



**Department of Economics & Politics
Vidya-Bhavana
Visva-Bharati**

BA (HONS) (ECONOMICS) SYLLABUS

(FOLLOWING UGC UNDERGRADUATE CBCS SYLLABUS)

REVISED in 2022

(As adopted in the BOS meeting held on 6th March, 2017 and subsequently at the Institute Board and Academic Council and effective from the academic year 2017-18)

Course Structure for B.A.(Hons.) Economics

There will be **fourteen (14) economics core courses** that students are required to take across six semesters. All the core courses are compulsory.

In addition to core courses in economics, a student of B.A. (Hons.) Economics will choose **(4) four Discipline Specific Elective (DSE) Courses**. The DSE Courses are offered in the **Semesters V and VI** and two such courses will be selected by a student from a set of courses specified for each of these semesters (Groups I and II in the attached table). The Department will offer at least three DSE Courses in **semesters V and VI** to allow the students some minimal element of choice. The syllabi for the DSE Courses are provisional and subject to revision.

A BA (Hons) Student will also choose **(2) two Ability Enhancing Compulsory Course (AECC)**. In **Semester I and II** students will choose one Ability Enhancing Compulsory Course (AECC) each which are I (English/Hindi/MIL) and II (Environmental Science). These are compulsory.

A BA (Hons) student in Economics will also choose **(2) two Skill Enhancing Compulsory Course (SECC)** determined by the Department one each in Semester III and IV. These Courses will be Mathematical Methods-I (Sem III) and Statistical Methods- II (Sem IV)

All BA (Hons) students must also choose **(4) four Generic Elective (GE)** courses in an unrelated discipline or subject. These include one course each in Semesters I to IV. The Department of Economics will also offer a Generic Elective in Economics for students of other Departments. The Department of Economics & Politics will also offer a Generic Elective course in Political Science for students of other Departments as well as students of Economics (Honours).

Contact Hours: Each course has 5 lectures and 1 tutorial (per group) per week (6 credits). Each course will be of 75marks (60 for end semester exam +15for internal assessment)

Eligibility for admission to B.A. (Hons) Economics: Given the quantitative requirements of the program, only students who have passed mathematics at the Class XII level are eligible for admission subject to fulfillment of

aggregate qualifying marks requirement to be fixed by the department / admission committee.

Course Structure for B.A.(Hons.) Economics

Semester-I	Semester-II
CC01: Introductory Microeconomics	CC03: Introductory Macroeconomics
CC02: Mathematical Methods for Economics-I	CC04: Mathematical Methods for Economics-II
AECC-I: English	AECC-II: Environmental Science
Generic Elective (GE) Course-I	Generic Elective (GE) Course-II

Semester-III	Semester-IV
CC-05: Intermediate Microeconomics-I	CC-8: Intermediate Microeconomics-II
CC-06: Intermediate Macroeconomics-I	CC-9: Intermediate Macroeconomics-II
CC-07: Statistical Methods for Economics	CC-10: Indian Economy-I
SECC-I: Mathematical Methods III	SECC-II: Statistical Methods II
Generic Elective (GE) Course-III	Generic Elective (GE) Course-IV

Semester-V	Semester-VI
CC-11: Introduction to Econometrics	CC-13: Indian Economy-II
CC-12: Development Economics – I	CC-14: International Economics
Discipline Specific Elective (DSE) Course-I (From List of Group-I)	Discipline Specific Elective (DSE) Course-III (From List of Group-II)
Discipline Specific Elective (DSE) Course-II (From List of Group-I)	Discipline Specific Elective (DSE) Course-IV (From List of Group-II)
Group-I (Discipline Specific Elective (DSE) Courses)	Group-II (Discipline Specific Elective (DSE) Courses)
(I) Public Economics	(VII) Environmental Economics
(II) Money and Financial Markets	(VIII) Development Economics–II
(III) Economic History of India (1857-1947)	(IX) Economic History of the World (Late 19 th Century to Late 20 th Century)
(IV) Economics of Health and Education	(X) Applied Quantitative Techniques
(V) Topics in Microeconomics	(XI) Trade, Growth and Development
(VI) Financial Economics	(XII) Dissertation/Project

BA Economics: Subjects / Courses / Papers with New Codes

Semester-I		Semester-II	
Code	Name	Code	Name
ECUC01	Introductory Microeconomics	ECUC03	Introductory Macroeconomics
ECUC02	Mathematical Methods for Economics-I	ECUC04	Mathematical Methods for Economics-II
AECC-I	English	AECC-II	Environmental Science
GEC-I	Generic Elective (GE) Course-I	GEC-II	Generic Elective (GE) Course-II

Semester-III		Semester-IV	
Code	Name	Code	Name
ECUC05	Intermediate Microeconomics-I	ECUC08	Intermediate Microeconomics-II
ECUC06	Intermediate Macroeconomics-I	ECUC09	Intermediate Macroeconomics-II
ECUC07	Statistical Methods for Economics	ECUC10	Indian Economy-I
SECC-I	Mathematical Methods III	SECC-II	Statistical Methods II
GEC-III	Generic Elective (GE) Course-III	GEC-IV	Generic Elective (GE) Course-IV

Semester-V		Semester-VI	
Code	Name	Code	Name
ECUC11	Introduction to Econometrics	ECUC13	Indian Economy-II
ECUC12	Development Economics - I	ECUC14	International Economics
DSE I	Discipline Specific Elective (DSE) Course-I (From List of Group-I)	DSE III	Discipline Specific Elective (DSE) Course-III (From List of Group-II)
DSE II	Discipline Specific Elective (DSE) Course-II (From List of Group-I)	DSE IV	Discipline Specific Elective (DSE) Course-IV (From List of Group-II)
Group-I (Discipline Specific Elective (DSE) Courses)		Group-II (Discipline Specific Elective (DSE) Courses)	
Code	Name	Code	Name
ECUD01	Public Economics	ECUD07	Environmental Economics
ECUD02	Money and Financial Markets	ECUD08	Development Economics-II

ECUD03	Economic History of India (1857-1947)	ECUD09	Economic History of the World (Late 19 th Century to Late 20 th Century) Comparative Economic Development (1850-1950)
ECUD04	Economics of Health and Education	ECUD10	Applied Quantitative Techniques
ECUD05	Topics in Microeconomics	ECUD11	Trade, Growth and Development
ECUD06	Financial Economics	ECUD12	Dissertation/Project

ECUC: Economics (EC) Under Graduate (U) Core Course (C);

ECUD: Economics (EC) Under Graduate (U) DSE Course (D)

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(As adopted in the BOS meeting held on 6th March, 2017 and subsequently at the Institute Board and Academic Council and effective from the academic year 2017-18)

CORE COURSES (14)

SEMESTER-I

Core Course 1 (CC-01): INTRODUCTORY MICROECONOMICS

Course objectives: The emphasis of the course will be on thinking like an economist and the course will illustrate how microeconomic concepts can be applied to analyse real-life situations.

Learning Outcomes: This course is designed to expose first-year students, who maybe new to economics, the basic principles of microeconomic theory.

Exploring the subject matter of Economics (5L)

Why study economics? Scope and method of economics; the economic themes: scarcity and efficiency; thinking like an economist: the question of what to produce, how to produce and how to distribute output; marginal benefits and marginal costs; opportunity cost (private and social); the basic competitive model; prices, property rights, the role of property rights in markets and profits; incentives and information; rationing; opportunity sets; economic systems; reading and working with graphs.

Supply and Demand: How Markets Work, Markets and Welfare (10L)

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

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

The elementary theory of market price: determination of equilibrium price in a competitive market; the effect of shifts in demand and supply; the excess demand function: Existence, uniqueness, and stability of equilibrium; consumer surplus, producer surplus and efficiency of competitive markets (graphical approach); the idea of market failure; Elasticities and their applications, the idea of market failure.

Government intervention and their impact on market equilibrium and efficiency: controls on prices (Price ceilings and price floors); indirect taxation

The Households (17L)

The consumption decision –budget constraint, consumption and income and price changes, demand for all other goods and price changes; description of preferences- most preferred bundle and its properties; consumer's optimum choice; income and substitution effects; Marshallian and compensated demand curves; Price consumption curve, income consumption curve, and Engel Curve; Homothetic tastes; labour supply and savings decision - choice between leisure and consumption.

The Firm, Production and Cost

Production :Input output relation , concept of production function, fixed factor , variable factor. laws of variable proportion, total , average and marginal product, returns to factor , and returns to scale, Cost and revenue functions: total, average and marginal cost and revenue. Short run and long run cost functions. .cost minimization subject to given output , output maximization subject to given cost.

Theory of the Firm and the Market Organisation

Profit maximization of the firm under perfect Competition — short run and long analysis; the short run supply curve of the competitive firm and the industry.

Imperfect Market Structure

Monopoly and anti-trust policy; measuring monopoly power; government policies towards competition; various types of imperfect competition.

Input Markets

Theory of rent-Ricardo, Marshall, and Modern theory of rent; Labour and land markets - basic concepts (derived demand, productivity of an input, marginal productivity of labour, marginal revenue product); demand for labour; input demand curves; shifts in input demand curves, competitive labour markets; labour market and public policy.

Reference Books

1. Karl E. Case and Ray C. Fair, Principles of Economics, Pearson Education Inc., 8th Edition, 2007.
2. N.Gregory Mankiw, Economics: Principles and Applications, Cengage Learning India Private Limited, 4th Edition, 2007.
3. Robert Pindyck, Daniel Rubinfeld and P L Mehta, Microeconomics, 7th Edition. Pearson. 2009.
4. Joseph E. Stiglitz and Carl E. Walsh, Economics, W. W. Norton & Company, Inc., New York, International Student Edition, 4th Edition, 2007.

Core Course 2 (CC-02): MATHEMATICAL METHODS IN ECONOMICS–I

1. Preliminaries

- a) Logic and proof techniques;
- b) Sets and set operations; relations;
- c) Convex Sets and Relations
- d) Functions and their properties; number systems.

2. Functions of one real variable

- a) Elementary types of functions: quadratic, polynomial, power, exponential, logarithmic;
- b) Sequences and series: convergence, algebraic properties and applications;
- c) Limit and Continuity of Functions

3. Derivative of functions of one variable

- a) Derivative using first principles
- b) Derivative of important types of functions: polynomial functions, logarithmic functions,
- c) Exponential functions etc
- d) Rules of differentiation
- e) Successive differentiation: Higher Order Derivatives
- f) Expansion of Functions; Rolle's Theorem, Mean Value Theorem, Taylor's & Maclaurin's series
- g) Indeterminate Forms

4. Single-variable optimization

Maximum/ Minimum of a function of single variable First order and Second order Conditions
Global and Local Maximum and Minimum

5. Solution of Simultaneous Linear Equations

- a) System of simultaneous linear equations
- b) Solution by Gaussian elimination and backward substitution
- c) Geometric interpretation

6. Vectors

- a) Ordered set and its geometric interpretation
- b) Length of a Vector
- c) Basic Vector Operations
- d) Linear dependence and Independence
- e) Vector Space and its Basis
- f) Orthogonality

Readings:

K. Sydsaeter and P. Hammond, *Mathematics for Economic Analysis*, Pearson Educational Asia: Delhi, 2002.
Simon Carl P and Blume Lawrence, *Mathematics for Economists*, Viva Books,
Marc Lipson and Seymour Lipschutz, *Linear Algebra*, Schaum's Outlines, 4th Edition

SEMESTER-II

Core Course 3 (CC-03): INTRODUCTORY MACROECONOMICS

Course Objectives:

To teach the fundamental questions, categories, methodologies and debates. Thus to discuss the basic questions and concepts focusing on long-run trend and short-run fluctuations; to teach circular flow of income, national income accounting with its components, classical model with policies, simple Keynesian model with policies, and consumption functions and the associated policy debate.

Learning Outcomes:

- The students gain an understanding of the basic questions, concepts, structures and debates of macroeconomics, and an understanding on the methods of national income accounting.
- They learn the fundamental difference between the Classical and Keynesian schools.
- The paper is helpful to know the policy implications of Classical and Keynesian models.
- The students learn why the consumption function debate has been a crucial aspect of macroeconomics and its transformation.

1. Introduction to Macroeconomics (3L)

- a. Why macroeconomics? Fallacy of aggregation
- b. Important categories
- c. Fundamental question: long-run trend and short-run fluctuations

2. National Income Accounting (15L)

- a. Circular flow: from spendthrift economy to open-economy with government
- b. Different approaches to measurement of NI

3. Classical Model with policy issues (12L)

- a. Barter economy and Say's Law
- b. Competitive capitalism with frictionless market economy and Say's Law
- c. Wage-price flexibility, full employment and long-run aggregate supply
- d. QTM, Cambridge Cash Balance and aggregate demand (money financed)
- e. Loanable fund market and aggregate demand (loan financed)
- f. Money-financed and Loan-financed demand side policy irrelevance
- g. Supply side policies

4. Simple Keynesian Model with policy implications (14L)

- a. Advanced capitalism, effective demand problem and demand determined output in short-run
- b. Short-run price-fix under excess-capacity unemployment
- c. Keynesian cross model, existence and stability of equilibrium (demand determined)
- d. Demand side policies, inventory adjustment and a variety of multipliers.
- e. Investment function and acceleration principle: an introduction.

5. Consumption function and policy debate (16L)

- a. Keynes, Absolute Income hypothesis, stagnation thesis and vital role of government
- b. Kuznets, long-run constancy of APC, short-run variability of APC, policy debate
- c. Relative Income Hypothesis and policy irrelevance
- d. Life-Cycle Hypothesis and policy irrelevance
- e. Permanent Income Hypothesis and policy irrelevance

Readings:

- 1. Dornbusch, Fischer and Startz, *Macroeconomics*, McGraw Hill, 11th edition, 2010.
- 2. N. Gregory Mankiw. *Macroeconomics*, Worth Publishers, 7th edition, 2010.
- 3. William H. Branson, *Macroeconomic Theory and Policy*, East-West Press, 3rd edition, 2005.
- 4. Richard T. Froyen, *Macroeconomics*, Pearson Education Asia, 2nd edition, 2005.
- 5. SoumyenSikdar, *Principles of Macroeconomics*, OUP, 2nd Edition, 2006.
- 6. Rosalind Levacic, *Macroeconomics*, London (UK) MacMillan Press, 1976.
- 7. Gardner Ackley, *Macroeconomics: theory and policy*, New York: Macmillan, 1978.
- 8. Yiannis P. Venieris and Frederick D. Sebold, *Macroeconomics: models & policy*, Santa Barbara: Wiley, 1977.
- 9. Snowdon, Vane and Wynarczyk, A. *Modern Guide to Macroeconomics*, Edward Elgar Publishing

Core Course 4 (CC-04): MATHEMATICAL METHODS IN ECONOMICS–II

Course Objectives

This course is the second part of a compulsory two-course sequence. This part is to be taught in Semester II following the first part in Semester I. The objective of this sequence is to transmit the body of basic mathematics that enables the study of economic theory at the undergraduate level, specifically the courses on microeconomic theory, macroeconomic theory, statistics and econometrics set out in this syllabus. This course teaches the method of applying mathematical techniques to economic theory in general.

Learning Outcomes

The course provides the mathematical foundations necessary for further study of postgraduate economics, statistics, computer science, finance and data analytics. The analytical tools introduced in this course have applications wherever optimization techniques are used in business decision-making for managers and entrepreneurs alike. These tools are necessary for anyone seeking employment as an analyst in the corporate world.

1. Matrices and Determinants

- a) Matrices: Definition and Examples
- b) Basic Matrix Operations: Addition, subtraction, Scalar and Matrix Multiplication, Transposition
- c) Special Matrices: Idempotent Matrices, Symmetric and Skew-Symmetric Matrices, Identity Matrix, Partitioned Matrices, Trace of a Matrix
- d) The determinant of a Matrix
- e) Properties of Determinants
- f) Minors and Cofactors
- g) Adjoint of a Matrix
- h) Rank of a Matrix
- i) Matrix Inversion
- j) Solution of Systems of Simultaneous Equations using Matrix Methods

2. Partial Derivatives (8L)

- a) Functions of Several Variables
- b) Partial Derivates
- c) Rules of Partial Differentiation
- d) Second Order partial derivatives
- e) Level Curves/Sets
- f) Homogenous Functions and Euler's Theorem
- g) Total Differential
- h) Taylor's Series for Several Variables
- i) The tangent to a curve
- j) The normal to a curve
- k) The envelope to a family of curve

3 Implicit Function Theorem and Comparative Statics

- a) Systems of Equations/Relations
- b) Equilibrium and Solution of Systems of Equations
- c) Stability of Equilibrium
- d) Implicit Function Theorem
- e) Comparative Statics

4. Optimisation of Functions of Several Variables

- a) Convex and concave functions of several variables
- b) Second Order Conditions for Convex and Concave Functions of several Variables
- c) Maximum/Minimum of a function of several variables
- d) First order and Second Order conditions
- e) Maximum and Minimum of a Function with (Equality) constraints
- f) Lagrangian Functions and First and Second Order Conditions
- g) Inequality constraints and Kuhn-Tucker Conditions
- h) Optimisation and the Envelope Theorem

Readings:

K. Sydsaeter and P. Hammond, *Mathematics for Economic Analysis*, Pearson Educational Asia: Delhi, 2002.

Marc Lipson and Seymour Lipschutz, *Linear Algebra*, Schaum's Outlines, 4th Edition

Ghosh and Chakravorty, *Higher Algebra*, U N Dhar and Sons Publishing

Semester-III

Course: CC-05: INTERMEDIATE MICROECONOMICS – I

(Mathematical Approach)

Course Objective

It is aimed to be a foundation course on using mathematical tools to understand more clearly various microeconomic analyses and models that students are previously introduced to in a logical way. The discipline of economics is increasingly relying on mathematical techniques to explain complex phenomenon relating to micro and macro issues. The broad objective of this course is to equip the students with basic tools of mathematics and showing examples of how they help in understanding the rational decision making process of an economic agent.

Learning Outcome

At the end of the course, students are expected to be familiar with basic mathematical techniques like differential and integral calculus and how mathematics deals with limiting situation of a continuous variable. They also learn the techniques and logic of unconstrained optimization, constrained optimization and can deal with discrete and continuous time in analysing inter-temporal decision making. These mathematical tools are shown to be applied to analyse the behaviour of different economic agents like buyers and sellers. These techniques prepare the students to deal with more complex economic systems like General Equilibrium models and Dynamic Optimization, which are covered in different other courses down the line in their pursuit for higher degrees.

1. Consumer Theory

(22L)

- Basic Concepts
- The Maximization of Utility
- Demand Curves
- Income and Leisure
- Substitution and Income Effects
- The Theory of Revealed Preference
- Lexicographic preference
- A Linear Expenditure System
- Separable and Additive Utility Functions
- Homogenous and Homothetic Utility Functions
- Consumer's Surplus

2. Production and Costs

(18L)

- Basic Concepts
- Optimizing Behavior
- Cost Functions

- Homogeneous Production Functions
- CES Production Functions
- Joint Products
- Least-Cost Combination of Inputs
- Coefficients of a Cubic Total Cost Functions

3. Competitive Equilibrium (20L)

- The Assumptions of Perfect Competition
- Demand Functions
- The Derivation of Supply Functions
- The Equilibrium of a Commodity Market
- An Application of Taxation

Readings:

1. A. C. Chiang, *Fundamental Methods of Mathematical Economics*, Tata McGraw Hill.
2. J.M. Henderson and R.E. Quandt, *Microeconomic Theory: A Mathematical Approach*, Tata McGraw Hill.
3. K. Sydsaeter and P. Hammond, *Mathematics for Economic Analysis*, Pearson Educational Asia.
4. M. Hoy, J Livernois, C McKenna, R Rees, and T Stengos, *Mathematics for Economics*, MIT Press
5. Pindyck and Rubinfeld, *Microeconomics*, Prentice Hall/ Pearson Education, 8th Edition, 2013.
6. J M Perloff, *Microeconomics: Theory and Applications with Calculus (7th Edition)* (The Pearson Series in Economics) 2015.
7. Varian, Hal R. *Intermediate microeconomics: a modern approach: ninth international student edition*. WW Norton & Company, 2014.
8. Gould, John P., and Charles E. Ferguson. *Microeconomic theory*. No. 04; HB172, G6 1980. RD Irwin, 1980.
9. C. Snyder and W. Nicholson, *Fundamentals of Microeconomics (10th Edition)*, Cengage Learning, 2008.

Core Course 6 (CC-06): INTERMEDIATE MACROECONOMICS - I

Course Objectives:

To teach the fundamental questions, theoretical concepts and structures and policy debates relevant for an advanced money-using macro economy.

Learning Outcomes:

The Students will learn the concept of money, functions of money, issues of money supply and demand and corresponding theories, concepts of high powered money, and various versions of quantity theory of money.

The Students will be equipped to participate in the contemporary policy debates in the light of IS-LM, Complete Keynesian, Monetarist and New Classical Models.

- 1. Money Supply (7L)**
 - a. What is money?
 - b. M1 M2 M3 M4
 - c. Functions of money
 - d. Determinants of money supply
 - e. Credit creation
 - f. Tools of monetary policy
- 2. Money Demand (11L)**
 - a. Keynes
 - b. Baumol
 - c. Tobin
 - d. Friedman
- 3. IS-LM and policy question (14L)**
 - a. Commodity, money, bond markets in short-run
 - b. Demand determined output but fix-price
 - c. Derivation of IS and LM, slopes, crowding out, policy effectiveness
- 4. Complete Keynesian Model and a variety of policy implications (14L)**
 - a. Integration of labour market, money market, commodity market, bond market
 - b. Demand determined output and flex-price
 - c. Derivation of short-run AD and short-run AS curves
 - d. Policy analysis: monetary policy, fiscal policy, double crowding out effect, wage-cut
- 5. Monetarism and rule versus discretion (9L)**
 - a. Critique of Classics and Keynes and the long run problem of stagflation, although short run monetary policy effectiveness; irrelevance of fiscal policy
 - b. Adaptive expectation and short-run long-run dichotomy

- c. Integration of labour market, money market, commodity market, bond market
- d. Derivation of short and long run AS curves; AD from IS-LM
- e. Short run long run monetary policy outcomes
- f. Monetary rule versus discretion

6. Basic tenets of New Classical Macroeconomics and policy irrelevance (5L)

- a. Micro-foundation, Rational expectation and Lucas critique
- b. Structures of AD and especially AS
- c. Policy irrelevance, unanticipated shock, policy effect and Barro critique

Readings:

1. Dornbusch, Fischer and Startz, *Macroeconomics*, McGraw Hill, 11th edition, 2010.
2. N. Gregory Mankiw. *Macroeconomics*, Worth Publishers, 7th edition, 2010.
3. William H. Branson, *Macroeconomic Theory and Policy*, East-West Press, 3rd edition, 2005.
4. Richard T. Froyen, *Macroeconomics*, Pearson Education Asia, 2nd edition, 2005.
5. Soumyen Sikdar, *Principles of Macroeconomics*, OUP, 2nd Edition, 2006.

Core Course 7 (CC-07): STATISTICAL METHODS FOR ECONOMICS

Course Objective

The discipline of economics largely depends on information to be processed by the tools of statistics. The objective of this course is to introduce the students to the discipline of statistics and to familiarize them with techniques of information processing that has wide application in economics.

Learning Outcome

This course introduces the types of information that are collected for various economics analyses and the standard and basic ways to produce and represent summary information hidden in a raw dataset. The course also prepares them to various statistical terms which in their later days become a common language in communicating empirical results. The course also prepares the students to venture into more sophisticated statistical analyses like Econometric tools that are integral part of the syllabus in higher classes.

1. Collection of data and descriptive statistics: (10L)

- 1.1 Types of statistical data, Primary and Secondary data, Sampling and Census, methods of collecting primary data.
- 1.2 Data compilation, Classification, Tabulation and Diagrammatic representation of data (line, bar and pie diagram), semi-logarithmic line diagram and ratio charts.
- 1.3 Frequency Distribution, discrete (ungrouped) and grouped frequency distribution, Cumulative frequency distribution.
- 1.4 Graphical representation of frequency distribution, Histogram, Frequency Polygon and Ogive.

2. Analysis of Univariate quantitative data: (25L)

- 2.1 Measures of Central Tendency: Concept of central tendency of statistical data: Statistical average, characteristics of a good statistical average Simple and weighted Arithmetic, geometric and harmonic mean. Median and Mode for simple and grouped frequency distribution.
- 2.2 Measures of Dispersion: Introduction and meaning, absolute and relative measures. Absolute Measures - Range, Quartile Deviation, Mean Deviation and Standard Deviation – merits and limitations. Relative measures – Coefficient of quartile and mean deviation, Coefficient of variation
- 2.3 Moments, Skewness and Kurtosis: Moments of a frequency distribution. Moments about arbitrary point, Raw moments and Central Moments. Meaning and measurement of skewness – Bowley's measure and measure of moments. Concepts of kurtosis - leptokurtic, mesokurtic and platykurtic frequency distributions. Measures of kurtosis based on moments.

3. Analysis of Bivariate quantitative data (15L)

- 3.1 Concept of Bivariate data and bivariate frequency distribution.
- 3.2 Concept of correlation between two variables
- 3.3 Scatter diagram and its use
- 3.4 Covariance between two variables - Definition and computation

- 3.5 Karl Pearson's coefficient of correlation (r) : Definition and computation
- 3.6 Spearman's rank correlation coefficient : Definition and computation (with and without ties)
- 3.7 Concept of regression, lines of regression, fitting of lines of regression by the least squares method, interpretation of slope and intercept.
- 3.8 Analysis of variance: explained and unexplained variation - explained and residual sum of squares, coefficient of determination.

4. Index Number (10L)

- 4.1 Index Numbers and their use
- 4.2 Problems in the construction of index numbers
- 4.3 Laspeyres' Index; Paasche's Index; Fisher's Index
- 4.4 Tests for Index numbers: Time reversal test, Factor reversal test
- 4.5 Cost of living index number

References:

1. Goon A.M., Gupta M. & Dasgupta B (2010): Fundamentals of Statistics (Vol 1), World Press.
2. Gupta and Kapoor (2005): Fundamentals of Mathematical Statistics, Sultan Chand and Sons, New Delhi.
3. Richard J. Larsen and Morris L. Marx (2011), *An Introduction to Mathematical Statistics and its Applications*, Prentice Hall.
4. William G. Cochran (2007) *Sampling Techniques*, John Wiley.

**SKILL ENHANCING COMPULSORY COURSE
SEMESTER III
SECC-I: MATHEMATICAL METHODS - III**

Course Objective

In this course students are introduced to the basic mathematical tools necessary to analyze dynamic economic models as well as stochastic models that are crucial to empirical studies. These skills are not only essential prerequisites for many courses on economic growth, development as well as econometrics but also crucial to handle statistical data that is important requirement in various jobs available for students of economics.

Learning Outcome

At the end of this course the student would be equipped to deal with issues in dynamic economics involving time as a variable and to learn about how to deal with uncertain outcomes in terms of probability of events and its distribution – which is a prerequisite in analyzing socio-economic data.

1. Integral Calculus (7L)

- 1.1 Integration of a function: Basic Concept and Examples
- 1.2 Indefinite Integrals
- 1.3 Integration of key functions; polynomials, exponential and logarithmic functions
- 1.4 Rules of integration
- 1.5 Method of substitution
- 1.6 Integration by Parts
- 1.7 Definite Integrals

2. Differential Equations (8L)

- 2.1 Differential equations of first order and first degree (linear): Autonomous Equations - Homogenous equations - Exact Equations and Conditions of Exactness - General Solution and Particular solution - Initial Value Problem - Steady State and Convergence – Non-autonomous Equations
- 2.2 Differential equations of first order and higher degree (Non-linear): Bernoulli's Equation - Separable Equations
- 2.3 Second and higher order Linear Differential Equations

3. Difference Equations (7L)

- 3.1 Discrete time and first order difference equations: Nature of solution – time path – application in economics – The Cobweb Model- time path of price with inventory
- 3.2 Second order difference equation: Nature of solution – the distinct real root, repeated real root and complex root cases – Application in economics – the Multiplier-Accelerator interaction model

4. Elementary Probability Theory: (8L)

- 4.1 Classical definition of probability
- 4.2 Events, outcome and sample space
- 4.3 Probability axioms and properties; counting techniques through permutation and

combination

4.4 Conditional probability, statistical independence of events, Bayes' Theorem, , circular test

4.5 4.5 Cost of living index number

Readings

1. Goon A M, Gupta M K and Dasgupta B: *Basic Statistics*, World Press Private Ltd.
2. Goon A M, Gupta M K and Dasgupta B: *Fundamental of Statistics (Vol I & II)*, World Press Private Ltd.
3. Mathai & Rathie – Probability and Statistics
4. Gupta S C and Kapoor V K: *Fundamental of Mathematical Statistics*, Sultan Chand & Sons.
5. Spiegel, M R and Stephen, L.J.: *Statistics*, Schaum Series

SEMESTER-IV

Core Course-08: CC-08: INTERMEDIATE MICROECONOMICS - II

Course Objective

It develops a basis for evaluating the efficiency and equity implications of competition and other market structures, and a perspective on the appropriate role of government. Given the emphasis on applications in earlier courses this course will put more emphasis on the mastery of theoretical concepts and analytical tools, and their application to real world problems.

Learning Outcomes

Upon successful completion, students will have the knowledge and skills to: apply economic concepts to assess the economic efficiency of market outcomes for different market structures, also in the presence of externalities, and/or when influenced by government intervention

I. Market Structure and Game Theory (35L)

1. Monopoly; pricing with market power; degree of monopoly; price discrimination-different degrees; multi-plant monopoly; peak-load pricing; two-part tariff; Taxation under Monopoly. (10L)
2. Monopolistic Competition; short-run equilibrium; long-run equilibrium; (in) efficiency. (5L)
3. Oligopoly: Non-collusive and Collusive models (Cournot Equilibrium and extension, Bertrand Equilibrium and extension, Hotelling Model; Stackleberg Equilibrium; Price Leadership). (12L)
4. Game theory (Cooperative and Non-cooperative static games; simultaneous move and sequential move games; non-cooperative games of perfect information; the Prisoner's dilemma, Nash equilibrium in pure and mixed strategies); Applications of game theory in oligopolistic markets. (8L)

II. Factor price determination (8L)

1. Input Market under Perfect Competition (4L)

Derived demand for input, marginal product and marginal revenue product, input demand for competitive firm and competitive industry, returns to scale and product exhaustion theorem.

2. Input Market under Imperfect Competition (4L)

Monopolistic product and input market; Monopsony, bilateral monopoly in labour market.

III. General Equilibrium, Efficiency, and Welfare (9L)

1. Exchange Economy, Consumption Allocation and Pareto Optimality; Edgeworth box and contract curve; Equilibrium and efficiency under pure exchange. (7L)
2. Perfect competition and Pareto efficiency. (2L)

IV. Market Failure, Externalities (8L)

Externalities and Market Failure, Markets with asymmetric information, Lemons Problem, Moral Hazard. (8L)

Readings

- Pindyck and Rubinfeld, Microeconomics, Prentice Hall/ Pearson Education, 8th Edition, 2013.
<https://bankicollege.ac.in/wp-content/uploads/2020/12/8th-Edition-The-Pearson-Series-in-Economics-Robert-Pindyck-Daniel-Rubinfeld-Microeconomics-Prentice-Hall-2012.pdf>
- J M Perloff, Microeconomics: Theory and Applications with Calculus (7th Edition) (The Pearson Series in Economics) 2015.
[http://dl.rasabourse.com/MIT.Mircroeconomics.Jeffrey%20M.%20Perloff%20-%20Microeconomics%20\(2014,%20Pearson\).pdf](http://dl.rasabourse.com/MIT.Mircroeconomics.Jeffrey%20M.%20Perloff%20-%20Microeconomics%20(2014,%20Pearson).pdf)
- AnindyaSen, Microeconomics: Theory and Applications, OUP, 1999
<https://global.oup.com/academic/product/microeconomics-9780195686463?lang=en&cc=be>
- Varian, Hal R. Intermediate microeconomics: a modern approach: ninth international student edition. WW Norton & Company, 2014.
<https://faculty.ksu.edu.sa/sites/default/files/microeco-varian.pdf>
- Gould, John P., and Charles E. Ferguson. *Microeconomic theory*. No. 04; HB172, G6 1980.. RD Irwin, 1980.
- C. Snyder and W. Nicholson, Fundamentals of Microeconomics (10th Edition), Ceneage Learning, 2008.
https://edisciplinas.usp.br/pluginfile.php/2871502/mod_resource/content/1/Nicholson%20%20Snyder%20%282007%29%20-%20Microeconomic%20theory%20-%2010%20ed..pdf

Core Course-09 (CC-09): INTERMEDIATE MACROECONOMICS - II

Course Objectives:

To teach the contemporary issues/problems in macroeconomics including inflation and unemployment debates under different schools, policy issues pertaining to New Keynesian and RBC Schools, investment and economic growth models (covering the basics – questions, models, debates – of a major part of the 20th century contributions to growth literature).

Learning Outcomes:

- The Students will be equipped to deal with the recent theoretical developments and also will be able to participate in policy analysis.
- Understanding the relationship between investment and savings, demonstrate investment multiplier, and the meaning of PDV, IRR/MEC and MEI.
- Illustrations of the issues on inflation and unemployment using Phillips curve and its different variants/developments, the economic growth models including Harrod-Domar, Solow and AK model; economic growth and technical progress.

1. Inflation, Unemployment and Expectations: Classics, Keynes, Friedman, Lucas, Barro, Policy debate (15L)

- a. Policy effectiveness (brief review): AD--AS framework and fiscal and monetary policies in different schools of macroeconomic thought: Classics, Keynes, Friedman, Lucas, Barro critique.
- b. Inflation, Unemployment and Expectations: Phillips curve short and long run under adaptive and rational expectations; policy relevance debate: Classics, Keynes, Friedman, Lucas, Barro critique.

2. Basic tenets of New Keynesian Macroeconomics and policy relevance (10L)

- a. Nominal rigidities and real rigidities even under rational expectation
- b. Introductory models (coordination failure, menu cost, and staggered price/wage).
- c. Policy implications

3. Basic tenets of RBC School and policy irrelevance (5L)

4. Investment Function (6L)

- a. PDV, NPDV, IRR, MEC, MEI
- b. Acceleration principle – fixed and flexible accelerator

5. Economic Growth (24L)

- a. Harrod and Domar models of economic growth
- b. Solow one sector growth model – golden rule – dynamic efficiency and Technological progress
- c. Elements of endogenous growth theory – basic ideas – the AK model

Readings:

1. Dornbusch, Fischer and Startz, *Macroeconomics*, McGraw Hill, 11th edition, 2010.
2. N. Gregory Mankiw. *Macroeconomics*, Worth Publishers, 7th edition, 2010.
3. William H. Branson, *Macroeconomic Theory and Policy*, East-West Press, 3rd edition, 2005.
4. Richard T. Froyen, *Macroeconomics*, Pearson Education Asia, 2nd edition, 2005.
5. Helmut Frisch, *Theories of Inflation*, Cambridge University Press, 1983.
6. Amartya Sen (ed), *Growth economics: selected readings*, Penguin, 1970.
7. Dipankar Dasgupta, *The macroeconomy*, OUP, 1998.
8. Grham Hacche, *The theory of Economic Growth: An Introduction*, Macmillan Education.
9. Gardner Ackley, *Macroeconomics: theory and policy*, New York: Macmillan, 1978.

Core Course -10 (CC-10): INDIAN ECONOMY – I**Course Objectives**

This course gives an overview of India economy. It aims at showing the picture of our economy right from the eve of independence – as underdeveloped one, with low growth as one of the important characteristics – to the present one – as being one of the fastest growing economies. As such, the syllabus covers the plans and strategies taken for the development of the country since independence, with particular focus on paradigm shifts and turning points. Furthermore, the objective is also to equip students with other contemporary issues of our economy such as, human development, inequality, employment and population growth.

Learning Outcomes

- To understand the basic characteristics of economic development and growth of the Indian economy.
- To be able to understand economic planning in India.
- To analyze new economic policies (privatization, liberalization and globalization) in India.
- To gain knowledge about the contemporary issues of our economy

1. Economic Development since Independence (15L)

Major features of the economy at independence; growth and development under different policy regimes — goals, constraints, institutions and policy framework; an assessment of performance—sustainability and regional contrasts; structural change, savings and investment.

2. Population and Human Development (15L)

Demographic trends and issues; education and health: basic problems and government measures.

3. Growth and Distribution (15L)

Trends in GDP and per capita GDP; growth, poverty and inequality; employment and unemployment.

4. International Comparisons (15L)**Readings:**

1. Uma Kapila (eds), 2021. *Indian Economy Since Independence*, Academic Foundation.

2. Jean Dreze and Amartya Sen, 2013. *An Uncertain Glory: India and its Contradictions*, Princeton University Press.
3. Pulapre Balakrishnan, 2007, *The Recovery of India: Economic Growth in the Nehru Era*, Economic and Political Weekly, November.
4. Rakesh Mohan, 2008 — *Growth Record of Indian Economy: 1950-2008. A Story of Sustained Savings and Investment*, Economic and Political Weekly, May.
5. S. L. Shetty, 2007 — *India's Savings Performance since the Advent of Planning*, in K. L. Krishna and A. Vaidyanathan, editors, *Institutions and Markets in India's Development*.
6. Himanshu, 2010, *Towards New Poverty Lines for India*, Economic and Political Weekly, January.
7. Jean Dreze and Angus Deaton, 2009, *Food and Nutrition in India: Facts and Interpretations*, Economic and Political Weekly, February.
8. Himanshu, 2011, — *Employment Trends in India: A Re-examination*, Economic and Political Weekly, September.
9. Rama Baru et al., 2010, — *Inequities in Access to Health Services in India: Caste, Class and Region*, Economic and Political Weekly, September.
10. Geeta G. Kingdon, 2007, — *The Progress of School Education in India*, Oxford Review of Economic Policy.
11. J.B.G. Tilak, 2007 — *Post-Elementary Education, Poverty and Development in India*, International Journal of Educational Development.
12. Kaushik Basu, 2009, — *China and India: Idiosyncratic Paths to High Growth*, Economic and Political Weekly, September.
13. K. James, 2008 — *Glorifying Malthus: Current Debate on Demographic Dividend in India*, Economic and Political Weekly, June.
15. Reetika Khera, 2011 — *India's Public Distribution System: Utilisation and Impact*, Journal of Development Studies.
16. Aniruddha Krishna and Devendra Bajpai, 2011, — *Lineal Spread and Radial Dissipation: Experiencing Growth in Rural India, 1992-2005*, Economic and Political Weekly, September.
17. Kaushik Basu and A. Maertens, eds, 2013, *The New Oxford Companion to Economics*, Oxford University Press.

SKILL ENHANCING COMPULSORY COURSE
SEMESTER IV
STATISTICAL METHODS –II (SECC II)

Course Objectives

The discipline of economics largely depends on information to be processed by the tools of statistics. The objective of this course is to introduce the students to the sampling techniques, problem of inferences and testing of hypothesis - all of these have wide application in economics.

Learning Outcomes

This course introduces different types of sampling methods and the standard and basic ways to perform testing of hypotheses. The course prepares the students to various statistical techniques which in their later days become a common language in communicating economic results.

1. Sampling Methods (7L)

- 1.1 Designing of a sample survey
- 1.2 Various methods of sampling: Simple random sampling (SRSWR and SRSWOR), Multistage sampling, Stratified random sampling, Systematic random sampling, Quota Sampling
- 1.3 Parameter, statistics and sampling distribution

2. Random Sampling and Jointly Distributed Random Variables (8L)

- 2.1 Density and distribution functions for jointly distributed random variables
- 2.2 Computing expected values; covariance and correlation coefficients

3. Random Variable and its Probability Distribution (15L)

- 3.1 Concept of a random variable - discrete and continuous random variables
- 3.2 Probability distribution - mass function density function and distribution function
- 3.3 Moments of a random variable – moment generating functions - expectation and variance
- 3.4 Theoretical distributions of a discrete random variable - Binomial, Poisson and Hypergeometric – MGF of theoretical distributions.
- 3.5. Distribution of a continuous random variable - Normal and Standard Normal Distribution – Moments of a normal distribution.
- 3.6. Limiting form of binomial and Poisson distribution, importance of

Readings

5. Goon A M, Gupta M K and Dasgupta B: *Basic Statistics*, World Press Private Ltd.
6. Goon A M, Gupta M K and Dasgupta B: *Fundamental of Statistics (Vol I & II)*, World Press Private Ltd.
7. Mathai & Rathie – Probability and Statistics
8. Gupta S C and Kapoor V K: *Fundamental of Mathematical Statistics*, Sultan Chand & Sons.
5. Spiegel, M R and Stephen, L.J.: *Statistics*, Schaum Series

SEMESTER-V

Core Course-11 (CC-11): INTRODUCTORY ECONOMETRICS

Course Objectives

Arriving at a conclusion regarding a testable hypothesis and drawing inference on the basis of statistical data analyses is a basic prerequisite of empirical research in social sciences. This course is aimed to proceed further in the direction of enabling students to learn about explaining the association and causality between two variables and making statistical inferences.

Learning Outcomes

This course would enable the students to understand the scientific way in understanding socio-economic data which is basically stochastic in nature. One would learn how to find out the nature and degree of association and causality in a two variable world and to draw statistically valid conclusions. It will prepare the students to more easily deal with complexities in real world that would be introduced in the post-graduate level.

Course Outline

1. Classical Statistical Inference and Testing of Hypotheses (20L)

- 1.1 Estimators – point estimation and interval estimation
- 1.2 Properties of a good estimator -Unbiasedness, Minimum Variance, Consistency and Sufficiency
- 1.3 Maximum Likelihood Estimators and their properties
- 1.4 Null hypothesis and alternative hypothesis
- 1.5 One-tailed and two tailed tests – confidence limits and concept of p-value
- 1.6 Error in hypothesis testing - Type-I and Type –II errors; power of a test
- 1.7 Applications of tests for the Mean and Variance – tests for comparison of mean and proportion of two groups

2. Nature and Scope of Econometrics (5L)

3. Simple Linear Regression Model: Two Variable Case (20L)

- 3.1 Estimation of model by method of ordinary least squares;
- 3.2 Properties of estimators;
- 3.3 Gauss-Markov theorem;
- 3.4 Goodness of fit;
- 3.5 Confidence intervals and tests of hypotheses;
- 3.6 Scaling and units of measurement;;
- 3.7 Forecasting.

4. Violations of Classical Assumptions: Consequences, Detection and Remedies (using examples only) (15L)

- 4.1 Problem of multicollinearity;
- 4.2 Problem of heteroscedasticity;
- 4.3 Problem of Autocorrelation.

Readings

- 1. Jay L. Devore, *Probability and Statistics for Engineers*, Cengage Learning, 2010.
- 2. John E. Freund, *Mathematical Statistics*, Prentice Hall, 1992.

3. Richard J. Larsen and Morris L. Marx, *An Introduction to Mathematical Statistics and its Applications*, Prentice Hall, 2011.
4. D. N. Gujarati and D.C. Porter, *Essentials of Econometrics*, McGraw Hill, 4th edition, International Edition, 2009.
5. Christopher Dougherty, *Introduction to Econometrics*, Oxford University Press, 3rd edition, Indian edition, 2007.
6. Jan Kmenta, *Elements of Econometrics*, Indian Reprint, Khosla Publishing House, 2nd edition, 2008.

Course: CC- 12: DEVELOPMENT ECONOMICS-I

Course Objective

This is an introductory course in development economics. The course begins with a discussion of alternative conceptions of development and their justification. It then proceeds to strategies and models of development. The axiomatic basis for inequality measurement is used to develop measures of inequality and connections between growth and inequality are explored. The course ends by linking economic and political institutions to development by discussing the role of the state and market in economic development.

Learning Outcome

The course would help students understand alternative concepts of development and their justification; equip them to make appraisal of development issues from the historical record of economic progress in the now developed world. They will be able to identify the development gap, measure poverty and understand the role of institutions in economic development and enable them to formulate as well as make appraisals of policies for development.

Course Outline

1. Meaning of Development (4L)

Distinction between growth and development— alternative concepts of economic development: income based approach and capability based approach.

2. The Characteristics of Underdevelopment and Structural Change (8L)

The dominance of agriculture and petty services, low level of capital accumulation, rapid population growth, weak institutional structure, etc. Stages of development and structural change. Industrialization and growth.

3. The development gap and the measurement of poverty and Inequality (15L)

The development gap and income distribution in the world economy, measures of inequality and historical trends, Connections between inequality and development. The measurement and comparability of percapita income, purchasing power parity (PPP), Human Development Index. Measures of poverty, Human poverty index, Millennium poverty reduction target and sustainable development goals pertaining to poverty.

4. Problems of labour surplus economy (15L)

The trap models and their criticisms (models of Nelson & Leibenstein) — Lewis model and its criticism — Nurkse's idea of disguised saving potential – concept of labour surplus (disguised unemployment)—Sen's model—labour migration and Harris-Todaro model.

5. Institutions and Development (10L)

Definition of institutions. Evolution of Political and Economic Institutions. Alternative institutional trajectories and their relationship with economic performance. State ownership and regulation. Government and Market failures and Corruption.

6. The role of state, the allocation of resources and Sustainable Development (8L)

The market mechanisms and market failures, the role of the state, corruption, Development plans, choice of technique, Balanced versus unbalanced growth.

Text Books:

1. A. P. Thirlwall (2011): *Economics of Development* (Ninth Edition); Palgrave Macmillan.
2. Todaro and Smith(2003): *Economic Development*, Pearson Education

Selected References:

1. DebrajRay(1998): *Development Economics*; Oxford University Press (OUP)
2. Hayami and Godo (2005): *Development Economics*, OUP.
3. H. Myint (1987), *Economics of Developing Countries*, B. I. Publications Pvt. Ltd.
4. A. K. Sen (1988), 'The Concept of Development' in Chenery and Srinivasan (Eds) *Handbook of Development Economics*.
5. Abhijit Banerjee, Roland Benabou and DilipMookerjee, *Understanding Poverty*, OUP, 2006.
6. KaushikBasu, *The Oxford Companion to Economics in India*, OUP, 2007.
7. Daron Acemoglu and James Robinson, *Economic Origins of Dictatorship and Democracy*, Cambridge University Press, 2006.

DISCIPLINE SPECIFIC ELECTIVE (DSE) PAPERS: GROUP - I

(Students are to choose any two courses from the following four courses offered)

Course: DSE-(I)

Paper: PUBLIC ECONOMICS

Course Objectives

The focus of the course, which draws on microeconomic theory, is on the development of analytical tools and their application to key policy issues relating to the spending, taxing and financing activities of government. Particular emphasis is given to recent developments in public economics, including findings from current research, in areas such as behavioural public economics, new empirical methods and policy innovations.

Learning Outcomes

The course aims to give students an appreciation of the analytical methods in economics for the study of the public sector and the role of the state in principle and in practice; to provide a thorough grounding in the principles underlying the role of the state, the design of social insurance and the welfare state and the design of the tax system and to enable students to understand the practical problems involved in implementing these principles.

Course Description

Public economics is the study of government policy from the points of view of economic efficiency and equity. The paper deals with the nature of government intervention and its implications for allocation, distribution and stabilization. Inherently, this study involves a formal analysis of government taxation and expenditures. The subject encompasses a host of topics including public goods, market failures and externalities. The paper is divided into two sections, one dealing with the theory of public economics and the other with the Indian public finances.

Course Outline

Module - I: Introduction with Markets(10L)

1. The Exchange Economy
2. An Algebraic Exchange Economy
3. The Production Economy
4. Consumer and Producer Surplus

Module - II: Externalities & Public Goods(25L)

1. Externalities and Negotiation
2. Permit Trading
3. Public Goods
4. Impure Public Goods
5. The Link between Public Goods and Externalities

Module – III: Taxation and Efficiency(25L)

1. Taxation
2. The Welfare Cost of Tax Interactions

3. The Theory of the Second Best
4. The Limits to Income Redistribution
5. Redistributing Income through Tagging and Targeting
6. The Role of Government in a Market Economy

Readings:

1. J. Hindriks, G. Myles: *Intermediate Public Economics*, MIT Press, 2013 (2nd Edition).
2. H. Rosen, T. Gayer: *Public Finance*, McGraw-Hill/Irwin, 2010 (9th Edition).
3. John Leach: *A Course in Public Economics*, CUP, 2004.
4. Holley H. Ulbrich: *Public Finance in Theory and Practice*, Routledge, 2011 (2nd Edition).
5. Jonathan Gruber: *Public Finance and Public Policy*, Worth Publishers, 2016 (5th Edition).

Course: DSE (II)

Paper: MONEY AND FINANCIAL MARKETS

Course Objectives:

Exposing the theory and functioning of the monetary and financial sectors of the economy with a special focus on India. The course highlights the structure and role of financial markets and institutions, interest rates, banking systems, central bank functions, and international aspects.

Learning Outcomes:

On successful completion of this course, students will be able to:

- Analyse and deconstruct the monetary and financial sectors' functioning mechanisms, Interest rate differentials, Banking sector and the central bank.
- Describe the international monetary system and key developments under the regime of economic liberalisation.
- Interpret recent developments in the Indian economy's monetary and financial sectors.

1. Introduction to Money (5L)

Concept, Functions, measurements, Money Supply, Credit Creation- Deposit and Money Multiplier

2. Financial Institutions, Markets and Instruments (20L)

Role of financial markets and institutions; problem of asymmetric information – adverse selection and moral hazard; financial crises

Money and capital markets: organization, structure and reforms in India; role of financial derivatives and other innovations; capital asset pricing model

3. Interest Rates (10L)

Determinants; sources of interest rate differentials; theories of term structure of interest rates; interest rates in Indian financial market

4. Banking System and Central Banking (15L)

Changing role and structure; Indian banking system; banking sector reforms; functions and monetary policy tools of Central Bank

5. International aspects of money and finance (10L)

International monetary system, financial liberalization, financial crisis

Readings:

F. S. Mishkin, *The Economics of Money, Banking, and Financial Markets*, 11th Edition, Pearson.

F. S. Mishkin and S. G. Eakins, *Financial Markets and Institutions*, Pearson Education, 6th edition, 2009.

Prasanna Chandra, *Financial Management*, Tata McGraw-Hill Education, 2007.

Krugman and Obstfeld, *International Economics- Theory & Policy*, 9th Edition (Chapter 19).

F. J. Fabozzi, F. Modigliani, F. J. Jones, M. G. Ferri, *Foundations of Financial Markets and Institutions*, Pearson Education, 3rd edition, 2009.

M. R. Baye and D. W. Jansen, *Money, Banking and Financial Markets*, AITBS, 1996.

Rakesh Mohan, *Growth with Financial Stability- Central Banking in an Emerging Market*, Oxford University Press, 2011.

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

N. Jadhav, *Monetary Policy, Financial Stability and Central Banking in India*, Macmillan, 2006.

Reserve Bank of India (RBI). *Report of the Working Group: Money Supply Analytics and Methodology of Compilation*, 1998.

RBI Bulletin, Annual Reports and Reports on Currency and Finance (latest).

Course - DSE (III)

Paper: ECONOMIC HISTORY OF INDIA (1857-1947)

Course Objective

It aims to be a foundation course on understanding India's history, especially the British colonial era, from an economic perspective. The objective of the course is to enable them to look at colonial history from a very rational perspective. They are taught economic issues like the theory of economic drain that was actually calculated by Dadabhai Naoroji, trade restrictions, land revenue-related policies, etc. It is an important course for the students to understand the foundation of independent India.

Learning Outcome

At the end of the course, students are expected to look at Indian history more rationally and from an economic perspective. This will help them in their argument and in their process when they discuss the country's history.

Course Description

This course analyses key aspects of Indian economic development during the second half of British colonial rule. In doing so, it investigates the place of the Indian economy in the wider colonial context and the mechanisms that linked economic development in India to the compulsions of colonial rule. This course links directly to the course on India's economic development after independence in 1947.

Course Outline

1. Introduction: Colonial India: Background and Introduction (5L)

Overview of the colonial economy.

2. Macro Trends (10L)

National Income; population; occupational structure.

3. Agriculture (15L)

Agrarian structure and land relations; agricultural markets and institutions – credit, commerce and technology; trends in performance and productivity; famines.

4. Railways and Industry (15L)

Railways; the de-industrialisation debate; evolution of entrepreneurial and industrial structure; nature of industrialisation in the interwar period; constraints to industrial breakthrough; labour relations.

5. Economy and State in the Imperial Context (15L)

The imperial priorities and the Indian economy; drain of wealth; international trade, capital flows and the colonial economy – changes and continuities; government and fiscal policy.

Readings:

- 1) Lakshmi Subramanian, "History of India 1707-1857", Orient Blackswan, 2010, Chapter 4.
- 2) Sumit Guha, 1991, Mortality decline in early 20th century India, Indian Economic and Social History Review (IESHR), pp 371-74 and 385-87.
- 3) Tirthankar Roy, The Economic History of India 1857-1947, Oxford University Press, 3rd Edition, 2011.
- 4) J. Krishnamurty, Occupational Structure, Dharma Kumar (editor), The Cambridge Economic History of India, Vol. II, (henceforth referred to as CEHI), 2005, Chapter 6.
- 5) Irfan Habib, Indian Economy 1858-1914, A People's History of India, Vol. 28, Tulika, 2006.
- 6) Ira Klein, 1984 - When Rains Fail: Famine relief and mortality in British India, IESHR 21.
- 7) Jean Dreze, Famine Prevention in India in Dreze and Sen (eds.) political economy of Hunger, WIDER Studies in Development Economics, 1990, pp. 13-35.
- 8) John Hurd, Railways, CEHI, Chapter 8, pp. 737-761.
- 9) Rajat Ray (ed.), Entrepreneurship and Industry in India, 1994.
- 10) A K Bagchi, — Deindustrialization in India in the nineteenth century: Some theoretical implications, Journal of Development Studies, 1976.
- 11) M D Morris, Emergence of an Industrial Labour Force in India, OUP 1965, Chapter 11, Summary and Conclusions.
- 12) K. N. Chaudhuri, Foreign Trade and Balance of Payments, CEHI, Chapter 10.
- 13) B. R. Tomlison, 1975, India and the British Empire 1880-1935, IESHR, Vol. XII.
- 14) Dharma Kumar, The Fiscal System, CEHI, Chapter 12.
- 15) Basudev Chatterjee, Trade, Tariffs and Empire, OUP 1992, Epilogue.

Background reading for students:

- Irfan Habib, Indian Economy 1858 -1914 (A People's History of India), Vol. 28, Tulika 2006. Daniel Thorner, Agrarian Prospect in India, 1977.
- L. Visaria and P. Visaria, Population. CEHI, Chapter 5.

Course - DSE (IV) Paper: ECONOMICS OF HEALTH AND EDUCATION

Course Description

The importance of education and health in improving well-being is reflected in their inclusion among the Millennium Development Goals adopted by the United Nations member states, which include among other goals, achieving universal primary education, reducing child mortality, improving maternal health and combating diseases. This course provides a microeconomic framework to analyze, among other things, individual choice in the demand for health and education, government intervention and aspects of inequity and discrimination in both sectors. It also gives an overview of health and education in India.

Learning Outcome

At the end of the course, students are expected to look at the relevance of social sectors and their interconnectedness with long run sustainable development of the society in general and the economy in general.

Course Outline

- 1. Role of Health and Education in Human Development (10L)**
Importance in poverty alleviation; health and education outcomes and their relationship with macroeconomic performance.
- 2. Microeconomic Foundations of Health Economics (20L)**
Demand for health; uncertainty and health insurance market; alternative insurance mechanisms; market failure and rationale for public intervention; equity and inequality.
- 3. Evaluation of Health Programs (5L)**
Costing, cost-effectiveness and cost-benefit analysis; burden of disease.
- 4. Health Sector in India: An Overview (5L)**
Health outcomes; health systems; health financing.
- 5. Education: Investment in Human Capital (10L)**
Rate of return to education: private and social; quality of education; signalling or human capital; theories of discrimination; gender and caste discrimination in India.
- 6. Education Sector in India: An Overview (10L)**
Literacy rates, school participation, school quality measures.

Readings:

- William, Jack, Principles of Health Economics for Developing Countries, World Bank Institute

Development Studies, 1999.

- World Development Report, Investing in Health, The World Bank, 1993.
- Ronald G., Ehrenberg and Robert S., Smith, Modern Labor Economics: Theory and Public Policy, Addison-Wesley, 2005.

Course - DSE (V) Paper: TOPICS IN MICROECONOMICS

Learning Objective:

1. To provide an advanced level knowledge regarding the decision making of rational consumers and firms.
2. To provide students with the basic concept of economics of information.
3. To provide the students with advanced level knowledge of game theory techniques.

Course Outcome:

1. To able to understand how efficient allocation of resources takes place in a free market economy.
2. To able to solve problems and applications related to microeconomics theory.
3. To learn about different measures of risk aversion.

Course Outline:

1. Optimization in Economic Theory: Value function, Envelope theorem and Duality approach.

Applications: (22L)

- a) Indirect utility function and its properties; Roy's identity; Expenditure function and Shepherd's lemma; Slutsky equation.
- b) Cost function and its properties; Shepherd's lemma and conditional factor demand functions.
- c) Profit function and its properties; Hotelling's lemma; Unconditional factor demand functions and supply function.

2. Game Theory Basics: Normal form game and Extensive form games with perfect information; The game tree; strategies; sub game perfection; backward induction. Applications: a) Cournot Equilibrium b) Stackelberg Equilibrium c) Tragedy of commons. (20L)

3. Expected Utility Theorem: measures of risk aversion. Applications- a) investment in risky assets b) insurance c) the principal agent problem: adverse selection and moral hazard. (18L)

Reading / Reference Lists:

1. Martin J. Osborne, *An Introduction to Game Theory*, Oxford University Press, New Delhi, 2004
2. R. Gibbons, *Game Theory for Applied Economists*, Princeton University Press, 1992
3. Avinash K. Dixit, *Optimization in Economic Theory*, 2nd Edition, Oxford University Press, 1990
4. P. K. Dutta, *Strategies and Games*, The MIT Press.
5. Hal. R Varian, *Intermediate Microeconomics, A modern Approach*, 3rd Edition, WW Norton and Company Inc., 2010
6. D. Fudenberg and J. Tirole, *Game Theory*, MIT Press, 1991

Course - DSE(VI) Paper: FINANCIAL ECONOMICS

Course Description

This course introduces students to the economics of finance. Some of the basic models used to benchmark valuation of assets and derivatives are studied in detail; these include the CAPM, and the Binomial Option Pricing models. The course ends with a brief introduction to corporate finance.

Course Outline

1. Investment Theory and Portfolio Analysis

(25L)

a. Deterministic cash-flow streams

Basic theory of interest; discounting and present value; internal rate of return; evaluation criteria; fixed-income securities; bond prices and yields; interest rate sensitivity and duration; immunization; the term structure of interest rates; yield curves; spot rates and forward rates.

b. Single-period random cash flows

Random asset returns; portfolios of assets; portfolio mean and variance; feasible combinations of mean and variance; mean-variance portfolio analysis: the Markowitz model and the two-fund theorem; risk-free assets and the one-fund theorem.

c. CAPM

The capital market line; the capital asset pricing model; the beta of an asset and of a portfolio; security market line; use of the CAPM model in investment analysis and as a pricing formula.

2. Options and Derivatives

(20L)

Introduction to derivatives and options; forward and futures contracts; options; other derivatives; forward and future prices; stock index futures; interest rate futures; the use of futures for hedging; duration-based hedging strategies; option markets; call and put options; factors affecting option prices; put-call parity; option trading strategies: spreads; straddles; strips and straps; strangles; the principle of arbitrage; discrete processes and the binomial tree model; risk-neutral valuation.

3. Corporate Finance

(15L)

Patterns of corporate financing: common stock; debt; preferences; convertibles; capital structure and the cost of capital; corporate debt and dividend policy; the Modigliani-Miller theorem.

Readings:

1. David G. Luenberger, Investment Science, Oxford University Press, USA, 1997.
2. Hull, John C., Options, Futures and Other Derivatives, Pearson Education, 6th edition, 2005.

3. Thomas E. Copeland, J. Fred Weston and Kuldeep Shastri, Financial Theory and Corporate Policy, Prentice Hall, 4th edition, 2003.
4. Richard A. Brealey and Stewart C. Myers, Principles of Corporate Finance, McGraw-Hill, 7th Edition, 2002.
5. Stephen A. Ross, Randolph W. Westerfield and Bradford D. Jordan,
6. Fundamentals of Corporate Finance. McGraw-Hill, 7th edition, 2005.
7. Burton G. Malkiel, A Random Walk Down Wall Street, W. W. Norton & Company, 2003.
8. William Sharpe, Gordon Alexander and Jeffery Bailey, Investments, Prentice Hall of India, 6th edition, 2003.

Semester - VI

CC-13: INDIAN ECONOMY - II

Course Objective

This course will help students understand the key issues related to the Indian economy. At the end of the course, a student should be able to understand the role of economic policies in shaping and improving economic performance in agriculture, manufacturing and services. It will broaden their horizons and enable them to analyze current economic policy thus improving their chances of getting employed, and be more effective, in positions of responsibility and decision making

Learning Outcomes

Students will have capability to understand government policies and will enable informed participation in economic decision making, thus improving their employment prospects and career advancement.

Course Description

This course examines sector-specific policies and their impact in shaping trends in key economic indicators in India. It highlights major policy debates and evaluates the Indian empirical evidence. Given the rapid changes taking place in the country, the reading list will have to be updated annually.

Course Outline

1. Macroeconomic Policies and Their Impact (15L)

Fiscal Policy; trade and investment policy; financial and monetary policies; labour regulation.

2. Policies and Performance in Agriculture and Food Management (15L)

Growth; productivity; agrarian structure and technology; capital formation; pricing and procurement; **WTO and Indian Agriculture; food security and food policy**

3. Policies and Performance in Industry (15L)

Growth; productivity; diversification; small scale industries; public sector; competition policy; foreign investment; **economic reforms and industry**.

4. Trends and Performance in Services (15L)

Readings:

- Shankar Acharya, 2010, —Macroeconomic Performance and Policies 2000-8,|| in Shankar Acharya and Rakesh Mohan, editors, India's Economy: Performance and Challenges: Development and Participation, Oxford University Press.
- Rakesh Mohan, 2010 — India's Financial Sector and Monetary Policy Reforms, in Shankar Acharya and Rakesh Mohan, editors, India's Economy: Performance and Challenges: Development and Participation, Oxford University Press.
- PulapreBalakrishnan, Ramesh Golait and Pankaj Kumar, 2008 — Agricultural Growth in India Since 1991, RBI DEAP Study no. 27.
- B. N. Goldar and S. C. Aggarwal, 2005 —Trade Liberalisation and Price-Cost Margin in Indian Industries, The Developing Economics, September.
- P. Goldberg, A. Khandelwal, N. Pavcnik and P. Topalova, 2009 — Trade Liberalisation and New Imported Inputs, American Economic Review, Papers and Proceedings, May.
- Kunal Sen, 2010 — Trade, Foreign Direct Investment and Industrial Transformation in India, inPremachandraAthukorala, editor, The Rise of Asia, Routledge.
- Ahsan, C. Pages and T. Roy, 2008, —Legislation, Enforcement and Adjudication in Indian Labour

Markets: Origins, Consequences and the Way Forward, in D.Mazumdar and S. Sarkar, editors, Globalization, Labour Markets and Inequality in India, Routledge.

- Dipak Mazumdar and Sandeep Sarkar, 2009 —The Employment Problem in India and the Phenomenon of the Missing Middlel, Indian Journal of LabourEconomics.
- April, J. Dennis Rajakumar, 2011 — Size and Growth of Private Corporate Sector in Indian Manufacturing, Economic and Political Weekly.
- Ramesh Chand, 2010 —Understanding the Nature and Causes of Food Inflation, Economic and Political Weekly, February.
- BishwanathGoldar, 2011 — Organised Manufacturing Employment: Continuing the Debate, Economic and Political Weekly.
- KaushikBasu and A. Maertens, eds, 2013, The New Oxford Companion to Economics in India, Oxford University Press.

Core Course-14: (CC-14): INTERNATIONAL ECONOMICS

Course objectives:

This course makes the students familiar with the basic theories of International trade. Starting with the Absolute Advantage of Adam Smith and Comparative Advantage of David Ricardo the course covers most of the fundamental trade theories such as the Heckscher-Ohlin trade theory to the International Product Life cycle theory. They also study the various trade policies such as tariff and quota. They are also taught the basics of international finance that includes study of balance of payments accounts and exchange rate theories. From this course the students get an overall idea of the trade theories developed over time.

Learning Outcomes:

Upon successful completion of the course, students will have the

1. knowledge and skills to be familiar with the basic models of international trade and their essential properties;
2. Understand the tools taught in class and be able to recognise their application to the analysis of real world fact situations;
3. Read and understand professional economics articles in the field of international trade theory.

1. Introduction (2L)

What is international economics about? An overview of world trade.

2. International Trade Theory (22L)

- Labor Productivity and Comparative Advantage: The Ricardian Model
- Resources and Trade: The Heckscher-Ohlin Model
- International Equilibrium and the Terms of Trade

3. International Trade Policy (16L)

- Instruments of trade policy
- Import Tariff and Export Subsidies
- Qualitative Restrictions, Non-tariff Barriers, and Equivalence

4. International Macroeconomic Policy (20L)

- Balance of payments and National Income Accounting
- Foreign Trade Multiplier (with or without repercussions)
- International Currency Systems and Exchange Rate Regimes

Readings:

- Paul Krugman, Maurice Obstfeld and Marc Melitz, International Economic: Theory and Policy, Addison-Wesley (Pearson Education Indian Edition), 9th edition, 2012.
- Domonick Salvatore, International Economics: Trade and Finance, John Wiley International Student Edition, 10th edition, 2011.
- Caves, Frankel and Jones; World Trade and Payments: An Introduction, Pearson, 10th edition.

- Miltiades Chacholiades, International Economics, McGrawhill Education.
- Rajat Acharya, International Economics: An Introduction to Theory and Policy, Oxford University Press.

DISCIPLINE SPECIFIC ELECTIVE (DSE) PAPERS: ECONOMICS

GROUP-II

Course: DSE-VII

Subject: ENVIRONMENTAL ECONOMICS

Course Objectives

During the last few decades, the role of the environment as a crucial factor of production has been clearly established through various studies. Consequently, there has been tremendous advancement in the theoretical understanding of the nexus between economic development and the environment. Environmental Economics has flourished to be a specialized field of knowledge and was incorporated into the regular curriculum in Economics in almost all universities across the world. This field of study is still in its evolving stage, and the frontiers are being constantly pushed to broaden our understanding of how to manage the environment in a sustainable way while devising economic policies. The canvas of environmental economics is vast and cuts across several disciplines. While the more advanced topics are taught in detail at the Post Graduate level, this course aims at preparing the students with the basic tenets of environmental economics.

Learning Outcomes

This course begins with the typical concepts of ‘market failure’ and ‘externality’ that are taught in earlier courses like microeconomics. But then it leads the student to understand their implication for the environment and sustainability. The course would equip the students with the basic concepts, definitions, and theoretical backgrounds of environmental management and sustainability that would help them to cope better with more advanced topics that are covered at the post-graduate level. Even if the student moves away from post-graduation in Economics, the knowledge acquired through this course will help the students in competitive examinations (administrative services), management studies, and learned discussions.

Course Outline

1. Introduction (5L)

What is environmental economics; review of microeconomic and welfare economics.

2. The Theory of Externalities (15L)

Pareto optimality and market failure in the presence of externalities; property rights and the Coase theorem.

3. The Design and Implementation of Environmental Policy (10L)

Overview; Pigouvian taxes and effluent fees; tradable permits; choice between taxes and quotas under uncertainty; implementation of environmental policy.

4. International Environmental Problems (10L)

Trans-boundary environmental problems; economics of climate change; trade and environment.

5. Measuring the Benefits of Environmental Improvements (10L)

Non-Market values and measurement methods; risk assessment and perception.

6. Sustainable Development (10L)

Concepts; measurement.

Readings:

1. Charles Kolstad, *Intermediate Environmental Economics*, Oxford University Press, 2nd edition, 2010.
2. Hanley, Shogren and White, *Environmental Economics in Theory and Practice*, , Palgrave, 2002.
3. Robert N. Stavins (ed.), *Economics of the Environment: Selected Readings*, W.W. Norton, 5th edition, 2005.
4. Roger Perman, Yue Ma, James McGilvray and Michael Common, *Natural Resource and Environmental Economics*, Pearson Education/Addison Wesley, 3rd edition, 2003.
5. Maureen L. Cropper and Wallace E. Oates, 1992,—*Environmental Economics: A Survey*, *Journal of Economic Literature*, Volume 30:675-740.

Bhattacharyya Rabindra N., *Environmental Economics: An Indian Perspective* Paperback , 2002, OUP.

Course Description

This is the second module of the economic development sequence. It begins with basic demographic concepts and their evolution during the process of development. The structure of markets and contracts is linked to the particular problems of enforcement experienced in poor countries. The governance of communities and organizations is studied and this is then linked to questions of sustainable growth. The course ends with reflections on the role of globalization and increased international dependence on the process of development.

Course Outcome

It will help the students go deeper into the various development issues of everyday life and will be able to make appraisals of different development programmes as well as equip them formulate such programmes.

1. Demography and Development (14L)

Demographic concepts; birth and death rates, age structure, fertility and mortality; demographic transitions during the process of development; gender bias in preferences and outcomes and evidence on unequal treatment within households; connections between income, mortality, fertility choices and human capital accumulation; migration.

2. Land, Labor and Credit Markets (14L)

Introduction, ownership and tenancy, land rental contracts, land ownership;labour categories; poverty, nutrition and labourmarkets;rural credit markets, theories of informal credit markets, interlinked transactions

3. Gender Issues and Development (12L)

Women's education in developing countries: an overview;women in the labour force; women, poverty and development in the third world; women in developing countries and 'missing women';empowerment of women and women in sustainable development goals.

4. Environment and Sustainable Development (10L)

Sustainable Development and Environmental Accounting;population, resources and environment; poverty and the environment; growth versus the environment; rural development and the environment; urban development and the environment.

5. Globalization (10L)

Globalization in historical perspective; the economics and politics of multilateral agreements; trade, production patterns and world inequality; financial instability in a globalized world.

Text Books:

1. Debraj Ray, *Development Economics*, Oxford University Press, 2009.
2. Todaro and Smith(2003): *Economic Development*, Pearson Education
3. A. P. Thirlwall (2011): *Economics of Development* (Ninth Edition); Palgrave Macmillan.
4. A Mukherjee and S Chakrabarti, *Development Economics: A Critical Perspective*, PHI,2016.

Selected References:

1. Partha Dasgupta, *Economics, A Very Short Introduction*, Oxford University Press, 2007.
2. Dani Rodrik, *The Globalization Paradox: Why Global Markets, States and Democracy Can't Coexist*, Oxford University Press, 2011.
3. Abhijit Banerjee, Roland Benabou and Dilip Mookerjee, *Understanding Poverty*, Oxford University Press, 2006.
4. Raghuram Rajan, *Fault Lines: How Hidden Fractures Still Threaten the World Economy*, 2010.
5. Elinor Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action*, Cambridge University Press, 1990.
6. Michael D. Bordo, Alan M. Taylor and Jeffrey G. Williamson (ed.), *Globalization in Historical Perspective*, University of Chicago Press, 2003.

Course: DSE-IX

Subject: Economic History of the World (Late 19th Century to Late 20th Century)

Course Objective: This course is concerned with the history of industrialization and economic growth from the late 19th century to the present day; the period when some countries rapidly became rich and generated mass divergence in the standard of living around the globe. The aim here is to explore factors that helped or hindered countries to industrialize. These factors include investment in physical and human capital, infant industry protection, political institutions, culture and geography. By examining these factors, this course provides an insight into the complexity of long-run economic development.

This course is based on a reading list rather than a textbook. The readings are mostly empirical studies and any student with a basic background in economics would be able to follow them.

Learning Outcome: By studying the patterns of past industrial revolutions, this course encourages you to think like a historian about the possible effects of the ongoing changes.

Becoming familiar with the First, Second & Third industrial revolutions. How did these revolutions happen and how did they spread to other countries? Who were the winners and losers of these revolutions within and across countries?

Understanding the possible causes of the Industrial Revolution in Britain, the European reconstruction after the WWII, the American Golden Age and the East Asian economic miracle.

Compulsory readings:

1: A short history of industrialization before 1870 (7L)

Allen, R. C. (2011). Why the industrial revolution was British: commerce, induced invention, and the scientific revolution 1. *The Economic History Review*, 64(2), 357-384.
<http://www.jstor.org/stable/41262428>

Crafts, N. F. (1997). Some Dimensions of the 'Quality of Life' During the British Industrial Revolution. *The Economic History Review*, 50: 617-639. doi: [10.1111/1468-0289.00071](https://doi.org/10.1111/1468-0289.00071)

2: A short history of industrialisation after 1870 (7L)

Pritchett, L. (1997). 'Divergence, Big Time', *Journal of Economic Perspectives*, 11(3): 3-17. <https://www.aeaweb.org/articles?id=10.1257/jep.11.3.3>

Allen, R. C. (2011), *Global Economic History: A Very Short Introduction*, Oxford University Press. Read chapter 8.

3: Demographic transition (7L)

Guinnane, T. (2011). The Historical Fertility Transition: A Guide for Economists. *Journal of Economic Literature*, 49(3), 589-614. Retrieved from <http://www.jstor.org/stable/23071723>

Bloom, D., & Williamson, J. (1998). Demographic Transitions and Economic Miracles in Emerging Asia. *The World Bank Economic Review*, 12(3), 419-455. Retrieved from <http://www.jstor.org/stable/3990182>

4: Capital accumulation and technological progress (7L)

Robert C. Allen (2012) 'Technology and the Great Divergence: Global Economic Development Since 1820'. *Explorations in Economic History* 49 (1) (January): pp. 1-16. <https://www.sciencedirect.com/science/article/abs/pii/S0014498311000416>
Piketty, T., & Goldhammer, A. (2014). *Capital in the twenty-first century: The dynamics of inequality, wealth, and growth*. Cambridge Massachusetts: The Belknap Press of Harvard University Press. Read chapter 6.

5: Structural change (7L)

Rodrik, D. (2013). Unconditional Convergence in Manufacturing. *The Quarterly Journal of Economics*, 128(1), 165. <https://academic.oup.com/qje/article/128/1/165/1839808>
Adam Szirmai (2009), industrialisation as an engine of growth in developing countries, UNU-WIDER Working Paper No. 2011/75. <http://collections.unu.edu/view/UNU:330>

6: State-led industrialisation (5L)

Pack, H. (2006). Is There a Case for Industrial Policy? A Critical Survey. *World Bank Research Observer*, 21(2), 267-297. <https://elibrary.worldbank.org/doi/abs/10.1093/wbro/lk1001>

7: Political institutions & colonialism (7L)

North, D., & Thomas, R. (1970). An Economic Theory of the Growth of the Western World. *The Economic History Review*, 2S(1), 1-17. <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1468-0289.1970.tb01010.x>
Acemoglu, D., Johnson, S., & Robinson, J. (2001). The Colonial Origins of Comparative Development: An Empirical Investigation. *The American Economic Review*, 91(5), 1369-1401. Retrieved from <http://www.jstor.org/stable/2677930>

8: Culture (6L)

Nathan Nunn (2012), Culture and historical process, NBER Working Paper 17869, Accessible at: <http://www.nber.org/papers/w17869>
Alesina, A., & Giuliano, P. (2015). Culture and Institutions. *Journal of Economic Literature*, 53(4), 898-944. Retrieved from <http://www.jstor.org/stable/43927694>

9: Natural resources & economic development (7L)

Rosser, A. (2006). The political economy of the resource curse: A literature survey, Institute for Development Studies working paper No 268. <http://www.ids.ac.uk/publication/the-political-economy-of-the-resource-curse-a-literature-survey>
Torvik, R. (2009). Why do some resource abundant countries succeed while others do not?, *Oxford Review of Economic Policy*, Vol 25, No 2, pp 241-256. <https://academic.oup.com/oxrep/article/25/2/241/1745929>

Course: DSE-X

Subject: Applied Quantitative Techniques

Course Objectives:

The objective of the course is to provide the foundational knowledge of econometric tools and their applications for developing skills required for empirical research in economics and allied studies. It builds on statistics and introductory econometrics courses and teaches students a wide set of frequently used quantitative research methods.

Learning Outcomes:

On successful completion of the course, students would be able to:

Conduct econometric and statistical analyses in economic and associated research using advanced software and computing skills.

Understand the estimation techniques, learn the difficulties involved in parameter estimation, and acquire research knowledge.

Demonstrate their hands-on learning of applied econometric methods concerning the choice of model, estimation method and interpretation of results.

1. Revisiting statistics and basic econometrics as research methods (6L)

Basic concepts along with software applications of various statistical and econometrics methods used in research.

2. Concepts of data used in econometric research (8L)

Types and characteristics of data - cross-section, time-series and panel data; primary and secondary data; various sources of secondary data used in statistical and econometric analyses.

3. Stages in econometric analysis of data (10L)

Applications of econometric models in empirical research - basic concepts, introduction to software (Excel / Stata / Eviews) for data analysis

4. Regression analysis with software applications (12L)

Simple linear regression models: estimation, specification, diagnostic testing and inference; misspecification, functional forms and model selection; applications with Excel / Stata / Eviews.

5. Advances in Regression with software applications (12L)

Basics of estimation, specification, diagnostic testing in case multiple linear regression models specific to cross-section, time series and panel data and their applications with Excel / Stata / Eviews.

6. Fundamental statistical analysis (12L)

univariate and bivariate analysis, ANOVA; factor analysis, principal component analysis; Applications with SPSS/ Excel / Stata / Eviews.

Readings:

Asteriou, D., & Hall, G. S. (2007). *Applied Econometrics: a Modern Approach* Palgrave Macmillan. *New York*, 6.

Bhaumik, S. K. (2015). *Principles of econometrics: A modern approach using reviews*. *OUP Catalogue*.

Das, P. (2019). *Econometrics in theory and practice*. *Springer* Singapore.

Gujarati, D. N. (2011). *Econometrics by example* (Vol. 1). New York: Palgrave Macmillan.

Kothari, C. R. (2004). *Research methodology: Methods and techniques*. New Age International.

Wooldridge, J. M. (2009). *Econometrics*. Cengage Learning India Pvt. *Ltd New Delhi*.

Course: DSE-XI

Subject: Trade, Growth and Development

Course Objective

This course deals with the economic analyses related to international trade, economic growth and development theories. It focuses on fundamental trade theories, the changing patterns of trade, development theories in trade framework and the issues related to economic reform policies in developing country.

Learning Outcome

On successful completion of the course, students would be able to apply general equilibrium and other models in analysing the economic effects of trade and allied policies, various developmental issues under the era of economic reform.

1: Trade and Economic Growth (20L)

Terms of trade - Types - Importance of trade to Economic Growth - Trade as an engine of growth - Macroeconomic Impact of Trade - Contributions of trade to economic development

2: Development Theories in Trade Framework (20L)

Theoretical Foundations of General Equilibrium Approach - H-O-S Model - Measures of Social Welfare - Labour Market Segmentation - Informal Economy - Harris-Todaro Model - Rural and Urban Employment - Trade Liberalisation - Skilled-Unskilled Wage Inequality - Labour Market Distortion

3: Economic Reform in Developing Economy (20L)

Immiserising Growth - Bhagwati (1958) Proposition - Brecher and Alejandro (1977) Proposition – SectorWise Gainful Effects of Foreign Capital - Economic Liberalisation, Capital Mobility and Informal Wage

References:

- Basu, Kausik (1997): Analytical Development Economics, Oxford University Press, Delhi.
- Chaudhuri, S and Mukhopadhyay, U. (2009): Revisiting the Informal Sector: A General Equilibrium Approach, Springer, New York, USA.
- Jones, R.W. (1965). 'The Structure of Simple General Equilibrium Models', Journal of Political Economy, 73, pp. 551–572.
- Jones, R.W. (1971). 'A Three-factor Model in Theory, Trade and History', in Bhagwati, J., et al. (eds.), Trade, Balance of Payments and Growth, North-Holland, Amsterdam.
- Charles I Jones (2006): Introduction to Economic Growth, W W Norton and Company (Indian Edition)
- Marjit, S. (2008): International Trade and Economic Development, OUP
- Marjit, S., Mandal, B and Nakanishi, N. (2020): Virtual Trade and Comparative Advantage

- The Fourth Dimension, Springer Nature, Singapore.
- Acharyya, R. and Kar, S (2014). International Trade and Economic Development, OUP
Some selected journal articles.

Course: DSE-XII Subject: Dissertation/Project

Syllabus for B.A.(Hons.)

Generic Elective Courses in Economics

Semester I	Semester II
Generic Elective in Economics I: Introductory Microeconomics	Generic Elective in Economics II: Introductory Macroeconomics
Semester III	Semester IV
Generic Elective in Economics III: (a) Indian Economy-IOR (b) Money and Banking OR (c) Environmental Economics	Generic Elective in Economics IV: (a) Indian Economy-IIOR (b) Economic History of India 1857-1947 OR (c) Public Finance

Generic Elective in Economics I: Introductory Microeconomics

Course Objectives

The course provides an introduction to a core area of economics known as microeconomics. It considers the operation of a market economy and the problem of how best to allocate society's scarce resources. The course considers the way in which various decision making units in the economy (individuals and firms) make their consumption and production decisions and how these decisions are coordinated. It considers the laws of supply and demand, and introduces the theory of the firm, and its components, production and cost theories and models of market structure. The various causes of market failure are assessed, and consideration is given to public policies designed to correct this market failure.

Learning Outcomes

This course aims to develop an understanding of the framework that economists use to analyse choices made by individuals in response to incentives and consider how these choices can also serve the social interest. The course introduces students to models of how individuals and firms interact within markets, when markets fail, and how government policy may improve outcomes for society. A theoretical framework is developed in which students acquire an understanding of how economic agents interact and by doing so develop the literacy and verbal communication skills necessary for presenting arguments of an economic nature.

Course Description

This course is designed to expose the students to the basic principles of microeconomic theory. The emphasis will be on thinking like an economist and the course will illustrate how microeconomic concepts can be applied to analyze real-life situations.

Course Outline

1. Exploring the subject matter of Economics (5L)

Why study economics? Scope and method of economics; the economic problem: scarcity and choice; the question of what to produce, how to produce and how to distribute output; science of economics; the basic competitive model; prices, property rights and profits; incentives and information; rationing; opportunity sets; economic systems; reading and working with graphs.

2. Supply and Demand: How Markets Work, Markets and Welfare (10L)

Markets and competition; determinants of individual demand/supply; demand/supply schedule and demand/supply curve; market versus individual demand/supply; shifts in the demand/supply curve, demand and supply together; how prices allocate resources; elasticity and its application; controls on prices; taxes and the costs of taxation; consumer surplus; producer surplus and the efficiency of the markets.

3. The Households (15L)

The consumption decision - budget constraint, consumption and income/price changes, demand for all other goods and price changes; description of preferences (representing preferences with indifference curves); properties of indifference curves; consumers optimum

choice; income and substitution effects; labour supply and savings decision - choice between leisure and consumption.

4. The Firm and Perfect Market Structure (10L)

Behaviour of profit maximizing firms and the production process; short run costs and output decisions; costs and output in the long run.

5. Imperfect Market Structure (10L)

Monopoly and anti-trust policy; government policies towards competition; imperfect competition.

6. Input Markets (10L)

Labour and land markets - basic concepts (derived demand, productivity of an input, marginal productivity of labour, marginal revenue product); demand for labour; input demand curves; shifts in input demand curves; competitive labour markets; and labour markets and public policy.

Readings

1. Karl E. Case and Ray C. Fair, *Principles of Economics*, Pearson Education Inc., 8th Edition, 2007.
2. N. Gregory Mankiw, *Economics: Principles and Applications*, India edition by SouthWestern, a part of Cengage Learning, Cengage Learning India Private Limited, 4th edition, 2007.
3. Joseph E. Stiglitz and Carl E. Walsh, *Economics*, W.W. Norton & Company, Inc., New York, International Student Edition, 4th Edition, 2007.

Generic Elective in Economics II: Introductory Macroeconomics

Course Objectives

This course aims to introduce the students to the basic concepts of Macroeconomics. Macroeconomics deals with the aggregate economy. This course discusses the preliminary concepts associated with the determination and measurement of aggregate macroeconomic variable like savings, investment, GDP, money, inflation, and the balance of payments.

Learning Outcomes

The students gain an understanding of the basic questions, concepts, structures and debates of macroeconomics, and an understanding on the methods of national income accounting. They learn the fundamental difference between the Classical and Keynesian schools.

Course Outline

1. Introduction to Macroeconomics and National Income Accounting (15L)

Basic issues studied in macroeconomics; measurement of gross domestic product; income, expenditure and the circular flow; real versus nominal GDP; price indices; national income accounting for an open economy; balance of payments: current and capital accounts.

2. Money (15L)

Functions of money; quantity theory of money; determination of money supply and demand; credit creation; tools of monetary policy.

3. Inflation (15L)

Inflation and its social costs; hyperinflation.

4. The Closed Economy in the Short Run (15L)

Classical and Keynesian systems; simple Keynesian model of income determination; IS-LM model; fiscal and monetary multipliers.

Readings:

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. Paul R. Krugman, Maurice Obstfeld and Marc Melitz, *International Economics*, Pearson Education Asia, 9th edition, 2012.

Generic Elective in Economics III(a): Indian Economy-I

Course Objective

This course gives an overview of India economy. It aims at imparting knowledge about the development process of our economy from the eve of independence. As such, the syllabus covers the plans and strategies taken for the development of the country since independence, with particular focus on paradigm shifts and turning points. Furthermore, the objective is also to equip students with other contemporary issues of our economy such as, human development, inequality, employment and population growth.

Learning Outcome:

- (a) To have idea of the basic nature of Indian economy.
- (b) To know about the current five year plan and new economic policies.
- (c) To able to understand about the contemporary issues of our Indian economy.

Course Description

Using appropriate analytical frameworks, this course reviews major trends in economic indicators and policy debates in India in the post -Independence period, with particular emphasis on paradigm shifts and turning points.

Course Outline

1. Economic Development since Independence (15L)

Major features of the economy at independence; growth and development under different policy regimes—goals, constraints, institutions and policy framework; an assessment of performance—sustainability and regional contrasts; structural change, savings and investment.

2. Population and Human Development (15L)

Demographic trends and issues; education; health and malnutrition.

3. Growth and Distribution (15L)

Trends and policies in poverty; inequality and unemployment.

4. International Comparisons (15L)

Readings:

- 1. Jean Dreze and Amartya Sen, 2013. *An Uncertain Glory: India and its Contradictions*, Princeton University Press.
- 2. Pulapre Balakrishnan, 2007, The Recovery of India: Economic Growth in the Nehru Era, *Economic and Political Weekly*, November.
- 3. Rakesh Mohan, 2008,—Growth Record of Indian Economy: 1950-2008. A Story of Sustained Savings and Investment, *Economic and Political Weekly*, May.
- 4. S.L. Shetty, 2007,—India's Savings Performances in the Advent of Planning, in K.L. Krishna and A. Vaidyanathan, editors, *Institutions and Markets in India's Development*.
- 5. Himanshu, 2010, —Towards New Poverty Lines for India, *Economic and Political Weekly*, January.

6. Jean Dreze and Angus Deaton, 2009,—Food and Nutrition in India: Facts and Interpretations,*Economic and Political Weekly*, February.
7. Himanshu.2011,—Employment Trends in India: A Re-examination, *Economic and Political Weekly*, September.
- Rama Baruaetal,2010,—Inequities in Access to Health Services in India: Caste, Class and Region,*Economic and Political Weekly*, September.
- 8.
9. Geeta G. Kingdon, 2007,—TheProgressofSchoolEducationinIndia,*OxfordReview of EconomicPolicy*.
10. J.B.G.Tilak,2007,—Post Elementary Education, Poverty and Development in India, *International Journal of Educational Development*.
11. T.Dyson,2008,—India's Demographic Transition and its Consequences for Development inUmaKapila, editor, *Indian Economy Since Independence*, 19th edition, Academic Foundation.
12. Kaushik Basu,2009,—China and India: Idiosyncratic Paths to High Growth, *Economic and Political Weekly*, September.
13. K. James, 2008,—Glorifying Malthus: Current Debate on Demographic Dividend in India, *Economic and Political Weekly*, June.
14. Reetika Khera,2011,—India'sPublic Distribution System: Utilisation and Impact *Journal of Development Studies*.
15. Aniruddha Krishna and Devendra Bajpai, 2011,—Lineal Spread and Radial Dissipation: Experiencing Growth in Rural India, 1992-2005, *Economic and Political Weekly*, September.
16. KaushikBasu and A. Maertens, eds, 2013,*Oxford Companion to Economics*, Oxford University Press.

Generic Elective in Economics III(b): Money and Banking

Course Objective:

This course exposes students to the theory and functioning of the monetary and financial sectors of the economy. It highlights the organization, structure and role of financial markets and institutions. It also discusses interest rates, monetary management and instruments of monetary control. Financial and banking sector reforms and monetary policy with special reference to India are also covered.

Learning Outcome: This course exposes students to the theory and functioning of the monetary and financial sectors of the economy.

Course Outline

1. Money (10L)

Concept, functions, measurement; theories of money supply determination.

2. Financial Institutions, Markets, Instruments and Financial Innovations (15L)

a. Role of financial markets and institutions; problem of asymmetric information–adverse selection and moral hazard; financial crises.

b. Money and capital markets: organization, structure and reforms in India; role of financial derivatives and other innovations.

3. Interest Rates (10L)

Determination; sources of interest rate differentials; theories of term structure of interest rates; interest rates in India.

4. Banking System (10L)

a. Balance sheet and portfolio management.

b. Indian banking system: Changing role and structure; banking sector reforms.

5. Central Banking and Monetary Policy (15L)

Functions, balance sheet; goals, targets, indicators and instruments of monetary control; monetary management in an open economy; current monetary policy of India.

Readings

1. F.S. Mishkin and S.G. Eakins, *Financial Markets and Institutions*, Pearson Education, 6th edition, 2009.
2. F.J. Fabozzi, F. Modigliani, F.J. Jones, M.G. Ferri, *Foundations of Financial Markets and Institutions*, Pearson Education, 3rd edition, 2009.
3. L. M. Bhole and J. Mahukud, *Financial Institutions and Markets*, Tata McGraw Hill, 5th edition, 2011.
4. M.Y. Khan, *Indian Financial System*, Tata Mc Graw Hill, 7th edition, 2011.
5. Various latest issues of R.B.I. Bulletins, Annual Reports, Reports on Currency and Finance and Reports of the Working Group, IMF Staff Papers.

Generic Elective in Economics III(c): Environmental Economics

Course Objectives

The canvas of environmental economics is vast and cuts across several disciplines. While the more advanced topics are taught in detail at the Under Graduate (core course) and Post Graduate levels, this course aims at preparing the students with the basic tenets of environmental economics.

Learning Outcomes

This course begins with the typical concepts of 'market failure' and 'externality' that are taught in earlier courses like microeconomics. But then it leads the student to understand their implication for the environment and sustainability. The course would equip the students with the basic concepts, definitions, and theoretical backgrounds of environmental management and sustainability.

Course Description

This course introduces students to concepts, methods and policy options in managing the environment using tools of economic analysis. This course should be accessible to anyone with an analytical mind and familiarity with basic concepts of economics. Since several environmental problems are caused by economic activity (for instance, carbon emissions, over-harvesting of renewable resources and air and water pollution as a by-product of industrial activity), this course examines different approaches to adjusting behaviour through economic institutions such as markets and incentives as well as through regulation, etc. It also addresses the economic implications of environmental policies through practical applications of methods for valuation of environmental goods and services and quantification of environmental damages. Conversely, the impact of economic growth on the environment is also addressed under the rubric of sustainable development. Environmental problems and issues from the Indian and international context (especially global warming) are used to illustrate the concepts and methods presented in the course. The course will be useful for students aiming towards careers in the government sector, policy analysis, business, journalism and international organisations.

Course Outline

1. Introduction

(15L)

Key environmental issues and problems, economic way of thinking about these problems, basic concepts from economics; Pareto optimality and market failure in the presence of externalities; property rights and other approaches.

2. The Design and Implementation of Environmental Policy

(15L)

Overview, Pigouvian taxes and effluent fees, tradable permits, implementation of environmental policies in India and international experience; trans boundary environmental problems; economics of climate change.

- 3. Environmental Valuation Methods and Applications (15L)**
Valuation of non-market goods and services—theory and practice; measurement methods; cost-benefit analysis of environmental policies and regulations.
- 4. Sustainable Development (15L)**
Concepts; measurement; perspectives from Indian experience

Readings

1. Roger Perman, Yue Ma, Michael Common, David Maddison and James McGilvray, —*Natural Resource and Environmental Economics*”, Pearson Education/Addison Wesley, 4th edition, 2011.
2. Charles Kolstad, —*Intermediate Environmental Economics*”, Oxford University Press, 2nd edition, 2010.
3. Robert N. Stavins (ed.), —*Economics of the Environment: Selected Readings*”, W.W. Norton, 6th edition, 2012.
4. Robert Solow —An Almost Practical Step toward Sustainability, Resources for the Future 40th anniversary lecture, 1992.
5. Kenneth Arrow et al. , —Are We Consuming Too Much? *Journal of Economic Perspectives*, 18(3): 147-172, 2004.
6. IPCC (Inter governmental Panel on Climate Change), Fifth Assessment Report (forthcoming 2014).

Generic Elective in Economics IV(a): Indian Economy-II Course Description

This course examines sector-specific policies and their impact in shaping trends in key economic indicators in India. It highlights major policy debates and evaluates the Indian empirical evidence.

Course Outline

1. Macroeconomic Policies and Their Impact (15L)

Fiscal Policy; trade and investment policy; financial and monetary policies; labour regulation.

2. Policies and Performance in Agriculture (15L)

Growth; productivity; land reforms; green revolution in India, farm size and productivity; institutionalization of rural credit; agricultural marketing.

3. Policies and Performance in Industry (15L)

Growth; small scale industries; public sector; industrial stagnation and crisis of the Indian economy, new industrial policy and the changing Indian state in the era of globalization.

4. Trends and Performance in Services (15L)

Readings:

- Shankar Acharya, 2010, —Macroeconomic Performance and Policies 2000-8, in Shankar
- Acharya and Rakesh Mohan, editors, *India's Economy: Performances and Challenges: Development and Participation*, Oxford University Press.
- Rakesh Mohan, 2010, —India's Financial Sector and Monetary Policy Reforms, in Shankar Acharya and Rakesh Mohan, editors, *India's Economy: Performances and Challenges: Development and Participation*, Oxford University Press.
- Pulapre Balakrishnan, Ramesh Golait and Pankaj Kumar, 2008, —Agricultural Growth in India Since 1991, *RBI DEAP Study no. 27*.
- Kunal Sen, 2010, —Trade, Foreign Direct Investment and Industrial Transformation in India, in Premachandra Athukorala, editor, *The Rise of Asia*, Routledge.
- Ahsan, C. Pages and T. Roy, 2008, —Legislation, Enforcement and Adjudication in Indian Labour Markets: Origins, Consequences and the Way Forward, in D. Mazumdar and
- S. Sarkar, editors, *Globalization, Labour Markets and Inequality in India*, Routledge.
- Dipak Mazumdar and Sandeep Sarkar, 2009, —The Employment Problem in India and the Phenomenon of the Missing Middle, *Indian Journal of Labour Economics*.
- J. Dennis Rajakumar, 2011, —Size and Growth of Private Corporate Sector in Indian Manufacturing, *Economic and Political Weekly*, April.

- Ramesh Chand, 2010, Understanding the Nature and Causes of Food Inflation, *Economic and Political Weekly*, February.
- BishwanathGoldar, 2011, Organised Manufacturing Employment: Continuing the Debate, *Economic and Political Weekly*, April.
- KaushikBasu and A. Maertens, eds, 2013. *The new Oxford Companion to Economics in India*, Oxford University Press.

Generic Elective in Economics IV(b): Economic History of India 1857-1947

Course Objective

It aims to be a foundation course on understanding India's history, especially the British colonial era, from an economic perspective. The objective of the course is to enable them to look at colonial history from a very rational perspective. It is an important course for the students to understand the foundation of independent India.

Learning Outcome

At the end of the course, students are expected to look at Indian history more rationally and from an economic perspective. This will help them in their argument and in their process when they discuss the country's history.

Course Description

This course analyses key aspects of Indian economic development during the second half of British colonial rule. In doing so, it investigates the place of the Indian economy in the wider colonial context, and the mechanisms that linked economic development in India to the compulsions of colonial rule. This course links directly to the course on India's economic development after independence in 1947.

Course Outline

- 1. Introduction: Colonial India: Background and Introduction (15L)**
Overview of colonial economy.
- 2. Macro Trends (10L)**
National Income; population; occupational structure.
- 3. Agriculture (15L)**
Agrarian structure and land relations; agricultural markets and institutions—credit, commerce and technology; trends in performance and productivity; famines.
- 4. Railways and Industry (10L)**
Railways; the de-industrialisation debate; evolution of entrepreneurial and industrial structure; nature of industrialisation in the inter war period; constraints to industrial break through; labor relations.
- 5. Economy and State in the Imperial Context (10L)**
The imperial priorities and the Indian economy; drain of wealth; international trade, capital flows and the colonial economy – changes and continuities; government and fiscal policy.

Readings:

1. Lakshmi Subramanian, “*History of India 1707-1857*”, Orient Blackswan, 2010, Chapter 4.
2. Sumit Guha, 1991, Mortality decline in early 20th century India, *Indian Economic and Social History Review (IESHR)*, pp 371-74 and 385-87.
3. Tirthankar Roy, *The Economic History of India 1857-1947*, Oxford University Press, 3rd edition, 2011.
4. J. Krishnamurty, *Occupational Structure*, Dharma Kumar (editor), The Cambridge Economic History of India, Vol. II, (henceforth referred to as CEHI), 2005, Chapter 6.
5. Irfan Habib, *Indian Economy 1858-1914*, A People’s History of India, Vol. 28, Tulika, 2006.
6. Ira Klein, 1984, —When Rains Fail: Famine relief and mortality in British India, *IESHR* 21.
7. Jean Dreze, *Famine Prevention in India in Dreze and Sen (eds.) Political Economy of Hunger*, WIDER Studies in Development Economics, 1990, pp. 13-35.
8. John Hurd, *Railways*, CEHI, Chapter 8, pp. 737-761.
9. Rajat Ray (ed.), *Entrepreneurship and Industry in India*, 1994.
10. A K Bagchi, —Deindustrialization in India in the nineteenth century: Some theoretical implications, *Journal of Development Studies*, 1976.
11. M D Morris, *Emergence of an Industrial Labour Force in India*, OUP 1965, Chapter 11, Summary and Conclusions.
12. K.N. Chaudhuri, *Foreign Trade and Balance of Payments*, CEHI, Chapter 10.
13. B.R. Tomlison, 1975, *India and the British Empire 1880-1935*, IESHR, Vol. XII.
14. Dharma Kumar, *The Fiscal System*, CEHI, Chapter 12.
15. Basudev Chatterjee, *Trade, Tariffs and Empire*, OUP 1992, Epilogue.

Background reading for students:

Irfan Habib, *Indian Economy 1858-1914* (A People’s History of India), Vol. 28, Tulika 2006. Daniel Thorner, *Agrarian Prospect in India*, 1977.

Generic Elective in Economics IV(c): Public Finance

Course Objectives

The focus of the course, which draws on microeconomic theory, is on the development of analytical tools and their application to key policy issues relating to the spending, taxing and financing activities of government.

Learning Outcomes

The course aims to give students an appreciation of the analytical methods in economics for the study of the public sector and the role of the state. This course will enable students to understand the practical problems involved in implementing economic policies.

Course Description

This course is a non-technical overview of government finances with special reference to India. The course does not require any prior knowledge of economics. It will look into the efficiency and equity aspects of taxation of the centre, states and the local governments and the issues of fiscal federalism and decentralisation in India. The course will be useful for students aiming towards careers in the government sector, policy analysis, business and journalism.

Course Outline Part-1: Theory

(30L)

1. Overview of Fiscal Functions, Tools of Normative Analysis, Pareto Efficiency, Equity and the Social Welfare.
2. Market Failure, Public Good and Externalities.
3. Elementary Theories of Product and Factor Taxation (Excess Burden and Incidence).

Part-2: Issues from Indian Public Finance

(30L)

4. Working of Monetary and Fiscal Policies.
5. Current Issues of India's Tax System.
6. Analysis of Budget and Deficits
7. Fiscal Federalism in India
8. State and Local Finances

Readings

1. Musgrave, R.A. and P.B. Musgrave, *Public Finance in Theory and Practice*, McGraw Hill, 1989.
2. Mahesh Purohit, *Value Added Tax: Experience of India and Other Countries*, Gayatri Publications, 2007.
3. Kaushik Basu, and A. Maertens(ed.), *The Oxford Companion to Economics in India*, Oxford University Press, 2007.
4. M.M Sury, *Government Budgeting in India*, Common wealth Publishers, 1990
5. Shankar Acharya, Thirty years of tax reform in India, *Economic and Political Weekly*, May 2005. Government of India, *Report of the 13th Finance*
6. *Economic Survey*, Government of India (latest edition)
7. *State Finances: A Study of Budgets*, Reserve Bank of India (latest).



DEPARTMENT OF ECONOMICS & POLITICS, VISVA-BHARATI
POLITICAL SCIENCE (GENERIC ELECTIVE)

Generic Elective Courses in Political Science

Semester I	Semester II
GEC1-Political Theory I	GEC2-Political Theory II
Semester III	Semester IV
GEC3a:Comparative Government I GEC 3b: Indian Government and Politics I	GEC4a:Comparative Government II GEC 4b: Indian Government and Politics II

SEMESTER I

Paper GEC1: Political Theory I

Course Objectives: The emphasis of the course will be on examining a fairly wide range of issues concerning the ever-expanding field of political theory.

Learning Outcomes: This course is designed to expose the students who maybe new to political science, the basic context of political theory.

(60L)

- 1. Nature and scope of Political Theory**
- 2. Approaches to the study of Political Theory**
- 3. Origin of the State:** Different Theories
- 4. Nature of the State:** Organic Theory-Idealist Theory-Marxist Theory
- 5. Sovereignty of the State:** Austinian Theory of Sovereignty-Pluralist theory of Sovereignty-Doctrine of Popular Sovereignty-Location of Sovereignty
- 6. Law:** Analytical, Historical and Sociological theories the nature of Law-International Law: Meaning and Nature
- 7. Rights:** Theories of Rights: Natural, Legal and Marxist
- 8. Concept of Ideology:** Ideology as a set of ideas; Liberalism; Socialism; Marxism
- 9. Concept of Power:** Power and authority; Elite theory
- 10. Liberty and Equality:** Nature and dimensions
- 11. Justice:** Diverse perspectives of Justice

Readings

1. Ernest Barker: Principles of Social and Political Theories
2. O.P. Gauba: An Introduction to Political Theory
3. A.R Ball: Modern Politics And Government
4. S.P Varma: Modern Political Theory
5. V.P Varma: Modern Indian Political Thought I
6. Rabindranath Tagore: Nationalism
7. J.Bandopadhyaya: Social and Political Thoughts of Gandhi

SEMESTER II

Paper GEC2: Political Theory II

Course Objectives: The emphasis of the course will be on examining a fairly wide range of issues concerning the ever-expanding field of political theory. This course would also shed light on Rabindranath Tagore, B.R. Ambedkar, Karl Marx and Mahatma Gandhi.

Learning Outcomes: This course is designed to expose the students who maybe new to political science, the basic issues of political theory and Indian political thought.

(60L)

- 1. Liberty and Equality:** Nature, Meaning and interrelationship
- 2. Democracy:** Meaning and conditions of success; Liberal Democracy
- 3. Power and Authority:** Meaning and Implications, Structure of Power, Gender perspective
- 4. Nationalism, Internationalism and Civilization** (with particular reference to Tagore's view)
- 5. Marxism:** Fundamental Principles
- 6. Gandhism:** Basic Principles
- 7. B.R. Ambedkar:** Gandhi-Ambedkar debate

Readings

1. Ernest Barker: Principles of Social and Political Theories
2. O.P. Gauba: An Introduction to Political Theory
3. A.R Ball: Modern Politics And Government
4. S.P Varma: Modern Political Theory
5. V.P Varma: Modern Indian Political Thought I
6. Rabindranath Tagore: Nationalism
7. J.Bandopadhyaya: Social and Political Thoughts of Gandhi

SEMESTER III

(Any one of the following two optional papers)

Paper GEC 3a: Comparative Government- I

Course Objectives: The course is designed to acquaint the students with the basic idea of Comparative Government and politics.

Learning Outcomes: This course is designed to expose the students who maybe new to political science, the basic context of Comparative Government.

(60L)

- 1. Constitution :**Meaning, Classification: Written And Unwritten, Flexible and Rigid
- 2. Forms of Government:** Federal/Unitary/ Parliamentary/ Presidential
- 3. Political System:** Liberal-Democratic and Socialist
- 4. The Legislature:** Functions of the Legislature
- 5. The Executive:** Functions of the Executive
- 6. The Judiciary:** Functions of the Judiciary
- 7. Approaches to the study of Comparative Politics:** Structural-Functional approach, Systems Analysis

Note: This paper discusses the concepts used in comparing governments

Readings

1. J. Harvey and I. Bather: The British Constitution
2. RakhahariChatterji: Introduction to Comparative Political Analysis
3. Ogg and Ray: Essentials of American Government
4. D.J Waller: The Government and Politics of Communist China
5. Ogg and Zink: Modern Foreign Government
6. V.D Mahajan: Select Modern Governments

Paper GEC 3b: Indian Government and Politics - I

Course Objectives: The course is primarily designed to acquaint the students with the issues and ideas of Indian government. It contains other important topics of Indian Government like the Judicial Review, PIL, Federalism in India and so forth. It would provide a brief overview of the Indian Constitution.

Learning Outcomes: This course is designed to expose the students who maybe new to political science, the basic context of Indian Government and Politics.

(60L)

1. **Constitutional Development in India**
2. **Landmarks in Constitutional Development:** Morley-Minto reforms, Simon Commission, Government of India Act 1935
3. **Philosophy of the Constitution:** Preamble to the Constitution
4. **Main Features of the Constitution**
5. **Citizenship**
6. **Fundamental Rights and Duties**
7. **Directive Principles of State Policy**
8. **Procedure for Amendment of the Constitution**
9. **73rd and 74th Amendment Acts**
10. **Legislative Relation between the Union and the States**
11. **Administrative Relation between the Union and the State**
12. **Public Interest Litigation**
13. **Independence of Judiciary:** Judicial Review in India
14. **Federalism in India**

Readings

1. Bidyut Chakrabarty and Rajendra Kumar Pandey: Indian Government and Politics
2. Himanshu Roy and Mahendra Prasad Singh: Indian Political System
3. N.D Palmer: Indian Political System
4. W.H Morris-Jones: Government and Politics of India
5. D.D. Basu: An Introduction to the Constitution of India
6. Paul R. Brass: The Politics of India since Independence
7. Rajni Kothari: Politics in India

SEMESTER IV

(Any one of the following two optional papers)

Paper GEC 4a: Comparative Government- II

Course Objectives: The course is designed to acquaint the students with the basic ideas of Comparative Government and politics.

Learning Outcomes: This course is designed to expose the students who maybe new to political science, the basic context of Comparative Government.

(60L)

- 1. Features of the Constitution:** U.K, USA and China
- 2. Legislature:** U.K, USA and China
- 3. Executive:** U.K, USA and China
- 4. Judiciary:** U.K, USA and China
- 5. Political parties:** U.K, USA and China
- 6. Rights of the citizens:** U.K, USA and China

Note: This paper deals with the institutions and governments of specific countries

Readings

1. J. Harvey and I. Bather: The British Constitution
2. Ogg and Ray: Essentials of American Government
3. D.J Waller: The Government and Politics of Communist China
4. Ogg and Zink: Modern Foreign Government
5. V.D Mahajan: Select Modern Governments

Paper GEC 4b: Indian Government and Politics II

Course Objectives: The course is primarily designed to acquaint the students with the basic idea of the Indian government. This course focuses on the organs of the Indian government and the powers and positions of the President, Prime Minister and the Governor. A brief overview of Caste, Dalit movements, Social Movements, New Social Movements is also taught in this course.

Learning Outcomes: This course is designed to expose the students who maybe new to political science, the basic context of Indian Government and Politics.

(60L)

- 1. President:** Position and Power
- 2. Prime Minister:** Appointment, Power, Function and Role
- 3. Lok Sabha:** Organisation, Functions, Law-making Procedure, Speaker
- 4. Rajya Sabha:** Organisation, Functions
- 5. Supreme Court:** Position and Jurisdiction
- 6. High Court:** Position and Jurisdiction
- 7. Governor:** Position and Power
- 8. Party system**
- 9. Panchayati Raj** (with special reference to West Bengal)
- 10. Caste in Indian Politics**
- 11. Social movements and New Social Movements:** Nature and Purpose
- 12. Religion and Politics in India**
- 13. Dalit movements in India: Emergence**

Readings

1. Bidyut Chakrabarty and Rajendra Kumar Pandey: Indian Government and Politics
2. Himanshu Roy and Mahendra Prasad Singh: Indian Political System
3. N.D Palmer: Indian Political System
4. W.H Morris-Jones: Government and Politics of India
5. D.Basu: An Introduction to the Constitution of India
6. Paul R. Brass: The Politics of India since Independence
7. Rajni Kothari: Politics in India