

SYLLABUS FOR ECONOMICS UNDER CHOICE BASED CREDIT SYSTEM

B.A in Economics

(Honours & Programme)

Revised Syllabus

2019

Approved by

The U.G Board of Studies in Economics on 15.07.2019



**COOCHBEHAR PANCHANAN BARMA UNIVERSITY
COOCH BEHAR, WEST BENGAL**

COOCH BEHAR PANCHANAN BARMA UNIVERSITY

COURSE CURRICULUM

B. A. HONOURS IN ECONOMICS

(6 Semesters Pattern)

(With effect from 2019-2020 academic Sessions and onwards)



Honours in Economics

There will be six semesters in the three year B.A Honours in Economics. The Curriculum consists of 14 Core Courses (C), 2 Ability Enhancement Compulsory Courses (AECC), 2 Skill Enhancement Courses (SEC) and 4 Discipline Specific Elective (DSE) Courses and 4 Generic Elective (GE) courses [to be taken from the pool of Generic Elective courses]. Each course is of 50 marks. L stands for Lecture Hour, T for Tutorial Hour and P for Practical Hour.

B.A. HONOURS IN ECONOMICS

SEMESTER-I

Course Code	Course Title	Course type	(L-T-P)	Credit	Marks
CCECOH1	Microeconomics-I	C-1	5 - I - 0	6	50
CCECOH2	Mathematical Methods for Economics-I	C-2	5 - I - 0	6	50
	Choose from Pool of Generic Electives (Other than Economics)	GE-1	5 - I - 0	6	50
	Environment Studies	AECC-1	4 - 0 - 0	4	50
TOTAL CREDITS/MARKS			SEMESTER-I	22	200

SEMESTER-II

Course Code	Course Title	Course type	(L-T-P)	Credit	Marks
CCECOH3	Macroeconomics-I	C-3	5 - I - 0	6	50
CCECOH4	Statistical Methods for Economics-I	C-4	5 - I - 0	6	50
	Choose from Pool of Generic Electives(Other than Economics)	GE-2	5 - I - 0	6	50
	English / MIL	AECC-2	2 - 0 - 0	2	50
TOTAL CREDITS/MARKS			SEMESTER-II	20	200

SEMESTER-III

Course Code	Course Title	Course type	(L-T-P)	Credit	Marks
CCECOH5	Microeconomics-II	C-5	5 - I - 0	6	50
CCECOH6	Indian Economic History during British Rule	C-6	5 - I - 0	6	50
CCECOH7	Mathematical Methods for Economics-II	C-7	5 - I - 0	6	50
	Choose from Pool of Generic Electives (Other than Economics)	GE-3	5 - I - 0	6	50
SECECOH1	<i>(Choose any one)</i> Foundation Course in Mathematics-I or Foundation Course in Statistics-I	SEC-1	2 - 0 - 0	2	50
TOTAL CREDITS/MARKS		SEMESTER-III		26	250

SEMESTER-IV

Course Code	Course Title	Course type	(L-T-P)	Credit	Marks
CCECOH8	Macroeconomics-II	C-8	5 - I - 0	6	50
CCECOH9	Indian Economy since Independence	C-9	5 - I - 0	6	50
CCECOH10	Statistical Methods for Economics-II	C-10	5 - I - 0	6	50
	Choose from Pool of Generic Electives (Other than Economics)	GE-4		6	50
SECECOH2	<i>(Choose any one)</i> Foundation Course in Mathematics-II or Foundation Course in Statistics-II	SEC-2	2-0-0	2	50
TOTAL CREDITS/MARKS		SEMESTER-IV		26	250

SEMESTER-V

Course Code	Course Title	Course type	(L-T-P)	Credit	Marks
CCECOH11	Development Economics	C-11	5 - I - 0	6	50
CCECOH12	Public Economics	C-12	5 - 1 - 0	6	50
DSE Courses					
DSECOH1	Introductory Econometrics	DSE-1	5 - I - 0	6	50
DSECOH2	Money and Banking	DSE-2	5 - I - 0	6	50
TOTAL CREDITS/MARKS		SEMESTER-V		24	200

SEMESTER-VI

Course Code	Course Title	Course type	(L-T-P)	Credit	Marks
CCECOH13	International Economics	C-13	5 - I - 0	6	50
CCECOH14	Environmental Economics	C-14	5 - I - 0	6	50
DSE Courses					
DSECOH3	Financial Economics	DSE-3	5 - I - 0	6	50
DSECOH4	Rural Development	DSE-4	5 - I - 0	6	50
TOTAL CREDITS/MARKS		SEMESTER-VI		24	200
GRAND TOTAL CREDITS/MARKS		SEMESTER-(I+II+III+IV+V+VI)		142	1300

Generic Elective Courses/ Subjects

The Economics Department is offering Generic Elective courses/ subjects for other Honours Department Students

SEMESTER-III

Course Code	Course Title	Course type	(L-T-P)	Credit	Marks
GEECOH3	Indian Economy-I	GE-III	5 - I - 0	6	50

SEMESTER-IV

Course Code	Course Title	Course type	(L-T-P)	Credit	Marks
GEECOH4	Indian Economy-II	GE-IV	5 - I - 0	6	50

COURSE CURRICULUM

B. A. PROGRAMME IN ECONOMICS

(6 Semesters Pattern)

(With effect from 2019-2020 academic Sessions and onwards)



B.A. PROGRAMME IN ECONOMICS

There will be six semesters in the three-year B.A Program in Economics. The Curriculum consists of 12 Core Courses (C) of which 4 core courses are to be taken from Discipline 1 (the **program in the subject** selected by the candidate) ; 4 core courses are to be taken from Discipline 2 (any subject other than Discipline 1) and 4 core courses are to be taken from AECC-Core. Apart from these, 2 Generic Elective courses (GE) [to be taken from the pool of Generic Elective courses], 2 Ability Enhancement Compulsory Courses (AECC-Elective), 4 Skill Enhancement courses (SEC) (from the **programme in the subject** selected by the candidate) and 2 Discipline Specific Elective courses (DSE) from Discipline-1 and 2 such courses from Discipline-2 are to be taken. Each paper is of 50 marks. L stands for Lecture Hour, T for Tutorial Hour and P for Practical Hour.

SEMESTER-I

Course Code	Course Title	Course type	(L-T-P)	Credit	Marks
DSCECOG1	Principles of Microeconomics-I	DSC-1	5 - I - 0	6	50
	Discipline-2	DSC-2	5 - I - 0	6	50
	MIL-I	AECC-1(Core)	5 - I - 0	6	50
	AECC	AECC-1(Elective)	4 - 0 - 0	4	50
TOTAL CREDITS/MARKS			SEMESTER-I	22	200

SEMESTER-II

Course Code	Course Title	Course type	(L-T-P)	Credit	Marks
DSCECOG3	Principles of Macroeconomics- I	DSC-3	5 - I - 0	6	50
	Discipline-2(Core 3)	DSC-4	5 - I - 0	6	50
	English-I	AECC-2(Core)	5 - I - 0	6	50
	Environment Studies	AECC-2(Elective)	4 - 0 - 0	4	50
TOTAL CREDITS/MARKS			SEMESTER-II	22	200

SEMESTER-III

Course Code	Course Title	Course type	(L-T-P)	Credit	Marks
DSCECOG5	Principles of Microeconomics–II	DSC-5	5 - I - 0	6	50
	Discipline-2(Core 5)	DSC-6	5 - I - 0	6	50
DSCSECG1	Rural Development	SEC- 1	2 - 0 - 0	2	50
	MIL-II	AECC-3(Core)	5 - I - 0	6	50
TOTAL CREDITS/MARKS		SEMESTER-III		20	200

SEMESTER-IV

Course Code	Course Title	Course type	(L-T-P)	Credit	Marks
DSCECOG7	Principles of Macroeconomic-II	DSC-7	5 - I - 0	6	50
	Discipline-2(Core 7)	DSC-8	5 - I - 0	6	50
DSCSECG2	Money and Banking	SEC- 2	2 - 0 - 0	2	50
	English-II	AECC-4(Core)	5 - I - 0	6	50
TOTAL CREDITS/MARKS		SEMESTER-IV		20	200

SEMESTER-V

Course Code	Course Title	Course type	(L-T-P)	Credit	Marks
DSEECOG1	Development Economics	DSE-1	5 - I - 0	6	50
	DSE Discipline (Another Subject)	DSE- 1	5 - I - 0	6	50
	GE(Any One)	GE-1			
	Choose from Pool of Generic Electives		5 - I - 0	6	50
DSCSECG3	Indian Economy-I	SEC- 3	2 - 0 - 0	2	50
TOTAL CREDITS/MARKS		SEMESTER-V		20	200

SEMESTER-VI

Course Code	Course Title	Course type	(L-T-P)	Credit	Marks
DSEECOG2	Basic Statistics	DSE-2	5 - I - 0	6	50
	DSE Discipline 1(Another Subject)	DSE- 2	5 - I - 0	6	50
	GE(Any One)	GE-2			
	Choose from Pool of Generic Electives		5 - I - 0	6	50
DSCSECG4	Indian Economy-II	SEC- 4	2 - 0 - 0	2	50
TOTAL CREDITS/MARKS		SEMESTER-V		20	200
GRAND TOTAL CREDITS/MARKS		SEMESTER- (I+II+III+IV+V+VI)		124	1200

Generic Elective Courses/ Subjects

The Economics Department is offering Generic Elective courses/ subjects for other Department (Programme Course) Students

SEMESTER-V

Course Code	Course Title	Course type	(L-T-P)	Credit	Marks
GEECOG3	Indian Economy-I	GE-3	5 - I - 0	6	50

SEMESTER-VI

Course Code	Course Title	Course type	(L-T-P)	Credit	Marks
GEECOG4	Indian Economy-II	GE-4	5 - I - 0	6	50

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**SYLLABUS FOR
ECONOMICS UNDER
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SYSTEM**

[**B.A. Honours in Economics**]

[2019 onward]

Credit Details of B.A. Honours Programme Course in Economics

Semester	Discipline Specific Core Course (DSC)	Discipline Specific Elective Course (DSE)	Generic Elective Course (GE)	Ability Enhancement Compulsory Course (AECC)	Skill Enhancement Course (SEC)	Total Course	Total Credit
	6 Credits	6 Credits	6 Credits	4 Credits(Sem-I) & 2 Credit(Sem-II)	2 Credits		
I	2	-	1	1	-	4	22
II	2	-	1	1	-	4	20
III	3	-	1	-	1	5	26
IV	3	-	1	-	1	5	26
V	2	2	-	-	-	4	24
VI	2	2	-	-	-	4	24
Total Courses	14	4	4	2	2	26	-
Total Credits	84	24	24	6	4	-	142

DSC: Discipline Specific Core

DSE: Discipline Specific Elective

AECC: Ability Enhancement Compulsory Course

SEC: Skill Enhancement Course

GE: Generic Elective

SEMESTER-I

Core Economics Course (C-1): MICROECONOMICS-I

[L-5 T-1 Total- 6 Credits]

Full Marks: 50

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.

Module I: Introduction

Nature and scope-scarcity and choice of Microeconomics.

Module II: Demand & Supply

Concept of demand & supply functions, Price, Income & Cross elasticities of demand, Elasticity of Supply, Market demand functions, Concept of equilibrium, Impact of changes in demand & supply on equilibrium

Module III: Theory of Consumer Behaviour

Concept of cardinal and ordinal utility, Marshallian utility analysis, consumer's equilibrium, derivation of law of demand, consumer equilibrium in the more than one commodity, consumer's and producer's surplus.

a. Indifference Curve Analysis

Axioms of Preference, Ordinal Utility Function, Indifference curve & Properties, Budget line and shifting, MRS, Consumer's Equilibrium, Choice of Utility Index, Price, Income and Substitution Effects: Hicksian & Slutsky Approaches, Ordinary and Compensated Demand Curves, Compensating Variation & Equivalent Variation, Income, Price & Substitution Effects in case of Inferior and Giffen goods, Shapes of Indifference Curves in exceptional cases.

b. Revealed Preference Theory (RPT)

Concept of RPT, Weak and Strong Axioms, Derivation of the Law of Demand.

Module IV: Choice Under Uncertainty and Economic Information

Utility function and Expected utility, Consumers Preferences, Risk Aversion and Indifference Curve, demand and Risk Assets, Asymmetric Information.

Module V: The Theory of Production

Concept of Production function, Production with a single variable input, TP, AP & MP, Production with two variable inputs, Isoquant & economic region of production, MRTS, Optimal input combination, Constrained output maximisation, Cost minimisation, Elasticity of substitution, Scale elasticity of output, Wicksell - Johnson Theorem, Cobb-Douglas and CES production function (basic properties only)

Module VI: Theory of Cost

Different concept of cost, Short-run and Long-run cost analysis, modern concept: Saucer-type SAVC curve J and L Shaped LAC curve.

Suggested readings:

1. Lipsey and Chrystal: *An Introduction to Positive Economics*, OUP
2. Stiglitz and Walsh: *Economics*, W.W. Norton & Company
3. Chakravarty, S: *Microeconomics*, Allied
4. Mankiw: *Principles of Economics*, Thomson
5. Grossman, Gregory: *Economic Systems*, Prentice Hall
6. Varian H.R: *Intermediate Microeconomics- A Modern Approach*, East-West Press
7. Salvatore, Dominick: *Microeconomics*, OUP
8. Varian H.R: *Microeconomic Analysis*, W.W. Norton
9. Gould and Ferguson: *Microeconomic Theory*, Richard D. Irwin, Inc.
10. Pindyck, Rubinfeld and Mehta: *Microeconomics*, Pearson Education Asia
11. Maddala and Miller: *Microeconomics- Theory and Applications*, McGraw Hill.
12. Salvatore, Dominick: *Microeconomics*, OUP
13. Varian H.R: *Microeconomic Analysis*, W.W. Norton

Core Economics Course (C-2): MATHEMATICAL METHODS FOR ECONOMICS -I

[L-5 T-1 Total- 6 Credits]

Full Marks: 50

COURSE DESCRIPTION: *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. In this course, particular economic models are not the ends, but the means for illustrating the method of applying mathematical techniques to economic theory in general.*

Module I: Sets and Functions-applications in Economics

Concept of Set, Basic Set operations, Real Numbers and real-valued functions, domain and range, Convex Sets and Functions

Module II: Matrices and Determinants- Applications in Economics

Vectors and Matrices, Matrix operations, Determinants, Inverse Matrix, Solution of a system of linear equations, Bordered Hessian Determinant and Cramer's rule. Applications in Economics: Simple National Income Determination Model, the IS-LM Model, Comparative Static Analysis and Derivation of Slutsky Equation.

Module III: Basic Calculus and Applications in Economics

Differential Calculus: Derivative of a Function, Rules of Differentiation, Partial and Total Differentiation, Euler's Theorem. Applications in Economics: Demand Function, Elasticity of Demand, Marginal Revenue, Marginal Utility, Marginal Cost, Slope and Curvature of Indifference Curve, Point of Inflexion, Returns to Scale, Homogeneous Functions and their Properties, Cobb-Douglas Production Function and their Properties.

Integral Calculus: Concept of Integration, Rules of Integration, Definite and Indefinite Integral. Applications in Economics: Finding out Total Revenue Functions, Total Cost Function, Consumption Function and Saving Function when Marginal Functions are given. Consumer's Surplus and Producer's Surplus.

Optimization techniques: Extreme Values of Bi-variate Functions, Sufficient Condition for Extreme Values, First and Second Order Conditions for Optimization without Constraints. Constraints Optimization Problems in Economics: Lagrange Multiplier Method, Utility Maximization subject to Budget Constraint, Output Maximization subject to Cost Constraint, Cost Minimization subject to an Output Constraint. Relation between AP and MP, Relation between AC and MC, Expansion Path, Derivation of Ordinary and Compensated Demand Curve.

Module IV: Input-Output Analysis

Meaning of Input-Output Analysis, Features, Assumptions, the Technological Co-efficient Matrix, Leontief's Input-Output Model, Closed and Open Input-Output Model, Input-Output Table, Determination of Gross Outputs, Hawkins-Simon Conditions, Role of Labour Supply Constraints and Consumption Possibility Locus.

Suggested Readings:

1. Chiang and Wainwright : *Fundamental Methods of Mathematical Economics*, McGraw Hill book Co. New York.
2. Silberberg, E.: *The Structure of Economics - A mathematical Analysis* McGraw Hill Book Co., New York.
3. Mukherjee, B. and V. Pandit: *Mathematical Methods for Economic Analysis*, Allied Publishers Pvt. Ltd., New Delhi.
4. Baumol, W.J.: *Operations Research- An Introduction*, Prentice Hall, Englewood Cliffs, New jersey.
5. Taha, H.A.: *Operations Research- An Introduction*, Prentice Hall of India, New Delhi.
6. Sydsaeter & Hammond: *Mathematics for Economic Analysis*, Pearson Education.
7. Simon & Blume: *Mathematics for Economists*, Viva Books.

SEMESTER-II

Core Economics Course (C-3): MACROECONOMICS- I

[L-5 T-1 Total- 6 Credits]

Full Marks: 50

COURSE DESCRIPTION: This course introduces the students to formal modeling of a macro-economy. It discusses various alternative theories of output and employment determination in a closed economy in the short run as well as medium run, and the role of policy in this context. It also introduces the students on various theoretical issues related to an open economy.

Module I : Introduction to Macroeconomics

Introduction to macroeconomic variables, scope and nature, Microeconomic and macroeconomic approaches

Module II: National Income Accounting

Principles of national income accounting - Problems of measuring national Income –National Income as a measure- GDP, GNP, NDP, NNP and NI- Circular flow of income, Measurement of National Income and problems encountered- CPI, WPI and GDP deflator.

Module III: The Classical view of Macroeconomics

Say's law & Walras law (Barter exchange Model), Restatement of Say's law (in money economy and in relation to quantity theory of money), The dichotomy between the real & monetary sectors, Determination of employment, output and prices, Wage-Price flexibility, Quantity theory of money, Aggregate demand & aggregate supply in the classical system, The Classical theory of interest rate, Policy implication of the classical equilibrium model (Fiscal & monetary policy)

Module IV: Simple Keynesian Theory of Income Determination

Components of Effective Demand in a closed economy without government and with government, and in an open economy, Determination of Equilibrium Income in a closed economy without government, closed economy with government, and in an open economy. Stability of equilibrium, Multiplier- (Expenditure Multiplier, Balanced Budget Multiplier and Tax Rate Multiplier) and Dynamic Multiplier.

Module V: The Keynesian System: Money, Interest and Income

Money in the Keynesian theory, Interest Rate Determination (Liquidity Preference Theory), Money Market, Bond market and Commodity Market , Derivation IS-LM Curves, Different Types of Multiplier in IS-LM Model, Effectiveness of Monetary and Fiscal policies in IS-LM Model, Transmission mechanism of and Crowding Out effect.

Determination of equilibrium income and interest rate, Comparative Statics - Monetary policies and fiscal policies, Crowding out Effect.

Suggested readings:

1. Samuelson and Nordhaus: *Economics*, McGraw Hill
2. Mankiw, *Economics : Principles and Applications*, Cengage Learning
3. Blanchard: *Macroeconomics*, Pearson Education
4. Mankiw: *Macroeconomics*, Worth Publishers
5. Dornbusch and Fischer: *Macroeconomics*, McGraw-Hill
6. Sikdar, Soumyen: *Principles of Macroeconomics*, O.U.P.
7. Froyen: *Macroeconomics - Theory and Policy*, Pearson Education
8. Ackley, G.: *Macroeconomics*, Macmillan, London.

Core Economics Course (C-4): STATISTICAL METHODS FOR ECONOMICS-I

[L-5 T-1 Total- 6 Credits]

Full Marks: 50

COURSE DESCRIPTION: *This is a course on introductory statistical methods for economics. It begins with some basic concepts and terminology that is fundamental to statistical analysis, relation between two variables, and calculating process of statistical concepts.*

Module I: Data Collection and Measures of Central Tendency and Dispersion

Basic concepts: population and sample, parameter and statistic; Data Collection: primary and secondary data, methods of collection of primary data; Presentation of Data: frequency distribution; cumulative frequency; graphic and diagrammatic representation of data; Measures of Central Tendency: mean, median, mode, geometric mean, harmonic mean, their relative merits and demerits.

Module II: Measures of Dispersion

Measures of Dispersion: absolute and relative - range, mean deviation, standard deviation, coefficient of variation, quartile deviation, their merits and demerits; Measures of Skewness and Kurtosis.

Module III: Correlation and Regression Analysis

Correlation: scatter diagram, sample correlation coefficient - Karl Pearson's correlation coefficient and its properties, probable error of correlation coefficient, Spearman's rank correlation coefficient, Two variable linear regression analysis - estimation of regression lines (Least square method) and regression coefficients - their interpretation and properties, standard error of estimate

Module IV: Probability Theory

Elements of Probability Theory: Sample Space, Probability Space, Events, Classical Definition of Probability, The Addition Rule, The Multiplication Rule, Theorems of Total Probability, Conditional Probability and Statistical Independence, Limitations of the Classical definition, Frequency definition, Axiomatic Approach, Bayes' Rule

Suggested readings:

1. Goon, A.M., M.K. Gupta and B. Dasgupta (1986): *Fundamentals of Statistics, Vols. 1 & 2*, The World Press Private Limited. Calcutta.
2. Nagar, A.L. and R.K.Das (1977): *Basic Statistics*, OUP, Delhi.
3. Hoel, P.G. (1984): *Introduction to Mathematical Statistics, 5th edition*, Wiley, New York.
4. Yule, G.U. and Kendall, M.G. (eds.) (1958): *Introduction to the Theory of Statistics*, Charles Griffin & Co. Ltd. London.
5. Kenney, and keeping (1974)- *Mathematics of Statistics - Part I*, Affiliated East West Press, New Delhi.
6. Das, N.G. (1977): *Statistical Methods (Part-I & II)* M. Das & Co., Calcutta.
7. Hogg, R.V. and A.T. Craig (1970): *Introduction to Mathematical Statistics (3rd edition)*, Macmillan Publishing Co. New York.
8. Bowen & Starr: *Basic Statistics for Business and Economics*, McGraw Hill

SEMESTER-III

Core Economics Course (C-5): MICROECONOMICS II

[L-5 T-1 Total- 6 Credits]

Full Marks: 50

COURSE DESCRIPTION: *The course is designed to provide a sound training in microeconomic theory to formally analyze the behaviour of market agents. Since students are already familiar with the quantitative techniques in the previous semesters, mathematical tools are used to facilitate understanding of the basic concepts; this course looks at the behaviour of the consumer and the producer and also covers the behaviour of a competitive firm.*

Module I: Market Structures

a. Perfect Competition

Short-run and long-run equilibrium of the firm and Industry, Short-run supply of the firm and market, Long-run industry supply with and without external economics and diseconomies.

b. Stability of equilibrium

Marshallian and Walrasian conditions of stability equilibrium, Cobweb Model-static and dynamic

c. Theory of Monopoly

Concept of imperfect competition; short run and long run price and output decisions of a monopoly firm; concept of a supply curve under monopoly; comparison of perfect competition and monopoly, Multi-Plant monopoly, Price Discrimination, Theoretical Indices of Monopoly Power.

d. Theory of Monopolistic Competition

Monopolistic competition: Assumptions, SR & LR price and output determinations under monopolistic competition equilibrium, Selling Cost, Ideal output and Excess capacity, Comparison with Perfect Competition.

e. Oligopoly

Characteristics, Conjectural variation and reaction pattern of oligopoly Models, Cournot, Sweezy, Stackelberg and Collusive Oligopoly, Price Leadership Model.

Module II: Factor Pricing

The demand for productive service(single variable input and two variable inputs) in perfect and imperfect markets, Firms demand industry demands input, Indifference curve analysis of labour supply, marginal productivity theory of input returns, Adding-up problems.

Determination in perfect and imperfect markets, Collective bargaining and exploitation, Perfectly competitive factor markets: Ricardian theory of rent, Economic rent and quasi-rent, Gross and Net Profits, Risk and Uncertainty theory of profit.

Module III: Welfare Economics

Individual Welfare and Social welfare, Concept and Conditions of Pareto optimality, Perfect Competition and Pareto Optimality, Imperfect Completion and Pareto Optimality, External effects in Production and Consumption.

Suggested readings:

1. Chakravarty, S: *Microeconomics*, Allied
2. Varian H.R: *Intermediate Microeconomics: A Modern Approach*, East West Press
3. Pindyck, Rubinfeld and Mehta: *Microeconomics*, Pearson Education Asia
4. Gould and Ferguson: *Microeconomic Theory*, Richard D. Irwin
5. Perloff, Jeffrey M. (2007): *Microeconomics - Theory and Application with Calculus*, Addison Wesley
6. Jehle, G. and Reny, P.: *Advanced Microeconomic Theory*, Addison Wesley
7. Sen, Anindya: *Microeconomics*, OUP
8. Mankiw and Taylor: *Microeconomics*, CENGAGE
9. Belleflamme, Paul and Peitz, Martin: *Industrial Organization –Markets and Strategies*, Cambridge University Press
10. Maddala and Miller: *Microeconomics- Theory Applications*, McGraw Hill

Core Economics Course (C-6): INDIAN ECONOMIC HISTORY DURING BRITISH RULE

[L-5 T-1 Total- 6 Credits]

Full Marks: 50

COURSE DESCRIPTION: *This course analyses key aspects of Indian economy that development during 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.*

Module I: Economic History- An introduction

Module II: Impact of British Rule with special reference to:

- a. De-industrialisation
- b. Commercialisation of agriculture-Agrarian Structure
- c. Economic Drain

Module III: Aspect of British Imperial Policy

- a. Land Policies- Permanent, Ryotwari System , Mahalwari System in British Period
- b. Railways and Irrigation
- c. Policy of Discriminating protection
- d. Policy of Trade
- e. Foreign Capital

Module III: History of Money, Currency and Banking under British Rule

- a. Monetary and Currency developments before independence
- b. Evolution of Currency or Money
- c. Paper Standard during British Rule
- d. Commercial and Central banking development in the British period

Module III: Growth of Industrial Entrepreneurship under British Rule

- a. History of Handicrafts and small Scale Industries
- b. Pattern of Industrial development- the Jute industry
- c. The Cotton Industry
- d. The Iron and Steel Industry

Suggested 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. Irfan Habib: *Indian Economy 1858-1914: A People's History of India*, Vol.28, Tulika, 2006.
5. Ira Klein: "When Rains Fail: Famine Relief and Mortality in British India", *IESHR*,
6. Jean Dreze: "Famine Prevention in India" in Dreze and Sen (eds.) *Political Economy of Hunger, Vol.2*, OUP
7. Bhattacharya, Sabyasachi, *Ouponibeshik Bharater Arthanaitik Itihas*, Ananda
8. Bhattacharyya, Dhires: *A Concise History of the Indian Economy*, Progressive Publishers
9. Bagchi, A.K. (1972): *Private Investment in India, 1900-39*, Cambridge: Cambridge University Press.
10. Chandra B. (2010): *Rise and Growth of Economic Nationalism in India*, Har Anand Publications, 2010.
11. Gadgil, D.R. (1938): *The Industrial Evolution of India in recent times*
12. Kumar, D. ed. (1983): *Cambridge Economic History of India Vol. II*, Cambridge University Press.
13. Sen, N. (1992): *India in the International Economy 1858-1913*, Orient Longman Limited.

Core Economics Course (C-7): MATHEMATICAL METHODS FOR ECONOMICS II

[L-5 T-1 Total- 6 Credits]

Full Marks: 50

COURSE DESCRIPTION: *The objective of the course emphasis on various fields of economics such as the courses on microeconomic theory and macroeconomic theory employ a great deal of mathematical methods and techniques for solving problems in economics.*

Module I: Differential Equations

Definition of Differential Equation, Solution of Differential Equations, First Order and Second Order Differential Equations. Applications in Economics: Time Path of Price and Quantity in Comparative Markets, Time Path of Income in Simple Keynesian Model, Stability Model, Time Path of Inflation and Unemployment Rates, Harrod-Domar and Solow Growth Model, Domar's Growth Model and Domer's Debt Burden Model.

Module II: Difference Equations

Definition of Difference Equation, Solution of Difference Equations, First Order and Second Order Difference Equations. Applications in Economics: the Cobweb Model, the Dynamic Multiplier, Nature of the Time Path – A Graphical Analysis, Interpretation of the Time Path, The Multiplier Accelerator Interaction Model, Inflation and Unemployment in Discrete Case.

Module III: Linear Programming

Definition of Linear Programming, Formulation of LPP, Graphical Solution Methods, Slack Variables, Basic Feasible Solutions, Simplex Method for Solving Maximization and Minimization Problem, Duality of Linear Programming, Degeneracy, Economic Interpretation of Duality, Shadow Price.

Module IV: Theory of Games

Introduction and Definition, Structure of Game, Pay-off Matrix, Two-Person Zero- Sum Game, Non-Zero Sum Game, the Maximin and Minimax Principles, Games with and without Saddle Points, Dominance Property, Pure and Mixed Strategy, Graphical Solution of (2XN) and (MX2) Games.

Module V: Mathematical Application in Economics

Models: Perfect Competition, Monopoly, Discriminating Monopoly, Cournot's Model of Duopoly, Cartels, Price Leadership Model.

Suggested Readings:

1. Chakravorty and Ghosh: *Linear Programming*, Moulik Library, Kolkata
2. Chiang & Wainwright: *Fundamental Methods of Mathematical economics*, McGraw Hill.
3. Dixit, Skeath, Reiley: *Games of Strategy*, W. W. Norton
4. M. J. Osborne: *An Introduction to Game Theory*
5. Gibbons, Robert: *Game Theory for Applied Economics*, Princeton University Press
6. Sydsaeter & Hammond: *Mathematics for Economic Analysis*, Pearson Education.
7. Simon & Blume: *Mathematics for Economists*, Viva Books.
8. Baumol, William: *Economic Theory and Operations Analysis*, Prentice Hall
9. Miller, Ronald E. and Blair, Peter D.: *Input-Output Analysis: Foundations and Extensions*, Prentice Hall

Cooch Behar Panchanan Barma University- Economics (Honours & programme) Syllabus under CBCS system
Skill Enhancement Courses (SEC) to be offered by Department of Economics
(Choose Any One)

Group-A

SEC-1A: FOUNDATION COURSE IN MATHEMATICS- I

[L-2 T-0 Total- 2 Credits]

Full Marks: 50

***COURSE DESCRIPTION:** The course is designed to develop mathematical curiosity and use inductive and deductive reasoning when solving problems, become confident in using mathematics to analyze and solve problems both in school and in real-life situations. Develop the knowledge, skills and attitudes necessary to pursue further studies in mathematics.*

Module-I: Ratio, Proportion and Variation

Ratio, Proportion, Variation- Direct, Inverse & Joint, Worked Examples, Exercise

Module-II: Equation, Laws of Indices, Surds, Logarithm

Elementary Ideas, Quadratic Equation, Homogenous, Worked Examples, Exercise

Module-III: Permutations & Combinations, Binomial Theorem

Introduction- Permutations & Combinations, Binomial Theorem (Positive Integral Index), Worked Examples, Exercise

Module-IV: Analytical Geometry

Straight Line- Length of a Line Segment, Gradient, Circle, Conics, Hyperbola, Worked Examples, Exercise

Module-V: Progression

A.P, G.P & H.P, Worked Examples, Exercise

Module-VI: Matrix Algebra

Formation, Various Types, Properties, Cramer's Rule, Algebraic Operations, Minors & Cofactors, Inverse of Matrix, Solution to System of Linear Equations, Worked Examples, Exercise

Suggested readings:

1. S.P. Rajagopalan & R. Sattanathan, Business Mathematics, Tata Mc.Graw-Hill Publishing Company Ltd. New Delhi
2. N.K. Nag , Business Mathematics, kalyani Publications, New Delhi.
3. Focus in High School Mathematics: Reasoning and Sense Making. National Council of Teachers of Mathematics. Reston,VA: NCTM
4. Advanced High-School Mathematics. by David B. Surowski - Kansas State University , 2011

SEC-2A: FOUNDATION COURSE IN STATISTICS-I

[L-2 T-0 Total- 2 Credits]

Full Marks: 50

COURSE DESCRIPTION: This is an introductory course in statistics designed to provide students with the basic concepts of data analysis and statistical computing. Topics covered include basic descriptive measures, measures of association between the different variables. The main objective is to provide students with pragmatic tools for assessing statistical claims and conducting their own statistical analyses.

Module-I: Collection of Data, Classification and Tabulation

Methods of collecting primary data, Sources of secondary data, Characteristics of classification, Objectives, Statistical series, Tabulation, Frequency distribution.

Module-II: Diagrammatic and Graphical Representation of Statistical Data

Diagram, Rules of preparing diagram, Types, Graphical representation, Technique of construction of graphs, Graphs for frequency distribution, Graphs for Time series, Semi-Logarithm Line,

Module-III: Measures of Central Tendency

Types of averages, various methods of central tendency (Un-weighted Weighted), Properties, Relations and Examples

Module-IV: Measures of Dispersion

Meaning, Objectives & importance, Methods of measuring dispersion, Properties of absolute and relative measures of dispersion, Range, Q.D, S.D, Mean Deviation about Mean, Mode & Median, Coefficient of variation, Measures of Skewness, Different types of moments, Relation between different moments, Kurtosis and Examples

Module-V: Correlation and Regression Analysis

Correlation: scatter diagram, sample correlation coefficient - Karl Pearson's correlation coefficient and its properties, probable error of correlation coefficient, Spearman's rank correlation coefficient, Two variable linear regression analysis - estimation of regression lines (Least square method) and regression coefficients - their interpretation and properties and Examples.

Module-VI: Time Series Analysis

Nature and decomposition of a time series - Analysis of trend, Polynomial trend - Exponential trend
Non-linear growth curves - Moving average method - Seasonal component - Cyclical and random components and Examples

Suggested readings:

1. Goon, A.M., M.K. Gupta and B. Dasgupta (1986): *Fundamentals of Statistics, Vols. 1 & 2*, The World Press Private Limited. Calcutta.
2. Nagar, A.L. and R.K.Das (1977): *Basic Statistics*, OUP, Delhi.
3. Hoel, P.G. (1984): *Introduction to Mathematical Statistics, 5th edition*, Wiley, New York.
4. Yule, G.U. and Kendall, M.G. (eds.) (1958): *Introduction to the Theory of Statistics*, Charles Griffin & Co. Ltd. London.
5. Kenney, and keeping (1974)- *Mathematics of Statistics - Part I*, Affiliated East West Press, New Delhi.
6. Das, N.G. (1977): *Statistical Methods (Part-I & II)* M. Das & Co., Calcutta.
7. Hogg, R.V. and A.T. Craig (1970): *Introduction to Mathematical Statistics (3rd edition)*, Macmillan Publishing Co. New York.
8. Bowen & Starr: *Basic Statistics for Business and Economics*, McGraw Hill

SEMESTER-IV

Core Economics Course (C-8): MACROECONOMICS- II

[L-5 T-1 Total- 6 Credits]

Full Marks: 50

COURSE DESCRIPTION: *The course will cover the determination of income, employment, the price level, interest rates and exchange rates in the economy. The economy will be analyzed in the short run (e.g. business cycle and stabilization policy) and in the long run (e.g. economic growth).*

Module I: Theories of Consumption and Investment functions

Theories of Consumption Function: Short run and Long Run Consumption Function, Consumption and present Value of Income, Life Cycle Hypothesis - Relative Income Hypothesis - Permanent Income Hypothesis, Investment Function -The Present Value Criterion for Investment, Relation between MEC and MEI- Acceleration Principle- Flexible accelerator model.

Module II: Inflation and Unemployment

Inflation: DPI and CPI - Inflationary gap- Bent Hansen's dynamic demand-pull inflation model
Philips curve (short run and long run) and the role of inflation - Natural rate of unemployment – Role and Effects of inflation, Anti- inflationary policies — Ackley's mark- up inflation.

Module III: Supply of Money

Definitions of money, Money creation by commercial banks, Money multiplier, Control of money supply by the central bank

Module IV: Central and Commercial Banking: Functions and Credit Control

Credit Control Methods, Theory of bank rate, Open market operation

Module V: Growth Theories

Early Growth Theories: Adam Smith , David Ricardo and Marx, Keynesian Theory of Secular Stagnation, Harrod and Domar – Instability equilibrium, Neo-Classical growth model, The Solow model of Economic growth and technical progress

Module VI: Theories of Trade Cycle

Definition of Trade Cycle, features, phases, Trade Cycle Theories - Hawtrey, Hayek, Hicks – Samuelson, Control of Trade Cycles

Suggested readings:

1. Mankiw: *Macroeconomics*, Worth Publishers
2. Froyen: *Macroeconomics- Theory and Policy*, Pearson Education
3. Barro: *Macroeconomics*, PHI Learning Private Limited
4. Ackley, G.(1986): *Macroeconomics*, Macmillan, London.
5. Levacic, G. (1976): *Macroeconomics*, Macmillan, London.
6. Mueller, M.G. (ed.) (1978): *Readings in Macroeconomics*, Surjeet Publications, Delhi.
7. Sayers, R.S. (1960): *Modern Banking*, Clarendon Press, Oxford.
8. Shapiro, E. (1996): *Macroeconomic Analysis*, Galgotia Publications, New Delhi.
9. Surrey (ed): *Macroeconomic Themes*, Oxford University Press
10. Dornbusch and Fischer: *Macroeconomics (3rd edition)*, McGraw-Hill
11. Sikdar, S: *Macroeconomics*, Oxford University Press

Core Economics Course (C-9): INDIAN ECONOMY SINCE INDEPENDENCE

[L-5 T-1 Total- 6 Credits]

Full Marks: 50

COURSE DESCRIPTION: Understand the various aspects of India's economy, Develop a perspective on the different problems and approaches to economic planning and development in India, Understand the role of the Indian Economy in the global context, and how different factors have affected this process.

Model I: Structural Changes in the Indian Economy

- a. Trends in National Income
- b. Sectoral distribution of income
- c. The pattern of Income distribution in India

Module II: Agricultural Sector

- a. Farm size and productivity
- b. Cropping Pattern in India
- c. Green revolution- Productivity, Employment, and Distribution aspects
- d. Land reforms with special reference to West Bengal
- e. Agricultural Credit
- f. Agricultural Marketing

Module III: Industrial Development

- a. Trends in industrial output and productivities in different plan periods
- b. Small Scale and Cottage Industries and its Economic Reforms
- c. Role of Public Sector in India and Critical review of its performance
- d. Industrial Policies of 1948, 1956, 1977 and 1991
- e. Industrial Licensing Policies – MRTP Act, FERA and FEMA
- f. Industrial Disputes

Module IV: Foreign Trade

Foreign Trade: role, composition and direction of India's foreign trade, trends of export and import in India, export promotion versus import substitution; Balance of Payments of India; India's Trade Policies; Foreign Capital – FDI, Aid, MNCs, and WTO with special reference to economic reform, 1991

Suggested readings:

1. U. Kapila (2016): Indian economy since Independence. Academic Foundation, New Delhi
2. S. K. Misra and V. K. Puri (Latest Year): Indian Economy — Its Development Experience, Himalaya Publishing House, Mumbai
3. S. Chakraborty : Development Planning: The Indian Experience. Clarendon Press.
4. R. Dutt and K. P. M, Sundharam (Latest Year): Indian Economy, S. Chand & Company Ltd., New Delhi.
5. A. Panagariya (2008): India: the Emerging Giant, Oxford University Press, New York
6. S. Acharya and R. Mohan (Eds.) (2010): India's Economy: Performance and Challenges, Oxford University Press, New Delhi.
7. I. J. Ahluwalia and I. M. D. Little (Eds.) (1998): India's Economic Reforms and Development: Essays for Manmohan Singh, Oxford University Press, New Delhi.

Core Economics Course (C-10): STATISTICAL METHODS FOR ECONOMICS-II

[L-5 T-1 Total- 6 Credits]

Full Marks: 50

COURSE DESCRIPTION: The objective of this course is to provide an understanding for the graduate student on statistical concepts to include probability, probability distributions, sampling, estimation, hypothesis testing, regression, and time series for economic forecasting.

Module IV: Index Number

Index number-simple and weighted averages, Price and quantity index numbers, Problems in the Construction of Index Numbers, Tests for index Numbers, Chain based Index, Cost of Living Index Number, Wholesale Price Index and Cost of Living Index, Uses of Index Numbers.

Module II: Random Variables and Probability Distributions

Definition of random variable: discrete and continuous random variable, probability mass function and probability density functions, Expectation and Variance of random variables, Joint Probability Distribution: Concept of Independence, Marginal and Conditional Distribution. Expectation of the product of two variates, Univariate Probability Distributions: Binomial, Poisson, Normal and Standard Normal Distribution - Mean, Variance, Skewness and Kurtosis, Limiting form of Binomial distribution (with proof), Limiting form of Poisson distribution (without proof), Importance of Normal Distribution in Statistics, Central Limit Theorem (statement only).

Module III: Sampling Theory

Population and Sample, Parameter and Statistic, Random Sampling: Methods of Drawing Random samples (with and without replacement). Basic Concepts of different methods of sampling –Stratified Sampling, clustered sampling, multistage sampling, purposive sampling, Sampling Distribution, Standard Error, Sampling Distributions associated with Normal Population, Expectation and Standard Error of Sample Mean (with and without replacement), Derived Distributions: Chi-Square Distribution, Student's t Distribution, F Distribution (definition and important properties), Fisher's t distribution, concept of degrees of freedom.

Module IV: Classical Statistical Inference

Basic concepts of estimation: Methods of Point Estimation - Maximum Likelihood Estimators and their properties, Type-I and Type-II Errors, Simple applications of tests for the Mean and Variance of a Univariate Normal Population.

Module V: Analysis of Time Series

Nature and decomposition of a time series - Analysis of trend, linear and nonlinear and Polynomial trend - Exponential trend, Non-linear growth curves - Moving average method - Seasonal component - Cyclical and random components– forecast and accuracy.

Suggested readings:

1. Cochran, W. G.: Sampling Techniques, 3rd ed., Wiley Edition
2. Goon,Gupta, Dasgupta: Fundamentals of Statistics, Vol I, World Press Private Limited
3. Mood, A.M., F.A.Greybill and D.C. Boes: Introduction to the theory of statistics, McGraw Hill
4. Bowen & Starr: Basic Statistics for Business and Economics, McGraw Hill.
5. Mood, A.M., F.A.Greybill and D.C. Boes: Introduction to the theory of statistics, McGraw Hill
6. Hoel, Paul, G: Introduction to Mathematical Statistics, Wiley Series in probability and statistics
7. Mathai and Rathie: Probability and Statistics, The Macmillan Company of India Limited
8. Nagar and Das: Basic Statistics, OUP

**Skill Enhancement Courses (SEC) to be offered by Department of Economics
(Choose Any One)**

Group-B

SEC-1B: FOUNDATION COURSE IN MATHEMATICS- II

[L-2 T-0 Total- 2 Credits]

Full Marks: 50

COURSE DESCRIPTION: The second subfield is called mathematics of calculus. In fact, you can use calculus in a lot of ways and applications. Among the disciplines that utilize calculus include physics, engineering, economics, statistics, and medicine. It is used to generate mathematical models in order to arrive into an optimal solution in economics.

Module-I: Set Theory, Functions, Limit and Discontinuity

Basic, Different types of sets, Venn diagram, Set Operations, Worked Examples, and Exercise

Various functions, Relations, Set of Numbers, different types of limit operations, illustrate different types of discontinuity, Worked Examples, Exercise

Module-II: Differential Calculus and Partial Derivatives

Definition, Rules of Differentiation, higher Order Differentiation, illustrate the Chain Rule of differentiation, illustrate implicit differentiation, Maximum & Minimum values of a function, Point of Inflexion, solve problems (including logarithmic, and inverse functions) using implicit differentiation

Module-IV: Integral Calculus

Anti-derivatives, sums and sigma notation, area under a curve, definite integrals, the First and Second Fundamental Theorems of Calculus, and integration by u-substitution , Area between curves, arc length and surface area, and applications of integration to Economics, Integration by parts, trigonometric substitution, partial fractions, Partial derivatives, Worked Examples, Exercise

Module-V: Differential Equations

First order linear differential equation with constant coefficient and constant term and variable coefficient and variable term, separable differential equations, direction fields and Euler's Method, first and second orders, Economic applications of Differential Equations in algebraic functions.

Suggested readings:

1. S.P. Rajagopalan & R. Sattanathan, Business Mathematics, Tata McGraw-Hill Publishing Company Ltd. New Delhi
2. N.K. Nag , Business Mathematics, kalyani Publications, New Delhi.
3. Focus in High School Mathematics: Reasoning and Sense Making. National Council of Teachers of Mathematics. Reston,VA: NCTM
4. Advanced High-School Mathematics. by David B. Surowski - Kansas State University , 20

SEC-2B: FOUNDATION COURSE IN STATISTICS -II

[L-2 T-0 Total- 2 Credits]

Full Marks: 50

COURSE DESCRIPTION: *Statistics is the art of using data to make numerical conjectures about problems. Descriptive statistics is the art of summarizing data. Topics include: histograms, the average, the standard deviation, the normal curve, correlation. Much statistical reasoning depends on the theory of probability. Topics include: chance models, expected value, standard error, probability histograms, convergence to the normal curve. Statistical inference is the art of making valid generalizations from samples. Topics include: estimation, measurement error, tests of statistical significance.*

Module-I: Interpolation and Extrapolation

Introduction, Definition, Uses, Methods of Interpolation and Extrapolation and Examples

Module-II: Theory of Probability

Introduction, Terminology, Set theory, Classical Probability, Axioms of Probability, Addition Theorem, Compound Probability, Bayes's Rule and Examples

Module-II: Theory of Probability Distribution

Probability distribution of random variable, probability mass and density functions, Binomial, Poisson and Normal distribution and examples

Module-III: Sampling Theory and Design of Sample Survey

Introduction, Universe or Population, Sampling, Parameters and Statistic, Principles of sampling, Theoretical Basis of Sampling, sampling and Non –sampling Errors and Examples

Module-IV: Theory of Estimation and Testing Hypothesis

Introduction, Estimation Theory, point Estimation, Unbiasedness, Consistency, Efficiency, Sufficiency, Methods of Point Estimation, Null and Alternative Hypothesis, Test of Significance, Chi-square, t, F and z distributions and Examples.

Suggested readings:

1. Goon, A.M., M.K. Gupta and B. Dasgupta (1986): *Fundamentals of Statistics, Vols. 1 & 2*, The World Press Private Limited. Calcutta.
2. Nagar, A.L. and R.K.Das (1977): *Basic Statistics*, OUP, Delhi.
3. Hoel, P.G. (1984): *Introduction to Mathematical Statistics, 5th edition*, Wiley, New York.
4. Yule, G.U. and Kendall, M.G. (eds.) (1958): *Introduction to the Theory of Statistics*, Charles Griffin & Co. Ltd. London.
5. Kenney, and keeping (1974)- *Mathematics of Statistics - Part I*, Affiliated East West Press, New Delhi.
6. Das, N.G. (1977): *Statistical Methods (Part-I & II)* M. Das & Co., Calcutta.
7. Hogg, R.V. and A.T. Craig (1970): *Introduction to Mathematical Statistics (3rd edition)*, Macmillan Publishing Co. New York.
8. Bowen & Starr: *Basic Statistics for Business and Economics*, McGraw Hill

SEMESTER - V

Core Economics Course (C-11): DEVELOPMENT ECONOMICS

[L-5 T-1 Total- 6 Credits]

Full Marks: 50

COURSE DESCRIPTION: *The course begins with a discussion of various conceptions of development and their justification. It then proceeds to aggregate models of growth and cross-national comparisons of the growth experience that can help evaluate these models. 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 political institutions to growth and inequality by discussing the role of the state in economic development and the informational and incentive problems that affect state governance.*

Module I: Conceptions of Development

Economic development, Economic growth and development, Basic factors of economic development, Obstacles to economic development, Indicators of economic development - National income, Per capita income; Basic needs approach, PQLI, HDI, GDI, Capital formation and economic development, inequality, Vicious circle of poverty, Absolute (Head Count Ratio, Poverty Gap) and Relative Poverty (Gini Coefficient, Lorenz Curve)

Module II: Population and Economic Development

Theory of optimum population, Theory of Demographic Transition, Two ways Relationship between Population growth and Economic Development.

Module III: Theories of Economic Development

The Classical Theory, Karl Marx's Theory, Rostow's Stages of Economic Growth, Nelson's Low Level Equilibrium Trap, Leibenstein's Critical Minimum Effort Thesis, Balanced and Unbalanced Growth Theories, Big Push Theory, Dualistic Theories and Lewis Theory of Unlimited Supplies of Labour.

Module IV: Theories of Economic Growth

The Harrod-Domar Model, Kaldor Model of Income Distribution, Solow's Model, Steady State Growth, Todaro's Model of Rural Urban Migration and Unemployment and Dual Gap Model.

Module V: Economic Planning and Techniques

Why Planning needed; objectives, Classification of Planning, Use of Input-output technique in planning, capital output ratio & Plans models in Indian Plans

Suggested readings:

1. I. Y. Hayami: *Development Economics*, OUP
2. H. Mynt: *The economics of the developing countries*, B.I. Publications
3. Debraj Ray: *Development Economics*, OUP
4. K. Basu: *Analytical Development Economics*, OUP
5. Rune Skarstein: *Development Theory*, OUP
6. P.W. Preston: *Development Theory*, Oxford-Blackwell
7. Agarwala and Singh (eds.): *The Economics of Underdevelopment*, OUP
8. W.W. Rostow: *The Stages of Economic Growth*, Cambridge University Press
9. Y.S. Brenner: *Theories of Economic Development and Growth*, George Allen & Unwin
10. Irma Adelman: *Theories of Economic Growth and Development*, Stanford University Press

Core Economics Course (C-12): PUBLIC ECONOMICS

[L-5 T-1 Total- 6 Credits]

Full Marks: 50

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.*

Module I: Introduction to Public Finance

Public Finance: meaning and scope, distinction between public and private finance; public good versus private good; Market failure and role of government, Externalities,

Module II: Public Expenditure

Meaning, classification and principle of public expenditure cannons and effects- Production Employment and Distribution, causes of growth of public expenditure, Wagner's Law, Role of public expenditure in developing economy. Theories of Public Expenditure, Principle of Maximum Social Advantage, Principle of Maximum Benefit.

Module III: Public Revenue and Receipts

Sources of Public Revenue; Taxation - meaning, Direct & Indirect Taxation- merits & demerits, Cannons and Classification of taxes, impact and incidence of taxes, shift and incidences of tax burden, taxable capacity, effects of taxation, characteristics of a good tax System, The Benefit Approach, Ability-to-pay Approach (horizontal and vertical equity), Indian tax system with special reference to VAT & GST; Centre-state financial relation, Major trends in tax revenue of central and state governments in India, Role of Finance Commission.

Module IV: Public Budget and Public Debt

Public Budget: kinds of budget, economic and functional classification of the budget; Balanced and unbalanced budget; Balanced Budget Multiplier; Budget as an instrument of economic policy. Sources, effects, debt burden Fiscal Policies: Alternative and Supplementary.

Suggested readings:

1. Musgrave: The Theory of Public Finance, McGraw Hill
2. Stiglitz, J.: Economics of the Public Sector, W.W. Norton
3. Ghosh & Ghosh: Economics of the Public Sector, Prentice Hall.
4. Allan, C.M.: The Theory of Taxation, Penguin.
5. Atkinson, D. & Stiglitz, J.: Public Economics, McGraw Hill.
6. Bagchi, Amaresh (ed): Readings in Public Finance, OUP.
7. Houghton, R.W. (ed): Public Finance, Penguin.
8. Due, John F. and Ann F. Friedlander (1997): Government Finance- Economics of the Public Sector AITBS Publishers and Distributors, Delhi.
9. Dalton, Hugh (1954): Principles of Public Finance, 4th edition, Routledge and Kegan Paul, London.
10. Ganguly, Subrata (1975): Public Finance, Nababharat Publisher, Calcutta.

Discipline Specific Electives (DSE): For Honours Course in Economics

Group-A

DSE (1-A): INTRODUCTORY ECONOMETRICS

[L-5 T-1 Total- 6 Credits]

Full Marks: 50

COURSE DESCRIPTION: This course provides an introduction to basic econometric concepts and techniques. It covers statistical concepts of hypothesis testing, estimation and diagnostic testing of simple regression models.

Module I: Statistical Concepts

Sampling Distributions-, Standard Normal and Chi-Square distribution, t- and F-distributions and their application in testing of hypothesis; Defining hypothesis; Distribution of test-statistics; testing of hypotheses related to population parameters; Type- I and II Errors

Module II: Nature and Scope of Econometrics

Definition, relationship between econometrics and economic theory, goals of econometrics, desirable properties of an econometric model.

Module III: Classical Linear Regression Model: Two Variable Case

The model and the disturbance term ; Estimation of model by method of ordinary least squares (OLS); Gauss-Markov theorem, Reverse Regression, properties of estimators; goodness of fit; testing of hypotheses and confidence intervals; scaling and units of measurement; prediction and forecasting, Problems in OLS Method

Suggested readings:

1. Gujarati D. N. Basic Econometrics. McGraw Hill, New Delhi.
2. Johnston J. Econometrics Methods, McGraw Hill
3. Kmenta J. Elements of Econometrics. University of Michigan Press
4. Maddala G. S. Econometrics Methods and Application. E. Elgar Pub
5. Richard J. Larsen and Morris L. Marx, An Introduction to Mathematical Statistics and its Applications, Prentice Hall, 2011.
6. D. N. Gujarati and D.C. Porter, Essentials of Econometrics, McGraw Hill, 4th edition, International Edition, 2009

DSE (2-A): MONEY AND BANKING

[L-5 T-1 Total- 6 Credits]

Full Marks: 50

COURSE DESCRIPTION: *This course exposes students to the theory and functioning of the monetary and financial sectors of 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.*

Module I: Money

Definition and functions of money; Types of money: legal tender money and bank money, near money; Value of money and index number; construction of index number; WPI, CPI, PPI, GDP deflator, Cost of living index

Module II: Money Supply

Measures of money supply: M1, M2, M3 and M4; High powered money and money multiplier; H theory of money supply; determinants of money supply.

Module III: Commercial Banking

Meaning and types; Functions of commercial banks; the process of credit creation and its limitations; Balance sheet and portfolio management, Banking sector reforms in India since 1991.

Module IV: Central Banking

Functions of a central bank; Quantitative and qualitative methods of credit control; Central Bank's Supervision and prudential measures for Financial stability and credit creation; current monetary policy of India, liquidity adjustment facility (LAF) through Repo and reverse repo operation, MSF.

Suggested 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. M. R. Baye and D. W. Jansen, Money, Banking and Financial Markets, AITBS, 1996.
4. Rakesh Mohan, Growth with Financial Stability- Central Banking in an Emerging Market, Oxford University Press, 2011.
5. M. Y. Khan, Indian Financial System, Tata McGraw Hill, 7th edition, 2011.
6. N. Jadhav, Monetary Policy, Financial Stability and Central Banking in India, Macmillan, 2006.
7. R.B.I. – Report of the Working Group: Money Supply Analytics and Methodology of Compilation, 1998.
8. R.B.I. Bulletin, Annual Report and Report on Currency and Finance (latest).

SEMESTER- VI

Core Economics Course (C-13): INTERNATIONAL ECONOMICS

[L-5 T-1 Total- 6 Credits]

Full Marks: 50

COURSE DESCRIPTION: This course develops a systematic exposition of theories that try to explain the composition, direction, and consequences of international trade, and the determinants and effects of trade policy and focusing on national policies as well as international monetary systems. It concludes with an analytical account of the causes and consequences of the rapid expansion of international financial flows in recent years.

Module I: Introduction

What is international economics about? Distinction between Internal, regional and International Trade, Gains from international trade, Arguments for and against Free Trade and Protection, Classical theory of International Trade: Adam Smith's Absolute Advantage Theory; Ricardo's Comparative Cost Theory; Heckscher - Ohlin Theory of International Trade(price and physical definition of factor abundance), Terms of trade, Secular Deterioration in Terms of Trade and Concept of Intra- Industry Trade.

Module II: Commodity and Factor Prices under Trade

Factor Price Equalization Theorem, Complete Specialisation & Rybcznsky Theorem.

Module III: Tariff under Optimal Market Conditions

Some partial aspects of the Theory of Tariffs and Income Distribution, The Stolper-Samuelson Theorem, Optimum Tariff, Quotas and Quantitative Restrictions: Effects of Quotas- Quantitative restriction and the balance of Payment- Tariff vs. Quota.

Module IV: Balance of Trade and Balance of Payment

BOT, BOP, Current Account, Capital Account, Visible and Invisible, Causes for disequilibrium in Balance of Payments, Methods of correcting the disequilibrium. Devaluation of Currency, Convertibility of Currency Exchange Rate(Fixed & Flexible), Foreign Trade multiplier, Elasticity Approach & Absorption Approach, Functions of IMF, World Bank, GATT and WTO.

Suggested readings:

1. Krugman, Paul R. and Obstfeld, Maurice: International Economics (8th ed.), Pearson Education.
2. Caves, Frankel, Jones: World Trades and Payments (9th Ed.), Pearson Education.
3. Gandolfo, G.: International Trade Theory and Policy, Springer.
4. Heller, H R.: International Trade- Theory and Empirical Evidence, Prentice Hall.
5. Salvatore, Dominick: International Economics (8th Ed.), Wiley India.
6. Kenan, P.B. (1994): The International Economy, Cambridge University Press, London.
7. Kindlberger, C.P. (1983): International Economics, R.D. Irwin, Homewood.
8. Aggarwal, M.R. (199): Regional Economic Cooperation in South Asia, S Chand & Co., New Delhi.
9. Bhagwati, J.(ed.) (1981): International Trade- Selected Readings, Cambridge University Press, Mass.

Core Economics Course (C-14): ENVIRONMENTAL ECONOMICS

[L-5 T-1 Total- 6 Credits]

Full Marks: 50

COURSE DESCRIPTION: This course focuses on environmental economics is to maintain a balance between economic development and environmental quality. In order to achieve it, environmental economists have to explore the various socio-economic possibilities to reduce pollution and uplift the standard of living of the people.

Module I: Economy and Environment

Origin, Definition and nature of Environmental Economics, Material Balance Model (BBM): Interlinkages between Economy and Environment, Choice Making and Welfare Economics

Module II: Environment and Public Good

Characteristics, Environmental quality as public goods, Externalities: negative & positive, Environmental damages as negative externalities, relation between public goods & Externalities, Carbon tax & Deforestation.

Module III: Sustainable Development

Conventional Development Model, Approaches to Sustainable Development, Indicators of Sustainable Development and Practices

Module IV: Optimal Exploitation of Natural Resources

Natural resource: Non-renewable resource: Hotelling's rule and discounting over time Principles of renewable resource management, Tragedy of Commons

Module V: Environmental Valuation and Technique

National Income and Environmental Accounting, Environmental Impact Assessment, Environmental valuation Techniques

Module VI: Indian Environmental Issues and Legislation

Natural Resources of India, Indian constitution and environment, Case study of Environmental Degradation in India

Suggested readings:

1. J. Harris and B. Roach (2013): *Environmental and Resource Economics—A contemporary approach*, 3/e, Routledge.
2. B. Field and M. Field (2013): *Environmental Economics*, 6/e, The McGraw-Hill.
3. D. Pearce, R.K. Turner and I. Bateman (1993): *Environmental Economics—An elementary introduction*, Johns Hopkins Press.
4. Smith, Stephen A *Very Short Introduction to Environmental Economics*, OUP
5. Kolstad C.D. (2011): *Intermediate Environmental Economics*, OUP
6. Stiglitz, Joseph E., Sen, Amartya, Fitoussi, Jean-Paul: *Mis-Measuring Our Lives*, The New Press
7. D. Kitchen: *Global Climate Change: Turning Knowledge Into Action*, Prentice Hall
8. Nicholas Stern: *The Economics of Climate Change: Stern review*
9. Intergovernmental Panel on Climate Change: *Assessment Reports*
10. Stockholm Resilience Centre (2009): *Ecology and society*
11. Subhashini, Mathukrishnan (2014): *Economics of Environment*, PHI
12. Sengupta, Ramprasad (ed.): *Ecological Limits and Economic Development*, OUP

Discipline Specific Electives (DSE): For Honours Course in Economics

Group-B

DSE (1-B): FINANCIAL ECONOMICS

[L-5 T-1 Total- 6 Credits]

Full Marks: 50

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.*

Module-I: Financial System

Structure of the Financial system; intermediary, non-intermediary, regulatory institutions; their role in promoting economic development

Module-II: Non-Banking Financial Companies (NBFCs)

Difference between Banking and NBFCs; Important NBFCs: Asset Finance Companies (AFCs), Investment Companies (ICs), Loan Companies (LCs), Hire Purchase Companies(HPCs), Micro Finance Institutions (MFIs) Venture Capital (VC)Fund Companies, Insurance Companies; Regulation of NBFCs: need and system.

Module-III: Financial Markets

Money market vs Capital market; Primary vs Secondary market; Call money market; Treasury bill market; Commercial bills market; Stock exchanges; SEBI

Module-IV: Financial Securities and their valuation

Time Value of Money: Future Value, Present Value, Securities: Annuity and Perpetuity; Bond (Discount and premium), Equity (Common Stock and Preference shares); Valuation of Bonds, relationship of bond price with rate of interest; and Valuation of common stock (dividend discount model). Module-V: Commercial Banks

Module-V: Elements of International Finance

The foreign exchange market, participants, characteristics and operations, The Spot market organization of the interbank spot market, direct, indirect and cross rates, Introduction to currency derivative - brief description of forward, futures and options market operations, Multinational corporations – origin, growth and operations.

Suggested readings:

1. David G. Luenberger, *Investment Science*, Oxford University Press, USA, 1997.
2. Richard A. Brealey and Stewart C. Myers, *Principles of Corporate Finance*, McGraw- Hill, 7th edition, 2002.
3. Burton G. Malkiel, *A Random Walk Down Wall Street*, W.W. Norton & Company, 2003.
4. Simon Benninga, *Financial Modeling*, MIT Press, USA, 1997.
5. Bhole L.M. and Mahakud, J. (2009), *Financial Institutions and Markets: Structure, Growth and Innovations*, Tata McGraw Hill

DSE (2-B): RURAL DEVELOPMENT

[L-5 T-1 Total- 6 Credits]

Full Marks: 50

COURSE DESCRIPTION: This course encompasses the objectives of rural development programme have been alleviation of poverty and unemployment through creating basic social and economic infrastructure, training to rural unemployed youth and to provide employment to marginal farmers/labourers, so as to discourage seasonal and permanent migration to urban areas.

Module-I: Rural Development - Background & Concept

Understanding Rural Communities: Structure, Culture and Polity. Development Theories. Lewis model of development, Gandhian model of development; Sustainable Development. Basic concept and issues; Decentralized Governance. Decentralised Planning and Participatory Approach to Rural Development and Role of NGOs

Module-II: Policies and Programmes for Rural Development

Rural Development Programmes since independence: IRDP RLEGP, NREP; Rural Development Programmes for Sustainable Development and Poverty Alleviation.: MGNREGA, SGSY, IAY, PMGSY; Vulnerable Groups and Rural Development. Issue of empowerment of Rural women: Role of Govt (Central and State) and NGOs

Module-III: Resources and Livelihoods

Livelihoods: State of Agriculture as a source of livelihood and need for diversified employment Resources. and Environment: forestry , fishery, watershed development and peoples' livelihood
Non-Farm Livelihoods: Importance of development of non farm sector; rural industrialization programme

Module-IV: Stakeholders in Rural Development

Rural development and its Stakeholders; Cooperatives and other Formal and Informal Organizations; Credit and Micro-finance

Suggested readings:

1. Misra & Sharma: Problems and Prospects of Rural Development
2. Venkata Reddy K: Rural Development In India Poverty and Development
3. Yasant Desai: A Study of Rural Economy
4. Nanavati & Anjalina: The Indian Rural Problems
5. Battacharya S.N.: Rural Industrialization in India
6. Vasant Desai: Problems and Prospects of Small Scale Industries in India N.I.R.D. Rural Development in India - Some Facets Wilbert E. Moore Social Change
7. Katar Singh: Rural Development: Principles, Policies and Management, Third Edition, Sage publications

Generic Elective Courses/ Subjects

The Economics department is offering Generic Elective courses/ subjects for other Honours Department Students

For SEMESTER-III

GE-III: Indian Economy-I

[L-5 T-1 Total- 6 Credits]

Full Marks: 50

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. Given the rapid changes taking place in India, the reading list will have to be updated annually.

Module I: India's Economic Structure

India's Transition from Planned Economy to the Market Economy, Main Features of Less Develop Countries (LDCs), Causes of Underdevelopment of the Indian Economy

Module II: India's National Income

Trends and Feature, Estimation and Distribution, Causes of Low Growth of National Income, Sectoral Composition of India's National Income, Difficulties in Measuring National Income in India.

Module III: Agriculture

Features of Indian Agriculture, Causes of Low Productivity and its Remedies, Role of Agricultural Development in India's Economic Development, New Technology and Green Revolution and its Effects, Agricultural Finance and Marketing.

Module IV: Land Reforms in India

Agrarian Structure, Relationship between Man and Land, Programme of Land Reform in India and its Evaluation, Land Reforms in West Bengal, Operation Barga in West Bengal- A critical analysis.

Suggested readings:

1. Agarwal, A.N. (Latest Edition): Indian Economy, Vikash Publishing Co. Delhi.
2. Datt, R. and K.P.M. Sundaram (Latest Edition): Indian Economy, S. Chand and Co. New Delhi.
3. Gupta, S.B. (Latest Edition): Monetary Planning in India, Oxford University Press, Delhi.
4. Jean Dreze and Amartya Sen (2013): An Uncertainty Glory: India and its Contradictions, Princeton University press.
5. Misra, S.K. and V.K. Puri (Latest Edition): Indian Economy, Himalayas Publishing Co. Mumbai.

For SEMESTER- IV

(GE- IV): Indian Economy-II

[L-5 T-1 Total- 6 Credits]

Full Marks: 50

COURSE DESCRIPTION: *The main objective of Indian economy is to achieve -Understand the various aspects of India's economy, Develop a perspective on the different problems and approaches to economic planning and development in India and Understand the role of the Indian Economy in the global context, and how different factors have affected this process.*

Module I: Indian Demography

Population Problem, Population growth in India, Population Policies in India, Sex composition of population in India.

Module II: Public Finance in India

Features of Indian tax system, Major Direct and Indirect Taxes, Public debt in India, Centre-State financial relations.

Module III: International Environment

Trend in world trade and the problems of developing countries, Foreign trade and Economic development, International Economic Institutions- GATT, WTO, World Bank, IMF

Module IV: India's Monetary System

Issues of Currency in India, Money supply and its components, Functions of RBI, Monetary policy of RBI, Bank Nationalization in India: Objectives and Performances

Suggested readings:

1. 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.
2. 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.
3. Pulapre Balakrishnan, Ramesh Golait and Pankaj Kumar, 2008, -Agricultural Growth in India Since 1991, *RBI DEAP Study no. 27*.
4. Kunal Sen, 2010, -Trade, Foreign Direct Investment and Industrial Transformation in India, in Premachandra Athukorala, editor, *The Rise of Asia*, Routledge.
5. 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.
6. Dipak Mazumdar and Sandeep Sarkar, 2009, -The Employment Problem in India and the Phenomenon of the Missing Middle, *Indian Journal of Labour Economics*.

[Cooch Behar Panchanan Barma University]

SYLLABUS FOR ECONOMICS UNDER CHOICE BASED CREDIT SYSTEM

[**B.A. Programme in Economics**]



[2019 onward]

Credit Details for B.A. Programme Course in Economics

Semester	Discipline Specific Core Course (DSC)	Language Core Course (LCC1)	Language Core Course (LCC2)	Ability Enhancement Compulsory Course (AECC)	Skill Enhancement Course (SEC)	Discipline Specific Elective Course (DSE)	Generic Elective Course (GE)	Total Course	Total Credit
	6 Credits	6 Credits	6 Credits	4 Credits	2 Credits	6 Credits	6 Credits		
I	2	1	-	1	-	-	-	4	22
II	2	-	1	1	-	-	-	4	22
III	2	1	-	-	1	-	-	4	20
IV	2	-	1	-	1	-	-	4	20
V	-	-	-	-	1	2	1	4	20
VI	-	-	-	-	1	2	1	4	20
Total Courses	8	2	2	2	4	4	2	24	--
Total Credits	48	12	12	08	08	24	12	--	124

DSC **Discipline Specific Course**
LCC1 **Language Core Course 1**
LCC2 **Language Core Course 2**
AECC **Ability Enhancement Compulsory Course**
SEC **Skill Enhancement Course**
DSE **Discipline Specific Elective**
GE **Generic Elective**

SEMESTER- I

Core Economics (DSC-I) : Principles of Microeconomics-I

[L-5 T-1 Total- 6 Credits]

Full Marks: 50

COURSE DESCRIPTION: To enable students to understand-1. Perform supply and demand analysis to analyze the impact of economic events on markets; 2. Understand and analyze the behavior of consumers in the market; 3. Understand, analyze and evaluate factors affecting the behavior of producers.

Module I: Theory of Demand

Problem of scarcity and choice: scarcity, choice and opportunity cost, production possibility frontier, Demand and supply: law of demand, determinants of demand, shifts of demand versus movements along a demand curve, market demand, law of supply, determinants of supply, shifts of supply versus movements along a supply curve, market supply, market equilibrium, Applications of demand and supply: price rationing, price floors, consumer surplus, producer surplus, Elasticity: price, income & cross elasticities of demand, calculating elasticity, determinants of price elasticity.

Module II: Theory of Consumer Behavior

Concept of utility, diminishing marginal utility, Diamond-water paradox, income and substitution effects; consumer choice: indifference curves, derivation of demand curve from indifference curve and budget constraint, consumer's equilibrium.

Module III: Theory of Production

Production: short-run & long-run, production process, production functions, law of variable proportions, iso-quant and iso-cost lines, producers equilibrium, cost minimizing equilibrium condition.

Module IV: Theory of Cost

Cost in the short run, costs in the long run, shapes of various cost curve, revenue and profit maximizations, minimizing losses, short run industry supply curve, economies and diseconomies of scale, long run adjustments.

Suggested readings:

1. Lipsey and Chrystal: *An Introduction to Positive Economics*, OUP
2. Stiglitz and Walsh: *Economics*, W.W. Norton & Company
3. Chakravarty, S: *Microeconomics*, Allied
4. Mankiw: *Principles of Economics*, Thomson
5. Grossman, Gregory: *Economic Systems*, Prentice Hall
6. Varian H.R: *Intermediate Microeconomics- A Modern Approach*, East-West Press
7. Green, John: *Consumer Theory*, The Macmillan Press Ltd.
8. R.G. Lipsey and K.A.Chrystal - "Economics", Oxford University Press, 10/e, 2004.
9. P.A.Samuelson & W.D. Nordhaus-"Economics", Tata Mc.Graw Hill, 18/e, 2005.
10. N.Gregory Mankiw-"Principles of Economics", Thompson 2015 .
11. H.L.Ahuja-"Advanced Economic Theory" S.Chand.
12. M.L.Seth-"Micro Economics", Laxmi Narayana Agarwal, 2015.
13. Bilas, A.-"Micro Economic Theory", International Student Edition, Mc.Graw Hill, 1971.
14. D.M. Mithani & G.K. Murty - Business Economics, Himalaya Publishing, 2015.

SEMESTER- II

Core Economics(DSC-3): Principles of Macroeconomics-I

[L-5 T-1 Total- 6 Credits]

Full Marks: 50

COURSE DESCRIPTION: To expose students to national income accounting and the role of government, trade and money in the modern economy.

Module I: Introduction and National Income Accounting

Emergence & concept of Macroeconomics, Circular flow of Income in Two, Three and Four Sector Economy, Calculating National income, Macroeconomic Identities, Goods & Prices, GDP and Welfare.

Module II: The Consumption Function

Concept of Effective demand, Consumption function, factors affecting Consumption function, APC, MPC, Relation between consumption and savings, Concept of Multiplier.

Module III: Theory of Employment

Types of Unemployment, Concept of Full employment, Classical theory of employment, Say's Law of Market, Keynesian assumptions, Monetary policy & Full Employment, Fiscal Policy & Full Employment.

Module IV: The Theory of Money

Concept of money in a modern economy, Monetary aggregates, Demand for money, Quantity theory of money; Liquidity preference and rate of interest, money supply, process of credit creation, monetary policy.

Suggested readings:

1. Samuelson and Nordhaus: *Economics*, McGraw Hill
2. Mankiw, Economics : *Principles and Applications*, Cengage Learning
3. Blanchard: *Macroeconomics*, Pearson Education
4. Mankiw: *Macroeconomics*, Worth Publishers
5. Dornbusch and Fischer: *Macroeconomics*, McGraw-Hill
6. Sikdar, Soumyen: *Principles of Macroeconomics*, O.U.P.
7. Froyen: *Macroeconomics - Theory and Policy*, Pearson Education
8. Ackley, G.: *Macroeconomics*, Macmillan, London.
9. G.Ackley - "Macro Economics Theory and Policy", Collier Macmillan, 1978.
10. E.Shapiro - "Macro Economic Analysis", Galgotia Publications, 1999.
11. R.Dornbush, s.Fisher and R.Startz - "Macro Economics", Tata Mc.Graw Hill, 9/e, 2004.
12. M.L.Seth-"Macro Economics", Lakshmi Narayana Agarwal, 2015.
13. K.P.M. Sundaram - "Money, banking & International Trade", Sultan Chand, 2010.
14. Dillard, D - "The Economics of John Maynard Keynes", Crossby Lockwood & Sons.
15. M.N.Mishra & S.B.Mishra - "Insurance Principles & Practice" S.Chand 2012.
16. Bharati V.Pathak "The Indian Financial System Markets. Institutions & Services".Pearson 2008.

SEMESTER- III

Core Economics(DSC-5): Principles of Microeconomics-II

[L-5 T-1 Total- 6 Credits]

Full Marks: 50

COURSE DESCRIPTION: This is a sequence of Principles of Microeconomics-I covered in the first semester. To enable students to understand how optimum decisions are taken by firms under different market conditions.

Module I: Perfect Competition

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

Module II: Theory of a Monopoly Firm

Concept of imperfect competition; short run and long run price and output decisions of a monopoly firm; concept of a supply curve under monopoly; comparison of perfect competition and monopoly, social cost of monopoly, price discrimination; remedies for monopoly: Antitrust laws, natural monopoly.

Module III: Monopolistic and Oligopolistic Competitions

Monopolistic competition: Assumptions, SR & LR price and output determinations under monopolistic competition, economic efficiency and resource allocation; oligopoly: assumptions, oligopoly models, game theory, contestable markets, role of government.

Module IV: Factor Pricing

- a. Concepts of MPP, VMP and MRP – factor price determination – marginal productivity theory of distribution.
- b. Rent: Concept of economic rent – Ricardian theory – Modern theory and Quasi Rent
- c. Wage: Money wage and real wage– factors determining real wage – differences in wage rates – role of collective bargaining in wage determination
- d. Interest: Gross and net interests –real and money interest
- e. Profit: Gross profit and net profit – elements of profit – differences between profit and other factor incomes – risk and uncertainty, theories of profit.

Suggested readings:

1. Lipsey and Chrystal: *An Introduction to Positive Economics*, OUP
2. Stiglitz and Walsh: *Economics*, W.W. Norton & Company
3. Chakravarty, S: *Microeconomics*, Allied
4. Mankiw: *Principles of Economics*, Thomson
5. Grossman, Gregory: *Economic Systems*, Prentice Hall
6. Varian H.R: *Intermediate Microeconomics- A Modern Approach*, East-West Press
7. Green, John: *Consumer Theory*, The Macmillan Press Ltd.
8. R.G. Lipsey and K.A.Chrysal - "Economics", Oxford University Press, 10/e, 2004.
9. P.A.Samuelson & W.D. Nordhaus-"Economics", Tata Mc.Graw Hill, 18/e, 2005.
10. N.Gregory Mankiw-"Principles of Economics", Thompson 2015 .
11. H.L.Ahuja-"Advanced Economic Theory" S.Chand.
12. M.L.Seth-"Micro Economics", Laxmi Narayana Agarwal, 2015.

**Skill Enhancement Courses (SEC) to be offered by Department of Economics
(For Programme Course)
For Semester-III**

SEC- I : RURAL DEVELOPMENT

[L-2 T-0 Total- 2 Credits]

Full Marks: 50

Course Description: This course will give the comprehensive ideas about the process of Rural Development process in India and improving the quality of life and economic well being of people living in rural areas, often relatively isolated and sparsely populated areas

Module-I: Elements of Rural Development

Definition of Rural Areas, Meaning of Development, Concept of Rural Development, Causes of Rural Backwardness, Nature and Scope of Rural Development in India

Module-II: Policies and Programmes for Rural Development

Rural Development Programmes since independence: IRDP RLEGP, NREP; Rural Development Programmes for Sustainable Development and Poverty Alleviation.: MGNREGA, SGSY, IAY, PMGSY; Vulnerable Groups and Rural Development.

Module-III: Indian Rural Economic Scenario

Demographic Structure of Rural India, Trends in Population Growth, Development of Rural Industries: Khadi and Village Industries Commission, District Industries Centre – Industrial Estates –Artisans Development

Suggested readings:

1. Misra & Sharma: Problems and Prospects of Rural Development
2. Venkata Reddy K: Rural Development In India Poverty and Development
3. Yasant Desai: A Study of Rural Economy
4. Nanavati & Anjalina: The Indian Rural Problems
5. Battacharya S.N.: Rural Industrialization in India
6. Vasant Desai: Problems and Prospects of Small Scale Industries in India N.I.R.D. Rural Development in India - Some Facets Wilbert E. Moore Social Change
7. Katar Singh: Rural Development: Principles, Policies and Management, Third Edition, Sage publications

SEMESTER- IV

Core Economics(DSC-7): Principles of Macroeconomics-II

[L-5 T-1 Total- 6 Credits]

Full Marks: 50

COURSE DESCRIPTION: This is a sequence of the Principles of Macroeconomics-I. It analyses various theories of determination of National Income in greater detail. It also introduces students to concept of inflation, its relationship with unemployment and some basic concepts about an open economy.

Module I: Theories of Interest

Classical theory -Neoclassical theory – Loanable fund - Liquidity preference theory

Module II: Theory of Inflation

Concept of inflation, deflation and stagflation: Concept of inflationary gap – distinction between demand pull and cost push inflation, anti-inflationary measures, and various effects of inflation

Module III: Government Budget and the Economy

Introduction, Meaning of government budget, Objectives, Components, Budget Receipts, Revenue Receipts- Direct and Indirect taxes- merits, demerits and sources, Developmental and non-developmental expenditures.

Module IV: Theory of International Trade

Basis of trade, Distinction between internal and external trade, Gains from trade, Terms of trade, Absolute and Comparative Advantage - arguments for free trade and protection, balance of trade and balance of payments: concept.

Suggested readings:

9. Samuelson and Nordhaus: *Economics*, McGraw Hill
10. Mankiw, Economics : *Principles and Applications*, Cengage Learning
11. Blanchard: *Macroeconomics*, Pearson Education
12. Mankiw: *Macroeconomics*, Worth Publishers
13. Dornbusch and Fischer: *Macroeconomics*, McGraw-Hill
14. Sikdar, Soumyen: *Principles of Macroeconomics*, O.U.P.
15. Froyen: *Macroeconomics - Theory and Policy*, Pearson Education
16. Ackley, G.: *Macroeconomics*, Macmillan, London.

**Skill Enhancement Courses (SEC) to be offered by Department of Economics
(For Programme Course)
For Semester-IV**

SEC-2: MONEY AND BANKING

[L-2 T-0 Total- 2 Credits]

Full Marks: 50

COURSE DESCRIPTION: The course aims to provide the student with an introduction to the role of money, financial markets, financial institutions and monetary policy in the economy, thus providing a solid foundation for further study or employment in the financial services industry.

Module I: Concept of Money

Functions of Money, Kinds of Money, Interest Rates and Return

Module II: Money Supply

Traditional Monetary Aggregates, New Monetary Aggregates, Velocity of Money, Monetary Base, Credit Multiplier, Money Multiplier

Module III: Money Market

Indian Financial Institutions, Call Money, Commercial Paper, Certificate of Deposit, Treasury Bill, Repo, Commercial Bill.

Module IV: Banking Institutions

Classification, Indian Banking System, Lead Bank Scheme, Action Plan and Service Area Approach, Regional Rural Banks, Assets and Liabilities of Scheduled Commercial Banks, Co-operative Banks

Suggested 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 McGraw 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..

SEMESTER- V

Discipline Specific Electives (DSE):

DSE-1: DEVELOPMENT ECONOMICS

[L-5 T-1 Total- 6 Credits]

Full Marks: 50

COURSE DESCRIPTION: The goal of this course is to provide students with the essential tools and concepts of development economics, to prepare them to understand what makes underdevelopment persist and what helps development succeed.

Module I: Economic Growth and Economic Development

Growth, Economic Development and Gross National, Distinction between Economic Growth and Economic Development, Indicators of Economic Growth and Economic Development, Net National Income and Per Capita Income as Growth Indicators, Concepts of Human Development Index (HDI), GDI, GEM and HPI as Development Indicators.

Module II: Population

Capital formation (Physical and Human); technology; institutions. Relationship between Population and Economic Development, Features of India's Population Problem, National Population Policy-2000, Occupational Distribution of Population.

Module III: Capital Formation

Capital-output Ratio, Role of Capital Formation in LDCs and its Problems, Trends of Savings and Capital Formation in India.

Module IV: Foreign Investment

Foreign Capital/Foreign Direct Investment (FDI), Government Policy, Foreign Aid, Different forms of Foreign Investment and their Roles in Economic Development.

Module V: International Financial Institution in Economic Development of LDCs: IMF and World Bank

Suggested readings:

1. Abhijit Banerjee, Roland Benabou and Dilip Mookerjee, Understanding Poverty, Oxford University Press, 2006.
2. Albert O. Hirschman, Exit, Voice and Loyalty (1970): Responses to Decline in Firms, Organizations and States, Harvard University Press.
3. Dani Rodrik (2011): The Globalization Paradox: Why Global Markets, States and Democracy Can't Coexist, Oxford University Press.
4. Debraj Ray (2009): Development Economics, Oxford University Press.
5. Jhingan, M.L. (2010): The Economics of Development and Planning, Virinda Publications, New Delhi.
6. Salvatore, D. and F. Dowling (2000): Development Economics, McGraw Hill, New York.
7. Toder, M.P. and Stephen C. Smith (2000): Economic Development, Pearson Education (Singapore) Pvt. Ltd. Delhi)

**Skill Enhancement Courses (SEC) to be offered by Department of Economics
(For Programme Course)
For Semester-V**

SEC-3: INDIAN ECONOMY-I

[L-2 T-0 Total- 2 Credits]

Full Marks: 50

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. Given the rapid changes taking place in India, the reading list will have to be updated annually.

Module I: India's Economic Structure

India's Transition from Planned Economy to the Market Economy, Main Features of Less Develop Countries (LDCs), Causes of Underdevelopment of the Indian Economy

Module II: India's National Income

Trends and Feature, Estimation and Distribution, Causes of Low Growth of National Income, Sectoral Composition of India's National Income, Difficulties in Measuring National Income in India.

Module III: Agriculture

Features of Indian Agriculture, Causes of Low Productivity and its Remedies, Role of Agricultural Development in India's Economic Development, New Technology and Green Revolution and its Effects, Agricultural Finance and Marketing.

Module IV: Land Reforms in India

Agrarian Structure, Relationship between Man and Land, Programme of Land Reform in India and its Evaluation, Land Reforms in West Bengal, Operation Barga in West Bengal.

Suggested readings:

6. Agarwal, A.N. (Latest Edition): Indian Economy, Vikash Publishing Co. Delhi.
7. Datt, R. and K.P.M. Sundaram (Latest Edition): Indian Economy, S. Chand and Co. New Delhi.
8. Gupta, S.B. (Latest Edition): Monetary Planning in India, Oxford University Press, Delhi.
9. Jean Dreze and Amartya Sen (2013): An Uncertainty Glory: India and its Contradictions, Princeton University press.
10. Misra, S.K. and V.K. Puri (Latest Edition): Indian Economy, Himalayas Publishing Co. Mumbai.

SEMESTER- VI

Discipline Specific Electives (DSE):

DSE-2: BASIC STATISTICS

[L-5 T-1 Total- 6 Credits]

Full Marks: 50

COURSE DESCRIPTION: *This course introduces the student to collection and presentation of data. It also discusses how data can be summarized and analyzed for drawing statistical inferences. The students will be introduced to important data sources that are available and will also be trained in the use of statistical data.*

Module I: Classification of Data

Nature, Significance and Limitations of Statistics - Collection of data - Primary and Secondary Data - Methods of collecting Primary Data - Classification and Tabulation of Data.

Module II: Graphical Representation

Diagrammatic and graphical representation of data - Bar diagrams - One dimensional and Two dimensional diagrams, Pictograms and Cartograms, Frequency Distribution - Univariate and Bivariate Frequency Distributions, Histogram, Cumulative Frequency Curve and Ogive .

Module III: Central Tendency Measures

Important Properties of Arithmetic Mean (AM), Geometric Mean (GM), Harmonic Mean (HM). Relation between AM, GM and HM., Median and Mode with examples.

Module IV: Measures of Dispersion

Meaning and Necessity of Measures of Dispersion, Range, Quartile Deviation, Mean Deviation (MD), Standard Deviation (SD) with examples, Properties of Standard Deviation, Coefficient of variation

Module V: Concept of Correlation

Simple Correlation - Karl Pearson's coefficient of correlation, Spearman's Rank Correlation-Simple cases

Suggested readings:

1. Goon, A.M., M.K. Gupta and B. Dasgupta (1986): *Fundamentals of Statistics, Vols. 1 & 2*, The World Press Private Limited. Calcutta.
2. Nagar, A.L. and R.K.Das (1977): *Basic Statistics*, OUP, Delhi.
3. Hoel, P.G. (1984): *Introduction to Mathematical Statistics, 5th edition*, Wiley, New York.
4. Yule, G.U. and Kendall, M.G. (eds.) (1958): *Introduction to the Theory of Statistics*, Charles Griffin & Co. Ltd. London.
5. Kenney, and keeping (1974)- *Mathematics of Statistics - Part I*, Affiliated East West Press, New Delhi.
6. Das, N.G. (1977): *Statistical Methods (Part-I & II)* M. Das & Co., Calcutta.

**Skill Enhancement Courses (SEC) to be offered by Department of Economics
(For Programme Course)
For Semester-VI**

SEC-4: INDIAN ECONOMY-II

[L-2 T-0 Total- 2 Credits]

Full Marks: 50

COURSE DESCRIPTION The course aims to provide knowledge of fundamental problems of the Indian economy, the evolution of planning process and policies since Independence, and the degree to which inclusive growth has been attained.

Module I: Industry

Meaning and Scope of Small-scale and Cottage Industries, Expansion of Small scale and Cottage Industries, Importance, Problems of India's Small-scale Industries, Role of Cottage and Small Scale industry in India's economic development, Problems and Solutions.

Module II: Industrial Labour

Globalization and Indian Industry , Industrial Relations, Industrial Disputes and Social Securities in India.

Module III: India's Foreign Trade

Problems of Foreign Trade, Volume and Direction of Trade in the Post Liberalisation Period, Recent Balance of Payments Problems and its Remedies

Module IV: India's Economic Planning

Objectives of Planning in India, Characteristics of Indian Plans, Achievements and Failures of India's Five Year Plans.

Suggested readings:

1. Agarwal, A.N. (Latest Edition): Indian Economy, Vikash Publishing Co. Delhi.
2. Datt, R. and K.P.M. Sundaram (Latest Edition): Indian Economy, S. Chand and Co. New Delhi.
3. Gupta, S.B. (Latest Edition): Monetary Planning in India, Oxford University Press, Delhi.
4. Jean Dreze and Amartya Sen (2013): An Uncertainty Glory: India and its Contradictions, Princeton University press.
5. Misra, S.K. and V.K. Puri (Latest Edition): Indian Economy, Himalayas Publishing Co. Mumbai.

Generic Elective Courses/ Subjects

The Economics Department is offering Generic Elective courses/ subjects for other Department (Programme Course) Students

For SEMESTER-V

Generic Elective (GE): Indian Economy-I

[L-5 T-1 Total- 6 Credits]

Full Marks: 50

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. Given the rapid changes taking place in India, the reading list will have to be updated annually.

Module I: Introduction to Indian Economy

Major features of Indian Economy; Trend in National Income and Per capita income; Growth and development under different plans.

Module- II: Population and Human Development

Broad demographic features — Population size and growth rates; Sex and age composition, Occupational distribution; Density of population, Urbanisation and economic growth in India. Population growth as a factor of economic development, National Population Policy.

Module- III: Growth and Distribution

Growth and its sectoral decomposition; Trends, measurement and policies in poverty, Inequality, and Unemployment

Module- IV: Economic Planning

Economic planning: Planning Commission and its functions; Role of NITI in economic transformation.

Suggested readings:

1. U. Kapila (2010): *Indian economy since Independence*. Academic Foundation, New Delhi
2. S. K. Misra and V. K. Puri (Latest Year): *Indian Economy — Its Development Experience*, Himalaya Publishing House, Mumbai
3. S. Chakraborty (): *Development Planning: The Indian Experience*. Clarendon Press.
4. R. Dutt and K. P. M, Sundharam (Latest Year): *Indian Economy*, S. Chand & Company Ltd., New Delhi.
5. A. Panagariya (2008): *India: the Emerging Giant*, Oxford University Press, New York
6. S. Acharya and R. Mohan (Eds.) (2010): *India's Economy: Performance and Challenges*, Oxford University Press, New Delhi.
7. I. J. Ahluwalia and I. M. D. Little (Eds.) (1998): *India's Economic Reforms and Development: Essays for Manmohan Singh*, Oxford University Press, New Delhi.

Generic Elective Courses/ Subjects

The Economics Department is offering Generic Elective courses/ subjects for other Department (Programme Course) Students

For SEMESTER-VI

Generic Elective (GE): Indian Economy-II

[L-5 T-1 Total- 6 Credits]

Full Marks: 50

COURSE DESCRIPTION This course discusses 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.

Module I : Agricultural Development in India

Indian Agriculture: nature, importance, trends in agricultural production and productivity, factors determining production, land reforms, new agricultural strategies and green revolution, agricultural credit.

Module- II: Industrial Development in India

Trends in industrial output and productivities; Industrial Policies of 1948, 1956, 1977 and 1991; Industrial Licensing Policies – MRTP Act, Globalization and Indian Industry, Industrial Relations, Industrial Disputes and Social Securities in India.

Module- III: Indian Public finance

Indian Public Finance: Indian tax system with special reference to VAT & GST; Centre-state financial relation, Role of Finance Commission

Module- IV: External Sector

Balance of Payments of India; India's Trade Policies- export promotion versus import substitution; Foreign Capital – FDI, and MNCs.

Suggested readings:

- U. Kapila (2010): *Indian economy since Independence*. Academic Foundation, New Delhi
- S. K. Misra and V. K. Puri (Latest Year): *Indian Economy — Its Development Experience*, Himalaya Publishing House, Mumbai
- S. Chakraborty (): *Development Planning: The Indian Experience*. Clarendon Press.
- R. Dutt and K. P. M, Sundharam (Latest Year): *Indian Economy*, S. Chand & Company Ltd., New Delhi.
- A. Panagariya (2008): *India: the Emerging Giant*, Oxford University Press, New York
- S. Acharya and R. Mohan (Eds.) (2010): *India's Economy: Performance and Challenges*, Oxford University Press, New Delhi.
- I. J. Ahluwalia and I. M. D. Little (Eds.) (1998): *India's Economic Reforms and Development: Essays for Manmohan Singh*, Oxford University Press, New Delhi.