risk Premium Theory – The Market Segmentation Theory

REFERENCES

1. Suraj B. Gupta: *Monetary Economics- Institutions, Theory & Policy* (S.Chand & Co)
2. S. Gursami: *Indian Financial System* (Tata McGraw Hill)
3. L. M. Bhole: *Financial Institutions and Markets* (Tata McGraw Hill).
4. R. R. Paul: *Monetary Economics* (Kalyani Publishers)
5. F. S. Mishkin and S. G. Eakins, *Financial Markets and Institutions* (Pearson Education)

6. F. J. Fabozzi, F. Modigliani, F. J. Jones & M. G. Ferri: *Foundations of Financial Markets and Institutions* (Pearson Education).
7. M. Y. Khan: *Indian Financial System (*Tata McGraw Hill).
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THIRD YEAR: SEMESTER–VI		
(UG/ECO/601/ C-13)	*Core- 13: Introductory Econometrics*	
Credit- 06	Full Marks: 50	Classes: 60 (Lecture) + 15 (Tutorial)

Course Description

A. Introduction (10 Lectures)
- Definition & Scope of Econometrics – Types: Theoretical and Applied Econometrics - Relationship between Econometrics and Economic Theory – Aims /Objectives of Econometrics – Characteristics of Econometrics – Methodology or Stages of Econometric Research - Economic and Econometric Models – Desirable Properties of an Econometric Model - Limitations of Econometrics.

B. The Classical Linear Regression Model (Two Variable Case) (20 Lectures)
- Specification of the Relationship between the Variables – Introduction of Error / Disturbance Term & the Reasons / Logic behind the Inclusion of Error Term –The Ordinary Least Squares (OLS) Method of Estimation: The OLS Assumptions & their Implications – Estimation of the Parameters – Properties of the OLS Estimators – BLUE (Gauss-Markov Theorem) – Variance of the Error Term – Statistical Inference in the CLRM: Confidence Intervals for the Estimated Parameters and Testing of Regression Coefficients — Goodness of Fit - The Coefficient of Determination, R^2 – (Simple Numerical Problems).

C. Multiple Regression: The CLRM (Three Variable Case) (15 Lectures)
- Specification of the Classical Linear Regression Model with Two Explanatory Variables – Application of OLS Method for Estimation of the Parameters of the Model.
- Violation of the Assumptions of OLS: Problems of Multicollinearity, Heteroscedasticity and Autocorrelation - Nature of Problem, Causes, Consequences, Remedies (Concepts Only).

D. Concept of Dummy Variable (07 Lectures)
- Definition – Uses of Dummy Variables – Dummy variables for Changes in Intercept Terms – Dummy Variables for Changes in Slope Coefficients - Estimation– Dummy Variable Trap

E. Specification Problem (08 Lectures)
- Omission of a Relevant Variable – Inclusion of an Irrelevant Variable – Tests of Specification Errors

REFERENCES:
1. Dominick Salvatore (2001): *Schaum's Outline of Statistics and Econometrics* (McGraw-Hill).
2. Maddala: *Introduction to Econometrics* (Wiley)
3. Gujrati, N Damodar (2011): *Basic Econometrics* (McGraw-Hill).
4. Peter Kennedy (2004): *A Guide to Econometrics* (Blackwell Publishers).
5. A. Koutsoynnis: *An Introduction to Econometrics*
6. Christopher Dougherty: *Introduction to Econometrics* (Oxford University Press, Indian Edn. 2007)
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THIRD YEAR: SEMESTER-VI

(UG/ECO/602/ C-14)   *Core- 14: Public Economics*

Credit- 06	Full Marks: 50	Classes: 60 (Lecture) + 15 (Tutorial)

Course Description

A. Nature & Scope of Public Economics   **(10 Lectures)**
- Definition and Scope of Public Economics
- Externalities: Meaning & Types of Externality - Positive and Negative Externalities – Externality & Market Failure
- Market Failure and Government Intervention
- The Coase Theorem

B. Theory of Public Goods   **(10 Lectures)**
- Concept of Public Goods– Pure Public Goods and Merit Goods - Characteristics of Pure Public Goods – Distinction between Pure Public Goods and Private Goods – Exclusion Principle – Public Goods & Free Rider Problem - Market Failure in Case of Public Goods
- Optimal Provision of Public Goods - Lindhal Equilibrium.

C. Taxation   **(20 Lectures)**
- Definition of Taxes & Cannons of Taxation
- Classification of Taxes: Direct and Indirect Taxes – Proportional, Progressive and Regressive Taxation - Merits & Demerits
- Principles of Taxation: Benefit Principle – Equal Sacrifice Principle –Ability to Pay Principle
- Burden of Taxes: Impact, Shifting and Incidence of Taxes
- Effects of Taxes: Effects of Taxation on Income Distribution, Work Efforts and on Savings – The Laffer Curve - Optimal Taxation

D. Public Expenditure & Public Debt   **(20 Lectures)**
- Public Expenditure: Meaning & Classification of Public Expenditure - Government Budget & its Types – Government Expenditure & Tax Multipliers – Balanced Budget Multiplier
- Public Debt: Meaning of Public Debt – Purposes of Public Debt - Sources of Public Borrowings: Internal and External Public Debt – Effects and Burden of Public Debt.
- Fiscal Federalism in India

REFERENCES:

1. Musgrave: *Theory of Public Finance*
2. R. A. Musgrave & P. B. Musgrave: *Public finance in Theory & Practice* (McGrawHill, 5th edn. 1989)
3. J. F. Due & A. F. Friedlander: *Government Finance – Economics of Public Sector* (AITBS Publishers, 1994)
4. J. E. Stiglitz: *Economics of Public Sector* (W.W. Norton & Company, 3rd Edn. 2000)
5. Amaresh Bagchi (Ed.): *Readings in Public Finance* (OUP)
6. A. Ghosh & C. Ghosh: Public Finance (Prentice-Hall India, 2nd Edn. 2014)
7. Subrata Ganguly - *Public Finance*
8. H.L.Bhatia: *Public Finance, Ltest Edition*

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THIRD YEAR: SEMESTER-VI
(UG/ECO/603/DSE-3) *DSE-3: One Course to be Chosen from the Following Two:*

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DSE-3.1: POLITICAL ECONOMY
Credit- 06   Full Marks: 50   Classes: 60 (Lecture) + 15 (Tutorial)

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Course Description

A. Characteristics of Classical Political Economy   **(10 Lectures)**
- Who are the Classical Economists - Basic Classical Questions - Chief Features of the Classical System – Adam Smith's Growth Theory – The Ricardian One Sector Model -   Classical Political Economy and Marx.

B. Social Change in Historical Perspective   **(10 Lectures)**
- The Theory of Historical Materialism
- Marxian Theory of Stages of Growth – The Transition From Feudalism to Capitalism – Capitalism as a Historical Process
- Emergence of Socialism

C. Classical Theory of Value   **(15 Lectures)**
- Adam Smith's Labour Theory of Value
- Ricardo's Statement of The Labour Theory of Value
- Marx's Analysis of Value: Commodity Production - Use Value & Exchange Value - Qualitative and Quantitative Aspects of Value – Commodity Fetishism - Labour & Value – Labour & Labour Power - Abstract & Concrete Labour – The Quantitative Value Problem & Concept of Socially Necessary Labour – Criticism of the Marxian Labour Theory of Value

D. Surplus Value and Capitalism   **(10 Lectures)**
- Simple Commodity Production & Capitalist Commodity Production – The Origin of Surplus Value
- Components of Value: Constant Capital, Variable Capital and Surplus Value – The Rate of Surplus Value
- Organic Composition of Capital – The Rate of Profit
- The Law of Falling Tendency of The Rate of Profit -- Counteracting Forces.& Criticism
- Circuits of Capital.

E. Capitalism & Accumulation of Capital   **(08 Lectures)**
- Reproduction Schemes: Simple & Extended Reproduction
- Accumulation & Industrial Reserve Army of labour
- Accumulation and Technological change.

F. Theory of Capitalist Crisis   **(07 Lectures)**
- The Nature of Capitalist Crisis
- Crisis associated with the Falling Rate of Profit
- Realisation Crisis: Disproportionality Crisis – Under-consumption Theory of Crisis

REFERENCES
1. P. Sweezy: *Theory of Capitalist Development* (KP Bagchi & Co. 1991)
2. A. K. Dasgupta: Epochs of Economic Theory (Oxford University Press)

3. Marc Blaug: *Economic Theory in Retrospect (CUP, 1978).*
4. Ben Fine: *Marx's capital* (Macmillan)
5. M. Desai: *Marxian Economics* (Basil Blackwell)
6. E. Mandel: *Marxist Economic Theory* (Merlin Press)
7. T. Bottomore: *A Dictionary of Marxist Thought* (OUP, Indian Edition, Maya Blackwell)
8. P.N. Junankar: *Marx's Economics* (Heritage Publishers)
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DSE-3.2: ENVIRONMENTAL ECONOMICS

Credit- 06   Full Marks: 50   Classes: 60 (Lecture) + 15 (Tutorial)

Course Description

A. Introduction   **(06 Lectures)**
- Subject Matter of Environmental Economics – The Environment-Economy Interaction – Key Environmental Issues and Problems – Economic Way of Thinking about These Problems

B. Theory of Externalities & Market Failure   **(14 Lectures)**
- Definition of Market Failure & Externalities – Positive & Negative Externalities - Pareto Optimality and Market Failure in the Presence of Externalities – Pollution as Externality – Optimal Level of Pollution.
- Externalities and Property Rights - The Coase Theorem.
- Common Property Resources & The Tragedy of Commons
- Public Goods & Free Rider Problem

C. Design and Implementation of Environmental Policy   **(12 Lectures)**
- Overview: Determination of the Socially Efficient Level of Emission - Optimum Pollution
- Types of Pollution Control Policy: Direct Regulation or Command-and-Control Policies – Polluters Pay Principle (PPP)
- Emissions/Pollution Standard
- Pigovian Taxes
- Emissions/Effluent Fee
- Standards Versus Fees and Taxes Versus Standards - Inefficiency of Standard-Setting
- Tradable Emissions/Pollution Permits – Advantages & Disadvantages

D. Environmental Valuation   **(12 Lectures)**
- Meaning of Environmental Valuation – Valuation of Non-market Goods & Services – Use of Economic Value, Costs, Benefits, Willingness To Pay (WTP) & Willingness To Accept (WTA), Total Economic Value, Option Value, and Existence Value.
- Brief Discussion of Alternative Methods of Valuation
- Cost-Benefit Analysis of Environmental Policies & Regulations

E. International Environmental Problems   **(08 Lectures)**
- Trans-Boundary Environmental Problems
- Global Warming
- Rain Forest Destruction
- Economics of Climate Change.
- North-South Divide

F. Environment & Sustainable Development   **(08 Lectures)**
- An Overview of Economic Development & Environmental Change – Possibility of Environmental Degradation
- Concepts of Sustainable Development & Environmental Accounting - Objectives of Sustainable Development - Environmental Protection & Sustainable Development
- Population-Resource-Environment Interlinkage
- Poverty & Environment
- Growth Versus Environment – The Environmental Kuznets Curve
- Rural Development & the Environment – Urban Development & The Environment
- Sustainable Development from Indian Perspectives.

REFERENCES
1. Charles Kolstad: *Intermediate Environmental Economics* (Oxford University Press, 2nd edn. 2010).
2. Pearce & Turner: *Economics of Natural Resources & The Environment*
3. Hanley Shogren & B. White: *Environmental Economics* (CUP, 1999)
4. Titenberg: *Environmental Economics*
5. Rabindranath Bhattacharya (ed.): *Environmental Economics – An Indian Perspective* (OUP)
6. Robert S. Pindyck, Daniel L. Rubinfeld, PremL.Mehta: *Microeconomics, Chapter 18* (7th Edn. Pearson).
7. Dominick Salvatore: *Microeconomics, Chapter 18* (Oxford)
8. Michael P. Todaro & Stephen C. Smith: *Economic Development* (Pearson, 10th Edn.)
9. Sampat Mukherjee: *Contemporary Development Economics* (New Central Book Agency)

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THIRD YEAR: SEMESTER-VI
(UG/ECO/604/DSE-4) *DSE-4: One Course to be Chosen from the Following Two:*

DSE-4.1: ISSUES IN DEVELOPMENT ECONOMICS

Credit- 06   Full Marks: 50   Classes: 60 (Lecture) + 15 (Tutorial)

Course Description

A. Demographic Issues & Development   **(10 Lectures)**
- Demographic Concepts: Birth & Death Rates, Fertility Rate, Mortality Rate, Life Expectancy at Birth, Sex Ratio, Age Structure & Dependency Burden, Youth Dependency Ratio
- Structure of the World's Population
- Effects of Population Growth on the Process of Development – The Two-Way Relation
- Theories of Population Growth: The Malthusian Theory – The Optimum Population Theory – The Theory of Demographic Transition – Relation between Economic Transition & Demographic Transition - Transition in LDCs – The Hidden Momentum of Population Growth
- Demographic Dividend or Demographic Window of Opportunity

B. Gender Issues & Development   **(06 Lectures)**
- Aspects of Gender Inequality: Discrimination Against Women at Workplace – Evidences of Unequal Treatment within Households
- The Concept of "Missing Woman" in Developing Countries

- Gender Gap in Health & Education – Consequences of Gender Bias in Health & Education – Benefits of Educating Women
- Woman & Development – Adverse Impact of Gender Bias on Development Performance
- Women & Poverty
- Importance of Empowerment of Women

C. International Trade & Development   **(07 Lectures)**
- Trade as Enemy, Handmaiden and Engine of Economic Growth
- Terms of Trade and Economic Development – The Prebisch-Singer Thesis
- Traditional Trade Strategies for Development: Import Substitution Vs. Export Promotion
- Trade Policy Reforms: Concept of Trade Liberalisation – Its Advantages & Disadvantages for Developing Countries

D. Foreign Capital Inflow: Opportunities & Controversies   **(08 Lectures)**
- Various Forms of Foreign Capital Inflow
- Role of Foreign Capital in Economic Development – The Logic of the Two-Gap Model
- Foreign Aid & The Development Assistance Debate: Arguments in Favour of Foreign Aid – Difficulties Associated with Foreign Aid – Tied Aid & Untied Aid
- Foreign Direct Investment(FDI): Meaning of FDI – Role of FDI in Economic Development – Pros & Cons
- Multinational Corporations (MNCs) & FDI: Present-day Role of MNCs in Developing Countries – Multinationals and Transfer of Technology
- Private Portfolio Investment- Boon or Bane for LDCs?

E. Development & The Role of The State, Market & Institutions   **(10 Lectures)**
- The Role of The State: Arguments for State Intervention in LDCs
- Development Planning: The Nature of & Rationale for Development Planning in Mixed Developing Economies
- The Crisis in Planning: Problems of Plan Implementation & Plan Failure – Reasons Thereof
- Government Failures and The Resurgent Preference for Markets over Planning – Role & Limitations of the Market in LDCs
- Development & Problem of Corruption: Meaning of Corruption – Importance of Elimination of Corruption for Economic Development – Governance Reform & Tackling the Problem of Corruption
- Decentralization, Development Participation and Role of NGOs, Self Help Groups, Women Agencies & Institutions of Micro Finance

F. Globalization & Economic Development   **(12 Lectures)**
- Globalization: Meaning & Dimensions – Conditions/ Essentials For Globalization - Implications & Impact of Globalization – Benefits & Opportunities, Costs & Risks for LDCs – Issue of International Migration & Brain Drain in the Globalization Perspective
- GATT & WTO: Objectives of GATT – Main Resolutions of The Uruguay Round – From GATT to WTO – Major Differences between GATT & WTO – Functions & Principles of WTO – The WTO Agreements – WTO Agreements & Developing Countries
- Globalization - The Indian Case: Obstacles to Globalisation – Favourable Factors – A Brief Review of Globalisation and its Impact on India

G. Environment & Sustainable Development   **(07 Lectures)**
- An Overview of Economic Development & Environmental Change – Scope of Environmental Degradation
- Concepts of Sustainable Development & Environmental Accounting

- Common-pool (or Common Property) Resources and The Tragedy of the Commons
- Poverty & Environment
- Growth Versus Environment – The Environmental Kuznets Curve
- Rural Development & The Environment – Urban Development & The Environment
- Environmental Issues & The North-South Divide

REFERENCES

1. Michael P. Todaro & Stephen C. Smith: *Economic Development* (Pearson, 10th Edn.)
2. Debraj Ray: *Development Economics* (Oxford University Press, 2009)
3. A. P. Thirlwall: *Growth & Development* (Lynne Rienner Publishers)
4. Gerald M. Meier & James E. Rauch: *Leading Issues in Development* (Oxford University Press)
5. Sampat Mukherjee: *Contemporary Development Economics* (New Central Book agency)
6. Subrata Ghatak : *Development Economics* (Routeledge, 4th Edn, 2012)
7. Pearce & Turner: *Economics of Natural Resources & The Environment*
8. Abhijit V. Banerjee & Esther Duflo: *Poor Economics-Rethinking Poverty & The ways to End It* (Random India)
9. Sunanda Sen: *Globalisation and Development* (National Book Trust, 2007)
10. J.G. Stiglitz: *Globalisation and its Discontents* (Penguin)
11. Soumyen Sikdar: *Contemporary Issues in Globalisation, An Introduction to Theory and Policy in India.* (Oxford University Press)
12. D. Nayyar: *Governing Globalisation, Issues and Institutions* (Oxford University Press)
13. Misra and Puri: *Indian Economy* (Himalaya Publishing House, Latest Edition)

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DSE-4.2: PROJECT	
Credit- 06	Full Marks: 50

GENERAL GUIDELINES FOR PROJECT

Purpose: The course is aimed at providing students the scope to develop skill for taking up independent analytical work/research project whereby they can learn how to select a real life problem, transform the problem into a research question and to apply an analytical framework based on theories and concepts studied and use quantitative tools learnt. They are supposed to come up with a conclusive answer to the research question.

Guidelines to be Followed:
1. The Project may be based on field survey or on analysis of data from a secondary data source. Accordingly, the project may address issues of local economy including issues of rural development, income inequality, unemployment, infrastructure, health & education etc. using primary data and applying simple statistical & econometric tools learnt.
   Alternatively, the project work may concentrate on any national issue like, structural changes, demographic issues, regional comparisons, changes in monetary & fiscal policies, studies of the union budgets etc. using secondary data (from sources like C.S.O., Census Reports, Union Budget Documents, NSS, Economic Survey, RBI Bulletins, Handbook of Statistics etc.) and applying simple statistical & econometric tools.
2. Each of the projects will be supervised by a teacher. Number of projects to be supervised by a teacher will be decided according to the number of teachers and the number of students in the respective departments.

3. There should be around 10 classroom lectures to prepare the students for Field Survey and to train them for Report Writing. The remaining time will be used for Field Visits and Report Writing.
4. The Project Report will have to be submitted at the end of the final semester classes (Sem-VI).
5. The Project Report should be between 4000-5000 words (excluding charts, diagrams, tables etc.). Each student will prepare two copies of the Report, one for submission and the other for personal reference.
6. <u>Structure of the Project Report:</u>
   - Title Page
   - Certificate from the Supervising Teacher
   - Certificate by the Student
   - Acknowledgements
   - Contents
   - List of Tables & Graphs
   - List of Acronyms used
   - An Abstract of the project work: The abstract will constitute an upto-one-page executive summary providing a brief outline of the objective, scope of the project, the methodology used, the main findings and results obtained and any conclusions or recommendations made.

   Chapters
   - Chapter –I: Introduction (Including Importance of the Study, Objectives of the Study, Methodology & Data Sources, Chapter Frame, Concepts used, Limitations & Further Scope of Research etc.)
   - Chapter-II: Review of Literature
   - Chapter-III: Profile of the Study Area (if any)
   - Chapter-IV: Data Analysis (Core of the Report)
   - Chapter-V: Summary of Findings & Conclusions
   - Appendix: Questionnaire/ Schedule, Other Exhibits
   - Select Bibliography
7. Evaluation will be on the basis of written Report (30 marks) and Viva Voce (20 marks). The Viva Voce will be conducted along with the End Semester Examination.
8. The board of examiners will consist of one internal and one external examiner (from some other college).
9. The marks of the written Report will be the average of marks given by the internal and external examiners.
10. However, the viva-voce will be conducted and the marks awarded by the external examiner only.

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❖ *Semester-wise Detailed Syllabus of Generic Elective (GE) Courses To Be Offered By The Department Of Economics For The Honours Students From Other Disciplines*

FIRST YEAR: SEMESTER–I
(UG/ECO/ 103/GE-1)   *GE-1: One Course to be Chosen from the Following Two:*

GE–1.1   INTRODUCTORY MICROECONOMICS
Credit- 06   Full Marks: 50   Classes: 60 (Lectures) +15 (Tutorials

Course Description

A. General Concepts   (10 Lectures)
- Definition of Economics – Problem of Scarcity & Choice – Scarcity, Choice and Opportunity Cost – Production Possibility Frontier – The Cost Benefit Approach to Decisions – Rationality and Self Interest – The Concept of Marginal Analysis – Positive & Normative Economics - Distinction between Microeconomics and Macroeconomics – Concepts of Different Microeconomic Units: Commodity, Consumer, Firm, Industry, Market – Three Fundamental Economic Questions: What to Produce and in What Quantities – How to Produce – For Whom to Produce – Economic Systems.
- Reading Graphs: Functional Relation – Graphs, Slopes & Intercepts – Average & Marginal Values.

B. Elementary Theories of Demand, Supply & Market   (14 Lectures)
- Demand Analysis: Definition of Demand – Individual & Market Demand - Determinants of Demand – Demand Schedule - Law of Demand, Demand Function and The Demand Curve - Derivation of the Market Demand Curve from Individual Demand Curves – Shifts of Demand Curves Versus Movements along a Demand Curve
- Elasticities of Demand: Price Elasticity of Demand – Definition, Calculation, Determinants and Uses –Cross Price Elasticity & Income Elasticity of Demand – Definition, Calculation and Uses – Concepts of Normal & Inferior Goods & Complements and Substitutes.
- Supply Analysis: Definition of Supply – Determinants of Supply – Law of Supply, Supply Function and the Supply Curve – Shifts of Supply Versus Movements along a Supply Curve – Market Supply – Elasticity of Supply: Definition & Uses.
- Market Equilibrium: Interaction between Market Demand & Market Supply and Determination of Equilibrium Market Price & Quantity - The Concept of Stability of Equilibrium (Walrasian Version).
- Comparative Static Analysis: Consequences of Shifts in Demand & Supply.
- Applications of Demand & Supply Analysis: Price Rationing, Price Floors, Consumer's Surplus, Producer's Surplus

C. Theory of Consumer Behaviour: Alternative Approaches   (14 Lectures)
- Marshallian Approach: Assumptions - Concept & Cardinal Measurement of Utility – Total & Marginal Utility - Law of Diminishing Marginal Utility – Consumer's Equilibrium: Law of Equi-marginal Utility – Diminishing Marginal Utility and The Law of Demand.
- Indifference Curve Approach: Concept of Ordinal Utility and Assumptions of Indifference Curve Approach – Definition & Properties of Indifference Curves - Budget Line - Consumer's Equilibrium– Comparative Statics: Price Effect, Income Effect and Substitution Effect - Price-Consumption, Income-Consumption &

Engel Curves – Classification of Commodities: Normal, Inferior and Giffen Goods - Derivation of the Demand Curve.

D. Theory of Production, Cost & Revenue   **(18 Lectures)**
- <u>Production:</u> Input-Output Relationships & The Production Function – Law of Variable Proportions – Total, Average & Marginal Product Curves – Short Run & Long Run Production – Return to Factor & Returns to Scale – Choice of Technology: Isoquants & their Properties – Iso-cost lines – Simple Derivation of the Equilibrium Cost Minimising & Output Maximising Input Combination – Expansion Path.
- <u>Cost:</u> Fixed Cost, Variable Cost & Sunk Costs – Total, Average and Marginal Cost Curves in the Short Run and Long Run – Derivations, Shapes & Relations.
- <u>Revenue:</u> Concepts of Total Revenue (TR), Average Revenue (AR) & Marginal Revenue (MR) – Relation between TR, AR & MR Curves – Relation between AR, MR & Elasticity of Demand
- MC, MR & Equilibrium of the Firm – Profit Maximisation.

E. Market Morphology   **(04 Lectures)**
- Classification of Markets - Different Criteria for Classification of Markets: Nature of Product, Number of Buyers & Sellers, Control Over Price, Conditions of Entry & Exit - Perfect Competition, Monopoly, Monopsony, Monopolistic Competition, Duopoly and Oligopoly (Definitions, Examples & Discussion of Basic Features Only).

<u>**REFERENCES**</u>
1. Samuelson & Nordhaus: *Economics* (Mc-GrawHill)
2. N. Gregory Mankiw: *Economics- Principles & Applications* (Cengage Learning India Pvt. Ltd., 2007)
3. Karl E. Case & Ray C. Fair: *Principles of Economics* (Pearson Education, 8th Edn.2007)
4. Joseph E, Stiglitz & Carl E. Walsh: *Economics* (W. W. Norton & Company, 2007)
5. Lipsey & Chrystal: *Economics* (Oxford University Press)
6. জয়দেব সরখেল : আধুনিক অর্থনীতির ভূমিকা -প্রথম খণ্ড (বুক সিন্ডিকেট)
7. সম্পৎ মুখার্জি ও দেবেশ মুখার্জি : সমকালীন অর্থবিদ্যা (নিউ সেন্ট্রাল বুক এজেন্সী)
8. হরিদাস আচার্য: আধুনিক অর্থনীতি (প্রতিভা পাবলিকেশনস)

GE–1.2 ECONOMIC HISTORY OF INDIA (1857–1947)		
Credit- 06	Full Marks: 50	Classes: 60 (Lectures) +15 (Tutorials

Course Description

A. Introduction   **(02 Lectures)**
- India's Colonial Background – Overview of the Colonial Economy

B. Macro Trends   **(05 Lectures)**
- National Income – Population - Occupational Structure.

C. Agriculture   **(15 Lectures)**
- Agrarian Structure and Land Relations – A Brief Review of Land Settlements - Major Tenancy Reforms & their Implications
- Commercialisation of Agriculture- Causes & Effects
- Famines & Famine Relief in India – Frequency, Nature and Causes of Famines.

D. Development of Railways and Irrigation   **(08 Lectures)**
- Causes & Economic Effects of Development of Railways – Development of Irrigation System -Railway Vs Irrigation Debate

E. Deindustrialization & Growth of Modern Industries   **(15 Lectures)**
- Meaning, Causes & Consequences of Deindustrialization - The Deindustrialization Debate
- Process of Industrial Transition in India - Evolution of Entrepreneurial and Industrial Structure - Nature of Industrialisation in the Interwar Period - Constraints to Industrial Breakthrough.

F. Economy and State in the Imperial Context   **(15 Lectures)**
- The Imperial Priorities and The Indian Economy: Forms & Consequences of Colonial Exploitation – Exploitation through International Trade and Capital Flows – Government and Fiscal policy – Theory of Economic Drain.

REFERENCES
1. R.C. Dutt: *Economic History of India (Vols. I & II)*
2. Dhiresh Bhattacharya: *A Concise Economic History of India*
3. V. B. Singh: *Indian Economic History*
4. Tirthankar Roy: *The Economic History of India 1857-1947* (Oxford University Press, 3rd edition)
5. বরুন চক্রবর্তী: ভারতের সংক্ষিপ্ত অর্থনৈতিক ইতিহাস (পশ্চিমবঙ্গ রাজ্য পুস্তক পর্ষদ)
6. সব্যসাচী ভট্টাচর্য্য: ঔপনিবেশিক ভারতের অর্থনীতি (আনন্দ পাবলিশার্স)

First Year: SEMESTER-II

(UG/ECO/ 203/GE-2)   *GE-2: One Course to be Chosen from the Following Two:*

GE-2.1   INTRODUCTORY MACROECONOMICS

Credit- 06 (Tutorial)	**Full Marks: 50**	**Classes: 60 (Lecture) + 15**

A. Introduction   **(05 Lectures)**

- Definition, Nature & Scope of Macroeconomics – Major Macroeconomic Issues – Basic Ideas of Classical & Keynesian Macroeconomics
- Some Basic Concepts: Economic Models – Endogenous & Exogenous Variables – Stocks & Flows – Real & Nominal Variables – Equation & Identity - Ex-Ante & Ex-Post Values.

B. Circular Flow &National Income Accounting   **(10 Lectures)**

- Circular Flow of Income: Circular Flow of Income in a Closed Economy Without Government Activities & With Government Activities - Circular Flow of Income in an Open Economy – Withdrawal & Injections.
- Definitions, Concepts & Measurement of National Income: GDP, GNP. NDP, NNP At Market Price & Factor Cost - Concepts of Disposable Income, Personal Income, Per-capita Income.
- Three Methods of National Income Accounting – Output, Income and Expenditure Methods.
- Real & Nominal GDP ---the Concept of GDP Deflator and Price Indices
- The Accounting Identity Between Saving & Investment
- Problems of using National Income and Per-capita Income as a Measure of Economic Welfare.

C. Simple Keynesian Model of Income Determination   **(12 Lectures)**

- Keynesian Consumption Function & its Properties – Concepts of APC & MPC - Factors Affecting Consumption Expenditure --- Saving Function & its Properties – Concepts of APS & MPS – Relationships among APC, MPC, APS & MPS
- Determination of Equilibrium Level of National Income – Nature & Stability of Equilibrium
- Comparative Static Analysis: The Simple Keynesian Multiplier Analysis – Investment Multiplier - Limitations of the Multiplier Analysis.
- The Paradox of Thrift.

D. Theory of Investment   **(05 Lectures)**

- Concept of Investment – Autonomous & Induced Investment – Gross Investment & Net Investment
- Marginal Efficiency of Capital (MEC) and Keynesian Analysis of Investment.
- The Simple Acceleration Theory of Investment - Statement, Assumptions, Implications & Limitations
  (Without Rigorous Mathematical Derivations)

E. Money   (05 Lectures)

- Definition & Functions of Money – Value of Money – Components of Money Supply (M_1, M_2, M_3 etc.)
- Quantity Theory of Money: Fisher's Version and Cambridge Version – Comparison & Criticisms.
- Demand for Money: Transactions, Precautionary & Speculative Demand for Money – The Liquidity Preference Theory.

F. Classical Theory of Employment   (04 Lectures)

- Classical Theory of Employment and Output – Say's Law of Markets – Concept of Full Employment.

G. Theory of Inflation   (15 Lectures)

- Concepts of Inflation, Deflation & Stagflation – Types & Causes of inflation
- Inflationary Gap Analysis & its Limitations
- Distinction between Demand-pull and Cost-push Inflation
- Inflation & Unemployment: Types of Unemployment & their Characteristics – Inflation-Unemployment Trade-off: Basic Concept of Phillips Curve.
- Effects of Inflation
- Anti-Inflationary Policies

REFERENCES

1. Samuelson & Nordhaus: *Economics* (Mc-GrawHill)
2. Soumyen Sikdar: *Principles of Macroeconomics* (Oxford University Press)
3. N. Gregory Mankiw: *Principles of Macroeconomics* (Indian reprint by Thompson South-Western., 2007)
4. Karl E. Case & Ray C. Fair: *Principles of Economics* (Pearson Education, 8th Edn.2007)
5. Joseph E, Stiglitz & Carl E. Walsh: *Economics* (W. W. Norton & Company, 2007)
6. Lipsey & Chrystal: *Economics* (Oxford University Press)
7. জয়দেব সরখেল : আধুনিক অর্থনীতির ভূমিকা - দ্বিতীয় খন্ড (বুক সিন্ডিকেট)
8. সম্পৎ মুখার্জি ও দেবেশ মুখার্জি : সমকালীন অর্থবিদ্যা (নিউ সেন্ট্রাল বুক এজেন্সী)
9. হরিদাস আচার্য: আধুনিক অর্থনীতি (প্রতিভা পাবলিকেশনস)

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GE-2.2 MONEY & BANKING		
Credit- 06	Full Marks: 50	Classes: 60 (Lectures) +15 (Tutorials

Course Description

A. Money   **(06 Lectures)**
- Definition of Money – Kinds of Money: Fiduciary/ Debt/ Credit Money – Coins, Paper Currency & Deposit Money - Legal Tender or Fiat Money and Non-legal Tender or Credit Money Proper - Limited & Unlimited Legal Tender – e-Money & Plastic Money – Functions of Money – Money Vs. Near Money – Examples of Near Money - Value of Money – High-powered Money or Monetary Base - Measures of Money Supply.

B. Overview of The Financial System   **(08 Lectures)**
- Meaning & the Role/Functions of the Financial System - Constituents of the Financial System: Financial Assets/ Instruments; Financial Intermediaries/ Institutions; and Financial Markets
- Definition & Role of Financial Markets – Classification of Financial Markets: Money Market & Capital Market – Basic Distinction between Money Market & Capital Market
- Definition & Role of Financial Intermediaries – Classification of Financial Intermediaries: Banks and Non-Bank Financial Institutions (NBFIs)
- Financial Assets/Instruments: Distinction between Primary & Secondary Securities – Debt & Equity Instruments of Various Types – Bonds, Shares, Debentures etc.

C. Money Market   **(06 Lectures)**
- Features, Importance & Functions of the Money Market - Characteristics of Developed and Underdeveloped Money Markets
- Components of Money Market: Call Money Market - Commercial Bill Market - Treasury Bill Market – Repo & Reverse Repo Markets.

D. Capital Market   **(14 Lectures)**
- Features, Importance & Functions of the Capital Market - Characteristics of Developed and Underdeveloped Capital Markets
- Components of Capital Market: Gilt-edged Market and the Industrial Securities Market – Distinction between Primary Market and Secondary Market
- Features, Role & Functions of Stock Market or Stock Exchange

E. Banks: Commercial Banks & The Central Bank   **(16 Lectures)**
- Definition & Functions of Commercial Banks – Concepts of Primary & Derivative Deposits and the Process of Credit Creation by Commercial Banks – Role of Commercial Banks in Economic Development.
- Definition & Functions of Central Bank – Distinction between Central Bank & Commercial Banks – Central Bank & Monetary Policy: Definition, Goals, Targets, Indicators & Instruments of Monetary Policy – Various Types of Quantitative & Qualitative Instruments of Credit Control.

F. Non-Bank Financial Intermediaries   **(05 Lectures)**
- Distinction Between Commercial Banks & NBFIs – Validity of the Distinction - Examples of NBFIs – Development Banks, Mutual Funds, Insurance Companies - Central Bank's Control Over NBFIs.

G. Financial Markets and Interest Rates Behaviour   (05 Lectures)

- Gross & Net Interest - Real & Nominal Interest Rates – Sources of Interest Rate Differentials – Meaning of Term Structure of Interest Rates - Theories of Term Structure of Interest Rates: The Expectations Theory – The Liquidity or Risk Premium Theory – The Market Segmentation Theory

REFERENCES

1. Suraj B. Gupta: *Monetary Economics- Institutions, Theory & Policy* (S.Chand & Co)
2. S. Gursami: *Indian Financial System* (Tata McGraw Hill)
3. L. M. Bhole: *Financial Institutions and Markets* (Tata McGraw Hill).
4. R. R. Paul: *Monetary Economics* (Kalyani Publishers)
5. F. S. Mishkin and S. G. Eakins, *Financial Markets and Institutions* (Pearson Education)
6. F. J. Fabozzi, F. Modigliani, F. J. Jones & M. G. Ferri: *Foundations of Financial Markets and Institutions* (Pearson Education).
7. M. Y. Khan: *Indian Financial System (*Tata McGraw Hill).

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SECOND YEAR: SEMESTER–III

(UG/ECO/ 304/GE-3)   *GE-3: One Course to be Chosen from the Following Two:*

GE–3.1 INDIAN ECONOMY–I		
Credit- 06	Full Marks: 50	Classes: 60 (Lectures) +15 (Tutorials

Course Description

A. India as a Developing Economy   (04 Lectures)

- Salient Features of the Indian Economy as a Developing Economy – Causes of Underdevelopment of the Indian Economy.

B. National Income & Occupation Structure   (08 Lectures)

- Methods of National Income Estimation in India – Problems of Estimation
- Growth & Trends in National and Per Capita Income in India in the Post-independence Period
- Sectoral Distribution of National Income and its Change over Time
- Changes in Occupation Structure in India over Time.

C. Population   (08 Lectures)

- Study of Trends in Demographic Features in India from Different Census Data: Size & Growth Rate of Population – Density of Population - Birth & Death Rates – Infant Mortality Rate – Sex Ratio – Life Expectancy at Birth –Literacy Rates – Age Composition – Rural-Urban Distribution of Population & the Degree of Urbanisation Over Time.
- Three Stage Theory of Demographic Transition in the Indian context.
- Demographic Dividend and the Window of Opportunity
- Population Policy

D. Poverty & Unemployment   (10 Lectures)

- Problem of Poverty in India – Concept, Measurement and Extent of Poverty – Social Dimensions of Poverty - Major Poverty Alleviation Programmes and their Evaluation.

- Problem of Unemployment in India – Different Types of Unemployment – Extent of Unemployment – Assessment of the Employment Policy of the Govt. Of India.

E. Agricultural Sector in India   (18 Lectures)
- <u>Production & Productivity:</u> Trends in Agricultural Production & Productivity in India **–** Causes of Low Productivity – Farm Size & Productivity Debate
- <u>Land Reforms:</u> Meaning, Importance, Objectives & Salient Features - Evaluation of the Land Reform Measures.
- <u>Green Revolution</u>: Meaning and Features – Impact of Green Revolution on Agricultural Production & Productivity, Distribution of Income and on Regional Distribution – Causes of Uneven & Limited Spread.
- <u>Rural Credit & Capital Formation in Agricultural Sector</u>: The Problem of Rural Indebtedness and Need for Rural Credit – Different Sources of Short-term & Long-term Credit – Role of Cooperatives, Commercial Banks & Regional Rural Banks – Rural Credit & the Role of NABARD - Microfinance.
- <u>Agricultural Marketing</u>: Problems / Defects of Agricultural Marketing in India – Role of Co-operatives in Agricultural Marketing – Warehousing Facilities in India – Reforms in Agricultural Marketing with Special Reference to APMC Act.
- Globalisation and Indian Agriculture.

F. Industrial Development   (12 Lectures)
- <u>Industrial Production & Patterns:</u> Trends in Industrial Production and Changes in Industrial Pattern during the Plans
- Effects of Globalisation on Indian Industry.
- Change in Industrial Policy Over Time
- <u>Small Scale & Cottage Industries:</u> Definition of Cottage and Small Scale Industrial Units – Role, Performance & Problems of Small-Scale and Cottage Industries in Indian Economy – Government Policy in Respect of Small-Scale and Cottage Industries.

REFERENCES
1. Datt and Sundharam: *Indian Economy* (S. Chand, Latest Edition)
2. Mishra and Puri: *Indian Economy* (Himalaya Publishing House, Latest Edition)
3. Uma Kapila: *Indian Economy – Issues in Development & Planning and Sectoral Aspects* (Academic Foundation, 19th Edn.)
4. Joshi & Little: *India's Economic Reforms1991-2001* (OUP)
5. Bimal Jalan (Ed.):*The Indian Economy* (OUP)
6. দেবেশ মুখার্জী: সমকালীন ভারতীয় অর্থনীতি (নিউ সেন্ট্রাল বুক এজেন্সী)
7. বসাক ও চক্রবর্তী: ভারতের অর্থনীতির পরিচয় (বিদ্যোদয় লাইব্রেরী)
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GE-3.2   PUBLIC FINANCE
Credit- 06   Full Marks: 50   Classes: 60 (Lectures) +15 (Tutorials

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Course Description

A. Introduction to Public Finance   (06 Lectures)
- Definition and Scope of Public Finance
- Types of Fiscal Functions – Allocation Function, Distribution Function and Stabilization Function – Fiscal Functions in a Developing Economy

B. Public Goods , Externalities & Market Failure   (10 Lectures)

- <u>Overview of Public Goods</u>: Concept of Public Goods – Characteristics of Public Goods – Distinction between Public Goods and Private Goods – Exclusion Principle & its Non-applicability in case of Public Goods
- <u>Externalities</u>: Types of Externality - Positive and Negative Externalities - Concept of Market Failure - Market Failure in case of Public Goods

C. Theory of Taxation   (18 Lectures)

- Definition of Taxes & Cannons of Taxation
- Classification of Taxes: Direct and Indirect Taxes – Proportional, Progressive and Regressive Taxation
- Principles of Taxation: Benefit Principle – Equal Sacrifice Principle –Ability to Pay Principle
- Burden of Taxes: Impact, Shifting and Incidence of Taxes
- Effects of Taxes: Effects of Taxation on Income Distribution, Work Efforts and on Savings

D. Public Debt   (06 Lectures)

- Meaning of Public Debt – Purposes of Public Debt - Sources of Public Borrowings: Internal and External Public Debt – Effects and Burden of Public Debt.

E. Indian Public Finance   (20 Lectures)

- Objectives of Fiscal Policy – Budget & its Types - Components of Govt. Revenue & Expenditure - Components of Govt. Budgets – Different Forms of Budget Deficits
- Fiscal Federalism in India – Centre-State Financial Relation
- Current Issues in India's Tax System – Tax Reforms Since 1991

REFERENCESS

1. Musgrave: *Theory of Public Finance*
2. R. A. Musgrave & P. B. Musgrave: *Public finance in Theory & Practice* (McGrawHill, 5th edn. 1989)
3. J. E. Stiglitz: *Economics of Public Sector* (W.W. Norton & Company, 3rd Edn. 2000)
4. Amaresh Bagchi (Ed.): *Readings in Public Finance* (OUP)
5. A. Ghosh & C. Ghosh: Public Finance (Prentice-Hall India, 2nd Edn. 2014)
6. Subrata Ganguly - *Public Finance*
7. H.L.Bhatia: *Public Finance, Ltest Edition*
8. Datt and Sundharam: *Indian Economy* (S. Chand, Latest Edition)
9. Misra and Puri: *Indian Economy* (Himalaya Publishing House, Latest Edition)
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SECOND YEAR: SEMESTER-IV

(UG/ECO/ 404/GE-4)   *GE-4: One Course to be Chosen from the Following Two:*

GE-4.1   INDIAN ECONOMY-II

<u>Credit- 06</u>   <u>Full Marks: 50</u>   <u>Classes: 60 (Lectures) +15 (Tutorials</u>

Course Description

A. Indian Planning Experience   (15 Lectures)

- Definition of Economic Planning – The Rationale for Planning in a Mixed Developing Economy like India – Planning Vs Market – Concept of Decentralised Planning

- Planning Authority in India: National Development Council – Planning Commission – NITI Aayog – Reasons & Objectives behind formation of Niti Aayog
- Broad Objectives of Planning in India: Evolution of India's Development Goals & Strategies – Pre -1991 & Post-1991 Plans
- Overall Achievements & Failures of India's Five Year Plans

B. Public Sector in India   (05 Lectures)
- Public Sector: Meaning, Role, Performance & Problems of Public Sector Enterprises in India – Privatisation & Disinvestment Policy – Exit Policy.

C. Money, Banking & Monetary Policy   (15 Lectures)
- Concepts of Money Supply in India (M_1, M_2 etc.)
- The Role of Commercial Banks in India – Nationalisation of Banks – Banking Sector Reforms – Causes & Consequences
- Features of Money and Capital Markets in India
- Reserve Bank of India and Monetary Policy.

D. Indian Public Finance   (15 Lectures)
- Sources of Revenue of Central and State Governments – Direct & Indirect Taxes – Major Heads of Expenditures – Plan vs. Non-plan Expenditures
- Centre-State Financial Relations – Role of Finance Commission of India
- Tax Reforms since 1991
- Components of Public Debt in India

E. India's Foreign Trade & Balance of Payments   (10 Lectures)
- Importance of Foreign Trade for India – Volume & Direction of Foreign Trade in the Post-Liberalisation Period - Reforms in Foreign Trade Policy since 1991 - SEZ Policy
- Trends of India's Balance of Payments in the Post-Liberalisation Period.

REFERENCES
1. Datt and Sundharam: *Indian Economy* (S. Chand, Latest Edition)
2. Misra and Puri: *Indian Economy* (Himalaya Publishing House, Latest Edition)
3. Uma Kapila: *Indian Economy – Issues in Development & Planning and Sectoral Aspects* (Academic Foundation, 19th Edn.)
4. Joshi & Little: *India's Economic Reforms1991-2001* (OUP)
5. Bimal Jalan (Ed.):*The Indian Economy* (OUP)
6. দেবেশ মুখার্জী: সমকালীন ভারতীয় অর্থনীতি (নিউ সেন্ট্রাল বুক এজেন্সী)
7. বসাক ও চক্রবর্তী: ভারতের অর্থনীতির পরিচয় (বিদ্যোদয় লাইব্রেরী)
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GE–4.2 ENVIRONMENTAL ECONOMICS		
Credit- 06	Full Marks: 50	Classes: 60 (Lectures) +15 (Tutorials)

Course Description

A. Introduction   (06 Lectures)
- Subject Matter of Environmental Economics – The Environment-Economy Interaction – Key Environmental Issues and Problems – Economic Way of Thinking about These Problems

B. Theory of Externalities & Market Failure **(14 Lectures)**
- Definition of Market Failure & Externalities – Positive & Negative Externalities - Pareto Optimality and Market Failure in the Presence of Externalities – Pollution as Externality – Optimal Level of Pollution.
- Externalities and Property Rights - The Coase Theorem.
- Common Property Resources & The Tragedy of Commons
- Public Goods & Free Rider Problem

C. Design and Implementation of Environmental Policy **(12 Lectures)**
- Overview: Determination of the Socially Efficient Level of Emission - Optimum Pollution
- Types of Pollution Control Policy: Direct Regulation or Command-and-Control Policies – Polluters Pay Principle (PPP)
- Emissions/Pollution Standard
- Pigovian Taxes
- Emissions/Effluent Fee
- Standards Versus Fees and Taxes Versus Standards - Inefficiency of Standard-Setting
- Tradable Emissions/Pollution Permits – Advantages & Disadvantages

D. Environmental Valuation **(12 Lectures)**
- Meaning of Environmental Valuation – Valuation of Non-market Goods & Services – Use of Economic Value, Costs, Benefits, Willingness To Pay (WTP) & Willingness To Accept (WTA), Total Economic Value, Option Value, and Existence Value.
- Brief Discussion of Alternative Methods of Valuation
- Cost-Benefit Analysis of Environmental Policies & Regulations

E. International Environmental Problems **(08 Lectures)**
- Trans-Boundary Environmental Problems
- Global Warming
- Rain Forest Destruction
- Economics of Climate Change.
- North-South Divide

F. Environment & Sustainable Development **(08 Lectures)**
- An Overview of Economic Development & Environmental Change – Possibility of Environmental Degradation
- Concepts of Sustainable Development & Environmental Accounting - Objectives of Sustainable Development - Environmental Protection & Sustainable Development
- Population-Resource-Environment Interlinkage
- Poverty & Environment
- Growth Versus Environment – The Environmental Kuznets Curve
- Rural Development & the Environment – Urban Development & The Environment
- Sustainable Development from Indian Perspectives.

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