

## Course Structure

### B.A. Honours Programme in Economics under Choice Based Credit System

#### Dibrugarh University

Sem	Courses with Credit								Remark
	Core Course (6 credit each)		Elective (6 credit each)				AEC/SEC** (2 credit each)		
			DSE		GE*				
Code	Title	Code	Title	Code	Title	Code	Title		
I	ECNHC101	Introductory Microeconomics	-----	-----	ECNGE1	Introductory Microeconomics	AECC1	Communicative English	---
	ECNHC102	Mathematical Methods for Economics - I	-----	-----			AECC2	MIL/Communicative Hindi/Alternative English	
II	ECNHC201	Introductory Macroeconomics	-----	-----	ECNGE2	Introductory Macroeconomics	AECC3	Environmental Science/Studies	----
	ECNHC202	Mathematical Methods for Economics - II	-----	-----					
III	ECNHC301	Essentials of Microeconomics	-----	-----	ECNGE3.1	Indian Economy – I	SEC1.1	**	Students have to opt for any one GE course out of ECNGE3.1, ECNGE3.2 and ECNGE3.3
	ECNHC302	Essentials of Macroeconomics	-----	-----	ECNGE3.2	Money and Financial Markets			
	ECNHC303	Statistical Methods for Economics	-----	-----	ECNGE3.3	Environmental Economics			
IV	ECNHC401	Advanced Microeconomics	-----	-----	ECNGE4.1	Indian Economy – II	SEC2.1	**	Students have to opt for any one GE course out of ECNGE4.1, ECNGE4.2 and ECNGE4.3
	ECNHC402	Advanced Macroeconomics	-----	-----	ECNGE4.2	Economic History of India (1857-1947)			
	ECNHC403	Introductory Econometrics	-----	-----	ECNGE4.3	Public Finance			

V	ECNHC501	Indian Economy - I	ECNHDSE501	Economics of Health and Education	-----	-----	-----	-----	Students have to opt for any two DSE courses out of the six DSE courses offered in the semester
	ECNHC502	Development Economics - I	ECNHDSE502	Applied Econometrics					
			ECNHDSE503	Economic History of India (1857-1947)					
			ECNHDSE504	Game Theory					
			ECNHDSE505	Money and Financial Markets					
ECNHDSE506	Public Economics								
VI	ECNHC601	Indian Economy - II	ECNHDSE601	Financial Economics	-----	-----	-----	-----	Students have to opt for any two DSE courses out of the five DSE courses offered in the semester
	ECNHC602	Development Economics - II	ECNHDSE602	Environmental Economics					
			ECNHDSE603	International Economics					
			ECNHDSE604	The Economy of North-East India					
ECNHDSE605	History of Economic Thought								

\* Generic Elective (GE) Courses are for the students having honours in disciplines other than Economics.

\*\*Students have to choose the required Skill Enhancement Courses (SEC) from the common basket of such courses offered by the University

## SEMESTER I

### B.A. (Honours) Economics

**Course Code: ECNHC101**

**Nature of the Course: Core**

**Full marks: 100 (Internal Assessment-20 +  
End Term-80)**

**Course Title: Introductory Microeconomics**

**Total Credit Assigned: 6**

**Distribution of Credit: 5 Lecture + 1 Tutorial**

#### 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.

<b>Units</b>	<b>No of Lecture hours</b>	<b>No of Tutorial hours</b>	<b>Marks</b>
<b>1 Exploring the subject matter of Economics:</b> Why study economics? Scope and method of economics; Scarcity and choice; Types of Microeconomic Analysis, Goals of Microeconomics- Growth and Efficiency; The economic problems: the question of what to produce, how to produce and how to distribute output; Economic models: Verification and general features of economic models ; the basic competitive model - prices, property rights and profits; incentives and information; rationing; opportunity sets; economic systems- Command, Free Market and Mixed; reading and working with graphs.	15	3	16
<b>2 Supply and Demand: How Markets Work, Markets and Welfare:</b> Markets and competition; determinants of individual demand/supply; demand/supply schedule and demand/supply curve; market versus individual demand/supply; shifts in the demand/supply curve, demand and supply together; how prices allocate resources; elasticity and its application; controls on prices; taxes and the costs of taxation; consumer surplus; producer surplus and the efficiency of the markets.	15	3	16
<b>3 The Household Behaviour and Consumer's Choice:</b> The consumption decision - budget constraint, consumption and income/price changes, demand for all other goods and price changes; description of preferences (representing preferences with indifference curves); properties of indifference curves; consumer's optimum choice; income and substitution effects; labour supply and savings decision - choice between leisure and consumption.	15	3	16
<b>4 The Firm and Perfect Market Structure</b> Behaviour of profit maximizing firms and the production process; short run costs and output decisions- Basic concepts,	15	3	16

	relationships, output decisions: revenues, costs and profit maximization; costs and output in the long run, Long run costs: economies and diseconomies of scale. <b>Imperfect Market Structure</b> Monopoly and anti-trust policy; government policies towards competition; imperfect competition.			
<b>5</b>	<b>Input Markets</b> Labour market - basic concepts (derived demand, productivity of an input, marginal productivity of labour, marginal revenue product); Labour markets- Firm using only one variable factor of Production- Labour, A firm employing Two Variable Factors of Production in the Short and long Run; Land market- Determination of Rent, Rent and the value of Output produced on land, Firm's profit-maximizing condition in input markets, Input demand curves; shifts in input demand curves; Resource Allocation and the Mix of Output in Competitive Markets, Distribution of Income-Marginal Productivity Theory; Competitive labour markets; and labour markets and public policy.	15	3	16
<b>Total</b>		<b>75</b>	<b>15</b>	<b>80</b>

### Reading List:

1. Karl E. Case and Ray C. Fair, Principles of Economics, Pearson Education Inc., 8th Edition, 2007.
2. N. Gregory Mankiw, Economics: Principles and Applications, India edition by South Western, a part of Cengage Learning, Cengage Learning India Private Limited, 4th edition, 2007.
3. Joseph E. Stiglitz and Carl E. Walsh, Economics, W.W. Norton & Company, Inc., New York, International Student Edition, 4th Edition, 2007.
4. G.S. Maddala and Ellen Miller, Microeconomics: Theory and Applications, Mc Graw Hill Education, Tenth Reprint, 2013, New Delhi Edition.
5. R. S. Pindyck, D. N. Rubinfeld and P. L. Meheta (2009): Microeconomics, 7th Edition, Pearson, New Delhi.

**Course Code: ECNHC102**

**Nature of the Course: Core**

**Full marks: 100 (Internal Assessment-20 +  
End Term-80)**

**Course Title: Mathematical Methods for Economics–I**

**Total Credit Assigned: 6**

**Distribution of Credit: 5 Lecture + 1 Tutorial**

**Course Description:**

This is the first of a compulsory two-course sequence. The objective of this sequence is to transmit the body of basic mathematics that enables the study of economic theory at the undergraduate level, specifically the courses on microeconomic theory, macroeconomic theory, statistics and econometrics set out in this syllabus. 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.

<b>Units</b>		<b>No of Lecture Hours</b>	<b>No of Tutorial Hours</b>	<b>Marks</b>
<b>1.</b>	<b>Preliminaries</b> Logic and proof techniques; number systems, intervals; sets: types and set operations; Ordered pairs, Cartesian products, and relations.	<b>15</b>	<b>3</b>	<b>16</b>
<b>2.</b>	<b>Functions of one real variable</b> Functions and their properties and graphs; Types of functions-polynomial, rational, exponential, logarithmic; Sequences and series: convergence, algebraic properties and applications; Limit of a function; Continuous functions: characterizations, properties with respect to various operations and applications.	<b>15</b>	<b>3</b>	<b>16</b>
<b>3.</b>	<b>Derivative for Functions of One Variable</b> Differentiable functions: properties; derivative and slope of a curve, Geometric interpretation of derivative, Rules of differentiation for a function with one independent variable; Economic application of derivatives; Elasticity of demand, Cost and Revenue functions; Relation between Average and Marginal Costs, Second and higher order derivatives and application in Economics.	<b>15</b>	<b>3</b>	<b>16</b>
<b>4.</b>	<b>Integration of functions</b> Indefinite integrals: Rules of integration; Techniques of integration- substitution rule, integration by parts and partial fraction. Applications to economic problems; Derivation of total functions from marginal functions Definite integrals; properties of definite integrals; Application in case of consumer's surplus and producer's surplus.	<b>15</b>	<b>3</b>	<b>16</b>
<b>5</b>	<b>Differential Equations:</b> Linear first order differential equation with constant coefficient and constant term Economic applications.	<b>15</b>	<b>3</b>	<b>16</b>
<b>Total</b>		<b>75</b>	<b>15</b>	<b>80</b>

**Reading List:**

1. K. Sydsaeter and P. Hammond, *Mathematics for Economic Analysis*, Pearson Educational Asia: Delhi, 2002.
2. Chiang, A.C.: *Fundamental Methods of Mathematical Economics*, Fourth edition, McGraw Hill 2005.
3. Hoy, M., J. Livernois, C. McKena, R. Rees, and T. Stengos: *Mathematics for Economics*, PHI Publishers.
4. Barua, Srinath: *Basic Mathematics and Its Applications in Economics*, Second Edition, Laxmi Publications 2013.

## SEMESTER II

### B.A. (Honours) Economics

**Course Code: ECNHC201**

**Nature of the Course: Core**

**Full marks: 100 (Internal Assessment-20 +  
End Term-80)**

**Course Title: Introductory Macroeconomics**

**Total Credit Assigned: 6**

**Distribution of Credit: 5 Lecture + 1 Tutorial**

#### Course Description:

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

Units		No. of Lecture hours	No. of Tutorial hours	Marks
<b>1</b>	<b>Introduction to Macroeconomics:</b> Macro vs. Micro Economics; Scope and limitations of Macroeconomics; Introduction to National Income - Concepts of GDP, GNP, NDP and NNP at market price and factor cost; Personal Income and Disposable personal Income; Real versus Nominal GDP, GDP Deflator. GDP and Welfare; Limitation of the GDP concept.	<b>15</b>	<b>3</b>	<b>16</b>
<b>2</b>	<b>Measurement of GDP:</b> Rules and approaches of Measurement of GDP - Income, expenditure, product and Value added approaches, Difficulties of Estimating National Income, Circular Flow of Income and expenditure in two and four-sector economy; national income accounting for an open economy.	<b>15</b>	<b>3</b>	<b>16</b>
<b>3</b>	<b>Demand for and Supply of Money:</b> Definition and Functions of money; quantity theory of money – cash transactions and cash balance approaches, Friedman's restatement of the quantity theory; Demand for Money – Classical, Neoclassical and Keynesian Approaches (Pre Keynesian, Keynesian, Friedman), The Keynesian Liquidity Trap and its Implications; Determination of money supply; credit creation, Supply of Money	<b>15</b>	<b>3</b>	<b>16</b>
<b>4</b>	<b>Inflation:</b> Inflation – meaning, types, causes and effects; demand-pull and cost-push inflation; Inflationary gap; Deflation – meaning, effects; Inflation Vs. deflation; Hyperinflation– causes of hyperinflation, costs of hyperinflation; Anti-Inflationary Measures - Monetary policy	<b>15</b>	<b>3</b>	<b>16</b>

	and Fiscal policy. Cyclical Fluctuations: Trade cycle, Meaning and its Stages			
<b>5</b>	<b>Theory of Determination of Income and Employment:</b>  Classical systems-Say's Law, Theory of Determination of Income and Employment; Keynesian systems- Simple Keynesian model of income determination; Aggregate Demand and Aggregate Supply, equilibrium aggregate output; Product market and the IS curve, Money Market and the LM curve, Determination of Equilibrium income and interest rate: the IS-LM model; fiscal and monetary multipliers.	<b>15</b>	<b>3</b>	<b>16</b>
<b>Total</b>		<b>75</b>	<b>15</b>	<b>80</b>

**Reading List:**

1. Dornbusch, Fischer and Startz, *Macroeconomics*, McGraw Hill, 11th edition, 2010.
2. N. Gregory Mankiw. *Macroeconomics*, Worth Publishers, 7th edition, 2010.
3. Olivier Blanchard, *Macroeconomics*, Pearson Education, Inc., 5th edition, 2009.
4. Richard T. Froyen, *Macroeconomics*, Pearson Education Asia, 2nd edition, 2005.
5. Andrew B. Abel and Ben S. Bernanke, *Macroeconomics*, Pearson Education, Inc., 7th edition, 2011.
6. Errol D'Souza, *Macroeconomics*, Pearson Education, 2009.
7. Paul R. Krugman, Maurice Obstfeld and Marc Melitz, *International Economics*, Pearson Education Asia, 9th edition, 2012.



**Course Code: ECNHC202**

**Nature of the Course: Core**

**Full marks: 100 (Internal Assessment-20 +  
End Term-80)**

**Course Title: Mathematical Methods for Economics - II**

**Total Credit Assigned: 6**

**Distribution of Credit: 5 Lecture + 1 Tutorial**

**Course Description:**

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

<b>Units</b>		<b>No of Lecture Hours</b>	<b>No of Tutorial Hours</b>	<b>Marks</b>
<b>1.</b>	<b>Difference equation:</b> First order Difference equation and its Economic Applications.	<b>10</b>	<b>2</b>	12
<b>2.</b>	<b>Linear Algebra (Matrices and Determinants):</b> Systems of linear equations: properties of their solution sets; Matrices-elementary operations: matrix addition, product, rank of a matrix, determinants and their properties, inverse of a matrix, Application of Cramer's rule for solution of a system of linear equations.	<b>15</b>	<b>3</b>	16
<b>3.</b>	<b>Derivatives of Functions of several variables:</b> Partial and Total differentiation and economic applications, Indifference curve analysis; Expansion Path, Production Function Analysis- Homogeneous Functions and Euler's Theorem; Cobb-Douglas Production Function and its Properties; CES Production Function and its properties.	<b>20</b>	<b>4</b>	20
<b>4.</b>	<b>Unconstrained optimization :</b> Unconstrained optimization with one variable and Economic Applications; Unconstrained optimization with more than one variable and Economic Applications- Discriminating Monopoly, multiproduct monopoly.	<b>15</b>	<b>3</b>	16
<b>5</b>	<b>Constrained optimization with equality constraints:</b> Lagrange characterization using calculus; applications- consumer's equilibrium and producer's equilibrium.	<b>15</b>	<b>3</b>	16
<b>Total</b>		<b>75</b>	<b>15</b>	<b>80</b>

**Reading list:**

1. K. Sydsaeter and P. Hammond, *Mathematics for Economic Analysis*, Pearson Educational Asia: Delhi, 2002.
2. Chiang, A.C.: *Fundamental Methods of Mathematical Economics*, Fourth edition, McGraw Hill 2005.
3. Hoy, M., J. Livernois, C. McKena, R. Rees, and T. Stengos: *Mathematics for Economics*, PHI Publishers.
4. Barua, Srinath: *Basic Mathematics and Its Applications in Economics*, Second Edition, Laxmi Publications 2013.

## SEMESTER III

### B.A. (Honours) Economics

**Course Code: ECNHC301**

**Nature of the Course: Core**

**Full marks: 100 (Internal Assessment-20 +  
End Term-80)**

**Course Title: Essentials of Microeconomics**

**Total Credit Assigned: 6**

**Distribution of Credit: 5 Lecture + 1 Tutorial**

#### Course Description:

The course is designed to provide a sound training in microeconomic theory to formally analyze the behaviour of individual 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.

Units		No of Lecture hours	No of Tutorial hours	Marks
1	<b>Consumer Theory I:</b> Preferences and Utility: Axioms of Rational Choice, Utility, Trades and Substitutions, Indifference Curves, Utility Functions for Specific Preferences, The Many-Good case; Utility Maximization and Choice: The Two-Good Case (Graphical Analysis), The n-Good Case, Indirect Utility Function, The Lump Sum Principle, Expenditure Minimization, Properties of Expenditure Function.	15	3	16
2	<b>Consumer Theory II:</b> Income and Substitution Effects of Price Change under Normal, Inferior and Giffen goods under Hicksian and Slutsky's method; Slutsky's equation, Compensated and ordinary demand curves; buying and selling; choice under risk and inter-temporal choice; revealed preference theory.	15	3	16
3	<b>Production Theory</b> Technological relationship between outputs and inputs, Basic Concepts: TP, AP, MP, Isoquants, properties of isoquants, Isoquant map, Marginal Rate of Technical Substitution, Elasticity of Substitution, Expansion path, returns to scale; Production with One Variable Input (labour) and with Two-Variable Inputs; Special cases of Production Functions -Linear, Fixed Proportions, Cobb-Douglas, CES; Production function and technical Progress; Multiple products: the production transformation curve.	15	3	16

<b>4</b>	<b>Cost Functions</b> Definition and types of Costs, Cost Functions and its Properties, Shift in Cost Curves; Cost in the Short-Run and Long-Run; Long-Run versus Short-Run Cost Curves; the relationship between short run and long run cost curves; Impact of Economies and diseconomies of scale; Production with Two Outputs – Economies of Scope.	15	3	16
<b>5</b>	<b>Perfect Competition</b> The Nature and Behaviour of Firms, Profit Maximization rule; Perfect competition: meaning and characteristics; perfect vs pure competition; Short run and long run equilibrium in a competitive industry; Zero profit in long run competitive equilibrium; Short-Run Supply by Price-Taking Firm, Profit Functions and its Properties, Profit Maximization and Input Demand – Single-Input Case and Two-Input Case.	15	3	16
<b>Total</b>		<b>75</b>	<b>15</b>	<b>80</b>

### Reading List

1. H. R. Varian (2010): Intermediate Microeconomics: A Modern Approach, 8th Edition, W.W. Norton and Company/Affiliated East-West Press (India). The
2. C. Snyder and W. Nicholson (2012): Microeconomic Theory: Basic Principles and Extensions, 11th Edition, Cengage Learning, Delhi, India.
3. R. S. Pindyck, D. N. Rubinfeld and P. L. Meheta (2009): Microeconomics, 7th Edition, Pearson, New Delhi.
4. G.S. Maddala and Ellen Miller, Microeconomics: Theory and Applications, Mc Graw Hill Education, Tenth Reprint, 2013, New Delhi Edition.

**Course Code: ECNHC302**

**Nature of the Course: Core**

**Full marks: 100 (Internal Assessment-20 +  
End Term-80)**

**Course Title: Essentials of Macroeconomics**

**Total Credit Assigned: 6**

**Distribution of Credit: 5 Lecture + 1 Tutorial**

**Course Description:**

This course introduces the students to formal modeling of a macro-economy in terms of analytical tools. 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 to various theoretical issues related to an open economy.

<b>Units</b>		<b>No. of Lecture hours</b>	<b>No. of Tutorial hours</b>	<b>Marks</b>
<b>1</b>	<b>Consumption Function:</b> Short run and long run consumption functions; APC, MPC, APS, MPS; Fundamental Psychological Law of Consumption and its Implications; Determinants of consumption, Theories of Consumption - Absolute, Relative	<b>15</b>	<b>3</b>	<b>16</b>
<b>2</b>	<b>Investment function:</b> Gross and Net, Induced and Autonomous; Marginal efficiency of capital; Marginal efficiency of capital and rate of investment; Marginal efficiency of investment; Investment multiplier; Profit and accelerator theories of investment.	<b>15</b>	<b>3</b>	<b>16</b>
<b>3</b>	<b>Inflation and Unemployment:</b> Stagflation; Causes and Policies to cure Stagflation; Phillips curve; Inflation and expectations – adaptive and rational expectations; Adaptive expectations, Rational expectations and policy ineffectiveness debate.	<b>15</b>	<b>3</b>	<b>16</b>
<b>4</b>	<b>Macroeconomics of an Open Economy -I:</b> Open and closed economy; Mundell-Fleming model, Exchange rate determination; Purchasing power parity – absolute and relative versions of the purchasing power parity; Asset market approach; Dornbusch's overshooting model.	<b>15</b>	<b>3</b>	<b>16</b>
<b>5</b>	<b>Macroeconomics of an Open Economy -II:</b> Concepts and components of balance of trade and balance of payments; Balance of payments– the current and capital account; Basic accounting rule, Equilibrium or disequilibrium of balance of payments, Factors causing balance of payments disequilibrium Adjustment of balance of payments – the monetary approach to balance of payments; International financial markets.	<b>15</b>	<b>3</b>	<b>16</b>
<b>Total</b>		<b>75</b>	<b>15</b>	<b>80</b>

**Reading List:**

1. Dornbusch, Fischer and Startz, *Macroeconomics*, McGraw Hill, 11th edition, 2010.
2. N. Gregory Mankiw. *Macroeconomics*, Worth Publishers, 7th edition, 2010.
3. Olivier Blanchard, *Macroeconomics*, Pearson Education, Inc., 5th edition, 2009.
4. Steven M. Sheffrin, *Rational Expectations*, Cambridge University Press, 2<sup>nd</sup> edition, 1996.
5. Andrew B. Abel and Ben S. Bernanke, *Macroeconomics*, Pearson Education, Inc., 7th edition, 2011.
6. Errol D'Souza, *Macroeconomics*, Pearson Education, 2009
7. Paul R. Krugman, Maurice Obstfeld and Marc Melitz, *International Economics*, Pearson Education Asia, 9th edition, 2012.

**Course Code: ECNHC303**

**Nature of the Course: Core**

**Full marks: 100 (Internal Assessment-20 +  
End Term-80)**

**Course Title: Statistical Methods for Economics**

**Total Credit Assigned: 6**

**Distribution of Credit: 5 Lecture + 1 Tutorial**

**Course Description:**

This is a course on statistical methods for economics. It begins with some basic concepts and terminology that are fundamental to statistical analysis and inference. It then develops the notion of probability, followed by probability distributions of discrete and continuous random variables and of joint distributions. This is followed by a discussion on sampling techniques used to collect survey data. The course introduces the notion of sampling distributions that act as a bridge between probability theory and statistical inference. The semester concludes with some topics in statistical inference that include point and interval estimation.

<b>Units</b>		<b>No of Lecture Hours</b>	<b>No of Tutorial Hours</b>	<b>Marks</b>
<b>1.</b>	<b>Descriptive Statistics:</b> Measures of Central Tendency :Arithmetic Mean, Median and Mode (for both Grouped and Ungrouped Data), Properties of Arithmetic Mean, Comparison of Mean, Median and Mode; Geometric and Harmonic Mean Measures of Dispersion : Range, Quartile Deviation, Mean Deviation and Standard Deviation, Measures of Skewness and Kurtosis. The Concept of Moments.	<b>15</b>	<b>3</b>	<b>16</b>
<b>2.</b>	<b>Elementary Probability Theory:</b> Probability: Concepts of Sample Space and Events, Probability of an Event, Addition and Multiplication Theorems; Conditional Probability and Independence of Events; Inverse Probability; Bayes' Rule (concepts only); Mathematical Expectation.	<b>15</b>	<b>3</b>	<b>16</b>
<b>3.</b>	<b>Random Variables and Probability Distributions:</b> Concept of a Random Variable, Discrete and Continuous Random Variable, Probability Mass Function, Probability Density Function, Mathematical Expectation and Its Properties. Theoretical Distributions: Binomial distribution- its properties, Poission distribution-its properties, Poission distribution as a limiting case of binomial distribution, Normal distribution-its properties.	<b>15</b>	<b>3</b>	<b>16</b>
<b>4</b>	<b>Sampling:</b> Distinction between sampling and census, Principal steps in a sample survey; Errors in statistics: sampling vs. non-sampling errors, Methods of sampling; Testing of hypothesis: chi square and t test	<b>15</b>	<b>3</b>	<b>16</b>

<b>5</b>	<b>Correlation and Regression Analysis:</b> Elementary analysis of linear correlation: Covariance, Scatter Diagram, Karl Pearson's coefficient of correlation–Properties and the Method of Calculation, Concept of Spearman's Rank Correlation. The Concept of Regression, Regression Lines and their Estimation in a Bivariate series, Least Squares Method, The coefficient of determination ( $R^2$ ) and Standard Error of Estimate.	<b>15</b>	<b>3</b>	16
<b>Total</b>		<b>75</b>	<b>15</b>	<b>80</b>

**Reading List:**

1. Jay L. Devore, *Probability and Statistics for Engineers*, Cengage Learning, 2010.
2. John E. Freund, *Mathematical Statistics*, Prentice Hall, 1992.
3. Richard J. Larsen and Morris L. Marx, *An Introduction to Mathematical Statistics and its Applications*, Prentice Hall, 2011.
4. William G. Cochran, *Sampling Techniques*, John Wiley, 2007.



## SEMESTER IV

### B.A. (Honours) Economics

**Course Code: ECNHC401**

**Nature of the Course: Core**

**Full marks: 100 (Internal Assessment-20 +  
End Term-80)**

**Course Title: Advanced Microeconomics**

**Total Credit Assigned: 6**

**Distribution of Credit: 5 Lecture + 1 Tutorial**

#### Course Description:

This course is a sequel to Essentials of Microeconomics. The emphasis will be on giving conceptual clarity to the student coupled with the use of mathematical tools and reasoning. It covers general equilibrium and welfare, imperfect markets and topics under information economics

Units		No of Lecture hours	No of Tutorial hours	Marks
1	<b>General Equilibrium, Efficiency and Welfare</b> General equilibrium analysis; Equilibrium and efficiency under pure exchange and production; Equity and efficiency; the efficiency of competitive markets; welfare economics- Old and New welfare economics; the compensation criteria; the social welfare function and the theory of second best.	15	3	20
2	<b>Monopoly</b> Monopoly- definition, output decision of the monopolists; monopoly power, sources of monopoly, Barriers to entry, mark up pricing, Social cost of monopoly power; Pricing with market power- price discrimination: first degree, second degree and third degree with examples; peak-load pricing; two-part tariff; Monopolistic competition: definitions, characteristics, output decisions, excess capacity and advertising.	15	3	16
3	<b>Oligopoly</b> Short-run pricing and output decisions: Cournot model, Bertrand model, Kinked Demand Model, Collusive Oligopoly Model: Cartels, price leadership model	15	3	16
4	<b>Game theory and Competitive Strategy</b> Concepts, importance and application of game theory; Types of game, pure and mixed strategies, maximin strategies, dominant strategies, concept of Nash equilibrium, Prisoner's dilemma, Repeated games, sequential games, Threats, commitments, and credibility, Entry deterrence.	15	3	12
5	<b>Market Failure</b> Meaning of Externalities, externalities in consumption and production, externalities and allocative inefficiency; solutions to the externality problem; the Coase theorem; Public goods; Government intervention of public goods; Asymmetric information: Complex contracts, principal-agent problem, hidden actions, owner manager relationships, moral hazards, adverse selection, signalling.	15	3	16
<b>Total</b>		<b>75</b>	<b>15</b>	<b>80</b>

**Reading List:**

1. H. R. Varian (2010): Intermediate Microeconomics: A Modern Approach, 8th Edition, W.W. Norton and Company/Affiliated East-West Press (India). The
2. R. S. Pindyck, D. N. Rubinfeld and P. L. Meheta (2009): Microeconomics, 7th Edition, Pearson, New Delhi.
3. C. Snyder and W. Nicholson (2012): Microeconomic Theory: Basic Principles and Extensions, 11th Edition, Cengage Learning, Delhi, India.
4. G.S. Maddala and Ellen Miller, Microeconomics: Theory and Applications, Mc Graw Hill Education, Tenth Reprint, 2013, New Delhi Edition.

**Course Code: ECNHC402**

**Nature of the Course: Core**

**Full marks: 100 (Internal Assessment-20 +  
End Term-80)**

**Course Title: Advanced Macroeconomics**

**Total Credit Assigned: 6**

**Distribution of Credit: 5 Lecture + 1 Tutorial**

**Course Description:**

This course is a sequel to Essentials of Macroeconomics. In this course, the students are introduced to the long run dynamic issues like growth and technical progress. It also provides the micro-foundations to the various aggregative concepts used in the previous course.

<b>Units</b>		<b>No of Lecture Hours</b>	<b>No of Tutorial Hours</b>	<b>Marks</b>
<b>1.</b>	<b>Microeconomic Foundations of Macroeconomics</b> Theories of Consumption: Concept of Consumption Function; Keynesian consumption function; Fisher's theory of optimal intertemporal choice; The consumption puzzle, Life-cycle and permanent income hypotheses; Investment: Determinants of business fixed investment; Residential investment; Inventory investment – the Accelerator theory of inventories; Q-theory of investment.	<b>20</b>	<b>4</b>	20
<b>2.</b>	<b>Economic Growth – I:</b> The Accumulation of Capital and Population Growth; The Harrod-Domar model; Instability of equilibrium; The basic Solow model of growth; the Golden rule level of capital; Population growth in the Solow model.	<b>15</b>	<b>3</b>	20
<b>3.</b>	<b>Economic Growth – II:</b> Technological progress and the Solow model; Policies to promote Economic Growth – impact of change in saving ratio; Elements of endogenous growth.	<b>15</b>	<b>3</b>	15
<b>4.</b>	<b>Fiscal and Monetary Policy</b> The goals of macroeconomic policy; Lags in the effects of macroeconomic policy; Monetary policy objectives and targets; the Government budget constraint; Government debt and Ricardian equivalence; Relative effectiveness of monetary and fiscal policy in IS-LM framework	<b>15</b>	<b>3</b>	15
<b>5.</b>	<b>Schools of Macroeconomic Thoughts</b> Classicals vs Keynesians: Classicals and full wage-price flexibility; Keynesians and wage-price rigidity; the Monetarist counterrevolution – the basic propositions of the monetarists; New-Classical economics and critique of Keynesian economics; Rational expectations and policy ineffective proposition; the Keynesian counter critique; the supply side economics – Laffer curve analysis.	<b>10</b>	<b>2</b>	10
<b>Total</b>		<b>75</b>	<b>15</b>	<b>80</b>

**Reading list:**

1. Dornbusch, Fischer and Startz, *Macroeconomics*, McGraw Hill, 11<sup>th</sup> edition, 2010.
2. N. Gregory Mankiw. *Macroeconomics*, Worth Publishers, 7<sup>th</sup> edition, 2010.
3. Olivier Blanchard, *Macroeconomics*, Pearson Education, Inc., 5<sup>th</sup> edition, 2009.
4. Charles I. Jones, *Introduction to Economic Growth*, W.W. Norton & Company, 2<sup>nd</sup> edition, 2002.
5. Andrew B. Abel and Ben S. Bernanke, *Macroeconomics*, Pearson Education, Inc., 7<sup>th</sup> edition, 2011.
6. Errol D'Souza, *Macroeconomics*, Pearson Education, 2009.
7. Robert J. Gordon, *Macroeconomics*, Prentice-Hall India Limited, 2011.
8. Sikdar. S.: *Principles of Macroeconomics*, Oxford University Press, 2008.

**Course Code: ECNHC403**

**Nature of the Course: Core**

**Full marks: 100 (Internal Assessment-20 +  
End Term-80)**

**Course Title: Introductory Econometrics**

**Total Credit Assigned: 6**

**Distribution of Credit: 5 Lecture + 1 Tutorial**

**Course Description:**

This course provides a comprehensive introduction to basic econometric concepts and techniques. It covers statistical concepts of hypothesis testing, estimation and diagnostic checking of simple and multiple regression models. The course also covers the consequences of and tests for misspecification of regression models.

<b>Units</b>		<b>No of Lecture Hours</b>	<b>No of Tutorial Hours</b>	<b>Marks</b>
<b>1.</b>	<b>Nature and Scope of Econometrics and Basic Statistical Pre-requisites</b> Nature and Scope of Econometrics: What is Econometrics?; Economic and Econometric Models; The Aims and Methodology of Econometrics. Statistical Concepts: Population vs Sample; Statistic and parameters; Estimate and estimators; estimation of parameters – point estimation vs interval estimation; properties of estimators. Probability Distributions: The Normal distribution; Chi-squared, t- and F-distributions. Testing of hypotheses: defining statistical hypotheses; distributions of test statistics; testing hypotheses related to population parameters; Type I and Type II errors; power of a test; tests for comparing parameters from two samples.	<b>15</b>	<b>3</b>	<b>10</b>
<b>2</b>	<b>Simple Linear Regression Model:</b> Two variable case; Regression vs Correlation; Linearity vs Non-linearity; Stochastic specification: The significance of the error term; Estimation: The Principle of ordinary least squares; Assumptions under CLRM; BLUE Properties of estimators: The Gauss Markov theorem; Goodness of fit – R-squared and R-bar squared; Tests of hypotheses; Scaling and units of measurement; confidence intervals; Forecasting. k variable linear regression model: Estimation of parameters; Qualitative (dummy) independent variables – Dummy variable trap.	<b>25</b>	<b>3</b>	<b>25</b>
<b>3</b>	<b>Violations of Classical Assumptions: Consequences, Detection and Remedies</b> Heteroscedasticity: Problem and consequences; tests, detection and alternative methods of estimation. Autocorrelation: Sources, consequences, tests of autocorrelation, remedial measures.	<b>15</b>	<b>3</b>	<b>15</b>

<b>4</b>	<b>Multicollinearity:</b> Nature of the problem; Sources, Perfect multicollinearity vs Imperfect multicollinearity, its consequences; Detection and remedies of multicollinearity;	<b>10</b>	<b>3</b>	<b>15</b>
<b>5</b>	<b>Specification Analysis</b> Omission of relevant variables; Inclusion of irrelevant variables; Tests of specification errors; Errors in variables.	<b>10</b>	<b>3</b>	<b>15</b>
<b>Total</b>		<b>75</b>	<b>15</b>	<b>80</b>

#### Reading List:

1. Jay L. Devore, *Probability and Statistics for Engineers*, Cengage Learning, 2010.
2. John E. Freund, *Mathematical Statistics*, Prentice Hall, 1992.
3. Richard J. Larsen and Morris L. Marx, *An Introduction to Mathematical Statistics and its Applications*, Prentice Hall, 2011.
4. D. N. Gujarati and D.C. Porter, *Essentials of Econometrics*, McGraw Hill, 4<sup>th</sup> edition, International Edition, 2009.
5. Christopher Dougherty, *Introduction to Econometrics*, Oxford University Press, 3<sup>rd</sup> edition, Indian edition, 2007.
6. Jan Kmenta, *Elements of Econometrics*, Indian Reprint, Khosla Publishing House, 2nd edition, 2008.
7. Maddala, G.S.: *Introduction to Econometrics*, Wiley India, 3<sup>rd</sup> Edition 2010.

## SEMESTER V

### B.A. (Honours) Economics

**Course Code: ECNHC501**

**Nature of the Course: Core**

**Full marks: 100 (Internal Assessment-20 +  
End Term-80)**

**Course Title: Indian Economy- I**

**Total Credit Assigned: 6**

**Distribution of Credit: 5 Lecture + 1 Tutorial**

#### Course Description:

Using appropriate analytical frameworks, this course reviews major trends in economic indicators in India in the post-Independence period, with particular emphasis on paradigm shifts and turning points. Emphasis needs to be given in capturing the emerging issues.

Units		No of Lecture Hours	No of Tutorial Hours	Marks
1.	<b>Economic Development since Independence</b> Indian Economy on the eve of independence- An overview; Alternative development strategies since independence- goal of self-reliance based on import substitution and protection, the post-1991 globalization strategies based on stabilization and structural adjustment packages; An assessment of performance- sustainability and regional contrasts; structural transformation of savings and investment.	20	4	20
2.	<b>Population and Human Development</b> Demographic features and trends- Size and growth rates of population, trends in birth and death rates, Density of population, Age and Sex Composition, Population as a factor of economic development, Demographic Dividend; National Population Policy; Human Development in India- Human Development indicators, Human Development Index, India's human development record in global perspective.	20	4	20
3.	<b>Growth and Distribution</b> Poverty- Concept and Incidence of Poverty in India, Poverty estimates, Growth and Poverty, Strategy of Poverty Alleviation; Inequality- Income inequality in India: Magnitude and Nature, Growth and Inequality, Causes of income inequality, Government policies and measures. Unemployment- Nature and types of unemployment in India, Magnitude, Changing dimensions of unemployment and employment, Causes of unemployment, Government policies and measures.	20	4	20
4.	<b>International Comparisons</b> India's economic interaction with the world economy, A comparative assessment of India's development experience with high performing Asian economies- Singapore, South Korea and Taiwan.	15	3	20
<b>Total</b>		<b>75</b>	<b>15</b>	<b>80</b>

## Reading List:

1. Jean Dreze and Amartya Sen, 2013. *An Uncertain Glory: India and its Contradictions*, Princeton University Press.
2. Pulapre Balakrishnan, 2007, The Recovery of India: Economic Growth in the Nehru Era, *Economic and Political Weekly*, November.
3. Rakesh Mohan, 2008, —Growth Record of Indian Economy: 1950-2008. A Story of Sustained Savings and Investment, *Economic and Political Weekly*, May.
4. S.L. Shetty, 2007, —India's Savings Performance since the Advent of Planning, in K.L. Krishna and A. Vaidyanathan, (ed.), *Institutions and Markets in India's Development*.
5. Himanshu, 2010, —Towards New Poverty Lines for India, *Economic and Political Weekly*, January.
6. Jean Dreze and Angus Deaton, 2009, —Food and Nutrition in India: Facts and Interpretations, *Economic and Political Weekly*, February.
7. Himanshu. 2011, —Employment Trends in India: A Re-examination, *Economic and Political Weekly*, September.
8. Rama Baru et al, 2010, —Inequities in Access to Health Services in India: Caste, Class and Region, *Economic and Political Weekly*, September.
9. Geeta G. Kingdon, 2007, —The Progress of School Education in India, *Oxford Review of Economic Policy*.
10. J.B.G. Tilak, 2007, —Post Elementary Education, Poverty and Development in India, *International Journal of Educational Development*.
11. T. Dyson, 2008, —India's Demographic Transition and its Consequences for Development in Uma Kapila, (ed.), *Indian Economy Since Independence*, 19<sup>th</sup> edition, Academic Foundation.
12. Kaushik Basu, 2009, —China and India: Idiosyncratic Paths to High Growth, *Economic and Political Weekly*, September.
13. K. James, 2008, —Glorifying Malthus: Current Debate on Demographic Dividend in India, *Economic and Political Weekly*, June.
14. Reetika Khera, 2011, —India's Public Distribution System: Utilisation and Impact *Journal of Development Studies*.
15. Aniruddha Krishna and Devendra Bajpai, 2011, —Lineal Spread and Radial Dissipation: Experiencing Growth in Rural India, 1992-2005, *Economic and Political Weekly*, September.
16. Kaushik Basu and A. Maertens, (ed.), 2013, *The Concise Oxford Companion to Economics in India*, Oxford University Press.
17. Bimal Jalan (ed), *The Indian Economy Problems and Prospects*, Penguin Books Ltd.
18. Arvind Subramanian, *India's Turn, Understanding The Economic Transformation*, Oxford University Press.
19. Kaushik Basu, (ed.) *India's Emerging Economy, Performance and Prospects in the 1990's and Beyond*, Oxford University Press.



**Course Code: ECNHC502**

**Nature of the Course: Core**

**Full marks: 100 (Internal Assessment-20 +  
End Term-80)**

**Course Title: Development Economics - I**

**Total Credit Assigned: 6**

**Distribution of Credit: 5 Lecture + 1 Tutorial**

**Course Description:**

This is the first part of a two-part course on economic development. The course begins with a discussion of alternative 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.

<b>Units</b>		<b>No of Lecture Hours</b>	<b>No of Tutorial Hours</b>	<b>Marks</b>
<b>1</b>	<b>Concepts of Development:</b> Evolution of Development Economics; Economic growth and development, Characteristics of underdeveloped economies, Measures of development- GNP, PQLI, HDI, GDI, GEM ;	<b>15</b>	<b>3</b>	<b>16</b>
<b>2</b>	<b>Strategies of Development:</b> Stages of Economic growth- Rostow ; Low level equilibrium trap, The critical minimum effort hypothesis; Big push theory, Balanced vs. Unbalanced growth; Choice of Technique	<b>15</b>	<b>3</b>	<b>16</b>
<b>3</b>	<b>Growth Models :</b> Classical growth model; Harrod-Domar model; Kaldor's Model, Solow model and its variants, Meade Model, Endogenous growth model- Romer's Version.	<b>15</b>	<b>3</b>	<b>16</b>
<b>4</b>	<b>Poverty and Inequality:</b> Concept and Measures of poverty- Head count ratio, Sen's Index, HPI, MPI. Inequality measures- Gini Coefficient and Lorenz Curve; Connections between inequality and development; Mechanisms that generate poverty traps and path dependence of growth processes	<b>15</b>	<b>3</b>	<b>16</b>
<b>5</b>	<b>Political Institutions and the Functioning of the State</b> Alternative institutional trajectories and their relationship with economic performance; Relationship between democracy and economic development; Within-country differences in the functioning of state institutions; State ownership and regulation; Government failures and Corruption.	<b>15</b>	<b>3</b>	<b>16</b>
<b>Total</b>		<b>75</b>	<b>15</b>	<b>80</b>

**Reading List:**

1. Debraj Ray, Development Economics, Oxford University Press, 2009.
2. Partha Dasgupta, Economics, A VeryShort Introduction, Oxford University Press, 2007.
3. Abhijit Banerjee, Roland Benabou and Dilip Mookerjee, Understanding Poverty, Oxford University Press, 2006.
4. Kaushik Basu, The Oxford Companion to Economics in India, OUP, 2007.
5. Amartya Sen, Development as Freedom, OUP, 2000.
6. Daron Acemoglu and James Robinson, Economic Origins of Dictatorship and Democracy, Cambridge University Press, 2006.
7. Robert Putnam, Making Democracy Work: Civic Traditions in Modern Italy, Princeton University Press, 1994
8. A. P. Thirlwall : Economics of Development, Palgrave Macmillan, 2011
9. Yujiro Hayami and Yoshihisa Godo : Development Economics, Oxford Publication,2009
10. Gerald M. Meier and James E. Rauch : Leading Issues in Economic Development, Oxford Publication, 2006
11. Hall and Papell : Macro Economics: Economic growth ,Fluctuations and Policy, 6<sup>th</sup> education, Norton Books
11. Hall and Papell : Macro Economics: Economic growth ,Fluctuations and Policy, 6<sup>th</sup> education, Norton Books

## SEMESTER VI

### B.A. (Honours) Economics

**Course Code: ECNHC601**

**Course Title: Indian Economy- II**

**Nature of the Course: Core**

**Total Credit Assigned: 6**

**Full marks: 100 (Internal Assessment-20 +  
End Term-80)**

**Distribution of Credit: 5 Lecture + 1 Tutorial**

#### Course Description:

This course examines sector-specific policies and their impact in shaping trends in key economic indicators in India. Emphasis needs to be given in capturing the emerging issues.

Units		No of Lecture Hours	No of Tutorial Hours	Marks
<b>1</b>	<b>Macroeconomic Policies and Their Impact</b> Fiscal reform measures in the context of India's New Economic Policy, Fiscal Responsibility and Budget Management (FRBM) Act.  Monetary Reforms and its impact. Black money and Parallel economy in India- consequences and corrective government intervention.  Trade Policy- Export Import Policy, Foreign Trade Policy; Current and Capital Account Convertibility	20	4	20
<b>2</b>	<b>Policies and Performance in Agriculture</b> Changing structure of Indian Agriculture, Growth and productivity of Agriculture, Sustainable agriculture-concept and constraints, Diversification of Agriculture, Capital formation, Role of technology; Green revolution; Institutions- land reforms, rural credit, agricultural marketing, price policy; WTO and Agriculture.	20	4	20
<b>3</b>	<b>Policies and Performance in Industry</b> Pattern of Industrialization, Industrial growth and productivity in the post reform period, Diversification of industries, Public Sector reforms, Disinvestment and Privatization, MSME Sector, Industrial Policy reforms, Foreign Investment in the Industrial sector.	20	4	20
<b>4</b>	<b>Trends and Performance in Services</b> Role of the service sector in the Indian Economy, Growth in and composition of the service sector; Composition and direction of foreign trade, Trend in merchandise trade and invisibles, Balance of payments position- Pre and Post Reform period, Trade in services and WTO.	15	3	20
<b>Total</b>		<b>75</b>	<b>15</b>	<b>80</b>

**Reading List:**

1. Shankar Acharya, 2010, —Macroeconomic Performance and Policies 2000-8, in Shankar Acharya and Rakesh Mohan, (ed.), *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, (ed.), *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, (ed.), *The Rise of Asia*, Routledge.
5. J. Dennis Rajakumar, 2011, —Size and Growth of Private Corporate Sector in Indian Manufacturing, *Economic and Political Weekly*, April.
6. Ramesh Chand, 2010, Understanding the Nature and Causes of Food Inflation, *Economic and Political Weekly*, February.
7. Bishwanath Goldar, 2011, Organised Manufacturing Employment: Continuing the Debate, *Economic and Political Weekly*, April.
8. Kaushik Basu and A. Maertens, (ed.), 2013. *The New Oxford Companion to Economics in India*, Oxford University Press.
9. Bimal Jalan (ed), *The Indian Economy, Problems and Prospects*, Penguin Books Ltd.
10. Arvind Subramanian, *India's Turn, Understanding The Economic Transformation*, Oxford University Press.
11. Kaushik Basu, (ed.), *India's Emerging Economy, Performance and Prospects in the 1990's and Beyond*, Oxford University Press.

**Course Code: ECNHC602**

**Nature of the Course: Core**

**Full marks: 100 (Internal Assessment-20 +  
End Term-80)**

**Course Title: Development Economics-II**

**Total Credit Assigned: 6**

**Distribution of Credit: 5 Lecture + 1 Tutorial**

**Course Description:**

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

<b>Units</b>		<b>No of Lecture Hours</b>	<b>No of Tutorial Hours</b>	<b>Marks</b>
<b>1.</b>	<b>Demography and Development:</b> Demographic concepts; birth and death rates, age structure, fertility and mortality; Demographic transitions during the process of development; Population and economic development, connections between income, mortality, fertility choices and human capital accumulation; Migration.	<b>15</b>	<b>3</b>	<b>16</b>
<b>2.</b>	<b>Land, Labor and Credit Markets:</b> The distribution of land ownership; land reform and its effects on productivity; contractual relationships between tenants and landlords; land acquisition; nutrition and labor productivity; informational problems and credit contracts; microfinance; inter- linkages between rural factor markets.	<b>15</b>	<b>3</b>	<b>16</b>
<b>3.</b>	<b>Communities and Economic Development:</b> The economic functions of Community; Collective intervention in Rural economies: Management of Common Property Resources; Overcoming the community failure	<b>10</b>	<b>2</b>	<b>12</b>
<b>4.</b>	<b>Environment and Sustainable Development:</b> Environment- Economy linkage; Concept and indicators of sustainable development; Common-pool resources; Environmental externalities and state regulation of the environment; Economic activity and climate change	<b>15</b>	<b>3</b>	<b>16</b>

<b>5.</b>	<b>Trade, Globalization and Development:</b> International Trade: A Stimulus or a Hindrance To Growth; The Prebisch-Singer Thesis; trade, production patterns and world inequality; Economic arguments for multilateral agreements; Role of Foreign Capital and Foreign Aid in Economic Development; Financial instability in a globalized world	<b>20</b>	<b>4</b>	<b>20</b>
<b>Total</b>		<b>75</b>	<b>15</b>	<b>80</b>

**Readings:**

1. Debraj Ray, Development Economics, Oxford University Press, 2009.
2. Partha Dasgupta, Economics, A Very Short Introduction, Oxford University Press, 2007.
3. Abhijit Banerjee, Roland Benabou and Dilip Mookerjee, Understanding Poverty, Oxford University Press, 2006.
4. Thomas Schelling, Micro motives and Macro behavior, W. W. Norton, 1978.
5. Albert O. Hirschman, Exit, Voice and Loyalty: Responses to Decline in Firms, Organizations and States, Harvard University Press, 1970.
6. Raghuram Rajan, Fault Lines: How Hidden Fractures Still Threaten the World Economy, 2010.
7. Elinor Ostrom, Governing the Commons: The Evolution of Institutions for Collective Action, Cambridge University Press, 1990.
8. Dani Rodrik, The Globalization Paradox: Why Global Markets, States and Democracy Can't Coexist, Oxford University Press, 2011.
9. Michael D. Bordo, Alan M. Taylor and Jeffrey G. Williamson (ed.), Globalization in Historical Perspective, University of Chicago Press, 2003.
10. Yujiro Hayami and Yoshihisa Godo : Development Economics, Oxford Publication, 2009
11. A. P. Thirlwall : Economics of Development, Palgrave Macmillan, 2011

**Semester V**  
**B.A. (Honours) Economics**

**Course Code: ECNHDSE501**

**Nature of the Course: Discipline Specific Elective**

**Full marks: 100 (Internal Assessment-20 + End Term-80)**

**Course Title: Economics of Health and Education**

**Total Credit Assigned: 6**

**Distribution of Credit: 5 Lecture + 1 Tutorial**

**Course Description:**

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

<b>Units</b>		<b>No of Lecture Hours</b>	<b>No of Tutorial Hours</b>	<b>Marks</b>
<b>1.</b>	<b>Role of Health in Human Development:</b> Health outcomes and their relationship with macroeconomic performance. Importance in poverty alleviation; Health – Income Nexus: Empirical Evidence.	15	3	20
<b>2.</b>	<b>Microeconomic Foundations of Health Economics:</b> Economics of Health: Meaning & Scope, Demand for health: Health Consumption Decisions; Uncertainty and health insurance market; Problems in Health Insurance Market: Asymmetric Information, Adverse Selection, Moral Hazard; market failure and rationale for public intervention; equity and inequality.	15	3	15
<b>3.</b>	<b>Evaluation of Health Programs:</b> Investment in Health: Cost Effectiveness and Cost-Benefit Analysis; Disease Burden: Measurement and Its extent in developing Countries.	10	2	10
<b>4.</b>	<b>Health Sector in India: An Overview:</b> Health outcomes; health care delivery systems and health financing.	15	3	15
<b>5.</b>	<b>Education: Investment in Human Capital:</b> Rate of return to education: private and social; quality of education; signaling or human capital; theories of discrimination; gender and caste discrimination in India. Education outcomes and their relationship with macroeconomic performance.  <b>Education Sector in India: An Overview</b> Literacy rates, school participation, school quality measures.	20	4	20
<b>Total</b>		<b>75</b>	<b>15</b>	<b>80</b>

## Reading List:

1. William, Jack, *Principles of Health Economics for Developing Countries*, World 24 Bank Institute Development Studies, 1999.
2. World Development Report, *Investing in Health*, The World Bank, 1993.
3. Ronald G., Ehrenberg and Robert S., Smith, *Modern Labor Economics: Theory and Public Policy*, Addison Wesley, 2005.
4. Human Development Reports, Technical Notes: UNDP-various issues
5. Michael P. Todaro & Stephen C. Smith: *Economic Development*, Pearson Education, 10<sup>th</sup> edition, 2011
6. Gerald M. Meier & James E. Rauch: *Leading Issues in Economic Development*, Oxford University Press, 2005
7. George Psacharopoulos: *Economics of Education*, Pergaman Press, 1987



**Course Code: ECNHDSE502**

**Nature of the Course: Discipline Specific Elective**

**Full marks: 100 (Internal Assessment-20 + End Term-80)**

**Course Title: Applied Econometrics**

**Total Credit Assigned: 6**

**Distribution of Credit: 5 Lecture + 1 Tutorial**

**Course Description:**

The aim of this course is to provide a foundation in applied econometric analysis and develop skills required for empirical research in economics. Topics include specification and selection of regression models, dynamic econometric models, advanced methods in regression analysis and panel data models. Since the emphasis is on application of methods, this course requires understanding of econometric software and computing skills.

Units		No of Lecture Hours	No of Practical Hours	Marks
1.	<b>Empirical Econometric Research: Tools and Techniques</b> Sources of data; Types of data: Cross section, Time series and Panel; Modelling of economic data; Normalisation and outliers; Model selection criteria; Hypothesis formulation and inference about the parameters; Importance of stochastic term and error specification bias; Reporting regression results.	15	0	15
2	<b>Dynamic Econometric Models: Autoregressive and Distributed lag models</b> The Role of lags in economics; Reasons of including lags; The Koyck approach to distributed lag models; Rationalisation of Koyck model: Adaptive expectations model and Partial Adjustment model; Almon's polynomial lag models; Autoregressive models; Autocorrelation in autoregressive models: Durbin h-test; estimation of autoregressive models: the method of instrumental variable; Causality in Economics: The Granger causality test.	15	0	20
3	<b>Simultaneous equation models</b> The nature of simultaneous equation models – some illustrative examples; Structural, reduced and final form equations; Simultaneity bias; the Identification problem: underidentification, exact identification and overidentification; Rules of identification: Rank and order conditions; Estimation of simultaneous equation models; Recursive systems and OLS estimation; the Indirect Least Squares; Two Stage Least squares; three stage least squares.	15	0	20
4	<b>Panel Data Models</b> Use and sources of panel data; types of panel data: balanced and unbalanced; Methods of estimation; Pooled regression model; fixed effects model; random effects model; Choice between fixed effects and random effects models: Hausman test.	15	0	15

<b>5</b>	<b>Introduction to Econometric Software Packages:</b> Data entry, tabulation of data: frequency, percentages, cross tabulation; outlier detection; Presentation of data: pie-chart, histograms, data reliability, correlation, Regression.	<b>0</b>	<b>60</b> <i>(Should be divided evenly throughout the semester)</i>	<b>10</b>
<b>Total</b>		<b>60</b>	<b>60</b>	<b>80</b>

**Reading List:**

1. Jeffrey M. Wooldridge, *Econometrics*, CENGAGE learning, India Edition, 2009.
2. Dimitrios Asteriou and Stephen Hall, *Applied Econometrics: A Modern Approach*, Palgrave Macmillan, 2007.
3. Damodar Gujarati, *Econometrics by Example*, Palgrave Macmillan, 2011.
4. Maddala, G.S.: *Introduction to Econometrics*, Wiley India, 3<sup>rd</sup> Edition 2010.

**Course Code: ECNHDSE503**

**Nature of the Course: Discipline Specific Elective**

**Full marks: 100 (Internal Assessment-20 + End Term-80)**

**Course Title: Economic History of India (1857-1947)**

**Total Credit Assigned: 6**

**Distribution of Credit: 5 Lecture + 1 Tutorial**

**Course Description:**

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

<b>Units</b>		<b>No of Lecture Hours</b>	<b>No of Tutorial Hours</b>	<b>Marks</b>
<b>1.</b>	<b>Introduction: Colonial India: Background and Introduction</b> An Overview of economic structure and policies of pre-independence era, the laws of inheritance; socio-cultural attitudes and India's economic backwardness; drain theory; economic ideas of Ranade and Gandhi	10		10
<b>2.</b>	<b>Macro Trends</b> National Income – trend and composition; Population – growth, age structure and sex composition; Changing occupational structure; urbanisation; Poverty.	10	3	15
<b>3.</b>	<b>Agriculture</b> Agrarian structure and land relations; agricultural markets and institutions – credit and irrigation; Land systems; Commercialization of agriculture- its causes and consequences; trends in performance and productivity; problem of rural indebtedness; Emergence of agricultural labour as category; famines; Evolution of the Food Problem and policies; Partition and its impact on agriculture.	15	3	15
<b>4.</b>	<b>Industrial development and the Transportation sector:</b> The state of industrial development in mid-nineteenth century India, the de-industrialization thesis –its statement and validity, emergence of modern capitalist industrial enterprise in India; nature of industrialisation in the interwar period; constraints to industrial breakthrough; labour relations and evolution of labour legislations and organisations; Partition and its impact on industrial sector. Transportation development and its impact – Railways, roads, shipping.	20	5	20
<b>5</b>	<b>Economy and State in the Imperial Context</b> The imperial priorities and the Indian economy - 'guided underdevelopment' of India under the British rule; Foreign capital in Colonial India – its extent and impact; foreign-trade-growth and composition; evolution of provincial finance, the nature and problem of public debt; Economic drain from India -form, extent and consequences; government and fiscal policy.	20	4	20
<b>Total</b>		<b>75</b>	<b>15</b>	<b>80</b>

### Reading List:

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.
5. J. Krishnamurthy, *Occupational Structure*, Dharma Kumar (editor), The Cambridge
4. Economic History of India, Vol. II, (henceforth referred to as CEHI), 2005, Chapter 6.
6. Irfan Habib, *Indian Economy 1858-1914*, A People’s History of India, Vol.28, Tulika, 2006.
7. Ira Klein, 1984, —When Rains Fail: Famine relief and mortality in British India, *IESHR* 21.
8. Jean Dreze, *Famine Prevention in India in Dreze and Sen (eds.) Political Economy of Hunger*, WIDER Studies in Development Economics, 1990, pp.13-35.
9. John Hurd, *Railways*, CEHI, Chapter 8, pp.737-761.
10. Rajat Ray (ed.), *Entrepreneurship and Industry in India*, 1994.
11. AK Bagchi, —Deindustrialization in India in the nineteenth century: Some theoretical implications, *Journal of Development Studies*, 1976.
12. MD Morris, *Emergence of an Industrial Labour Force in India*, OUP 1965, Chapter 11, Summary and Conclusions.
13. K.N. Chaudhuri, *Foreign Trade and Balance of Payments*, CEHI, Chapter 10.
14. B.R. Tomlison, 1975, *India and the British Empire 1880-1935*, IESHR, Vol.XII.
15. Dharma Kumar, *The Fiscal System*, CEHI, Chapter 12.
16. Basudev Chatterjee, *Trade, Tariffs and Empire*, OUP 1992, Epilogue.
17. Kaushal G. *Economic History of India – 1757 to 1966*. Kalyani Publishers, 1991.

### Background reading for students:

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

**Course Code: ECNHDSE504**  
**Nature of the Course: Discipline Specific Elective**  
**Full marks: 100 (Internal Assessment-20 + End Term-80)**

**Course Title: Game Theory**  
**Total Credit Assigned: 6**  
**Distribution of Credit: 5 Lecture + 1 Tutorial**

**Course Description:**

Game theory is an integral part of modern economic analysis. Game theory introduces the students to elementary game theory under complete information. This course introduces the basic concepts of game theory in a way that allows students to use them in solving simple problems. The course will deal with the solution concepts for normal form and extensive form games along with a variety of economic applications.

Units		Number of Lecture hours	Number of Tutorial hours	Marks
<b>1</b>	<b>Normal form games</b> The normal form; dominant and dominated strategies; dominance solvability; mixed strategies; Nash equilibrium; symmetric single population games; applications.	20	4	20
<b>2</b>	<b>Applications of Game: II</b> Solution of the games- pure and mixed strategies; Graphical solution of 2x2, 2xm and nx2 games; best response strategies; solution methods for matrix games.	20	4	20
<b>3</b>	<b>Applications of Game: II</b> Cournot Duopoly model, Bertrand model, The Commons Problem, Prisoner's Dilemma, Nash equilibrium, Natural Monopoly and Bankruptcy laws.	20	4	20
<b>4</b>	<b>Extensive form games with perfect information</b> The game tree; strategies; subgame perfection; backward induction in finite games; Commitment; bargaining and other applications.	15	3	20
<b>Total</b>		<b>75</b>	<b>15</b>	<b>80</b>

**Reading List:**

1. Martin J. Osborne, An Introduction to Game Theory, Oxford University Press, New Delhi, 2004.
2. Barron, Game Theory: An Introduction, Wiley, New Delhi, 2008.
3. H. R. Varian (2010): Intermediate Microeconomics: A Modern Approach, 8th Edition, W.W. Norton and Company/Affiliated East-West Press (India).
4. R. S. Pindyck, D. N. Rubinfeld and P. L. Meheta (2009): Microeconomics, 7th Edition, Pearson, New Delhi.
5. C. Snyder and W. Nicholson (2012): Microeconomic Theory: Basic Principles and Extensions, 11th Edition, Cengage Learning, Delhi, India.

**Course Code: ECNHDSE505**

**Nature of the Course: Discipline Specific Elective**

**Full marks: 100 (Internal Assessment-20 + End Term-80)**

**Course Title: Money and Financial Markets**

**Total Credit Assigned: 6**

**Distribution of Credit: 5 Lecture + 1 Tutorial**

**Course Description:**

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

Units		No of Lecture Hours	No of Tutorial Hours	Marks
1.	<b>Money:</b> Concept, functions, measurement; theories of money supply determination- RBI approach to money supply; High powered money and money multiplier.	15	3	15
2.	<b>Financial Institutions, Markets, Instruments and Financial Innovations:</b> Role of financial markets and institutions; Structure of money market and capital market —Call money market. Treasury bill market, Commercial bill market including commercial paper and certificate of deposits, Government securities market, Primary and secondary market for securities. Financial sector Reforms in India, Role of Financial Derivatives Financial Institutions: Types; Banking and Non Banking Financial Institutions.	20	4	20
3.	<b>Stock Market</b> Stock Market and its Operations; Stock Market Index, Methodologies for Calculating Stock Market Index, Stock Market indices in India, BSE Sensex, NSE Nifty.	10	2	10
4.	<b>Interest Rates</b> Determination; sources of interest rate differentials ;theories of term structure of interest rates; interest rates in India.	15	3	20
5.	<b>Banking System:</b> Meaning and types; Functions of commercial banks; the process of credit creation and its limitations; Balance sheet and portfolio management, banking sector reforms <b>Central Banking and Monetary Policy:</b> Central Banking: Function of the Central Bank, Monetary policy: objectives, indicators and instruments of monetary control. Monetary management in an open economy, current monetary policy of India.	15	3	15
<b>Total</b>		<b>75</b>	<b>15</b>	<b>80</b>

### Reading Lists:

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. 32
5. L. M. Bhole and J. Mahukud, *Financial Institutions and Markets*, Tata McGraw Hill, 5th edition, 2011.
6. M. Y. Khan, *Indian Financial System*, Tata McGraw Hill, 7th edition, 2011.
7. N. Jadhav, *Monetary Policy, Financial Stability and Central Banking in India*, Macmillan, 2006.
8. Suraj B. Gupta : *Monetary Economics*, S. Chand and Company Ltd., 2010
9. Bharati V. Pathak, *The Indian Financial System : Markets, Institutions and Services*, Pearson Education India, 2007
10. R.B.I. – *Report of the Working Group: Money Supply Analytics and Methodology of Compilation*, 1998.
11. R.B.I. Bulletin, Annual Report and Report on Currency and Finance (latest).

**Course Code: ECNHDSE506**

**Nature of the Course: Discipline Specific Elective**

**Full marks: 100 (Internal Assessment-20 + End Term-80)**

**Course Title: Public Economics**

**Total Credit Assigned: 6**

**Distribution of Credit: 5 Lecture + 1 Tutorial**

### 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.

Units		No of Lecture Hours	No of Tutorial Hours	Marks
1	<b>Fiscal functions:</b> An Overview, Meaning and Scope of Public Economics, Need for Public Sector, Allocation, Distribution and Stabilization functions of government, Co-ordination and Conflict of functions.	10	2	16
2	<b>Public Goods</b> Meaning and characteristics, Pure and Impure Public Goods, The Free Rider Problem, Efficient allocation of Public Goods- The Lindahl Equilibrium and Samuelson's theory of Public Expenditure.	15	3	16
3	<b>Externalities</b> Meaning and type of externalities, Market failure and externalities, Internalization of Externalities- Corrective taxes and Subsidies, Assignment of Property Rights- The Coase Theorem	15	3	16
4	<b>Public Revenue</b> Tax and Non tax revenue, Economic effects of taxation, Dead weight loss and distortion, Principles of Taxation- The Ability to Pay Principle and the Benefit Principle, Incidence of taxation- Meaning and importance, The Demand and Supply theory of Incidence, Neutrality, Efficiency and Equity in taxation, Optimal taxation.	15	3	16
5	<b>Indian Public Finance</b> Tax system- Main features of India's Tax System, Changing Tax Structure of India, Major Tax Reforms since 1991.	20	4	16



	<p>Budget, deficits and public debt- Stages of Budget preparation, Revenue and Capital Budget, Concept of Deficits- Budgetary Deficit, Revenue Deficit, Fiscal Deficit, Primary Deficit, Budgetary trend in India, Study of latest Union Budget,</p> <p>Public Debt- Necessity of Public Debt, Characteristics of India's Public Debt, India's internal and external debt liabilities, Problems of Public Debt policy.</p> <p>Fiscal Federalism in India: Meaning, Inter governmental Resource Transfer - trend and techniques, Role of Finance Commission Critical evaluation of Finance Commission's Awards, Recommendations of the latest Finance Commission.</p>			
<b>Total</b>		<b>75</b>	<b>15</b>	<b>80</b>

### Reading List:

1. J. Hindriks, G. D. Myles: *Intermediate Public Economics*, MIT Press, 2006.
2. H. Rosen, T. Gayer: *Public Finance*, 9th ed., McGraw-Hill/Irwin, 2009.
3. Joseph E. Stiglitz, *Economics of the Public Sector*, W.W. Norton & Company, 3<sup>rd</sup> edition, 2000.
4. R.A. Musgrave and P.B. Musgrave, *Public Finance in Theory & Practice*, McGraw Hill Publications, 5<sup>th</sup> edition, 1989.
5. John Cullis and Philip Jones, *Public Finance and Public Choice*, Oxford University Press, 1<sup>st</sup> edition, 1998.
6. Harvey Rosen, *Public Finance*, McGraw Hill Publications, 7<sup>th</sup> edition, 2005.
7. Mahesh Purohit, *Value Added Tax: Experiences of India and Other Countries*, 2007.
8. Kaushik Basu and A. Maertens (ed.), *The New Oxford Companion to Economics in India*, Oxford University Press, 2013.
9. M.M. Sury, *Government Budgeting in India*, 1990.
10. M. Govinda Rao, *Changing Contours of Federal Fiscal Arrangements in India*, Amaresh Bagchi (ed.), *Readings in Public Finance*, Oxford University Press, 2005.
11. Paul Samuelson, 1955, —Diagrammatic Exposition of a theory of Public Expenditure, *Review of Economics and Statistics*, Volume 37.
12. Shankar Acharya, 2005, —Thirty Years of Tax Reform in India, *Economic and Political Weekly*, May 14-20.
13. Rangarajan and D.K. Srivastava, 2005, —Fiscal Deficit and Government Debt: Implications for Growth and Stabilization”, *Economic and Political Weekly*, July2-8.
14. M. Govinda Rao, 2011, —Goods and Services Tax: A Gorilla, Chimpanzee or a Genius like Primates?, *Economic and Political Weekly*, February 12-18.
15. Report of the latest Finance Commission.
16. *Economic Survey*, Government of India (Latest).
17. *State Finances: A Study of Budgets*, Reserve Bank of India (Latest).

**Semester VI**  
**B.A. (Honours) Economics**

**Course Code: ECNHDSE601**

**Nature of the Course: Discipline Specific Elective**

**Full marks: 100 (Internal Assessment-20 + End Term-80)**

**Course Title: Financial Economics**

**Total Credit Assigned: 6**

**Distribution of Credit: 5 Lecture + 1 Tutorial**

**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 given to study in detail. The course ends with a brief introduction to corporate finance

Units		No of Lecture Hours	No of Tutorial Hours	Marks
1.	<b>Investment Theory and Structure of Interest rates: Deterministic cash-flow streams:</b> Basic theory of interest; discounting and present value; internal rate of return; evaluation criteria; fixed-income securities; bond prices and yields; interest rate sensitivity and duration; immunisation; the term structure of interest rates; yield curves; spot rates and forward rates.	20	4	20
2.	<b>Models of Single-period random cash flows:</b> Random asset returns; portfolios of assets; portfolio mean and variance; feasible combinations of mean and variance. Mean-variance portfolio analysis: the Markowitz model and the two-fund theorem; risk-free assets and the one-fund theorem.	15	3	15
3.	<b>Capital Asset Pricing Model:</b> The Cost of Capital: Debt and equity; Cost of Debt, Cost of Preference Capital and Equity Capital. The capital market line; the capital asset pricing model; the beta of an asset and of a portfolio; security market line; use of the CAPM model in investment analysis and as a pricing formula.	15	3	15
4.	<b>Options and Derivatives:</b> An introduction to financial derivatives: Types and uses of derivatives; Forward Contracts: Relation between Spot and Future Prices, forward vs future contract, Hedging in Futures; Options: types, value of an option, the Pay-Offs from Buying and Selling of Options.	15	3	20
5.	<b>Corporate Finance:</b> Corporate Financing: Meaning and its Patterns ; common stock; debt; preferences; convertibles.	10	2	10
<b>Total</b>		<b>75</b>	<b>15</b>	<b>80</b>

**Reading List:**

1. David G. Luenberger, *Investment Science*, Oxford University Press, USA, 1997.
2. Hull, John C., *Options, Futures and Other Derivatives*, Pearson Education, 6<sup>th</sup> edition, 2005.
3. Thomas E. Copeland, J. Fred Weston and Kuldeep Shastri, *Financial Theory and Corporate Policy*, Prentice Hall, 4th edition, 2003.
4. Richard A. Brealey and Stewart C. Myers, *Principles of Corporate Finance*, McGraw-Hill, 7th edition, 2002.
5. Stephen A. Ross, Randolph W. Westerfield and Bradford D. Jordan, *Fundamentals of Corporate Finance*. McGraw-Hill, 7<sup>th</sup> edition, 2005.
6. Burton G. Malkiel, *A Random Walk Down Wall Street*, W.W. Norton & Company, 2003.
7. William Sharpe, Gordon Alexander and Jeffery Bailey, *Investments*, Prentice Hall of India, 6<sup>th</sup> edition, 2003.
8. Z. Bodie, R. C. Merton. & D. L. Cleeton, *Financial Economics*. Pearson/ Prentice Hall, 2009.
9. J. C. Hull & S. Basu, *Options, Futures and Other Derivatives*. Pearson, 2010.
10. J. Madura, *Financial Institutions and Markets*. Thomson, 2006.

**Course Code: ECNHDSE602**

**Nature of the Course: Discipline Specific Elective**

**Full marks: 100 (Internal Assessment-20 + End Term-80)**

**Course Title: Environmental Economics**

**Total Credit Assigned: 6**

**Distribution of Credit: 5 Lecture + 1 Tutorial**

**Course Description:**

This course aims to focus on economic causes of environmental problems; in particular, how economic principles are applied to environmental questions and their management through various economic institutions, economic incentives and other instruments and policies. It also aims to address Economic implications of environmental policy as well as valuation of environmental quality, quantification of environmental damages, tools for evaluation of environmental projects such as cost-benefit analysis and environmental impact assessments.

<b>Units</b>		<b>No of Lecture Hours</b>	<b>No of Tutorial Hours</b>	<b>Marks</b>
<b>1.</b>	<b>Introduction:</b> Basic Concepts: Ecology, Environment and Economy; what is environmental economics: Definition and evolution of the subject; Environmental economics and Resource economics; The economy and the environment: Inter-linkages; Environment and Development trade off: Environmental Kuznet curve; Review of microeconomics and welfare economics: Pareto optimality, Public good and Private good, Common property resources, Private and Social cost, Public Good and Bad	15	3	16
<b>2.</b>	<b>The Theory of Externalities:</b> Externality: Meaning and types; Pareto optimality and market failure in the presence of externalities; solution to market failure: property rights and the Coase theorem.	15	3	16
<b>3.</b>	<b>The Design and Implementation of Environmental Policy and Sustainable Development:</b> Environmental Policies: Overview; Economic instruments of environmental policies: Pigouvian taxes and effluent fees, tradable permits, liability rules. Sustainable Development: Concept; Notions of Sustainability: Strong and Weak sustainability, Measurement and indicators of sustainability: The Pearce–Atkinson indicator.	15	3	16
<b>4.</b>	<b>International Environmental Problems:</b> Trans-boundary environmental problems as problems of international externalities: Global warming, Ozone layer depletion; economics of climate change; trade and environment; Pollution Haven Hypothesis; Global intervention for sustainable development	15	3	16
<b>5.</b>	<b>Measuring the Benefits of Environmental Improvements:</b> Non-Market values: Types and definitions of non-market values; measurement or valuation methods: Contingent valuation and Travel cost methods; their comparative advantages and disadvantages	15	3	16
<b>Total</b>		<b>75</b>	<b>15</b>	<b>80</b>

### **Recommended Readings:**

- Bhattacharyya R, *Environmental Economics*, Oxford University Press
- Cropper, M.L., and Oates, W.E, 1992, —Environmental Economics: A Survey *Journal of Economic Literature*, Volume 30:675-740.
- Hanley, N., Shogren, J.F. and White, B., *Environmental Economics in Theory and Practice*, Macmillan India Ltd.
- Kolstad, C., *Intermediate Environmental Economics*, Oxford University Press, 2<sup>nd</sup> edition, 2010.
- Perman R, Ma, Y., McGilvray, J. and Common, M., *Natural Resource and Environmental Economics*, Pearson Education/Addison Wesley, 3rd edition, 2003.
- Stavins, R.N., (ed.), *Economics of the Environment: Selected Readings*, W.W. Norton, 5th edition, 2005.

**Course Code: ECNHDSE603**

**Nature of the Course: Discipline Specific Elective**

**Full marks: 100 (Internal Assessment-20 + End Term-80)**

**Course Title: International Economics**

**Total Credit Assigned: 6**

**Distribution of Credit: 5 Lecture + 1 Tutorial**

**Course Description:**

This course develops a systematic exposition of models that try to explain the composition, direction, and consequences of international trade, and the determinants and effects of trade policy. It then builds on the models of open economy macroeconomics, 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. Although the course is based on abstract theoretical models, students will also be exposed to real-world examples and case studies.

<b>Units</b>		<b>No. of Lecture hours</b>	<b>No. of Tutorial hours</b>	<b>Marks</b>
<b>1</b>	<b>International Economics and Trade Theories:</b> The subject matter of international economics; Adam Smith's absolute advantage theory, Ricardian law of comparative advantage; Reciprocal demand and Offer curve analysis; Heckscher-Ohlin theorem; The Specific factors model.	15	3	16
<b>2</b>	<b>International capital flows:</b> International capital flows – significance and limitations of foreign capital; Foreign portfolio investment; Foreign direct investment, factors affecting direct investment, effects of direct investment; Firms in the global economy — outsourcing and multinational enterprises.	15	3	16
<b>3</b>	<b>Trade Policy:</b> Free trade Vs. protective trade; Political economy of protectionism; Methods of protection - Tariff and non-tariff barriers; Inward looking trade policy and outward looking trade policy and their evaluation.	15	3	16
<b>4</b>	<b>Exchange Rate:</b> Concept of exchange rate, cross exchange rate, spot and forward exchange rates; Demand for and Supply of foreign exchange, Determination of equilibrium Exchange Rate; Fixed and flexible exchange rate systems – Case for and against fixed and flexible exchange rate systems.	15	3	16
<b>5</b>	<b>International Monetary System:</b> Gold Standard, Inter-war period, Bretton Woods System, Managed floating standard; International Institutions: International Monetary Fund (IMF) - Objectives, functions, achievements and failures; WTO – Objectives, major agreements; Globalization – Meaning and essential conditions for globalization; Challenges of globalization, Financial globalization and financial crises.	15	3	16
<b>Total</b>		<b>75</b>	<b>15</b>	<b>80</b>

**Reading List:**

1. Paul Krugman, Maurice Obstfeld, and Marc Melitz, *International Economics: Theory and Policy*, Addison-Wesley (Pearson Education Indian Edition), 9th edition, 2012.
2. Dominick Salvatore, *International Economics: Trade and Finance*, John Wiley International Student Edition, 10th edition, 2011..
3. K.C. Rana and K.N. Verma: *International Economics*, Vishal Publishing Co.
4. Sodersten, Bo: *International Economics*, Macmillan Press Ltd.
5. Cherunillam, F.: *International Economics*, Tata Mcgraw Hill.
6. Manur, H.G.: *International Economics*, Vikas Publishing House Pvt. Ltd.
7. Vaish, M.C. & Singh, S.: *International Economics*, Oxford & IBH Publishing Co. Pvt.

**Course Code: ECNHDSE604**

**Nature of the Course: Discipline Specific Elective**

**Full marks: 100 (Internal Assessment-20 + End Term-80)**

**Course Title: The Economy of North-East India**

**Total Credit Assigned: 6**

**Distribution of Credit: 5 Lecture + 1 Tutorial**

**Course Description:**

The objective of this course is to acquaint the learners with the characteristics as well as with the current issues of the economy of North-East India. The learners will also be able to know the performance and problems of the primary, secondary and tertiary sectors of North-East India.

<b>Units</b>		<b>No of Lecture Hours</b>	<b>No of Tutorial Hours</b>	<b>Marks</b>
<b>1.</b>	<b>Economic Characteristics of North East India:</b> Resources of the Region– Mineral, Forest and Water resources, Human resources – Trends in population growth, Composition of population, Distribution of the population, Population density, Migration of population, Urbanisation, Occupational distribution.	<b>15</b>	<b>3</b>	<b>16</b>
<b>2.</b>	<b>Agriculture:</b> Trends and Pattern of Production – Land use, Agricultural holdings and Cropping pattern, Food production and Food security, Horticulture, Sericulture, Jhum Cultivation, Modernisation of agriculture, Sustainable agriculture.	<b>15</b>	<b>3</b>	<b>16</b>
<b>3.</b>	<b>Industry:</b> Problems and prospects of Industrial development of NE region, Organised Industries - Role of Tea, Oil and Coal industries; Micro, small and medium industries, Food Processing, Handloom and handicrafts; Tourism.	<b>15</b>	<b>3</b>	<b>16</b>
<b>4.</b>	<b>Infrastructure:</b> Economic Infrastructure of the region – Roadways, Railways, Waterways, Airways; Communication; Energy Sector; Financial Institutions; The Role of North Eastern Council; Social Infrastructures- Education and Health.	<b>15</b>	<b>3</b>	<b>16</b>
<b>5.</b>	<b>Developmental issues of the Region:</b> Human Resource Development – Poverty and Unemployment; Flood and erosion problem, Problems of Agricultural labourers – disguised unemployment; Border Area Development. Act East policy	<b>15</b>	<b>3</b>	<b>16</b>
<b>Total</b>		<b>75</b>	<b>15</b>	<b>80</b>



**Reading List:**

1. B. Dutta Roy; *Social and Economic Profile of N.E. India*, Omsons, New Delhi
2. NEC: (a) Basic Statistics of N.E. Region, 1980-85  
(b) Towards Regional Development: Plans and Perspective
3. NCEAR: Techno Economic Surveys of Assam, Arunachal Pradesh, Manipur and Nagaland
4. P. Nayak, *Growth and Human Development in Northeast India*, OUP
5. North Eastern Region Vision 2020, NEC, Ministry of Development of North Eastern Region
6. NEDFi, Databank
7. Bordoloi and Neog, *Economy of the North-East*, LBS Publication
8. P.K. Dhar, *The Economy of Assam Including Economy of North-East India*, Kalyani Publisher.
9. NEC data bank

**Course Code: ECNHDSE605**

**Nature of the Course: Discipline Specific Elective**

**Full marks: 100 (Internal Assessment-20 + End Term-80)**

**Course Title: History of Economic Thought**

**Total Credit Assigned: 6**

**Distribution of Credit: 5 Lecture + 1 Tutorial**

### **Course Description**

The objective of this course is to acquaint the learners with the historical developments in the economic thoughts propounded by different schools.

<b>Units</b>		<b>No of Lecture Hours</b>	<b>No of Tutorial Hours</b>	<b>Marks</b>
<b>1.</b>	<b>Pre-Classical and Classical Economic Thought:</b> Basic tenets of Mercantilism and Physiocracy: Contributions of Adam Smith, David Ricardo, T.R. Malthus, J.B. Say, J.S. Mill's Restatement of Classicism.	<b>15</b>	<b>3</b>	<b>16</b>
<b>2.</b>	<b>Reaction against Classicism:</b> Positive and Critical ideas of the Historical School; State Socialism – Ideas of J.K. Rodbertus and F. Lassalle; Scientific Socialism- Chief, tenets of Marxian Thought, Dialectical Materialism, The Labour Theory of Value, Theory of Surplus Value, The Law of Concentration of Capital; Marx and Modern Economists.	<b>15</b>	<b>3</b>	<b>16</b>
<b>3.</b>	<b>The Reconstruction of Economic Science:</b> Subjectivism and Marginalism – Factors giving rise to Subjectivism and Marginalism, Economic ideas of Walras and Carl Menger; Neo-Classicism – Contributions of Alfred Marshall, Knut Wicksell and Bohm Bawerk.	<b>15</b>	<b>3</b>	<b>16</b>
<b>4.</b>	<b>Keynesian Economic Thought:</b> Keynes' Departure from Classical Economics, Salient Features of the General Theory of Employment, Interest and Money, Theory of Employment, Theory of Prices, Keynes and International Economics, Keynes' Influence on Public Policy, Keynesian Economics and Underdeveloped Countries; Keynesianism Vs. Monetarism.	<b>15</b>	<b>3</b>	<b>16</b>
<b>5.</b>	<b>Indian Economic Thought:</b> Development of Indian Economic Thought; Economic ideas of Kautilya, D. Naoroji, M. Gandhi, D.R. Gadgil, Gyan Chand.	<b>15</b>	<b>3</b>	<b>16</b>
<b>Total</b>		<b>75</b>	<b>15</b>	<b>80</b>

**Reading list:**

1. Charles Gide and Charles Rist: *A History of Economic Doctrines*, Oxford University Press.
2. Lewis H. Haney: *History of Economic Thought*, Surjeet Publications.
3. T.N. Hajela: *History of Economic Thought*, Konark Publishers Pvt. Ltd.
4. H.L. Bhatia: *History of Economic Thought*, Vikash Publications.
5. P.S. Loknathan: *History of Economic Thought*, Kalyani Publishers.
6. R.R. Paul: *History of Economic Thought*, Kalyani Publishers.
7. Ghosh and Ghosh: *History of Economic Thought*, Himalaya Publishing House.
8. Ernesto Scarpanti and Stefano Zamagni: *An Outline of the History of Economic Thought*, Oxford University Press.

**Course Code: ECNGE1**  
**Nature of the Course: Generic Elective**  
**Full marks: 100 (Internal Assessment-20 + End Term-80)**

**Course Title: Introductory Microeconomics**  
**Total Credit Assigned: 6**  
**Distribution of Credit: 5 Lecture + 1 Tutorial**

**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.

Units		No of Lecture hours	No of Tutorial hours	Marks
<b>1</b>	<b>Exploring the subject matter of Economics:</b> Why study economics? Scope and method of economics; Scarcity and choice; Types of Microeconomic Analysis, Goals of Microeconomics- Growth and Efficiency; The economic problems: the question of what to produce, how to produce and how to distribute output; Economic models: Verification and general features of economic models ; the basic competitive model - prices, property rights and profits; incentives and information; rationing; opportunity sets; economic systems- Command, Free Market and Mixed; reading and working with graphs.	15	3	16
<b>2</b>	<b>Supply and Demand: How Markets Work, Markets and Welfare:</b> Markets and competition; determinants of individual demand/supply; demand/supply schedule and demand/supply curve; market versus individual demand/supply; shifts in the demand/supply curve, demand and supply together; how prices allocate resources; elasticity and its application; controls on prices; taxes and the costs of taxation; consumer surplus; producer surplus and the efficiency of the markets.	15	3	16
<b>3</b>	<b>The Household Behaviour and Consumer's Choice:</b> The consumption decision - budget constraint, consumption and income/price changes, demand for all other goods and price changes; description of preferences (representing preferences with indifference curves); properties of indifference curves; consumer's optimum choice; income and substitution effects; labour supply and savings decision - choice between leisure and consumption.	15	3	16
<b>4</b>	<b>The Firm and Perfect Market Structure</b> Behaviour of profit maximizing firms and the production process; short run costs and output decisions- Basic concepts, relationships, output decisions: revenues, costs and profit maximization; costs and output in the long run- short run	15	3	16

	conditions and long run directions, Long run costs: economies and diseconomies of scale, long run adjustments to short run conditions.			
<b>5</b>	<b>Input Markets</b> Labour and land markets - basic concepts (derived demand, productivity of an input, marginal productivity of labour, marginal revenue product); demand for labour; input demand curves; shifts in input demand curves; competitive labour markets; and labour markets and public policy.	15	3	16
<b>Total</b>		<b>75</b>	<b>15</b>	<b>80</b>

**Reading List:**

1. Karl E. Case and Ray C. Fair, Principles of Economics, Pearson Education Inc., 8th Edition, 2007.
2. N. Gregory Mankiw, Economics: Principles and Applications, India edition by South Western, a part of Cengage Learning, Cengage Learning India Private Limited, 4th edition, 2007.
3. Joseph E. Stiglitz and Carl E. Walsh, Economics, W.W. Norton & Company, Inc., New York, International Student Edition, 4th Edition, 2007.
4. G.S. Maddala and Ellen Miller, Microeconomics: Theory and Applications, Mc Graw Hill Education, Tenth Reprint, 2013, New Delhi Edition.
5. R. S. Pindyck, D. N. Rubinfeld and P. L. Meheta (2009): Microeconomics, 7th Edition, Pearson, New Delhi.

**Course Code: ECNGE2**  
**Nature of the Course: Generic Elective**  
**Full marks: 100 (Internal Assessment-20 + End Term-80)**

**Course Title: Introductory Macroeconomics**  
**Total Credit Assigned: 6**  
**Distribution of Credit: 5 Lecture + 1 Tutorial**

**Course Description**

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

Units		No. of Lecture hours	No. of Tutorial hours	Marks
<b>1</b>	<b>Introduction to Macroeconomics</b> Macro vs. Micro Economics; Scope and limitations of Macroeconomics; Introduction to National Income - Concepts of GDP, GNP, NDP and NNP at market price and factor cost; Personal Income and Disposable personal Income; Real versus Nominal GDP, GDP Deflator. GDP and Welfare; Limitation of the GDP concept as a measure of welfare.	15	3	16
<b>2</b>	<b>Rules and approaches of Measurement of GDP</b> Income, expenditure, product and Value added approaches, Difficulties of Estimating National Income, Circular Flow of Income and expenditure in two and four-sector economy; national income accounting for an open economy.	15	3	16
<b>3</b>	<b>Demand for and Supply of Money</b> Definition and Functions of money; quantity theory of money – cash transactions and cash balance approaches, Friedman’s restatement of the quantity theory; Demand for Money – Classical, Neoclassical and Keynesian Approaches, The Keynesian Liquidity Trap and its Implications; Determination of money supply; credit creation; monetary policy – meaning, objectives and tools.	15	3	16
<b>4</b>	<b>Inflation</b> Meaning, types, causes and effects; demand-pull and cost-push inflation; Inflationary gap; Deflation – meaning, effects; Inflation Vs. deflation; Hyperinflation – causes of hyperinflation, costs of hyperinflation; Anti-Inflationary Measures - Monetary policy and Fiscal policy.	15	3	16

<b>5</b>	<b>Theory of Income Determination</b> Say's Law, Theory of Determination of Income and Employment; Keynesian systems- Simple Keynesian model of income determination; Aggregate Demand and Aggregate Supply, equilibrium aggregate output; Product market and the IS curve, Money Market and the LM curve, Determination of Equilibrium income and interest rate: the IS-LM model; fiscal and monetary multipliers.	15	3	16
<b>Total</b>		<b>75</b>	<b>15</b>	<b>80</b>

**Reading List:**

1. Dornbusch, Fischer and Startz, *Macroeconomics*, McGraw Hill, 11th edition, 2010.
2. N. Gregory Mankiw. *Macroeconomics*, Worth Publishers, 7th edition, 2010.
3. Olivier Blanchard, *Macroeconomics*, Pearson Education, Inc., 5th edition, 2009.
4. Richard T. Froyen, *Macroeconomics*, Pearson Education Asia, 2nd edition, 2005.
5. Andrew B. Abel and Ben S. Bernanke, *Macroeconomics*, Pearson Education, Inc., 7th edition, 2011.
6. Errol D'Souza, *Macroeconomics*, Pearson Education, 2009.
7. Paul R. Krugman, Maurice Obstfeld and Marc Melitz, *International Economics*, Pearson Education Asia, 9th edition, 2012.

**Course Code: ECNGE3.1**

**Nature of the Course: Generic Elective**

**Full marks: 100 (Internal Assessment-20 + End Term-80)**

**Course Title: Indian Economy I**

**Total Credit Assigned: 6**

**Distribution of Credit: 5 Lecture + 1 Tutorial**

### **Course Description**

Using appropriate analytical frameworks, this course reviews major trends in economic indicators in India in the post-Independence period, with particular emphasis on paradigm shifts and turning points. Emphasis needs to be given in capturing the emerging issues.

<b>Units</b>		<b>No of Lecture Hours</b>	<b>No of Tutorial Hours</b>	<b>Marks</b>
<b>1.</b>	<b>Economic Development since Independence</b> Indian Economy on the eve of independence- An overview; Alternative development strategies since independence- goal of self-reliance based on import substitution and protection, the post-1991 globalization strategies based on stabilization and structural adjustment packages; An assessment of performance- sustainability and regional contrasts; structural transformation of savings and investment.	20	4	20
<b>2.</b>	<b>Population and Human Development</b> Demographic features and trends- Size and growth rates of population, trends in birth and death rates, Density of population, Age and Sex Composition, Population as a factor of economic development, Demographic Dividend; National Population Policy; Human Development in India- Human Development indicators, Human Development Index, India's human development record in global perspective.	20	4	20
<b>3.</b>	<b>Growth and Distribution</b> Poverty- Concept and Incidence of Poverty in India, Poverty estimates, Growth and Poverty, Strategy of Poverty Alleviation; Inequality- Income inequality in India: Magnitude and Nature, Growth and Inequality, Causes of income inequality, Government policies and measures. Unemployment- Nature and types of unemployment in India, Magnitude, Changing dimensions of unemployment and employment, Causes of unemployment, Government policies and measures.	20	4	20
<b>4.</b>	<b>International Comparisons</b> India's economic interaction with the world economy, A comparative assessment of India's development experience with high performing Asian economies- Singapore, South Korea and Taiwan.	15	3	20
<b>Total</b>		<b>75</b>	<b>15</b>	<b>80</b>



### Reading List:

1. Jean Dreze and Amartya Sen, 2013. *An Uncertain Glory: India and its Contradictions*, Princeton University Press.
2. Pulapre Balakrishnan, 2007, The Recovery of India: Economic Growth in the Nehru Era, *Economic and Political Weekly*, November.
3. Rakesh Mohan, 2008, —Growth Record of Indian Economy: 1950-2008. A Story of Sustained Savings and Investment, *Economic and Political Weekly*, May.
4. S.L. Shetty, 2007, —India's Savings Performance since the Advent of Planning, in K.L. Krishna and A. Vaidyanathan, (ed.), *Institutions and Markets in India's Development*.
5. Himanshu, 2010, —Towards New Poverty Lines for India, *Economic and Political Weekly*, January.
6. Jean Dreze and Angus Deaton, 2009, —Food and Nutrition in India: Facts and Interpretations, *Economic and Political Weekly*, February.
7. Himanshu. 2011, —Employment Trends in India: A Re-examination, *Economic and Political Weekly*, September.
8. Rama Baru et al, 2010, —Inequities in Access to Health Services in India: Caste, Class and Region, *Economic and Political Weekly*, September.
9. Geeta G. Kingdon, 2007, —The Progress of School Education in India, *Oxford Review of Economic Policy*.
10. J.B.G. Tilak, 2007, —Post Elementary Education, Poverty and Development in India, *International Journal of Educational Development*.
11. T. Dyson, 2008, —India's Demographic Transition and its Consequences for Development in Uma Kapila, (ed.), *Indian Economy Since Independence*, 19<sup>th</sup> edition, Academic Foundation.
12. Kaushik Basu, 2009, —China and India: Idiosyncratic Paths to High Growth, *Economic and Political Weekly*, September.
13. K. James, 2008, —Glorifying Malthus: Current Debate on Demographic Dividend in India, *Economic and Political Weekly*, June.
14. Reetika Khera, 2011, —India's Public Distribution System: Utilisation and Impact *Journal of Development Studies*.
15. Aniruddha Krishna and Devendra Bajpai, 2011, —Lineal Spread and Radial Dissipation: Experiencing Growth in Rural India, 1992-2005, *Economic and Political Weekly*, September.
16. Kaushik Basu and A. Maertens, (ed.), 2013, *The Concise Oxford Companion to Economics in India*, Oxford University Press.
17. Bimal Jalan (ed), *The Indian Economy Problems and Prospects*, Penguin Books Ltd.
18. Arvind Subramanian, *India's Turn, Understanding The Economic Transformation*, Oxford University Press.
19. Kaushik Basu, (ed.) *India's Emerging Economy, Performance and Prospects in the 1990's and Beyond*, Oxford University Press.

**Course Code: ECNGE3.2**

**Nature of the Course: Generic Elective**

**Full marks: 100 (Internal Assessment-20 + End Term-80)**

**Course Title: Money and Financial Markets**

**Total Credit Assigned: 6**

**Distribution of Credit: 5 Lecture + 1 Tutorial**

### Course Description

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

Units		No of Lecture Hours	No of Tutorial Hours	Marks
1.	<b>Money:</b> Concept, functions, measurement; theories of money supply determination- RBI approach to money supply; High powered money and money multiplier.	15	3	15
2.	<b>Financial Institutions, Markets, Instruments and Financial Innovations:</b> Role of financial markets and institutions; Structure of money market and capital market —Call money market. Treasury bill market, Commercial bill market including commercial paper and certificate of deposits, Government securities market, Primary and secondary market for securities. Financial sector Reforms in India, Role of Financial Derivatives Financial Institutions: Types; Banking and Non Banking Financial Institutions.	20	4	20
3.	<b>Stock Market</b> Stock Market and its Operations; Stock Market Index, Methodologies for Calculating Stock Market Index, Stock Market indices in India, BSE Sensex, NSE Nifty.	10	2	10
4.	<b>Interest Rates</b> Determination; sources of interest rate differentials ;theories of term structure of interest rates; interest rates in India.	15	3	20
5.	<b>Banking System:</b> Meaning and types; Functions of commercial banks; the process of credit creation and its limitations; Balance sheet and portfolio management, banking sector reforms <b>Central Banking and Monetary Policy:</b> Central Banking: Function of the Central Bank, Monetary policy: objectives, indicators and instruments of monetary control. Monetary management in an open economy, current monetary policy of India	15	3	15
<b>Total</b>		<b>75</b>	<b>15</b>	<b>80</b>

**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. 32
5. L. M. Bhole and J. Mahukud, *Financial Institutions and Markets*, Tata McGraw Hill, 5th edition, 2011.
6. M. Y. Khan, *Indian Financial System*, Tata McGraw Hill, 7th edition, 2011.
7. N. Jadhav, *Monetary Policy, Financial Stability and Central Banking in India*, Macmillan, 2006.
8. R.B.I. – *Report of the Working Group: Money Supply Analytics and Methodology of Compilation*, 1998.
9. R.B.I. Bulletin, Annual Report and Report on Currency and Finance (latest).
10. Suraj B. Gupta : *Monetary Economics*, S. Chand and Company Ltd.
11. Bharati V. Pathak, *The Indian Financial System :Markets, Institutions and Services*, Pearson Education India

**Course Code: ECNGE3.3**  
**Nature of the Course: Generic Elective**  
**Full marks: 100 (Internal Assessment-20 + End Term-80)**

**Course Title: Environmental Economics**  
**Total Credit Assigned: 6**  
**Distribution of Credit: 5 Lecture + 1 Tutorial**

**Course Description**

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

Units		No of Lecture Hours	No of Tutorial Hours	Marks
1.	<p><b>Introduction:</b>            Environment and Economy: The economy and the environment: inter-linkages; Key environmental issues and problems : Air, water, soil and noise pollution, deforestation, desertification and acid rain, economic way of thinking about these problems; basic concepts from economics: Meaning and types of externalities, Pareto optimality, market failure; Pareto optimality and market failure in the presence of externalities; solution to market failure: Pigouvian tax, property rights and the Coase theorem.</p>	20	4	20
2.	<p><b>The Design and Implementation of Environmental Policy:</b>            Overview; Economic instruments of environmental policies: Pigouvian taxes and effluent fees; tradable permits; implementation of environmental policies in India: joint forest management, watershed management; international experience and transboundary environmental problems: Global warming, ozone depletion; Global Treaties, the Montreal Protocol; economics of climate change.</p>	20	4	20

<b>3.</b>	<b>Environmental Valuation Methods and Applications:</b> Non-Market values: Types and definitions of non-market values; measurement or valuation methods: Contingent valuation and Travel cost methods; their comparative advantages and disadvantages	20	4	20
<b>4.</b>	<b>Sustainable Development:</b> Concepts; Notions of Sustainability: Strong and Weak sustainability, measurement and indicators of sustainability: The Pearce–Atkinson indicator.	15	3	20
<b>Total</b>		<b>75</b>	<b>15</b>	<b>80</b>

### Readings

1. Roger Perman, Yue Ma, Michael Common, David Maddison and James McGilvray, “*Natural Resource and Environmental Economics*”, Pearson Education/Addison Wesley, 4th edition, 2011.
2. Charles Kolstad, “*Intermediate Environmental Economics*”, Oxford University Press, 2<sup>nd</sup> edition, 2010.
3. Robert N. Stavins (ed.), “*Economics of the Environment: Selected Readings*”, W.W. Norton, 6th edition, 2012.
4. Robert Solow, “An Almost Practical Step toward Sustainability,” Resources for the Future 40th anniversary lecture, 1992.
5. Kenneth Arrow et al. , “Are We Consuming Too Much?” *Journal of Economic Perspectives*, 18(3): 147-172, 2004.
6. IPCC (Intergovernmental Panel on Climate Change), Fifth Assessment Report.
7. Bhattacharyya R, *Environmental Economics*, Oxford University Press
8. Nick Hanley, Jason F. Shogren and Ben White, *Environmental Economics in Theory and Practice*, Macmillan India Ltd.

**Course Code: ECNGE4.1**

**Nature of the Course: Generic Elective**

**Full marks: 100 (Internal Assessment-20 + End Term-80)**

**Course Title: Indian Economy-II**

**Total Credit Assigned: 6**

**Distribution of Credit: 5 Lecture + 1 Tutorial**

### Course Description

This course examines sector-specific policies and their impact in shaping trends in key economic indicators in India. Emphasis needs to be given in capturing the emerging issues.

Units		No of Lecture Hours	No of Tutorial Hours	Marks
<b>1</b>	<b>Macroeconomic Policies and Their Impact</b> Fiscal reform measures in the context of India's New Economic Policy, Fiscal Responsibility and Budget Management (FRBM) Act.  Monetary Reforms and its impact. Black money and Parallel economy in India- consequences and corrective government intervention.  Trade Policy- Export Import Policy, Foreign Trade Policy; Current and Capital Account Convertibility	20	4	20
<b>2</b>	<b>Policies and Performance in Agriculture</b> Changing structure of Indian Agriculture, Growth and productivity of Agriculture, Sustainable agriculture- concept and constraints, Diversification of Agriculture, Capital formation, Role of technology; Green revolution; Institutions- land reforms, rural credit, agricultural marketing, price policy; WTO and Agriculture.	20	4	20
<b>3</b>	<b>Policies and Performance in Industry</b> Pattern of Industrialization, Industrial growth and productivity in the post reform period, Diversification of industries, Public Sector reforms, Disinvestment and Privatization, MSME Sector, Industrial Policy reforms, Foreign Investment in the Industrial sector.	20	4	20
<b>4</b>	<b>Trends and Performance in Services</b> Role of the service sector in the Indian Economy, Growth in and composition of the service sector; Composition and direction of foreign trade, Trend in merchandise trade and invisibles, Balance of payments position- Pre and Post Reform period, Trade in services and WTO.	15	3	20
<b>Total</b>		<b>75</b>	<b>15</b>	<b>80</b>

**Reading List:**

1. Shankar Acharya, 2010, —Macroeconomic Performance and Policies 2000-8, in Shankar Acharya and Rakesh Mohan, (ed.), *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, (ed.), *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, (ed.), *The Rise of Asia*, Routledge.
5. J. Dennis Rajakumar, 2011, —Size and Growth of Private Corporate Sector in Indian Manufacturing, *Economic and Political Weekly*, April.
6. Ramesh Chand, 2010, Understanding the Nature and Causes of Food Inflation, *Economic and Political Weekly*, February.
7. Bishwanath Goldar, 2011, Organised Manufacturing Employment: Continuing the Debate, *Economic and Political Weekly*, April.
8. Kaushik Basu and A. Maertens, (ed.), 2013. *The New Oxford Companion to Economics in India*, Oxford University Press.
9. Bimal Jalan (ed), *The Indian Economy, Problems and Prospects*, Penguin Books Ltd.
10. Arvind Subramanian, *India's Turn, Understanding The Economic Transformation*, Oxford University Press.
11. Kaushik Basu, (ed.), *India's Emerging Economy, Performance and Prospects in the 1990's and Beyond*, Oxford University Press.

**Course Code: ECNGE4.2**

**Nature of the Course: Generic Elective**

**Full marks: 100 (Internal Assessment-20 + End Term-80)**

**Course Title: Economic History of India (1857-1947)**

**Total Credit Assigned: 6**

**Distribution of Credit: 5 Lecture + 1 Tutorial**

### **Course Description**

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

<b>Units</b>		<b>No of Lecture Hours</b>	<b>No of Tutorial Hours</b>	<b>Marks</b>
<b>1.</b>	<b>Introduction: Colonial India: Background and Introduction</b> An Overview of economic structure and policies of pre-independence era, the laws of inheritance; socio-cultural attitudes and India's economic backwardness; drain theory; economic ideas of Ranade and Gandhi	10		10
<b>2.</b>	<b>Macro Trends</b> National Income – trend and composition; Population – growth, age structure and sex composition; Changing occupational structure; urbanisation; Poverty.	10	3	15
<b>3.</b>	<b>Agriculture</b> Agrarian structure and land relations; agricultural markets and institutions – credit and irrigation; Land systems; Commercialization of agriculture- its causes and consequences; trends in performance and productivity; problem of rural indebtedness; Emergence of agricultural labour as category; famines; Evolution of the Food Problem and policies; Partition and its impact on agriculture.	15	3	15
<b>4.</b>	<b>Industrial development and the Transportation sector:</b> The state of industrial development in mid-nineteenth century India, the de-industrialization thesis –its statement and validity, emergence of modern capitalist industrial enterprise in India; nature of industrialisation in the interwar period; constraints to industrial breakthrough; labour relations and evolution of labour legislations and organisations; Partition and its impact on industrial sector. Transportation development and its impact – Railways, roads, shipping.	20	5	20
<b>5</b>	<b>Economy and State in the Imperial Context</b> The imperial priorities and the Indian economy - 'guided under-development' of India under the British rule; Foreign capital in Colonial India – its extent and impact; foreign trade-growth and composition; evolution of provincial finance, the nature and problem of public debt; Economic drain from India -form, extent and consequences; government and fiscal policy.	20	4	20
<b>Total</b>		<b>75</b>	<b>15</b>	<b>80</b>



### Reading List:

5. Lakshmi Subramanian, “*History of India 1707-1857*”, Orient Blackswan, 2010, Chapter 4.
6. Sumit Guha, 1991, Mortality decline in early 20th century India’, *Indian Economic and Social History Review (IESHR)*, pp 371-74 and 385-87.
7. Tirthankar Roy, *The Economic History of India 1857-1947*, Oxford University Press, 3rd edition, 2011.
18. J. Krishnamurthy, *Occupational Structure*, Dharma Kumar (editor), The Cambridge
8. Economic History of India, Vol. II, (henceforth referred to as CEHI), 2005, Chapter 6.
19. Irfan Habib, *Indian Economy 1858-1914*, A People’s History of India, Vol.28, Tulika, 2006.
20. Ira Klein, 1984, —When Rains Fail: Famine relief and mortality in British India, *IESHR* 21.
21. Jean Dreze, *Famine Prevention in India in Dreze and Sen (eds.) Political Economy of Hunger*, WIDER Studies in Development Economics, 1990, pp.13-35.
22. John Hurd, *Railways*, CEHI, Chapter 8, pp.737-761.
23. Rajat Ray (ed.), *Entrepreneurship and Industry in India*, 1994.
24. AK Bagchi, —Deindustrialization in India in the nineteenth century: Some theoretical implications, *Journal of Development Studies*, 1976.
25. MD Morris, *Emergence of an Industrial Labour Force in India*, OUP 1965, Chapter 11, Summary and Conclusions.
26. K.N. Chaudhuri, *Foreign Trade and Balance of Payments*, CEHI, Chapter 10.
27. B.R. Tomlison, 1975, *India and the British Empire 1880-1935*, IESHR, Vol.XII.
28. Dharma Kumar, *The Fiscal System*, CEHI, Chapter 12.
29. Basudev Chatterjee, *Trade, Tariffs and Empire*, OUP 1992, Epilogue.
30. Kaushal G. *Economic History of India – 1757 to 1966*. Kalyani Publishers, 1991.

### Background reading for students:

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

**Course Code: ECNGE4.3**

**Nature of the Course: Generic Elective**

**Full marks: 100 (Internal Assessment-20 + End Term-80)**

**Course Title: Public Finance**

**Total Credit Assigned: 6**

**Distribution of Credit: 5 Lecture + 1 Tutorial**

### **Course Description**

This course is a non-technical overview of government finances with special reference to India. The course does not require any prior knowledge of economics. It will look into the efficiency and equity aspects of taxation of the centre, states and the local governments and the issues of fiscal federalism and decentralisation in India.

<b>Units</b>	<b>No of Lecture Hours</b>	<b>No of Tutorial Hours</b>	<b>Marks</b>
<b>1. Fiscal Functions</b> Public Finance: Meaning and Scope, Normative Approach to Public Finance- Allocation, Distribution and Stabilization function of government, Welfare Economics and Government Intervention- Pareto Efficiency, Equity vs. Efficiency, Concept of Market Failure.	15	3	16
<b>2. The theory of Public Goods</b> Public Goods- Meaning and characteristics, Public Goods and Market Failure, Pure and Impure Public Goods, The Free Rider Problem, Efficient Allocation of Public Goods- The Lindahl Equilibrium, Samuelson's theory of Public Expenditure.	15	3	16
<b>3 Externalities</b> Meaning and types of Externalities and Market Failure, Internationalization of Externalities, Corrective taxes and Subsidies, Pollution Permits, Regulation and Direct Control, Assignment of Property Rights- The Coase Theorem	15	3	16
<b>4 Incidence of Taxation and Excess Burden of Tax</b> Concept of shifting and Incidence, Forward and Backward Shifting, The Demand and supply theory of Incidence, Modern concept of Incidence; Incidence of Product taxes (Specific tax and Lump Sum Tax) under Perfect Competition and Monopoly, Incidence of Factor taxes under Perfect Competition and Monopoly; Excess Burden of Tax: Meaning and Types	15	3	16
<b>5 Issues from Indian Public Finance</b> Working of Monetary and Fiscal Policies, Current Issues of India's Tax System, Analysis of Budget and Deficits, Fiscal Federalism in India, State and Local Finances.	15	3	16
<b>Total</b>	<b>75</b>	<b>15</b>	<b>80</b>

**Reading list:**

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