

University of Kalyani
Syllabus for B.A./B.Sc (Honours) in Economics
Under CBCS

INTRODUCTION ABOUT UG- CBCS SYLLABUS AS PER UGC GUIDELINES MAY BE GIVEN:

A. TOTAL Number of courses in UG-CBCS (B.A./B.Sc Economics Hons.):

Types of course	Core course (CC)	Elective course		Ability enhancement course		TOTAL
		Discipline specific elective course (DSE)	Generic elective course(GE)	Ability Enhancement compulsory course (AECC)	Skill Enhancement course (SEC)	
No. of course	14	4	4	2	2	26
Credit/course	6	6	6	2	2	140

TABLE-1: DETAILS OF COURSES & CREDIT OF B.A./ B.SC ECONOMICS (HONOURS) UNDER CBCS

S. No.	Particulars of Course	
1.	Core Course: 14 Papers	Theory + Tutorial
1.A.	Core Course: Theory (14 papers)	14x5 = 70
1.B.	Core Course (Tutorial)* (14 papers)	14x1 = 14
2.	Elective Courses: (8 papers)	
2.A.	A. Discipline specific Elective(DSE)(4 papers)	4x5 = 20
2.B.	DSE (Tutorial)* (4 papers)	4x1 =4
2C.	General Elective(GE) (Interdisciplinary) (4 papers)	4x5 = 20
2.D.	GE (Tutorial)* (4 papers)	4x1 =4
A.	AECC(2 papers of 2 credits each) ENVS, English Communication/ MIL	2x2 = 4
B.	Skill Enhancement Course(SEC) (2 papers of 2 credits each)	2x2 = 4
Total Credit:		140

TABLE-2: SEMESTERWISE DISTRIBUTION OF COURSE & CREDITS IN B.A./B.SC. ECONOMICS (HONS)

Courses/ (Credits)	Sem-I	Sem-II	Sem-III	Sem-IV	Sem-V	Sem-VI	Total No. of Courses	Total credit
CC (6)	2	2	3	3	2	2	14	84
DSE (6)	--	--	--	--	2	2	04	24
GE (6)	1	1	1	1	--	--	04	24
AECC (2)	1	1			--	--	02	04

SEC (2)	--	--	1	1	--	--	02	04
Total No. of Course/ Sem.	4	4	5	5	4	4	26	--
Total Credit /Semester	20	20	26	26	24	24	-----	140

❖ **COURSE CODE & COURSE TITLE:**

❖ *Each paper of any course denoted by-(2-4 letters Subject Code--Honours/General (H/G)--Course Type(CC/GE/DSE)-(Theory/Tutorial/Practical)-Number of course. Ex.-Chemistry-CHEM-H-CC-T-1)*

A. Core courses (CC)

1. ECON—H -CC- T -01: Introductory Microeconomics
2. ECON—H -CC- T -02:Mathematical Methods for Economics – I
3. ECON-H-CC-T-03: Introductory Macroeconomics
4. ECON-H-CC-T-04: Mathematical Methods for Economics – II
5. ECON-H-CC-T-05: Intermediate Microeconomics – I
6. ECON-H-CC-T-06: Intermediate Macroeconomics – I
7. ECON-H-CC-T-07: Statistical Methods for Economics
8. ECON-H-CC-T-08: Intermediate Microeconomics – II
9. ECON-H-CC-T-09: Intermediate Macroeconomics – II
10. ECON-H-CC-T-10: Introductory Econometrics
11. ECON-H-CC-T-11: International Economics
12. ECON-H-CC-T-12: Public Economics
13. ECON-H-CC-T-13: Indian Economy
14. ECON—H-CC-T-14: Development Economics

B. Discipline specific elective courses (DSE)

1. ECON—H -DSE- T -1A: Economic Development and Policy in India - I
1. ECON—H -DSE- T -1B: Money and Banking
2. ECON-H-DSE-T-2A: Public Finance
2. ECON—H -DSE- T-2B: Environmental Economics
3. ECON-H-DSE-T-3A: Economic Development and Policy in India - II
3. ECON-H-DSE-T-3B: Economic History of India
4. ECON-H-DSE-T-4A: Dissertation
4. ECON-H-DSE-T-4B: Financial Economics

C. Generic elective courses (GE):

1. ECON—H -GE- T -01: Introductory Microeconomics
2. ECON—H -GE- T -02: Introductory Macroeconomics
3. ECON-H-GE-T-3A: Intermediate Microeconomics – I
3. ECON-H-GE-T-3B: Intermediate Macroeconomics – I
4. ECON-H-GE-T-4A: Intermediate Microeconomics – II
4. ECON-H-GE-T-4B: Intermediate Macroeconomics - II

D. Ability enhancement compulsory courses (AECC)

1. AECC-01: English / Environmental Studies (ENVS)
2. AECC-02: English / Environmental Studies (ENVS)

E. Skill enhancement courses (SEC)

1. ECON—H -SEC-T-01: Statistical Tools for Data Analysis
2. ECON—H -SEC-T-02: Computer Application for Data Analysis

TABLE-3: SEMESTER & COURSEWISE CREDIT DISTRIBUTION IN IN B.A./ B.SC ECONOMICS (Hons.)

(6 Credit: 75 Marks)

SEMESTER-I			
Course Code	Course Title	Course wise Class (L+T+P)	Credit
ECON-H-CC-T-1	Introductory Microeconomics	Core	6(5L+1T)
ECON-H-CC-T-2	Mathematical Methods for Economics-I	Core	6 (5L+1T)
ECON-H-GE-T-1	Introductory Microeconomics	GE	6 (5L+1T)
AECC-01	English/Environmental Studies	AECC	2
Total	4 courses	Total	20
SEMESTER-II			
Course Code	Course Title	Course Nature	Credit
ECON-H-CC-T-3	Introductory Macroeconomics	Core	6(5L+1T)
ECON-H-CC-T-4	Mathematical Methods for Economics – II	Core	6(5L+1T)
ECON-H-GE-T-2	Introductory Macroeconomics	GE	6(5L+1T)
AECC-02	English/Environmental Studies	AECC	2
Total	4 courses	Total	20
SEMESTER-III			
Course Code	Course Title	Course Nature	Credit
ECON-H-CC-T-5	Intermediate Microeconomics - I	Core	6(5L+1T)
ECON-H-CC-T-6	Intermediate Macroeconomics - I	Core	6(5L+1T)
ECON-H-CC-T-7	Statistical Methods for Economics	Core	6(5L+1T)
ECON-H-GE-T-3A or ECON-H-GE-T-3B	Intermediate Microeconomics – I/ Intermediate Macroeconomics - I	GE	6(5L+1T)
ECON-H-SEC-T-1	Statistical Tools for Data Analysis	SEC	2
Total	5 courses	Total	26
SEMESTER-IV			
Course Code	Course Title	Course Nature	Credit
ECON-H-CC-T-8	Intermediate Microeconomics – II	Core	6(5L+1T)
ECON-H-CC-T-9	Intermediate Macroeconomics – II	Core	6(5L+1T)
ECON-H-CC-T-10	Introductory Econometrics	Core	6(5L+1T)
ECON-H-GE-T-4A or	Intermediate Microeconomics – II/ Intermediate	GE	6(5L+1T)

ECON-H-GE-T-4B	Macroeconomics – II		
ECON-H-SEC-T-2	Computer Application for Data Analysis	SEC	2
Total	5 courses	Total	26
SEMESTER-V			
Course Code	Course Title	Course Nature	Credit
ECON-H-CC-T-11	International Economics	Core	6(5L+1T)
ECON-H-CC-T-12	Public Economics	Core	6(5L+1T)
ECON-H-DSE-T-1A or ECON-H-DSE-T-1B	Economic Development and Policy in India - I/ Money & Banking	DSE	6 (5L+1T)
ECON-H-DSE-T-2A or ECON-H-DSE-T-2B	Public Finance/ Environmental Economics	DSE	
Total	4 courses	Total	24
SEMESTER-VI			
Course Code	Course Title	Course Nature	Credit
ECON-H-CC-T-13	Indian Economy	Core	6(5L+1T)
ECON-H-CC-T-14	Development Economics	Core	6(5L+1T)
ECON-H-DSE-T-3A or ECON-H-DSE-T-3B	Economic Development and Policy in India - II / Economic History of India	DSE	6(5L+1T)
ECON-H-DSE-T-4A or ECON-H-DSE-T-4B	Dissertation/ Financial Economics	DSE	
Total	4 courses	Total	24
Total (All semesters)	26 courses	Total	140

**Detail Course & Contents of each subject specific syllabus will be given as per existing standard format as provided below.*

B.A./B.Sc.. ECONOMICS (Honours)

SEMESTER-I

Course: ECON—H-CC-T-1

Course title: Introductory Microeconomics

Core Course; Credit-6; Full Marks-75

COURSE OBJECTIVES:

After completion of the course the learners will be able to:

- Learn the basic idea of Microeconomics in particular and Economics in general.

COURSE CONTENT:

Exploring the subject matter of Economics

Why study economics? Scope and method of economics; the economic themes: scarcity and efficiency; thinking like an economist: the question of what to produce, how to produce and how to distribute output; marginal benefits and marginal costs; opportunity cost (private and social); the basic competitive model.

Supply and Demand: How Markets Work, Markets and Welfare

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

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

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

The Households

The consumption decision – budget constraint, consumption and income and price changes, demand for all other goods and price changes; description of preferences – most preferred bundle and its properties; consumers' optimum choice.

The Firm and Perfect Market Structure

Defining a firm – firm's legal forms; profit maximization hypothesis, Technology- general concept of production function; returns to factor and returns to scale, isoquants and diminishing rate of factor substitution – elasticity of substitution. short run and long run costs; cost curves in the short run and long run; relation between short run and long run costs.

SUGGESTED READINGS:

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

- Samuelson and Nordhaus, Economics, Mc-Graw Hill
- Pyndick and Rubinfeld, Microeconomic Theory
- Lypsey and Christal, An Introduction to Positive Economics

Course: ECON—H-CC-T-2
Course title: Mathematical Methods for Economics - I
Core Course; Credit-6; Full Marks-75

COURSE OBJECTIVES:

After completion of the course the learner will be able to know the preliminary mathematical techniques required for economic analysis.

COURSE CONTENT:

Preliminaries

Logic and proof techniques; sets and set operations; relations; functions and their properties; number systems. Convex sets; geometric properties of functions: convex functions; their characterizations; properties and applications; further geometric properties of functions: quasi-convex functions, their characterizations, properties and applications; limit and continuity. *(All of these are to be taught in the case of single variable only.)*

Functions of one real variable

Continuous functions of different types and their graphs – quadratic, polynomial, power, exponential, and logarithmic; Derivatives of first and second order and their properties; convex, concave and linear function. Application in economics – concept of marginal.

Single variable optimization

Local and global optima; Geometric characterizations; characterizations using calculus; Applications in Economics – profit maximization and cost minimization.

Integration of functions

Integration of different types of functions; Methods of substitution and by parts; Applications in Economics – obtaining total from marginal.

Difference Equations

Finite difference; Equations of first and second orders and their solutions; Applications in Economics – Cobweb model.

SUGGESTED READINGS:

- K. Sydsaeter and P. Hammond, Mathematics for Economic Analysis; Pearson Educational Asia: Delhi, 2002.
- Alpha C. Chiang and K. Wainwright, Fundamental Methods of Mathematical Economics
- Apostol, T. M., Calculus – Volume I, One Variable Calculus, with an introduction to linear algebra, (1967), Wiley.

- K.G. Binmore, Mathematical Analysis, Cambridge University Press, 1991.

Course: ECON—H-GE-T-1
Course title: Introductory Microeconomics
Generic Elective; Credit-6; Full Marks-75

COURSE OBJECTIVES:

After completion of the course the learners will be able to:

- Learn the basic idea of Microeconomics in particular and Economics in general.

COURSE CONTENT:

Exploring the subject matter of Economics

Why study economics? Scope and method of economics; the economic themes: scarcity and efficiency; thinking like an economist: the question of what to produce, how to produce and how to distribute output; marginal benefits and marginal costs; opportunity cost (private and social); the basic competitive model; prices.

Supply and Demand: How Markets Work, Markets and Welfare

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

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

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

The Households

The consumption decision – budget constraint, consumption and income and price changes, demand for all other goods and price changes; description of preferences – most preferred bundle and its properties; consumers' optimum choice.

The Firm and Perfect Market Structure

Defining a firm – firm's legal forms; profit maximization hypothesis, Technology- general concept of production function; returns to factor and returns to scale, isoquants and diminishing rate of factor substitution – elasticity of substitution. Short run and long run costs; cost curves in the short run and long run; relation between short run and long run costs.

SUGGESTED READINGS:

- Karl E. Case and Ray C. Fair, Principles of Economics, Pearson Education Inc., 8th Edition, 2007.
- N. Gregory Mankiw, Economics: Principles and Applications, Indian edition by South Western, a part of Cengage Learning, Cengage Learning India Private Limited, 4th Edition, 2007
- Joseph E. Stiglitz and Carl E. Walsh, Economics, W.W. Norton and Company Inc., New York, International Student Edition, 4th Edition, 2007.
- Samuelson and Nordhaus, Economics, Mc-Graw Hill
- Pyndyck and Rubinfeld, Microeconomic Theory.
- Lypsey and Chrystal, An Introduction to Positive Economics

Course: ECON—H-AECC-T-1

Course title: English/ENVS

Ability Enhancement Compulsory Course; Credit-2; Full Marks-50

SEMESTER II

Course: ECON-H-CC-T-03

Course Title: Introductory Macroeconomics

Core Course; Credit – 6; Full Marks – 75

COURSE OBJECTIVES:

After the completion of the course the learner will be able to be equipped with the knowledge of basic functioning of a market economy at the macro level including understanding of national income accounting.

COURSE CONTENT:

National Income Accounting, unemployment and open economy issues

What is Macroeconomics? Circular flow of income, closed and open economy .Macroeconomic data- National Income accounting and cost of living; Concept of Growth- role of savings, investment,; Open Economy-; Concept of unemployment- Types and their characteristics.

Income Determination in the short-run

Simple Keynesian System: Multipliers; equilibrium in both closed and open economy and stability; autonomous expenditure, balanced budget, and net exports; paradox of thrift.

IS-LM Model – concept of equilibrium,

Money and Inflation

Monetary system- definition and functions of money and determinants of money supply; inflation and its costs.

SUGGESTED READINGS:

- Dornbusch, Fischer and Startz, Macroeconomics, McGraw Hill, 11th Edition, 2010
- N. Gregory Mankiw, Principles of Macroeconomics, Indian imprint of South Western by Cengage India, 6th Edition, 2015
- Richard T. Froyen, Macroeconomics, Pearson Education Asia, 2nd Edition, 2005
- Andrew B. Abel and Ben S. Bernanke, Macroeconomics, Pearson Education Inc., 7th Edition, 2011
- J. R. Hicks, The Social Framework: An Introduction to Economics, Clarendon Press, 3rd Edition, 1960
- Soumyen Sikdar, Principles of Macroeconomics, Oxford University Press.
- Branson, Macroeconomic Theory

Course: ECON-H-CC-T-4

Course Title: Mathematical Methods for Economics – II
Core Course; Credit – 6; Full Marks – 75

COURSE OBJECTIVES:

After completion of the course the learner will be able to make economic analysis using mathematics. This is a sequel to the course Mathematical Methods for Economics – I.

COURSE CONTENT:

Matrix Algebra

Matrix: its elementary operations; different types of matrix; Rank of a matrix; Determinants and inverse of a square matrix; solution of system of linear equations; Input Output System.

Functions of Several Variables

Continuous and differentiable functions: partial derivatives and Hessian matrix. Homogeneous and homothetic functions. Euler's theorem, implicit function theorem and its application to comparative statics problems. Economic applications- theories of consumer behaviour and theory of production.

Multi-variable optimization

Optimization of nonlinear functions: Convex, concave, and quasi-concave functions; Unconstrained optimization; Constrained optimization with equality constraints- Lagrangian multiplier method;; Economic applications – consumer behaviour and theory of production.

Optimization of linear function: Linear programming; concept of slack and surplus variables (graphical solution only).

Differential Equations

Solution of Differential equations of first order and second order; Economic application-price dynamics in a single market- multimarket supply demand model with two independent markets. Qualitative graphic solution to 2x2 linear simultaneous differential equation system- phase diagram, fixed point and stability (just concepts).

SUGGESTED READINGS:

- K. Sydsaeter and P. Hammond, Mathematics for Economic Analysis; Pearson Educational Asia: Delhi, 2002.
- Lawrence Blume and Carl Simon, Mathematics for Economists, W.W. Norton and Company, 1994
- Alpha Chiang and Kevin Wainwright, Fundamental Methods of Mathematical Economics, 4th Edition, McGraw Hill, 2005

Course: ECON-H-GE-T-02
Course Title: Introductory Macroeconomics
Generic Elective; Credit – 6; Full Marks – 75

COURSE OBJECTIVES:

After the completion of the course the learner will be able to be equipped with the knowledge of basic functioning of a market economy at the macro level including understanding of national income accounting.

COURSE CONTENT:

National Income Accounting, unemployment and open economy issues

What is Macroeconomics? Circular flow of income, closed and open economy .Macroeconomic data- National Income accounting and cost of living; Concept of Growth- role of savings, investment,; Open Economy-; Concept of unemployment- Types and their characteristics.

Income Determination in the short-run

Simple Keynesian System: Multipliers; equilibrium in both closed and open economy and stability; autonomous expenditure, balanced budget, and net exports; paradox of thrift.

IS-LM Model – concept of equilibrium,

Money and Inflation

Monetary system- definition and functions of money and determinants of money supply; inflation and its costs.

SUGGESTED READINGS:

- Dornbusch, Fischer and Startz, Macroeconomics, McGraw Hill, 11th Edition, 2010
- N. Gregory Mankiw, Principles of Macroeconomics, Indian imprint of South Western by Cengage India, 6th Edition, 2015
- Richard T. Froyen, Macroeconomics, Pearson Education Asia, 2nd Edition, 2005

- Andrew B. Abel and Ben S. Bernanke, Macroeconomics, Pearson Education Inc., 7th Edition, 2011
- J. R. Hicks, The Social Framework: An Introduction to Economics, Clarendon Press, 3rd Edition, 1960
- Branson, Macroeconomic Theory.

Course: ECON—H-AECC-T-2
Course title: English/ENVS
Ability Enhancement Compulsory Course; Credit-2; Full Marks-50

SEMESTER III

Course: ECON-H-CC-T-5
Course Title: Intermediate Microeconomics – I
Core Course; Credit – 6; Full Marks – 75

COURSE OBJECTIVES:

After completion of the course the learner will be able to understand the fundamentals of microeconomic theories in the context of a market economy.

COURSE CONTENT:

Consumer Theory

Cardinal utility; Preference; ordering and properties of ordinal utility; existence of utility functions, different utility functions and their properties, compensating and equivalent variation, Slutsky equation; consumption-leisure choice and labour supply; choice under uncertainty (expected utility and risk aversion), inter-temporal choice and savings decision; revealed preference approach.

Production and Costs

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

Competitive Equilibrium

Short run and long run equilibrium; determination of the supply curve of the firm and the industry: with reference to external economies and diseconomies of scale.

Input market in perfect competition

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

SUGGESTED READINGS:

- Hal R. Varian, Intermediate Microeconomics, A Modern Approach, W.W. Norton and Company/Affiliated East-West Press (India), 8th Edition, 2010. The workbook by Varian and Bergstrom may be used for problems.
- C. Snyder and W. Nichololson, Fundamentals of Microeconomics, Cengage Learning (India), 2010
- B. Douglas Bernheim and Michael D. Whintson, Microeconomics, Tata McGraw Hill (India), 2009.
- Hugh Gravelle and Ray Rees, Microeconomics, Prentice Hall (UK); 3rd Edition, 2004
- Anindya Sen, Microeconomics: Theory and Applications, Oxford University Press.
- Pindyck, Rubinfeld and Mehta, Microeconomics, Pearson.

Course: ECON-H-CC-T-6
Course Title: Intermediate Macroeconomics – I
Core Course; Credit – 6; Full Marks – 75

COURSE OBJECTIVES:

After the completion of the course the learner will be able to understand the fundamental macroeconomic theories in the context of a market economy.

COURSE CONTENT:

Income Determination in the short-run

IS-LM Model - equilibrium, stability and comparative statics; effects of fiscal and monetary policies, real balance effects;

Aggregate Demand and Aggregate Supply

Derivation of aggregate demand assuming price flexibility; Derivation of aggregate supply curves both in the presence and absence of wage rigidity; equilibrium, stability, and comparative statics-effects of monetary and fiscal policies; Unemployment and its causes- possible solutions, including real balance effect and wage cut policy.

Inflation, Unemployment and Expectations

What is inflation? Types and cost of Inflation. Inflation and unemployment trade-off- Short run and long- run Phillips curve under adaptive expectations-outcome under rational expectations (non-rigorous).

SUGGESTED READINGS:

- Dornbusch, Fischer and Startz, Macroeconomics, McGraw Hill, 11th Edition, 2010
- N. Gregory Mankiw, Principles of Macroeconomics, Indian imprint of South Western by Cengage India, 6th Edition, 2015
- Richard T. Froyen, Macroeconomics, Pearson Education Asia, 2nd Edition, 2005
- Andrew B. Abel and Ben S. Bernanke, Macroeconomics, Pearson Education Inc., 7th Edition, 2011
- Soumyen Sikdar, Principles of Macroeconomics, Oxford University Press.
- Steven M. Sherffrin, Rational Expectations, Cambridge University Press, 2nd Edition, 1996.
- William Branson, Macroeconomic Theory and Policy, Indian Reprint, East West Press, 3rd Edition, 2014.

Course: ECON-H-CC-T-7
Course Title: Statistical Methods for Economics
Core Course; Credit – 6; Full Marks – 75

COURSE OBJECTIVES:

After completion of the course the learner will be able to know the basic statistical applications necessary for economic data analysis.

COURSE CONTENT:

Elementary Probability Theory

Sample space and events; Probability axioms and properties; counting techniques; conditional probability; Bayes' rule and independence of events; Random variable and probability distributions- Discrete and continuous. Expectation of a random variable.

Univariate Probability Distribution

Discrete distribution-Binomial, Poisson; Continuous Distributions- Normal, (Properties; mean and variance). Central Limit Theorem and Law of Large Numbers (Concepts only)

Jointly Distributed Random Variables

Density function of Bivariate normal distribution and obtaining means, variances, and correlation coefficients.

Sampling

Concept of sampling and random sampling. Principal steps in a sample survey; methods of sampling;-SRSWR, SRSWOR, Stratified sampling. Sampling vs non-sampling error

Estimation

Parameters and statistics; Point estimation-Properties of a good estimator; Maximum Likelihood Method and the method of moments; Estimation of population parameters using SRSWR and SRSWOR; Interval estimation (Concepts only)

SUGGESTED READINGS:

- Jay L. Devore, Probability and Statistics for Engineers, Cengage Learning, 2010.
- John E. Freund, Mathematical Statistics, Prentice Hall, 1992.
- Richard J. Larsen and Morris L. Marx, An Introduction to Mathematical Statistics and Its Applications, Prentice Hall, 2011
- William G. Cochran, Sampling Techniques, John Wiley, 2007.
- R.V. Hogg and A.T. Craig, An Introduction to Mathematical Statistics, 3rd Edition, New York, London.
- A.M. Mood, F.A. Greybill and D.C. Boes, Introduction to the theory of Statistics, McGraw Hill, 1974.
- Goon, Gupta and Dasgupta, Fundamentals of Statistics
- Gupta and Kapoor, Statistics

Course: ECON-H-GE-T-3A

**Course Title: Intermediate Microeconomics – I
Generic Elective; Credit – 6; Full Marks – 75**

COURSE OBJECTIVES:

After completion of the course the learner will be able to understand the fundamentals of microeconomic theories in the context of a market economy.

COURSE CONTENT:

Consumer Theory

Cardinal utility; Preference; ordering and properties of ordinal utility; existence of utility functions, different utility functions and their properties, compensating and equivalent variation, Slutsky equation; consumption-leisure choice and labour supply; choice under uncertainty (expected utility and risk aversion), inter-temporal choice and savings decision; revealed preference approach.

Production and Costs

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

Competitive Equilibrium

Short run and long run equilibrium; determination of the supply curve of the firm and the industry: with reference to external economies and diseconomies of scale.

Input market in perfect competition

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

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- Hal R. Varian, Intermediate Microeconomics, A Modern Approach, W.W. Norton and Company/Affiliated East-West Press (India), 8th Edition, 2010. The workbook by Varian and Bergstrom may be used for problems.
- C. Snyder and W. Nichololson, Fundamentals of Microeconomics, Cengage Learning (India), 2010
- B. Douglas Bernheim and Michael D. Whintson, Microeconomics, Tata McGraw Hill (India), 2009.
- Hugh Gravelle and Ray Rees, Microeconomics, Prentice Hall (UK); 3rd Edition, 2004
- Anindya Sen, Microeconomics: Theory and Applications, Oxford University Press.
- Pindyck, Rubinfeld and Mehta, Microeconomics, Pearson.

Course: ECON-H-GE-T-3B

Course Title: Intermediate Macroeconomics – I
Generic Elective; Credit – 6; Full Marks – 75

COURSE OBJECTIVES:

After the completion of the course the learner will be able to understand the fundamental macroeconomic theories in the context of a market economy.

COURSE CONTENT:

Income Determination in the short-run

IS-LM Model - equilibrium, stability and comparative statics; effects of fiscal and monetary policies, real balance effects;

Aggregate Demand and Aggregate Supply

Derivation of aggregate demand assuming price flexibility; Derivation of aggregate supply curves both in the presence and absence of wage rigidity; equilibrium, stability, and comparative statics-effects of monetary and fiscal policies; Unemployment and its causes- possible solutions, including real balance effect and wage cut policy.

Inflation, Unemployment and Expectations

What is inflation? Types and cost of Inflation. Inflation and unemployment trade-off- Short run and long- run Phillips curve under adaptive expectations-outcome under rational expectations (non-rigorous).

SUGGESTED READINGS:

- Dornbusch, Fischer and Startz, Macroeconomics, McGraw Hill, 11th Edition, 2010
- N. Gregory Mankiw, Principles of Macroeconomics, Indian imprint of South Western by Cengage India, 6th Edition, 2015
- Richard T. Froyen, Macroeconomics, Pearson Education Asia, 2nd Edition, 2005
- Andrew B. Abel and Ben S. Bernanke, Macroeconomics, Pearson Education Inc., 7th Edition, 2011
- Soumyen Sikdar, Principles of Macroeconomics, Oxford University Press.
- Steven M. Sherffrin, Rational Expectations, Cambridge University Press, 2nd Edition, 1996.
- William Branson, Macroeconomic Theory and Policy, Indian Reprint, East West Press, 3rd Edition, 2014.

Course: ECON-H-SEC-T-1
Course title: Statistical Tools for Data Analysis
Skill Enhancement Course; Credit-2; Full Marks-50

COURSE OBJECTIVES:

This course introduces the student to collection and presentation of data. It also discusses how data can be summarized and analysed for drawing statistical inferences. The students will be introduced to important data sources that are available and will also be trained in the use of free statistical software to analyse data.

COURSE CONTENT:

1. Sources of Data, Population versus sample surveys, Random sampling
2. Presentation of Data; Univariate Frequency Distribution; Measures of central tendency, Measures of Dispersion, Moments, Skewness and Kurtosis; Bivariate Frequency Distribution- correlation and regression.
3. Time Series (Components, Measures of trend, Moving Average, Curve fitting (linear only)
4. Index Numbers (Laspayer's, Paasche and Fisher, Cost of Living, Factor Reversal and Time Reversal Test)
5. Vital Statistics (Life Tables – Concepts Only)

Reference Books

1. P.H. Karmel and M. Polasek (1978), Applied Statistics for Economists, 4th edition, Pitman.
2. M.R. Spiegel (2003), Theory and Problems of Probability and Statistics (Schaum Series).
3. Das, N.G, Statistical Methods
4. Goon, Gupta Dasgupta, Fundamentals of Statistics
5. A.L. Nagar and R.K Das, Basic Statistics, OUP second ed
6. Gupta and Kapoor, Statistics

SEMESTER – IV

Course: ECON-H-CC-T-8

Course Title: Intermediate Microeconomics – II

Core Course; Credit – 6; Full Marks – 75

COURSE OBJECTIVES:

After completion of the course the learner will be able to:

- Learn the fundamentals of microeconomic theories.

COURSE CONTENT:

General Equilibrium, Efficiency, and Welfare

- a) Exchange Economy, Consumption Allocation and Pareto Optimality; Edgeworth box and contract curve; Equilibrium and efficiency under pure exchange.
- b) Pareto efficiency with production: concepts of PPF, SIC, and resource allocation;
- c) Perfect competition, Pareto efficiency and market failure (externalities and public good); property right and Coase Theorem.

Market Structure

- a) Monopoly; pricing with market power; degree of monopoly; price discrimination-different degrees; multiplant monopoly; peak-load pricing; two-part tariff; monopolistic competition.
- b) Oligopoly; Non collusive. (Cournot Equilibrium, Bertrand Equilibrium, Stackelberg Equilibrium, Kinked Demand Curve) ; concept of collusion and cartels;

Input Market under Imperfect Competition

Monopsony, bilateral monopoly in labour market; Externalities; public goods and markets with asymmetric information.

SUGGESTED READINGS:

- ▶ Hal Varian. Intermediate Microeconomics
- ▶ W.W. Norton and Company/Affiliated East-West Press (India), 2010. The workbook by Varian and Bergstrom could be used for problems.

- ▶ C. Snyder and W. Nicholson, Fundamentals of Microeconomics, Cengage Learning (India), 2010
- ▶ Jean Tirole. Theory of Industrial Organization, MIT Press, 1988
- ▶ Anindya Sen, Microeconomics: Theory and Applications, OUP, 1999
- ▶ Pindyck and Rubinfeld, Microeconomics, Prentice Hall

Course: ECON-H-CC-T-9
Course Title: Intermediate Macroeconomics – II
Core Course; Credit – 6; Full Marks – 75

COURSE OBJECTIVES:

After completion of the course the learner will be able to:

- Learn the fundamentals of macroeconomic theories.

COURSE CONTENT:

Schools of Macroeconomic Thoughts

Classical System: Say's law and quantity theory; Classical dichotomy and neutrality of money; Keynesian vs classical system.

Macroeconomic Foundations

Consumption: Keynesian consumption function; Fisher's theory of optimal intertemporal choice; life-cycle and permanent income hypotheses; Dusenberry's relative income hypothesis;

Investment: MEC and MEI- Acceleration principle- fixed and variable.

Demand for money: Regressive expectations and Tobin's portfolio choice models; Baumol's inventory theoretic money demand.

Monetary Policy

Government debt and Ricardian equivalence; high-powered money; money multiplier analysis; monetary policy – OMO, Bank rate, variable reserve ratio, repo and reverse repo.

Economic Growth

Harrod- Domar model and Solow one sector growth model; golden rule; dynamic efficiency, technological progress.

SUGGESTED READINGS:

- ▶ Snowdon and Vane (ed), A Macroeconomics Reader, Routledge, Taylor and Francis Group.
- ▶ R. Barro. Macroeconomics, 5th edition, The MIT Press, 1989
- ▶ W.H. Branson. Macroeconomics, Haper and Row, 3rd edition, 1989
- ▶ A.K. Sen (ed). Growth Economics, Penguin, 1970

- ▶ Andrew B. Abel and Ben S. Bernanke, Macroeconomics, Pearson Education, Inc., 7th edition, 2011
- ▶ J.B Hall and R.E. Taylor. Macroeconomics, W.W. Nortan and Company, 5th revised edition, 1997
- ▶ Errol D’Souza. Macroeconomics, Pearson Education (New Delhi), 2009
- ▶ Dornbusch, Fischer and Startz, Macroeconomics, McGraw Hill, 11th edition, 2010

Course: ECON-H-CC-T-10
Course Title: Introductory Econometrics
Core Course; Credit – 6; Full Marks – 75

COURSE OBJECTIVES:

After completion of the course the learner will be able to:

- Learn the basics of econometrics.

COURSE CONTENT:

Nature and Scope of Econometrics

Definition and Scope of Econometrics; Importance of Error Term.

Statistical Concepts

Sampling Distributions-, Standard Normal and Chi-Square distribution, t- and F-distributions and their application in testing of hypothesis; Defining hypothesis; Distribution of test-statistics; testing hypotheses related to population parameters; Type I and Type II errors; power of a test. 2 | |

Classical Linear Regression Model: Two Variable Case

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

SUGGESTED READINGS:

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

Course: ECON-H-GE-T-4A

Course Title: Intermediate Microeconomics – II
Generic Elective Course; Credit – 6; Full Marks – 75

COURSE OBJECTIVES:

After completion of the course the learner will be able to:

- Learn the fundamentals of microeconomic theories.

COURSE CONTENT:

General Equilibrium, Efficiency, and Welfare

- a) Exchange Economy, Consumption Allocation and Pareto Optimality; Edgeworth box and contract curve; Equilibrium and efficiency under pure exchange.
- b) Pareto efficiency with production: concepts of PPF, SIC, and resource allocation;
- c) Perfect competition, Pareto efficiency and market failure (externalities and public good); property right and Coase Theorem.

Market Structure

- a) Monopoly; pricing with market power; degree of monopoly; price discrimination-different degrees; multiplant monopoly; peak-load pricing; two-part tariff; monopolistic competition.
- b) Oligopoly; Non collusive. (Cournot Equilibrium, Bertrand Equilibrium, Stackelberg Equilibrium, Kinked Demand Curve) ; concept of collusion and cartels;

Input Market under Imperfect Competition

Monopsony, bilateral monopoly in labour market; Externalities; public goods and markets with asymmetric information.

SUGGESTED READINGS:

- ▶ Hal Varian. Intermediate Microeconomics
- ▶ W.W. Norton and Company/Affiliated East-West Press (India), 2010.The workbook by

Varian and Bergstrom could be used for problems.

- ▶ C. Snyder and W. Nicholson, Fundamentals of Microeconomics, Cengage Learning (India), 2010
- ▶ Jean Tirole. Theory of Industrial Organization, MIT Press, 1988
- ▶ Anindya Sen, Microeconomics: Theory and Applications, OUP, 1999
- ▶ Pindyck and Rubinfeld, Microeconomics, Prentice Hall

Course: ECON-H-GE-T-9
Course Title: Intermediate Macroeconomics – II
Generic Elective Course; Credit – 6; Full Marks – 75

COURSE OBJECTIVES:

After completion of the course the learner will be able to:

- Learn the fundamentals of macroeconomic theories.

COURSE CONTENT:

Schools of Macroeconomic Thoughts

Classical System: Say's law and quantity theory; Classical dichotomy and neutrality of money; Keynesian vs classical system.

Macroeconomic Foundations

Consumption: Keynesian consumption function; Fisher's theory of optimal intertemporal choice; life-cycle and permanent income hypotheses; Dusenberry's relative income hypothesis;

Investment: MEC and MEI- Acceleration principle- fixed and variable.

Demand for money: Regressive expectations and Tobin's portfolio choice models; Baumol's inventory theoretic money demand.

Monetary Policy

Government debt and Ricardian equivalence; high-powered money; money multiplier analysis; monetary policy – OMO, Bank rate, variable reserve ratio, repo and reverse repo.

Economic Growth

Harrod- Domar model and Solow one sector growth model; golden rule; dynamic efficiency, technological progress.

SUGGESTED READINGS:

- ▶ Snowdon and Vane (ed), A Macroeconomics Reader, Routledge, Taylor and Francis Group.
- ▶ R. Barro. Macroeconomics, 5th edition, The MIT Press, 1989
- ▶ W.H. Branson. Macroeconomics, Haper and Row, 3rd edition, 1989
- ▶ A.K. Sen (ed). Growth Economics, Penguin, 1970

- ▶ Andrew B. Abel and Ben S. Bernanke, Macroeconomics, Pearson Education, Inc., 7th edition, 2011
- ▶ J.B Hall and R.E. Taylor. Macroeconomics, W.W. Nortan and Company, 5th revised edition, 1997
- ▶ Errol D'Souza. Macroeconomics, Pearson Education (New Delhi), 2009
- ▶ Dornbusch, Fischer and Startz, Macroeconomics, McGraw Hill, 11th edition, 2010

Course: ECON-H-SEC-T-2

Course title: Computer Application for Data Analysis

Skill Enhancement Course; Credit-2; Full Marks-50

COURSE OBJECTIVES:

This course introduces the student to how to analyse primary and secondary data using computer software. The students will be introduced to important data sources that are available and will also be trained in the use of free statistical software to analyse data.

COURSE CONTENT:

In this paper students will be taught MS Excel programme and how to use MS Excel programme for data analysis. Relevant mathematical and statistical functions using MS Excel will be taught.

Evaluation of students in this paper will be done in terms of a practical examination. There will be no theoretical examination. External examiners will take the said practical examination.

SEMESTER – V

Course: ECON-H-CC-T-11

Course Title: International Economics

Core Course; Credit – 6; Full Marks - 75

COURSE OBJECTIVES:

After completion of the course the learner will be able to:

- The fundamentals of international economics theories and some relevant empirical facts.

COURSE CONTENT:

Basics of trade theory

Arbitrage as basis and direction of trade; fundamental sources of cross-country price differences and arbitrage; concept of comparative advantage; externalities, regulation and perverse comparative advantage; International equilibrium; offer curves, ToT and stability; Gains from Trade (GFT) Theorem; Concepts of Production possibility Frontier and Community Indifference curves; Illustration of GFT; Decomposition of GFT; Substitution possibilities and magnitude of GFT.

Technology and Trade (Ricardian Model):

Comparative versus Absolute Advantage, One-factor economy, production possibility frontier, relative demand and relative supply, terms of trade; Trade in Ricardian world, Determination of intermediate ToT, Complete specialization & GFT

Factor Endowment & Trade (Heckscher-Ohlin-Samuelson Model):

H-O theorem and physical vs. price definitions of factor abundance; Properties of the HO model: Factor intensity ranking, one-to-one correspondence between commodity price ratio & factor price ratio (Stolper-Samuelson theorem).

Trade Policy:

Partial Equilibrium Analysis: Tariff - cost-benefit, Quota, Quota- Tariff equivalence & non-equivalence, effects of tariff, quota, subsidy and voluntary export restraint; General Equilibrium Analysis- distinction between large and small economy, welfare effects of a tariff on small country and large country, Offer curve and ToT, Tariff ridden offer curve, Tariff war, Optimum tariff for large economy, Metzler's Paradox.

Balance of Payments & Exchange Rate:

Balance of Payment accounts in an open economy; Determination of National Income, Transfer problem, Introduction of foreign Country & repercussion effect - open economy multiplier with & without repercussion effect; Fixed & Flexible Exchange Rate: adjustment of demand and supply of Foreign Exchange, Effect of devaluation, Effects of exchange rate on domestic prices and ToT, Marshall-Lerner Condition, J-Curve effect.

SUGGESTED READINGS:

- ▶ P. Krugman and M. Obstfeld- International Economics (8th Edition) ; Pearson Education
 - ▶ R. Caves, J. Frankel and R.W. Jones – World Trades & Payments (9th Ed); Pearson Education.
 - ▶ Rajat Acharyya- International Economics; Oxford University Press
 - ▶ Giancarlo Gandolfo, International Trade Theory and Policy, Springer, 2014
- Soderstein and Reid, International Economics

Course: ECON-H-CC-T-12
Course Title: Public Economics
Core Course; Credit – 6; Full Marks – 75

Nature and Scope of Public Economics

Definition and Scope of Public Economics; Externalities, Market Failure and Government Intervention; Coase Theorem; Public Expenditure to finance Development.

Theory of Public Good

Overview of Public Good; Characteristics of Pure Public Good; Distinction between Pure Public Good and Private Good; Market Failure in case of Pure Public Good; Optimal provision of Public Goods; Private Provision and Public Provision of Public Goods; Lindahl Equilibrium, Voting Equilibrium.

Taxation:

Classification of Taxes; Canons of Taxation; Benefit Principle; Equal Sacrifice Principle; Ability to Pay Principle; Incidence and Burden of Taxes; Effects of taxation on income distribution, work efforts, and on savings; the Laffer curve; Optimal Taxation

Public Expenditure and Public Debt:

Meaning and Classification of Public Expenditure; government budget and its types; government expenditure and tax multipliers, balanced budget multiplier; Fiscal Federalism in India; Meaning of Public Debt; Sources of Public Borrowings: internal and external borrowing; Effects of Public Debt.

SUGGESTED READINGS:

- ▶ A. B. Atkinson and J. E. Stiglitz, Lectures on Public Economics, McGraw-Hill Inc.,US, 1980.
- ▶ C. V. Brown and P. M. Jackson. Public Sector Economics, Wiley-Blackwell; 4th Edition, 1991.
- ▶ J. F. Due and A. F. Friedlander. Government Finance-Economics of Public Sector, AITBS Publishers and Distributors, 1994
- ▶ J. Hindriks and G. D. Myles. Intermediate Public Economics, The MIT Press; Annotated Edition, 2006.

- ▶ R.A. Musgrave and P.B. Musgrave, Public Finance in Theory & Practice, McGraw Hill Publications, 5th edition, 1989.
- ▶ Amaresh Bagchi (ed), Readings in Public Finance, OUP
- ▶ J. E. Stiglitz. Economics of Public Sector, W. W Norton and Company, 3rd Edition, 2000.
- ▶ R.J. Chelliah (ed), Towards Sustainable Growth, OUP, 2009
- ▶ A Ghosh and C. Ghosh, Public Finance, Prentice Hall India Learning Private Limited; 2nd Revised edition (2014)

Course: ECON-H-DSE-T-1A
Course title: Economic Development and Policy in India - I
Discipline Specific Elective; Credit-6; Full Marks-75

COURSE OBJECTIVES:

This course reviews major trends in aggregate economic indicators in India and places these against the backdrop of major policy debates in India in the post- Independence period.

COURSE CONTENT:

1. Issues in Growth, Development and Sustainability

2. Factors in Development

Capital formation (Physical and Human); technology; institutions.

3. Population and Economic Development

Demographic trends; urbanisation.

4. Employment

Occupational structure in the organised and the unorganised sectors; open-, under and disguised unemployment (rural and urban); employment schemes and their impact.

5. Indian Development Experience

Critical evaluation of growth, inequality, poverty and competitiveness, pre and post reforms era; savings and investment; mobilisation of internal and external finance; monetary and fiscal policies; centre-state financial relations.

SUGGESTED READINGS:

1. Michael P Todaro and Stephen Smith. *Economic Development*, Pearson, 11th edition (2011).
2. Uma Kapila, *Indian Economy since Independence*, Academic Foundation, 19th edition (2009).
3. United Nations Development Programme, *Human Development Report 2010*, Palgrave Macmillan (2010).

4. Government of India, *Economic Survey* (latest)
5. Government of India, *Five Year Plan* (latest)
6. Government of India, *Finance Commission Report* (latest)
7. Dutt and Sundaram, *Indian Economy* (Latest Edition)
8. Mishra and Puri, *Indian Economy* (Latest Edition)

Course: ECON-H-DSE-T-1B
Course Title: Money and Banking
Discipline Specific Elective; Credit-6; Full Marks-75

COURSE OBJECTIVES:

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.

COURSE CONTENT:

1. Money

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

2. Financial Institutions, Markets, Instruments and Financial Innovations

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

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

3. Interest Rates

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

4. Banking System

a. Balance sheet and portfolio management.

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

5. Central Banking and Monetary Policy

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

SUGGESTED READINGS:

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

Course: ECON-H-DSE-T-2A

Course Title: Public Finance

Discipline Specific Elective Course; Credit – 6; Full Marks – 75

COURSE OBJECTIVES:

After completion of the course the learner will be able to:

- Know the theories of public finance which will help them to solve many real life problems facing fiscal policy and government budgets.

COURSE CONTENT:

Theory

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

Issues from Indian Public Finance

1. Current Issues of India's Tax System

2. Working of Monetary and Fiscal Policies
3. Analysis of Budget and Deficits
4. Fiscal Federalism in India
5. State and Local Finances

SUGGESTED READINGS:

- Musgrave, R.A. and P. B. Musgrave, *Public Finance in Theory and Practice*, Mc-Graw Hill, 1989
- Mahesh Purohit, “Value Added Tax: Experience of India and Other Countries”, Gayatri Publications, 2007
- Kaushik Basu and A. Maertens (ed.), *The Oxford Companion to Economics in India*, Oxford University Press, 2007
- M.M. Sury, *Government Budgeting in India*, Commonwealth Publishers, 1990.
- Shankar Acharya, “Thirty Years of tax reform in India”, *Economic and Political Weekly*, May 2005
- Government of India, Report of the 13th Finance Commission
- Economic Survey, Government of India (latest)
- State Finances: A Study of Budgets, Reserve Bank of India (latest)
- H.L. Bhatia, *Indian Public Finance*

Course: ECON-H-DSE-T-2B

Course Title: Environmental Economics

Discipline Specific Elective Course; Credit – 6; Full Marks – 75

COURSE OBJECTIVES:

After completion of the course the learner will be able to:

- Know the theories of environmental economics including the notion of sustainable development.

COURSE CONTENT:

Introduction

What is environmental economics; review of microeconomics and welfare economics

The Theory of Externalities

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

The Design and Implementation of Environmental Policy

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

International Environmental Problems

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

Measuring the Benefits of Environmental Improvements

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

Sustainable Development

Concepts; measurement

SUGGESTED READINGS:

- Charles Kolstad, Intermediate Environmental Economics, Oxford University Press, 2nd Edition, 2010
- Robert N. Stavins (ed.), Economics of the Environment: Selected Readings; W.W. Norton, 5th Edition, 2005.
- Roger Perman, Yue Ma, James McGilvary and Michael Common, Natural Resource and Environmental Economics, Pearson Education/Addison Wesley, 3rd Edition, 2003.
- Maureen L. Cropper and Wallace E. Oates, 1992, “Environmental Economics: A Survey” Journal of Economic Literature, Volume 30: 675-740.

SEMESTER VI

Course: ECON-H-CC-T-13

Course Title: Indian Economy

Core Course; Credit – 6; Full Marks – 75

COURSE OBJECTIVES:

After completion of the course the learner will be able to:

- Know the current issues and problems facing Indian economy.

COURSE CONTENT:

Economic Development since Independence

Major features of the economy at independence; Planning: Evolution of India’s development goals and strategies – Structural constraints and Indian development strategy: Debates between growth and distribution, Public Sector vs. Private Sector, Consumer Goods vs. Capital Goods, Import Substitution vs. Export promotion; growth and development under different policy regimes – goals, constraints, institutions and policy framework; an assessment of performance – sustainability and regional contrasts; structural changes, savings and investment including the saving-investment paradox.

Population and Human Development

Demographic trends and issues; education; health and malnutrition

Growth and Distribution

Trends and policies in poverty including Sen's Entitlement Analysis; inequality and unemployment

Economic Reforms in India

Monetary, Fiscal and Trade Policy Reforms

SUGGESTED READINGS:

- Jean Dreze and Amartya Sen, India – An Uncertain Glory, Princeton University Press, 2013.
- Jean Dreze and Amartya Sen, India: Economic Development and Social Opportunity, OUP
- Sukhamoy Chakraborty, Development Planning: The Indian Experience, OUP
- Uma Kapila, Indian Economy since Independence, Academic Foundation
- Ahluwalia and Little (ed.), India's Economic Reforms and Development, OUP
- Joshi and Little, India's Economic Reforms, OUP
- Kashik Basu and A. Maertens (eds), The New Oxford Companion to Economics in India, Oxford University Press.
- Mishra and Puri, Indian Economy, Latest Edition.
- Selected articles on the relevant topics from Economic and Political Weekly.

Course: ECON-H-CC-T-14

Course Title: Development Economics

Core Course; Credit – 6; Full Marks – 75

COURSE OBJECTIVES:

After completion of the course the learner will be able to:

- Know the current theoretical and empirical issues and problems concerning economic development.

COURSE CONTENT:

Meaning of Economic Development

Income Approach and Capability Approach, Construction and Interpretation of HDI; International Variations in Development Measures, Comparing Development Trajectories across Nations and within them; Dependency School of Development

Stages of Development and Structural Change

Sector thesis of Fisher and Clark, Stages of Growth: Rostow and Marx

Population and Economic Development

Theory of Demographic Transition,; Malthusian Population Trap, Concept of optimum population; Low level equilibrium trap models of Nelson and Libenstein and their criticism.

Development Strategies:

Poverty trap model of Nurkse, Big push Theory, Linkages- backward and forward, Theory of balance and unbalanced growth.

Role of capital and Labour in Economic Development

Role of capital in Economic Development, significance of capital output ratio, role of technology and technical progress; Concept of Economic Dualism; Lewis model of Economic Development; Disguised unemployment, concept and measurement; Sen's model of Choice of Technique; Harris- Todaro model of Rural- urban migration.

Poverty and Inequality

Inequality axioms; a comparison of commonly used inequality measures; Gender inequality; Connections between inequality and development; Poverty measurement, HPI; Poverty Traps and Path dependence of growth process

SUGGESTED READINGS:

- Debraj Ray, Development Economics, Oxford University Press, 2009.
- Partha Dasgupta, Economics, A Very Short Introduction, Oxford University Press, 2007.
- Kaushik Basu, The Oxford Companion to Economics in India, OUP, 2007.
- Kaushik Basu, Analytical Development Economics, OUP
- Amartya Sen, Development as Freedom, OUP, 2000.
- Meier and Rauch (ed.), Leading Issues in Development Economics, OUP.
- Todaro and Smith, Economic Development, Pearson Education, 2009.
- Hayami and Godo, Development Economics, OUP
- Bardhan and Udry, Development Microeconomics, OUP.
- A.P. Thirwal, Development Economics

Course: ECON-H-DSE-T-3A

Course title: Economic Development and Policy in India - II
Discipline Specific Elective; Credit-6; Full Marks-75

COURSE OBJECTIVES:

Building on the more aggregative analysis of trends in the Indian Economy offered in Economic Development and Policy-I, this course examines sector-specific trends in key indicators and their implications in the post-Independence period.

COURSE CONTENT:

1. Agriculture: Policies and Performance

Production and productivity; credit; labour; markets and pricing; land reforms; regional variations.

2. Industry: Policies and Performance

Production trends; small scale industries; public sector; foreign investment.

3. Foreign Trade: Trends and Policies

Balance of trade and balance of payments; India and the World Trade Organisation.

SUGGESTED READINGS:

1. Uma Kapila, *Indian Economy since Independence*, Academic Foundation, 19th edition (2009).
2. Government of India, *Economic Survey* (latest)
3. Government of India, *Five Year Plan* (latest)
4. Dutt and Sundaram, *Indian Economy* (Latest Edition)
5. Mishra and Puri, *Indian Economy* (Latest Edition)

Course: ECON-H-DSE-T-3B

Course title: Economic History of India (1857-1947)

Discipline Specific Elective; Credit-6; Full Marks-75

COURSE OBJECTIVES:

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

COURSE CONTENT:

1. Introduction: Colonial India: Background and Introduction

Overview of colonial economy.

2. Macro Trends

National Income; population; occupational structure.

3. Agriculture

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

4. Railways and Industry

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

5. Economy and State in the Imperial Context

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

SUGGESTED READINGS:

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

India), Vol.28, Tulika 2006.

16 Daniel Thorner, *Agrarian Prospect in India*, 1977.

➤ 17. L. Visaria and P. Visaria, *Population*. CEHI, Chapter 5.

Course: ECON-H-DSE-T-4A

Course Title: Dissertation

Discipline Specific Elective Course; Credit – 6; Full Marks – 75

COURSE OBJECTIVES:

After completion of the course the learner will be able to:

- Analyse economic data and also to write on empirical problems of economic life – especially with reference to India

COURSE CONTENT:

A dissertation may be written on any issues pertaining to Indian economy and/or Global Economy in the present context or in the historical context. The students should be guided in how to analyse socio-economic data for this purpose.

The evaluation of the said dissertation will be done on the basis of power-point presentation before the external examiner. 50 marks should be allotted for the report writing and 25 marks should be allotted for presentation.

Course: ECON-H-DSE-T-4B

Course Title: Financial Economics

Discipline Specific Elective Course; Credit – 6; Full Marks – 75

COURSE OBJECTIVES:

After completion of the course the learner will be able to:

- Know the fundamental theories of finance which have great relevance in real life in the present context of globalization.

COURSE CONTENT:

Introduction

Evolution of limited liability companies; Time Value of Money and Concepts of Security Markets

Investment Theory and Portfolio Analysis

1. Deterministic cash-flow streams; Basic Theory of Interest; Discounting and present value; Internal rate of return; evaluation criteria; fixed income securities; bond prices and yields; the term structure of interest rates; yield curves; spot rates and forward rates

2. Single period random cash flows; Random asset returns; Portfolio of assets; Portfolio mean and variance; Feasible combinations of mean and variance; Mean-variance portfolio analysis
3. CAPM: The Capital Market Line; the Capital Asset Pricing Model; the beta of an asset and of a portfolio; the Security Market Line; the Use of the CAPM model in investment analysis and as a pricing formula

Options and Derivatives

Introduction to derivatives and options; forward and futures contracts; Call and Put Options; Factors affecting option prices.

Corporate Finance

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

SUGGESTED READINGS:

- Richard A. Brealey and Stewart C. Myers, Principles of Corporate Finance, McGraw-Hill, 7th Edition, 2002
- Stephen A. Ross, Randolph W. Westerfeld and Jaffey, Corporate Finance
- William Sharpe, Gordon Alexander and Jeffery Bailey, Investments, Prentice Hall of India, 6th Edition, 2003
- Prasanna Chandra, Fundamentals of Financial Management.

NOTES:

- (1) The discipline specific core papers in BA Honours and Programme in Economics are offered as GE papers for other subjects (Both Honours and Programme). This means Principles of Microeconomics – I in Semester I, Principles of Macroeconomics – I in Semester II, Principles of Microeconomics – II in Semester III and Principles of Macroeconomics – II in Semester IV in BA Programme in Economics will be offered as GE papers for other subjects in the relevant semesters for both Honours and Programme in other subjects.
- (2) In Semester V a student has to study two DSE papers. In BA Honours in Economics DSE-H-T-1A and DSE-H-T-1B will be same as the DSE papers offered in Semester V of BA Programme in Economics. This means for BA Honours in Economics DSE –H-T-1A will be Economic Development and Policy in India – I or Money and Banking. DSE-H-T-2A and DSE-H-T-2B will remain unaltered as Public Finance and Environmental Economics. A student has to study any one of these two. In Semester VI in BA Honours in Economics DSE-H-T-3A and DSE-H-T-3B will be same as the DSE papers offered in the BA Programme in Economics in Semester VI i.e. Economic Development and Policy in India – II and Economic History of India respectively. DSE-H-T-4A will remain unaltered i.e. Dissertation. But DSE-H-T-4B is changed. It is now Financial Economics.

