

BA (Hons.) in Economics

Programme Level: Undergraduate **Duration:** Three Years (Six Semesters)

No. of Seats: 60

Objective:

The undergraduate programme in economics is structured to impart analytical skills and intellectual advancement to understand the complexities in the working of the economy. It seeks to expose the students to various concepts in economics, mathematics and statistics and encourage them to uphold logical integrity and objectivity in professional endeavours. The course provides a sound theoretical basis in economic theory supplemented by practical applications of theories. The course in mathematics is developed to enable the students to lay a strong foundation in those areas of mathematics that is frequently used to understand the various concepts of economic theory. The objective of statistics course is to cultivate statistical thinking among students by acquainting them with various statistical methods and their application in different fields of economics. Also, the students are trained in using software packages for data analysis.

The first batch of the programme in MUST is proposed to be admitted in the session 2016-2017.

Input Qualification:

Candidate should have passed 10+2 from a recognized board with at least 45% marks and having proficiency in English and Basic Mathematics.

Evaluation Procedure:

All Rules and Regulations as provided in the Ordinances and Regulations of Undergraduate Programmes shall be followed.

BA (Hons.) in Economics
Three-Year Programme
Academic Curriculum (2019-20 onwards)
First Year

	Course Code	Course Title	Contact Hours per Week			Credits	ETE Duration	Weightage (%)			
			L	T	P		Hours	CW*	MTE	ETE	
Autumn Semester	Core Courses										
	EM 191	Principles of Economics-I		3	1	-	4	3	25	25	50
	EM 161	Mathematics for Economics-I		3	1	-	4	3	25	25	50
	EM 171	Statistics for Economics-I		2	1	2	4	3	25	25	50
	Ability Enhancement Compulsory Courses										
	EL 101	Foundation Course in English		2	-	-	2	3	25	25	50
	MDC 003	Environmental Studies		3	1	-	4	3	25	25	50
	Generic Course										
	EM 181	Economic History of India 1857-1947		3	-	-	3	3	25	25	50
		Sub Total		16	4	2	21				
GE 103	Proficiency (Non-Credit) #					1					

	Course Code	Course Title	Contact Hours per Week			Credits	ETE Duration	Weightage (%)			
			L	T	P		Hours	CW*	MTE	ETE	
Spring Semester	Core Courses										
	EM 162	Principles of Economics-II		3	1	-	4	3	25	25	50
	EM 172	Mathematics for Economics-II		3	1	-	4	3	25	25	50
	EM 182	Statistics for Economics-II		2	1	2	4	3	25	25	50
	Ability Enhancement Compulsory Courses										
	BM 162	Business Communication		3	-	-	3	3	25	25	50
	CA 141	Application Software Laboratory		-	-	4	2	4	25	25	50
	Generic Course										
	EM 192	Environmental Economics		3	-	-	3	3	25	25	50
		Sub Total		14	3	6	20				
GE 104	Proficiency (Non-Credit) #					1					

BA (Hons.) in Economics
Three-Year Programme
Academic Curriculum (2019-20 onwards)
Second Year

	Course Code	Course Title	Contact Hours per Week			Credits	ETE Duration	Weightage (%)		
			L	T	P		Hours	CW*	MTE	ETE
Autumn Semester	Core Courses									
	EM 241	Micro Economics -I	3	1	-	4	3	25	25	50
	EM 251	Macro Economics- I	3	1	-	4	3	25	25	50
	EM 261	Development Economics –I	3	1	-	4	3	25	25	50
	Skill Enhancement Compulsory Courses									
		Foreign Language-I [#]	3	-	-	3	3	25	25	50
		Mody University Elective	3	-	-	3	3	25	25	50
	EM 271	Data Analysis-I	1	-	4	3	3	25	25	50
	Generic Course									
	EM 231	Indian Economy-I	3	-	-	3	3	25	25	50
	Sub Total	19	3	4	24					
GE 203	Proficiency (Non-Credit) [#]				1					

	Course Code	Course Title	Contact Hours per Week			Credits	ETE Duration	Weightage (%)		
			L	T	P		Hours	CW*	MTE	ETE
Spring Semester	Core Courses									
	EM 242	Micro Economics -II	3	1	-	4	3	25	25	50
	EM 252	Macro Economics -II	3	1	-	4	3	25	25	50
	EM 262	Development Economics -II	3	1	-	4	3	25	25	50
	Skill Enhancement Course									
		Foreign Language-II [#]	3	-	-	3	3	25	25	50
		Mody University Elective	3	-	-	3	3	25	25	50
	EM 272	Data Analysis-II	1	-	4	3	3	25	25	50
	Generic Course									
	EM 232	Indian Economy-II	3	-	-	3	3	25	25	50
	Sub Total	19	3	4	24					
GE 204	Proficiency (Non-Credit) [#]				1					

BA (Hons.) in Economics
Three-Year Programme
Academic Curriculum (2019-20 onwards)
Third Year

	Course Code	Course Title	Contact Hours per Week			Credits	ETE Duration Hours	Weightage (%)		
			L	T	P			CW*	MTE	ETE
Autumn Semester	EM 371	Micro Economics - III	3	-	-	3	3	25	25	50
	EM 381	Public Finance-I	3	-	-	3	3	25	25	50
	EM 391	Elementary Econometrics	3	-	-	3	3	25	25	50
	EM 303	International Economics-I	3	-	-	3	3	25	25	50
	EM 313	Monetary Economics-I	3	-	-	3	3	25	25	50
	EM 323	Dissertation **	-	-	-	6				
		Sub Total		15	-	-	21			
	GE 303	Proficiency (Non-Credit) [#]				1				

	Course Code	Course Title	Contact Hours per Week			Credits	ETE Duration Hours	Weightage (%)		
			L	T	P			CW*	MTE	ETE
Spring Semester	EM 372	Macro Economics - III	3	-	-	3	3	25	25	50
	EM 382	Public Finance-II	3	-	-	3	3	25	25	50
	EM 392	Applied Econometrics	3	1	-	4	3	25	25	50
	EM 304	International Economics-II	3	-	-	3	3	25	25	50
	EM 314	Monetary Economics-II	3	-	-	3	3	25	25	50
	EM 324	Financial Economics	3	1	-	4	3	25	25	50
		Sub Total		18	2	-	20			
		Total Credits	101	15	4	130				
	GE 306	Proficiency (Non-Credit) [#]				1				

CW: Course Work; MTE: Mid Term Examination; ETE : End Term Examination

** Course Work (CW) would include regularity, evaluation of assignments, surprise tests, etc.*

The university offers five foreign languages, i.e. Chinese, French, Japanese, German and Spanish, out of which a student is required to select any one. There is no option of change once selected.

***Evaluation of Dissertation would comprise of Project Report and Viva-voce.*

COURSE DESCRIPTION
BA (Hons.) in Economics
Autumn Semester-First Year

EM 191	Principles of Economics-I	3-1-0-4
	Basic Concepts of Economics: Scope, Fields and Methods of Economics, The Economic Policy, PPF, Different economic systems, Graphs and its uses, Slope: nature and measurement, Demand and supply and their determinants, Market Equilibrium, Price rationing and alternative Rationing Mechanisms, Price Elasticity and its determinants	[12]
	Consumption and Production: Utility, Diminishing MU, Meaning and Properties of Indifference curves, Budget constraints, Consumers' optimum choice, Income and Substitution effects, Consumer Surplus, Production, Productivity, Behaviour of profit maximizing firms, Production Functions with one variable factor and with two variables factor of production, Isoquant and Isocost lines	[13]
	Perfect and Imperfect Market: Cost and Revenue Functions: Accounting and Economic costs, Costs in the short run, Fixed costs, variable costs, Marginal costs, Long run AC and MC, TR,MR,AR, Output decision taking Costs and Revenues (Total and Marginal methods), Features of Perfect and Imperfect Perfect Competition	[8]
	Input Markets: Input Markets: Labour, Land and Capital Markets, Demand for inputs, Diminishing Returns, Marginal Revenue Product, Input demand curve, Labour Market and demand for labour, Shifts in input demand curves, Land markets and rent, Capital Market, Capital Income-Interest and profit	[9]
	International Economics: Trade surpluses and deficits, The economic basis for trade--absolute advantage and comparative advantage, Terms of trade, Exchange rates, Trade Barriers--tariffs, subsidies and quotas, The cases for free trade or protection	[10]

Text Book:

1. Case Karl E. and Fair Ray C. Principles of Economics, Pearson Education Asia.

References:

1. Mankiw N. Gregory. Principles of Economics, Thomson.
2. Stiglitz J.E. and Walsh C.E. Principles of Economics, W.W. Norton & Co, New York.

EM 161 Mathematics for Economics-I **3-1-0-4**

Basic Concepts: Sets and set operations, Real Numbers, Ordered pairs, Cartesian products, Intervals, Some properties of Point Sets in R^n – Euclidean distance, Neighbourhood, Boundary point of a set, Open, closed and bounded sets, Convex combination, Convex sets, Interior points, Strict convexity vs weak convexity

[10]

- Relations and Functions:** Types of functions: polynomial functions- linear, Quadratic, Cubic and n^{th} degree polynomial, Rational functions, Rectangular hyperbola, Power, Exponential and logarithmic functions, Composite functions, The inverse function, Sequence and series- the concept of convergence of a sequence and its limit at a point, Properties of a convergent sequence, Series- arithmetic, geometric and harmonic [10]
- Differential Calculus:** Univariate calculus, Continuity of a function, The concept of slope of a function, Derivative of a function, Conditions for differentiability, Rules of differentiation: sums, products and quotients of functions, Composite functions and the Chain Rule, Inverse functions, Derivative of different types of functions, Indeterminate forms and L'Hospital's Rule, Second and higher order derivatives, Applications to verify concavity and convexity, Taylor's series formula and the mean value theorem [14]
- Linear Algebra:** Systems of linear equations: properties of their solution sets, Matrices: 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 [8]
- Vector Spaces:** Algebraic and geometric properties, Scalar products, Basis of a vector space, Orthogonality, Linear transformations: properties, The Eigenvalue problem, Spectral decomposition of a square matrix, Quadratic Forms- positive/negative definite, Semi-definite and indefinite forms [10]

Text Book:

Chiang Alpha C. and Wainwright Kevin (2013). Fundamental Methods of Mathematical Economics, McGraw Hill.

References:

1. Sydsaeter Knut and Hammond Peter J. Mathematics for Economic Analysis, Pearson Educational Asia.
2. Silberberg Eugene and Suen Wing. The Structure of Economics: A Mathematical Analysis, Irwin McGraw Hill.
3. Hoy, Michael, John Livernois, Chris Mckenna, Ray Rees and Thanasis Stengos, Mathematics for Economics, PHI Learning.
4. Alpha C. Chiang(1984). Fundamental Methods Of Mathematical Economics. (New Delhi: MC graw Hill, International Book Company).
5. Edward T. Dowling(1980). Introduction to Mathematical Economics (New Delhi: Tata MCgraw-Hill publishing company Ltd.).

EM 171 Statistics for Economics-I 2-1-2-4

Measures of Central Tendency: Arithmetic Mean, Median and Mode, Properties of Arithmetic Mean, Graphical Location of Median and Mode, Comparison of Mean, Median and Mode, Geometric and Harmonic Mean [10]

Index Number: Their Concept as Weighted Averages, Problems in the Construction of Index Numbers, Chain Index, Cost of Living Index Number, Wholesale Price Index and Cost of Living Index in India, Base Shifting, Uses of Index Numbers [8]

Dispersion, Skewness and Kurtosis: Range, Quartile Deviation, Mean Deviation and Standard Deviation, Properties of Standard Deviation, Comparison of Different Measures of Dispersion, Measures of Relative Dispersion-- Curve of Concentration [10]

Measurement of Inequality: Gini Coefficient and Coefficient of Variation/Lorenz Curve, Measures of Skewness and Kurtosis, The Concept of Moments [8]

Correlation Analysis: Elementary Analysis of Linear Correlation: Covariance, Scatter Diagram, Coefficient of Simple Correlation– Properties and the Method of Calculation, Concept of Spearman's Rank Correlation [8]

Regression Analysis: The Concept of Regression, Regression Lines and their Estimation in a Bivariate series, Least Squares Method, The Concept of R^2 and Standard Error of Estimate [8]

Text Book:

1. Gupta, S.P. Statistical Methods, Sultan Chand & Sons, New Delhi.

References:

1. Goon A. M, Gupta M. K. and Dasgupta B. Fundamentals of Statistics, Vol-I World Press, Kolkata.
2. Mood. A. M, Graybill, F A. and Boes D. C. Introduction to the Theory of Statistics, McGraw Hill.
3. Mukyopadhyay P. Mathematical Statistics. Kolkata Publishing House.
4. Murray R. Spiegel Theory & Problems of Statistics, Schaum's Publishing Series.
5. Nagar and Das, Basic Statistics, OUP.
6. Gupta, S.C. and Kapoor, V. K. Fundamentals of Mathematical Statistics, Sultan Chand & Sons, New Delhi.

EL 101 Foundation Course in English 2-0-0-2

Sentence Structure: Elements of a sentence (Subject, Verb, Object, Complement and Adjunct) [4]

Transformation of Sentence Structure: Degrees of adjectives, Active and Passive Voice (statement, negative, interrogative and imperative), Direct and Indirect narration (statement, negative, interrogative and imperative)	[4]
Correct Usage of Language: Tenses (Present, Past and Future), Modals (can, could, will, would, shall, should, may, might, must, ought to, need) Phrasal verbs, Determiners (a, an, the, little, a little, few, a few, much, more, most)	[4]
Writing Skills: Theme (Paragraph) writing, Letter (formal, informal, business letters) and application writing, report writing, résumé writing	[6]
Common Errors in Effective Communication: How to avoid common sentence– structural errors, vocabulary and pronunciation	[4]
Reading Comprehension: Efficient reading and note taking.	[4]

Text Book:

1. Leech Geoffery, English Grammar for today, Longman, Delhi.

References:

1. Hornby A.S.: A Guide to patterns and usage, Oxford University Press, Delhi.
2. Murphy and Reynold: Essentials of English grammar, Cambridge University Press.
3. Wren & Martin: English Grammar & Composition, S.Chand & Co, Delhi.
4. Quirk & Greenbaum: University English Grammar, Longman Publications.
5. Sharma, R.C. & Krishna Mohan: Business Correspondence & Report writing; Tata McGraw Hill, New Delhi.

MD 003 Environmental Studies 3-1-0-4

Environmental Science: Definition, scope and importance, Multidisciplinary nature [2]

Ecology and Life Sustaining Process: Origin, evolution and diversification of life; natural selection; levels of selection. Ecosystem structure, functions; nutrient cycles; biomes; habitat ecology; primary and secondary productivity; Population ecology; metapopulation dynamics; growth rates; density growth; niche concept; Species interactions: Biodiversity and bio conservation; genetic drift; biogeography and evolutionary ecology (Indian context only); geneenvironment interaction; Endangered and endemic species of India [6]

Present civilization and its engine: Empowerment through Science and Technology: Its power and its consequences. The strongest contemporary ideas of science and their consequences on society. Industrial Civilization and its engine. Economics and its limitations: meta economics Psychology: The Anatomy of Greed, Envy and Vanity (Freud's Psychoanalytic perspective, Hans Selye Stress Model; Self-regulation techniques) Unsustainable development. Traditional methods of protecting nature Suggested Case studies: i) Cultural Basics of our Environmental Crisis: ii) Ecofeminism [6]

Natural Resources (Renewable and Non-renewable Resources): Natural resources and associated problems. Forest resources – Use and over-exploitation, Mining, Dams and their effects on forest and tribal people. Water resources – Use and over-utilization of surface and Ground Water, Mineral resources – Use and exploitation, Role of an individual in conservation of natural resources Suggested Case Studies: i) What has posterity ever done for me? ii) Energy policy and further future: The identity problem [6]

The story of Commons: Definition, Causes, Effects and Control measures of Air Pollution, Water Pollution, Soil Pollution, Marine Pollution, Noise Pollution and Thermal Pollution, Nuclear hazards. Disaster management – Floods, water logging, salinity, Drought, Earthquakes, Cyclones and Landslides. Suggested Case Studies i) The tragedy of the commons: ii) We all live in Bhopal iii) The Silent Spring; [6]

Social Issues and the Environment: Urban problems related to Energy, Water conservation, Rainwater Harvesting, Watershed management, Environmental ethics – Issues and possible solutions, Climate change, Global Warming, Acid Rain, Ozone layer depletion, Nuclear accidents and holocaust. Population growth, variation among nations. Population explosion—Family Welfare Programme. Environment and human health. Human rights. Value education. Role of Information Technology in environment and human health. Suggested Case Studies: i) Earth the Crowded Planet ii) Famine Affluence and morality iii) The world food supply [6] Protection and Prevention of Environment [6]

Protection and Prevention of Environment with Special intervention:

Environment Protection and the Law: Constitution Provisions Relating to Environment, Constitutional provisions about states powers concerning acquisition, regulation and distribution of natural resources (water, forests, mines, oil). Primary Protective Laws: Environment Protection Act, 1986, Water (Prevention and Control) Act, 1974, Air (Prevention and Control) Act, 1981, Forest Act, 1927, Forest Conservation Act, 1980, Biodiversity Act, 2002, National Environment Tribunal Act, 1995, National Environment Appellate Act 1997, the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, National Green Tribunal Act, 2010. Secondary Laws: Noise pollution regulations: Environment Impact Assessment (EIA), rules relating to waste management (Solid wastes, hazardous wastes, bio-medical wastes, The Costal Regulation Zone Notification). Role of information technology in environment and human health, Greenhouse, its effect, remedies and international

declaration related to it

[6]

Sustainable Development (Objective and Application): Introduction:

Dysfunctional civilization, Vision of sustainable world, Satyagraha for Conservation, Buddhist Attitude towards nature , Buddhists Economics Case studies a. Management Sciences: Carbon Credits and Trading, green marketing and cause related marketing b. Science and Engineering Issues: Organic farming, Renewable energy. c. Built Environments: Sustainable site planning, management of waste and its reduction, Low energy building materials and its implications, embodied energy, different case studies d. Sustainable fashion: Online

study of eco-fashion brands; how India can lead? e. Judicial activism

[11]

Field Trip & Report writing: (Any one of the following) i) Visit to

renewable energy site ii) Visit to biodiversity park iii) Workshop on sustainable fashion iv) Shekhawati and its environment v) Morarka

Foundation (organic farms) Nawalgarh/ Piplantri village Rajsamand district

Text Books:

1. Environmental Science: A Global Concern, Cunningham William P. Saigo B Woodworth, McGraw-Hill Higher Education; Sixth Edition (2001).
2. Odum E. P. Barret G.W Fundamental of Ecology, 5 th Edition Cengage Learning, (2004).

References:

1. Environmental Law, S.C Shastri,5th Ed EBC Explorer, India, (2015).
2. Introduction to Psychology, C.T Morgan, R.A King, J.R. Weisz, J. R., & J. Schopler, International Student edition, Tata McGraw Hill, New Delhi (1986).
3. Small is Beautiful: Economics as if People Mattered E.F.Schumacher, Blond and Briggs, London (1973).
4. Heywood V.H. & Watson R.T. 1995. Global biodiversity assessment, Camb ridge Univ.

Press.

5. Our Common Future, Report on World Commission on Environment and Development United Nations Document(1987).
6. Al Gore, Dysfunctional Civilization: The Earth in Balance, Houghton, Mifflin, (1992).
7. Lester Brown, Christofer Favin, Sandra Postel, Vision of a Sustainable World, The Worldwatch Reader, Ed Lester R. Brown New York (1991).

EM 181 Economic History of India 1857-1947 3-0-0-3

Introduction: Colonial India: Background and Overview of colonial economy, Macro Trends: National Income, Population, Occupational structure

[11]

Agriculture and Industry: Agrarian structure and land relations, Agricultural markets and institutions – credit, commerce and technology, Trends in performance and productivity, Famines, Railways, The de-industrialisation debate, Evolution of entrepreneurial

and industrial structure, Nature of industrialisation in the inter war period, Constraints to industrial breakthrough, Labor relations

[15]

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

[13]

Text Book:

1. Tirthankar Roy, The Economic History of India 1857-1947, Oxford University Press, 3rd edition, 2011.

References:

1. Irfan Habib, Indian Economy 1858-1914 (A People's History of India), Vol.28, Tulika.
2. R Dutta and K P M Sundaram: Indian Economy, S Chand.
3. A.N.Agarwal: Indian Economy, Problems of Development and Planning, New Age.
4. Mishra and Puri: Indian Economy, Himalaya.

Spring Semester-First Year

EM 162 Principles of Economics-II

3-1-0-4

Introduction to Macroeconomics: The roots of macroeconomics, Difference between micro and macro economics, Macroeconomic concerns, Role of government in the macro economy, Components and Methodology of the macro economy, National Income Accounting, Black economy, The Classical System: The Full-Employment Model: Macroeconomic Equilibrium, the labour market, the product market, the capital market, extending the full employment model [18]

The Simple Keynesian Model: Aggregate expenditure and equilibrium output--aggregate output and aggregate income, Equilibrium aggregate output, Government participation in the economy, Fiscal policy at work--The Multiplier effect, Money in the Modern Economy, Characteristics of a monetary economy, The demand for money, The supply of money and overall liquidity position, Credit creation [16]

Inflation and Open Economy: The causes of inflation, Level of prices and the value of money, Fisher effect, Cost of inflation, Balance of Payments--The current and capital account, Determining equilibrium output in an open economy, Open economy with flexible exchange rates--Markets for foreign exchange, Factors affecting exchange rates, Effects of exchange rates on the economy [18]

Text Book:

1. Mankiw N. Gregory. Principles of Economics, Thomson.

References:

1. Stiglitz J.E. and Walsh C.E. Principles of Economics, W.W. Norton & Co, New York.
2. Stone R. and Stone G. National Income and Expenditure, Bowes and Bowes London.
3. Case Karl E. and Fair Ray C. Principles of Economics, Pearson Education Asia.

EM 172 Mathematics for Economics-II

3-1-0-4

Optimization: Necessary conditions for unconstrained maxima and minima, Points of inflection, Second order conditions, Optimization over an interval, Multivariate calculus: partial and total differentials of first and second order Applications to verify convexity/ concavity and quasi-convexity/quasi-concavity, Unconstrained optimization- first order conditions for optimization, Second order conditions, Constrained optimization with equality constraints: Lagrange method- first and second order conditions [19]

Integral Calculus: Techniques of integration- substitution rule and integration by parts, Riemann integral- partition over an interval and Riemann Sum, Integrability of a function, fundamental theorem of integral calculus, properties of definite integrals, Improper integrals- applications in measuring consumer surplus and present value of an indefinite stream of payments under continuous discounting [18]

Dynamics Methods: Linear first-order difference equations, Non-linear first order difference equations, Linear second order difference equations, Linear first order differential equations, Non-linear first-order differential equations, Linear second order differential equations [15]

Text Book:

1. Chiang Alpha C. and Wainwright Kevin (2013). Fundamental Methods of Mathematical Economics, McGraw Hill

References:

1. Sydsaeter Knut and Hammond Peter J. Mathematics for Economic Analysis, Pearson Educational Asia.
2. Silberberg Eugene and Suen Wing. The Structure of Economics: A Mathematical Analysis, Irwin McGraw Hill.
3. Hoy, Michael, John Livernois, Chris Mckenna, Ray Rees and Thanasis Stengos, Mathematics for Economics, PHI Learning.
4. Alpha C. Chiang(1984). Fundamental Methods Of Mathematical Economics. (New Delhi: MC graw Hill, International Book Company).
5. Edward T. Dowling(1980). Introduction to Mathematical Economics (New Delhi: Tata MCgraw-Hill publishing company Ltd.).
6. RGD Allen(1986). Mathematical Analysis for Economists (New Delhi: Macmillan India Ltd).

EM 182 Statistics for Economics-II 2-1-2-4

Sampling Theory and Probability: Methods of sampling, Types, Properties of random samples, Non-random sampling, Sampling vs. non-sampling errors, Probability: Concepts of Sample Space and Events, Probability of an Event, Addition and Multiplication Theorems, Conditional Probability and Independence of Events, Bayes theorem [15]

Probability Distributions: Concept of a Random Variable, Discrete and Continuous Random Variable, Probability Density Function, Mathematical Expectation and its Properties, Sampling Distribution of Sample Mean and Variance, Theoretical Distributions: Binomial, Poisson and Normal distribution-its properties, Central Limit Theorem [17]

Estimation and Hypothesis Testing: Parameter and statistic, Estimates and estimators, Point estimators and its properties, Confidence intervals for population parameters, Hypothesis: null vs alternative hypotheses, Type I and Type II errors, Power of a test, Concept of degrees of freedom, Hypotheses testing related to population parameters based on *Z-test, t-test, χ^2 -test, and F-test* [20]

Text Book:

1. Gupta, S.P. Statistical Methods, Sultan Chand & Sons, New Delhi.

References:

1. Goon A. M, Gupta M. K. and Dasgupta B. Fundamentals of Statistics, Vol-I World Press, Kolkata.
2. Mood. A. M, Graybill, F A. and Boes D. C. Introduction to the Theory of Statistics, McGraw Hill.
3. Mukyopadhyay P. Mathematical Statistics. Kolkata Publishing House.
4. Murray R. Spiegel Theory & Problems of Statistics, Schaum's Publishing Series.
5. Nagar and Das, Basic Statistics, OUP.
6. Gupta, S.C. and Kapoor, V. K. Fundamentals of Mathematical Statistics, Sultan Chand & Sons, New Delhi.

BM 162 Business Communication 3-0-0-3

Introduction: Basic forms of communication, Communication models and processes, Effective communication, Theories of communication, Audience analysis [5]

Corporate Communication: Formal and Informal Communication networks, Grapevine, Miscommunication (Barriers), Improving Communication, Practices in Business Communication and Group discussions [6]

Report Writing: Introduction to a proposal, Elements of a Report, Short report and formal report, Report Preparation and Presentation [3]

Oral Presentation: Principles of oral presentations, Factors affecting presentation, Sales presentation, Training presentation, Conducting surveys, Speeches to motivate, Effective presentation skills and , Individual and group presentations [8]

Non-Verbal Aspects of Communication: Body language, Kinesics, Proxemics, Para language [3]

Effective Listening: Principles of effective listening, Factors affecting listening exercises, Oral, Written, Video sessions and Seminars [7]

Interviewing Skills: Appearing in interviews, Conducting interviews, Writing resume and Letter of Application, Mock interviews [5]

The Design and Implementation of Environmental Policy: Overview, Pigouvian taxes and effluent fees, Tradable permits, Implementation of environmental policies in India and international experience, Transboundary environmental problems, Economics of climate change	[12]
Environmental Valuation Methods and Applications: Valuation of non-market goods and services--theory and practice, Measurement methods, Cost-benefit analysis of environmental policies and regulations	[8]
Sustainable Development: Concepts, Measurement, Perspectives from Indian experience	[7]

Text Book:

1. Roger Perman, Yue Ma, Michael Common, David Maddison and James McGilvray, Natural Resource and Environmental Economics, Pearson Education/Addison Wesley, 4th edition, 2011.

References:

1. Charles Kolstad, Intermediate Environmental Economics, Oxford University Press, 2nd edition, 2010.
2. Robert N. Stavins (ed.), Economics of the Environment: Selected Readings, W.W. Norton, 6th edition, 2012.
3. Robert Solow, An Almost Practical Step toward Sustainability, Resources for the Future 40th anniversary lecture, 1992.

Autumn Semester-Second Year

EM 241 Micro Economics-I

3-1-0-4

Consumer's Choice: Consumer preferences, Utility function--ordinal, and cardinal utility, Indifference curves and its properties, Indifference curve in case of -- Perfect substitutes, Perfect complements, Bads, Neutrals, Satiation, Discrete goods and well behaved preferences, Marginal utility and Marginal rate of substitution, Constructing a utility function from indifference curves, Budget constraint, Changes in budget line, Effect of taxes, subsidies, and rationing, Optimal choice and consumer demand in ordinal preferences, optimal choice under different goods and preferences

[14]

- Demand:** Normal and inferior goods, Income offer curve and the Engel Curve, Shapes of income offer curves and Engel Curves in cases of- Inferior good, Perfect substitutes, Perfect complements, Cobb-Douglas preferences, Homothetic preferences, Quasi-linear preferences, Ordinary goods and Giffen goods, Price offer curve and its shapes in different conditions, Inverse demand function, Slutsky and Hicks equation, Compensated demand curves, Consumer's surplus: Marshallian and Hicksian [13]
- Production:** Inputs and outputs, Technological constraints and production set, Law of variable proportions, Law of returns to scale, Cobb-Douglas production function and its properties [12]
- Cost:** Fixed and quasi-fixed cost, Sunk cost, Variable costs, Marginal cost, Long-run costs- LAC and LMC, Economies and diseconomies of scale of Production, Dynamic changes in costs-the Learning Curve Profit maximization and cost minimization for a firm in short-run and long-run [13]

Text Book:

1. Ahuja H. L: Advanced Economic Theory, S Chand & Sons, New Delhi.

References:

1. Pindyck R S. and Rubinfeld D. L. Micro Economics. Prentice Hall, India.
2. Koutsoyiannis, A: Modern Microeconomics, ELBS.
3. Kreps, D. (1990): A Course in Microeconomic Theory. Princeton, N.J.: Princeton University Press.
4. Stonier, A.W. and D.C. Hague (1972): A Textbook of Economic Theory, ELBS & Longman Group, London.
5. D. N. Dwivedi. Micro Economics Theory and Applications. Pearson Education.
6. Nicholson Walter and Snyder Christopher, Microeconomic Theory-Basic Principles and Extensions, Cengage Learning.
7. Maddala G. S. and Miller E. Micro Economics. McGraw-Hill International Editions.

EM 251 Macro Economics-I

3-1-0-4

National Income: Concepts of National Income, Rules and Methods of Measurement of National Income, Circular Flow of Income and expenditure in two, three, and four-sector economy, Measuring Inflation rate and Unemployment rate, The Relation between GDP Gap, Inflation rate and unemployment Gap [17]

Classical Macroeconomics: The aggregate supply function-Production function and aggregate supply curve, Say's law of markets, Output and Employment in classical theory, Quantity theory of money and aggregate demand function, classical model with and without saving and investment, Keynes' objection to the classical theory [17]

Keynesian Macroeconomics: Keynesian equilibrium, the consumption function, Effective demand, The multiplier, The simple Keynesian model of income and output determination, Keynes' fundamental psychological law of consumption and its implication, Government participation in the economy, Fiscal policy at work-The Fiscal Multiplier effect [18]

Text Book:

1. Ahuja H. L: Macro Economic Theory and Policy, S Chand & Sons, New Delhi.

References:

1. Shapiro, E. (1996), Macroeconomic Analysis, Galgotia Publications, New Delhi.
2. Ackley, G. (1976), Macroeconomics: Theory and Policy, Macmillan Publishing Company.
3. Dornbusch, Fischer and Startz, Macroeconomics, McGraw Hill, 11th edition, 2010.
4. Stonier, A.W. and D.C. Hague (1972): A Textbook of Economic Theory, ELBS & Longman Group, London.
5. Errol D'Souza, Macro Economics, Pearson Education, 2009.
6. D. Dasgupta. The Macroeconomy, Oxford University Press, 1997
7. Hejindra, B.J. and F.V. Ploeg (2001): Foundations of Modern Macroeconomics, Oxford University Press.
8. N. Gregory Mankiw. Macroeconomics, Worth Publishers, 7th edition, 2010.

EM 261 Development Economics-I 3-1-0-4

Economic Growth and Development: Meaning of development and growth, Characteristics of less developed countries, Factors in Economic development, Measuring development and development gap — per capita income, inequality of income and wealth, Gini coefficient, Human Development Index , Physical Quality of Life Index, and other indices of development [17]

Theories of Economic Development: Classical (Smith, Ricardo, Malthus), Marxian – Theory of Social change, Immutable laws, Crisis in capitalism, Schumpeter and capitalist development, Rostow's stages of growth [15]

Approaches to Economic Development: Partial theories of growth and development, Vicious circle of Poverty, Circular causation, Theory of unlimited supply of labour, Big push, Balanced growth, Unbalanced growth, Circular causation theory, Critical Minimum Effort Thesis, Low level of equilibrium trap, Dualism: Technical, Behavioural and Social [20]

Text Book:

1. Ghatak, S. An Introduction to Development Economics, Allen and Unwin, London.

References:

1. Adelman, I. Theories of Economic Growth and Development. Stanford University.
2. Chenery, H. and T.N. Srinivasan (Eds) Handbook of Development Economics, Vols 1 & II Elsevier, Amsterdam.
3. Kindleberger, C. P. Economic Development, McGraw Hill, New York
4. Myint, H. Economic Theory and Underdeveloped Countries. Oxford University Press, New York.
5. Thirwal, A. P. Growth and Development, Macmillan, U. K.

EM 271 Data Analysis-I

1-0-4-3

Describing Data: Construction of graphs and its interpretation, Measure of central tendency-- Mean, Median and Mode and its interpretation, Measures of Deviation and Dispersion, and its uses in economic theory, Skewness and Kurtosis, Dot and Box plots and its explanation on Excel and SPSS statistical Package [18]

Bivariate Analysis: Correlation and its coefficient, Coefficient of determination, Testing the significance of the coefficient of correlation, Least square principle, Drawing the regression line, Assumption underlying linear regression on Excel and SPSS statistical Package [21]

Text Books:

1. Darren, G.: SPSS for Windows Step by Step: A Simple Guide and References 18.0 update (11th edition), Prentice Hall, New Delhi.
2. Lind, Marchal and Wathen: Basic Statistics for Business & Economics, McGraw Hill, New Delhi.

References:

1. Jaggia and Kelly : Business Statistics, McGraw Hill, New Delhi.
2. Bowerman, O'Connell and Murphree : Business Statistics in Practice, McGraw Hill, New Delhi.
3. Doane and Seward: Applied Statistics in Business and Economics, Tata McGraw-Hill, New Delhi.
4. Davis and Pecar: Business Statistics using EXCEL, Oxford University Press, New Delhi.

EM 231 Indian Economy-I

3-0-0-3

Colonialism and Underdevelopment of the Indian Economy: Meaning of Colonialism, British Rule and the Exploitation of India, The British Rule and India's Underdevelopment, State Policies and Economic Underdevelopment, The theory of drains — its pros and cons, Indian Economy at the Time of Independence, Planning exercises in India - National Planning Committee, Bombay Plan, People's Plan, Gandhian Plan, The Planning Commission [10]

Structure of the Indian Economy: Nature of the Indian Economy-Developing, Dualistic and Mixed Economy, Natural Resources and Ecological Issues- Land, water, Mineral and forest resources, Ecological Imbalance [07]

Broad demographic features: Population size and growth rates, Sex composition, Rural-urban migration, Occupational distribution, Problem of over-population, Population policy, Infrastructure development - Energy, Energy Crisis and Strategy, Transport and Communication [10]

Planning in India: Objectives, Strategy, Broad achievements and failures, Current Five Year Plan — Objectives, allocation and targets, New economic reforms — Liberalization, privatization and globalization, Rationale behind economic reforms, Progress of privatization and globalization [12]

Text Book:

1. Mishra and Puri (Latest Edition): Indian Economy, Himalaya Publication, New Delhi.

References:

1. R Dutt and K P M Sundaram: Indian Economy, S Chand.
2. A.N.Agarwal: Indian Economy, Problems of Development and Planning, New Age.
3. Planning Commission: Eleventh Five Year Plan, Vol I, II and III, Academic Foundation.
4. Government of India: Economic Survey (latest issue).

Spring Semester-Second Year

EM 242 Micro Economics-II

3-1-0-4

Analysis of Competitive Markets-I: Properties of Perfect Competition, elasticity and market demand, Elasticity and revenue, Income elasticity and Cross elasticity, Pure competition, Supply decision of a competitive firm, Shut-down condition, Inverse supply function, Profits and producer's surplus in the short run, Long-run supply curve of a competitive firm, Industry supply curve in the short-run, Elasticity and market supply, Industry long-run supply curve, Profits and producer's surplus in the long-run [18]

Analysis of Competitive Markets-II: Evaluation of government policies- consumer and producer surplus, Efficiency of a competitive market, Minimum prices, Price support and Production quotas, Competitive factor market- the market demand and market supply of inputs, Equilibrium in a competitive factor market [16]

Monopoly, Monopsony and Monopolistic Market: Characteristics of Monopoly, Output decision of a monopolist- short-run and long-run equilibrium, Equilibrium of a multiplant Monopolist, Monopoly power and its sources, Deadweight loss from monopoly power, Natural monopoly, Monopsony and monopsony power, Price discrimination, Selling cost and excess capacity in monopolistic competition [18]

Text Book:

1. Ahuja H. L. Advanced Economic Theory, S Chand & Sons, New Delhi.

References:

1. Pindyck R S. and Rubinfeld D. L. Micro Economics. Prentice Hall, India.
2. Koutsoyiannis, A: Modern Microeconomics, ELBS.
3. Kreps, D. (1990): A Course in Microeconomic Theory. Princeton, N.J.: Princeton University Press.
4. Stonier, A.W. and D.C. Hague (1972): A Textbook of Economic Theory, ELBS & Longman Group, London.
5. D. N. Dwivedi. Micro Economics Theory and Applications. Pearson Education.
6. Nicholson Walter and Snyder Christopher, Microeconomic Theory-Basic Principles and Extensions, Cengage Learning.
7. Maddala G. S. and Miller E. Micro Economics. McGraw-Hill International Editions.
8. Varian H. R. Intermediate Micro Economics: A Modern Approach, Affiliated East -West Press

EM 252 Macro Economics-II

3-1-0-4

Theories of Consumption and Investment: Consumption function, Absolute, relative, permanent and life cycle income hypothesis, Decisions to invest- Autonomous and Induced investment, MEC and MEI schedule, Profit and accelerator theories of investment, Rate of interest and Rate of investment, Role of finance beyond the interest rate [18]

Neo-classical and Keynesian Synthesis: Neo-classical and Keynesian views on interest, IS-LM approach of interest rate, Elasticity and shifts of IS and LM schedules, Extension of IS-LM model with government sector, Relative effectiveness of monetary and fiscal policies, Crowding out hypothesis, Extension of IS-LM models with labour market and flexible prices [17]

Open Economy Models: International flows of capital and goods, Saving and investment in an open economy, Mundell-Fleming model - Asset markets, Expectations and exchange rates, Open economy under floating and fixed exchange rates, Open economy and policy measures:
fiscal, monetary and trade policies [17]

Text Book:

1. Ahuja H. L: Macro Economic Theory and Policy, S Chand & Sons, New Delhi.

References:

1. Shapiro, E. (1996), Macroeconomic Analysis, Galgotia Publications, New Delhi.
2. Ackley, G. (1976), Macroeconomics: Theory and Policy, Macmillan Publishing Company.
3. Dornbusch, Fischer and Startz, Macroeconomics, McGraw Hill, 11th edition, 2010.
4. Stonier, A.W. and D.C. Hague (1972): A Textbook of Economic Theory, ELBS & Longman Group, London.
5. Errol D'Souza, Macro Economics, Pearson Education, 2009.
6. D. Dasgupta. The Macroeconomy, Oxford University Press, 1997
7. Hejindra, B.J. and F.V. Ploeg (2001): Foundations of Modern Macroeconomics, Oxford University Press.
8. N. Gregory Mankiw. Macroeconomics, Worth Publishers, 7th edition, 2010.

EM 262 Development Economics-II 3-1-0-4

Economic Development and Institutions: The choice of technology, Appropriate technology and employment in LDCs, Efficiency of small- scale vs. large-scale production, Markets and market failure, State and state failure, Issues of good governance, Need for investment criteria in LDCs: Types, Cost Benefit Analysis, Alternative investment criteria [17]

International aspects of Economic Development: International trade as an engine of growth, Static and dynamic gains from trade, Prebisch, Singer and Myrdal theses vs. free trade, Export-led growth, Tariffs and effective protection, WTO and developing countries, External resources, FDI, Aid vs. trade, Need for planning, Types – Democratic, Decentralized and Indicative planning, Micro-level planning [17]

Development and Environment: Environment- Economy linkage, Environment as a necessity and luxury, Population environment linkage, Allocation problem, Market failure for environmental goods, Environment as a public good, Common Property Resources, Property right approach to environmental problem-property rights approach, Property rights and environmental problems, Coarse theorem, Coarse theorem and transaction cost, Prevention, Control and abatement of pollution, Concept and indicators of sustainable development [18]

Text Book:

1. Ghatak, S: An Introduction to Development Economics, Allen and Unwin, London.

References:

1. Todaro, M. P. Economic Development, Longman, London.
2. Thirwal, A. P. Growth and Development, Macmillan, U. K.
3. Kindleberger, C. P. Economic Development, McGraw Hill, New York.
4. Myint, H. Economic Theory and Underdeveloped Countries. Oxford University Press, New York.
5. Adelman, I. Theories of Economic Growth and Development. Stanford University Press, Stanford.
6. Behrman, S. and Srinivasan T. N. Handbook of Development Economics. Vol.I to III, Elsevier, Amsterdam.
7. Mishra and Puri: Growth and Development, Himalya Publishing House, Delhi.

EM 272 Data Analysis-II

1-0-4-3

Multivariate Analysis: Multiple regression and correlation analysis, Multiple standard error of estimate, ANOVA table and its interpretation, Adjusted coefficient of determination, Evaluating the assumption of Multiple regression on Excel and SPSS statistical package [21]

Hypothesis Tests: One-tailed and Two-Tailed tests of significance: *t*-test, ANOVA, *Chi-Square-test* and explanation of result on Excel and SPSS statistical package [18]

Text Books:

1. Lind, Marchal and Wathen: Basic Statistics for Business & Economics, McGraw Hill, New Delhi.
2. Darren, G.: SPSS for Windows Step by Step: A Simple Guide and References 18.0 update (11th edition), Prentice Hall, New Delhi.

References:

1. Jaggia and Kelly : Business Statistics, McGraw Hill, New Delhi.
2. Bowerman, O'Connell and Murphree : Business Statistics in Practice, McGraw Hill, New Delhi.
3. Doane and Seward: Applied Statistics in Business and Economics, Tata McGraw-Hill, New Delhi.
4. Davis and Pecar: Business Statistics using EXCEL, Oxford University Press, New Delhi.

EM 232 Indian Economy-II

3-0-0-3

Important Areas of Concern: Poverty and inequality, Unemployment, Rising prices, Industrial relations [07]

Agriculture: Nature and importance, Trends in agricultural production and productivity, Factors determining productivity, Land Reforms, New agricultural strategy and green revolution, Rural credit, Agricultural marketing [10]

Industry: Industrial development during the planning period, Some Major Industries in India-Iron and Steel, Sugar Industry. Industrial licensing policy — MRTP Act, Competition Act, FERA and FEMA, Growth and problems of small-scale industries, Role of public sector enterprises in India's industrialization [10]

External Sector: Role of foreign trade, Trends in exports and imports; Composition and direction of India's foreign trade, Balance of payments crisis and the New economic reforms — Export promotion measures and the new trade policies, Foreign capital — FDI, Aid, Multinational corporations (MNCs) [12]

Text Book:

1. Mishra and Puri (Latest Edition): Indian Economy, Himalaya Publication, New Delhi.

References:

1. R Dutt and K P M Sundaram: Indian Economy, S Chand.
2. A.N.Agarwal: Indian Economy, Problems of Development and Planning, New Age.
3. Planning Commission: Eleventh Five Year Plan, Vol I, II and III, Academic Foundation.
4. Government of India: Economic Survey (latest issue).

Autumn Semester-Third Year

EM 371 Micro Economics-III

3-0-0-3

Game Theory: Game Theory: The pay-off matrix of a game, Two person zero sum and constant – sum game, Pure strategy and saddle point solutions, Concept of Nash equilibrium, Method of dominance and mixed strategies, Prisoner's Dilemma and the Commons problem [12]

Oligopoly: Characteristics and sources of oligopoly, Price and Output Determination under Oligopoly, Duopoly, Kinked Demand curve, Collusive Oligopoly: Cartels-Joint profit maximization and market sharing; Price Leadership – model of low cost firm, large dominant firm and barometric price leadership, Concepts of single and multiple basing point price system [13]

General Equilibrium and Welfare Economics: Interrelations and Interdependence of Markets, General Equilibrium in Exchange and Production, General Equilibrium in Competitive Product Market, Pareto optimality, Competitive equilibrium and pareto optimality, Welfare theorems, Social welfare functions, Concept of fairness, Arrow's impossibility theorem

[14]

Text Book:

1. Ahuja H. L: Advanced Economic Theory, S Chand & Sons, New Delhi.

References:

1. Pindyck R S. and Rubinfeld D. L. Micro Economics. Prentice Hall, India.
2. Koutsoyiannis, A: Modern Microeconomics, ELBS.
3. Kreps, D. (1990): A Course in Microeconomic Theory. Princeton, N.J.: Princeton University Press.
4. Stonier, A.W. and D.C. Hague (1972): A Textbook of Economic Theory, ELBS & Longman Group, London.
5. D. N. Dwivedi. Micro Economics Theory and Applications. Pearson Education.
6. Nicholson Walter and Snyder Christopher, Microeconomic Theory-Basic Principles and Extensions, Cengage Learning.
7. Maddala G. S. and Miller E. Micro Economics. McGraw-Hill International Editions.
8. Varian H. R. Intermediate Micro Economics: A Modern Approach, Affiliated East -West Press.

EM 381 Public Finance-I

3-0-0-3

Public Goods: Meaning and scope of public finance, Public finance vs. private finance, Fiscal functions allocation, Distribution and stabilisation role of government, Public goods - pure and partial public goods, Private goods and merit goods, Characteristics of public goods, Rationale of public provision of public goods, Free rider problem and externality, Role of government – taxes vs. regulation, Fundamental

principle of public finance – Maximum Social Advantage

[12]

Public Expenditure: Classification and growth of public expenditure, Wagner's law of increasing state activity, Peacock- Wiseman Hypotheses, Canon of public expenditure, Effects of public expenditure on production, Distribution and economic activities, Public sector pricing policy-average cost and marginal cost pricing, Criteria for public

investment- Social cost-benefit analysis, Evaluation under risk and uncertainty

[13]

Public Revenue: Sources and classification of public revenue- tax and non tax revenue, Direct and indirect taxes, Effects of tax on production, Distribution and economic activities, Principles of taxation – Benefit theory, Ability to pay theory, Burden of taxation, Neutrality in taxation, Shifting and incidence of taxation, Taxable capacity, Allocative and

equity aspect of taxation

[14]

Text Book:

1. Tyagi, B.P. Public Finance (Latest edition), Jai Prakash Nath & Company, Meerut.

References:

1. Atkinson and Stiglitz. Lectures on Public Economics.
2. Ghosh Ambar and Ghosh Chandana Economics of the Public Sector, PHI.
3. Musgrave, R.A, The Theory of Public Finance.
4. Houghton J. M. The Public Finance: Selected Reading, Penguin.
5. Goode R. Government Finance in Developing Countries. Tata McGraw Hill.
6. Ghosh Ambar and Ghosh Chandana Economics of the Public Sector, PHI.
7. Musgrave, R.A. Public Finance in Theory and Practices. McGraw Hill.

EM 391 Elementary Econometrics

3-0-0-3

Introduction: Definition, Nature and Methodology of Econometrics

[6]

Regression Models: Two-variable linear regression model, Assumptions, OLS method of estimation, Importance of stochastic error term, Gauss-Markov theorem, Standard Errors of regression coefficients, Concepts and derivation of R^2 and adjusted R^2 , ANOVA, Normality assumptions, Maximum likelihood estimation, K-variable linear regression model, estimation of the model

[18]

Problems in Regression Analysis: Multicollinearity- sources, effects, detection and solution; Heteroscedasticity- tests, consequences, solution; Autocorrelation- sources, consequences, detection, remedies

[15]

Text Book:

1. Gujrati, D.N. & Sangeetha : Basic Econometrics, Tata McGraw Hill Education Private Limited, New Delhi.

References:

1. Koutsoyiannis, A.: Theory of Econometrics, Macmillan Press Ltd, London.
2. Johnston, J. & Dinardo, J.: Econometric Method, Wiley & Sons, New York.
3. Woolridge, J.F. : Introductory Econometrics: A Modern Approach, South-Western College Publication, Mason.
4. Gupta S.C and Kapoor V.K., Fundamentals of Mathematical Statistics, Sultan Chand & Sons, New Delhi.
5. Kmenta J., Elements of Econometrics, University of Michigan Press.

EM 303 International Economics-I

3-0-0-3

Importance of Trade and Trade Theories: Importance of the study of International Economics, Inter-regional and international trade, Theories of absolute advantage, Comparative advantage and opportunity cost, Factor Endowments and Heckscher-Ohlin theory of trade — its main features, assumptions and limitations, Empirical studies - Leontief Paradox, Rybzyński effect, Factor price equalization and Stolper- Samuelson Theorem [13]

Trade and Economic Growth: Gains from trade— their measurement and distribution, Technical Progress and International Trade, Growth and Trade: Small and Open country cases, Concepts of terms of trade and their importance in the theory of trade, Doctrine of reciprocal demand — its importance and limitations in the theory of trade [14]

International Trade Policy: Trade restrictions: Tariff, Partial Equilibrium analysis of Tariff, Theories of Tariff structure, Import Quotas and other Non-tariff barriers, Economic Integration: Customs Union and Free Trade Areas, WTO and India [12]

Text Book:

1. Salvatore, Dominick: International Economics, John Wiley Publisher, London.

References:

1. Cherunilam, Francis: International Economics, Tata McGraw-Hill Companies, Delhi.
2. Sodersten, BO & Reed, Geoffrey: International Economics, McMillan Press Ltd, London.
3. Bhagawati, Jagdish: In Defence of Globalisation, 2004 Oxford University Press, Oxford.
4. Walter, Krause : International Economics, Houghton Mifflin Publisher, Boston.
5. Dwivedi, D.N.: International Economics, Vikash Publishing House, New Delhi.
6. Mithani, D.M.: International Economics, Himalya Publishing House,

Delhi.

EM 313 Monetary Economics-I

3-0-0-3

Demand for Money: Classical and Keynesian approaches to demand for money, Post-Keynesian approaches to demand for money — Patinkin and the Real Balance Effect, Approaches of Baumol and Tobin, Friedman and the modern quantity theory [13]

Supply of Money: RBI approach to money supply, High powered money and money multiplier, Money supply and open economy, Mechanistic and behavior model of money supply, Control of money supply [13]

Commercial Banking: Meaning, Functions of commercial banks, the process of credit creation and its limitations, Balance sheet of Commercial banks, Investment policy, Recent reforms in banking sector in India [13]

Text Book:

1. Hajela, T N (2008). Monetary Economics, Konark Publisher Pvt. Ltd., New Delhi.

References:

1. Lewis M. K. and P.D.Mizen (2000): Monetary Economics, Oxford.
2. Jadhav Narendra (2006): Monetary Policy, Financial Stability & Central Banking, Macmillan.
3. Baye and Jansen(1996): Money, Banking and Financial Markets, AITBS.
4. Gail E. Makinen (1978): Macroeconomics: Concepts, Theories and Policies, Money, The Price Level and Interest Rate, Prentice hall India Ltd.
5. David E.W.Laidler(1977): The Demand for Money: Theories & Evidence, Dun-Donnelly.
6. O. P. Kotwal (1987): Theories of Inflation: A Critical Survey, Tata-McGraw-Hill Publishing Co. Ltd.
7. Ackley G, (1978): Macroeconomics: Theory & Policy, New York, Macmillan.

Spring Semester-Third Year

EM 372 Macro Economics-III

3-0-0-3

- New Classical Macroeconomics:** The new classical critique of micro foundations, New classical approaches- the Phillips curve, Natural rate of unemployment, Rational expectations, Lucas on micro foundation of macroeconomics, Policy implications of new classical approach — empirical evidence [14]
- Theories of Growth:** Harrod-Domar model- instability of equilibrium, Solow and Kaldor growth models, Technological progress - embodied and disembodied technical progress: Hicks and Harrod approach [12]
- Business Cycle:** Nature and characteristics of business cycle, Schumpeterian theory of business cycle, The concept of accelerator, Samuelson and Hicks multiplier-accelerator interaction model, Monetary and Overinvestment theories, Control of trade cycles [13]

Text Book:

1. Ahuja H. L: Macro Economic Theory and Policy, S Chand & Sons, New Delhi.

References:

1. Shapiro, E. (1996), Macroeconomic Analysis, Galgotia Publications, New Delhi.
2. Ackley, G. (1976), Macroeconomics: Theory and Policy, Macmillan Publishing Company.
3. Dornbusch, Fischer and Startz, Macroeconomics, McGraw Hill, 11th edition, 2010.
4. Stonier, A.W. and D.C. Hague (1972): A Textbook of Economic Theory, ELBS & Longman Group, London.
5. Errol D'Souza, Macro Economics, Pearson Education, 2009.
6. D. Dasgupta. The Macroeconomy, Oxford University Press, 1997
7. Hejdra, B.J. and F.V. Ploeg (2001): Foundations of Modern Macroeconomics, Oxford University Press.
8. N. Gregory Mankiw. Macroeconomics, Worth Publishers, 7th edition, 2010.

EM 382 Public Finance-II

3-0-0-3

- Public Debt:** Sources of public borrowing, Importance of public borrowing, Effects of public debt, Tax vs. Debt, Burden of public debt- classical approach, Shifting of debt burden, Intergenerational shifting, Methods of debt redemption, Debt management [12]
- Budget:** Concepts, Balanced vs. unbalanced budget, Balanced budget theorem and its criticism, Budgetary deficits and their limitations, Budget as an instrument of Economic policy, Zero based budgeting, Salient features of the recent union budget of India [13]
- Issues in Indian Public Finance:** Black money, Taxation of agriculture, Subsidies, Tax reforms in India: DTC and GST, Tax evasion, Trends in deficit spending, Expenditure reform, Shrinking size of development finance through budgets, Financial autonomy: centre state financial relation [14]

Text Book:

1. Tyagi, B.P. Public Finance (Latest edition), Jai Prakash Nath & Company, Meerut.

References:

1. Atkinson and Stiglitz. Lectures on Public Economics.
2. Ghosh Ambar and Ghosh Chandana Economics of the Public Sector, PHI.
3. Musgrave, R.A, The Theory of Public Finance.
4. Houghton J. M. The Public Finance: Selected Reading, Penguin.
5. Goode R. Government Finance in Developing Countries. Tata McGraw Hill.
6. Ghosh Ambar and Ghosh Chandana Economics of the Public Sector, PHI.
7. Musgrave, R.A. Public Finance in Theory and Practices. McGraw Hill.

EM 392 Applied Econometrics

3-1-0-4

Regressions with Qualitative Independent Variables: Dummy variable technique — Testing structural stability of regression models comparing to regressions, Interaction effects, Seasonal analysis, Piecewise linear regression, Use of dummy variables, Regression with dummy dependent variables — Applications [16]

Time Series Analysis: Stationarity, unit roots, Co-integration-spurious regression, Dickey-Fuller test, Engle-Granger test, Random walk model, Forecasting with ARIMA modelling, Box-Jenkins methodology, Vector Autoregression, Problems with VAR modelling — Applications [19]

Panel Data Techniques: Panel data techniques — Random coefficients model, Fix effects model, Random effect model [17]

Text Book:

1. Gujrati, D.N. & Sangeetha : Basic Econometrics, Tata McGraw Hill Education Private Limited, New Delhi.

References:

1. Koutsoyiannis, A.: Theory of Econometrics, Macmillan Press Ltd, London.
2. Johnston, J. & Dinardo, J.: Econometric Method, Wiley & Sons, New York.
3. Woolridge, J.F. : Introductory Econometrics: A Modern Approach, South-Western College Publication, Mason.
4. Gupta S.C and Kapoor V.K., Fundamentals of Mathematical Statistics, Sultan Chand & Sons, New Delhi.
5. Kmenta J., Elements of Econometrics, University of Michigan Press.

EM 304 International Economics-II

3-0-0-3

Exchange Rate: Concept and Types of Exchange Rate, Fixed versus Flexible exchange rate, Demand for and Supply of foreign exchange, Exchange Rate Determination: Trade or Elasticity Approach, Purchasing-Power Parity Theory, The Monetary Model to Exchange Rates, Asset or Portfolio Model of Exchange Rates, [13]

Balance of Trade and Payments: Concepts and components of balance of trade and balance of payments, Equilibrium and disequilibrium in balance of payments, Consequences of disequilibrium in balance of payments, Various measures to correct deficit in the balance of payments, Monetary approach to Balance of Payments, Concept and implications of foreign trade multiplier [14]

International Economic Institution: Functions of GATT/WTO (TRIPS, TRIMS), UNCTAD, IMF, World Bank and Asian Development Bank — achievements and failures, Forms of economic co-operation, Reforms for the emergence of international monetary system and trading blocs at the global level [12]

Text Book:

1. Salvatore, Dominick: International Economics, John Wiley Publisher, London.

References:

1. Cherunilam, Francis: International Economics, Tata McGraw-Hill Companies, Delhi.
2. Sodersten, BO & Reed, Geoffrey: International Economics, McMillan Press Ltd, London.
3. Bhagawati, Jagdish: In Defence of Globalisation, 2004 Oxford University Press, Oxford.
4. Walter, Krause : International Economics, Houghton Mifflin Publisher, Boston.
5. Dwivedi, D.N.: International Economics, Vikash Publishing House, New Delhi.
6. Mithani, D.M.: International Economics, Himalya Publishing House, Delhi.

EM 314 Monetary Economics-II 3-0-0-3

Central Banking: Functions of a central bank, Quantitative and qualitative methods of credit control — The Reserve Bank of India: Roles and Functions, Monetary Policy of the RBI, Liquidity Adjustment Facility (LAF), Limitations of monetary policy of RBI [13]

Financial Markets: 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 [12]

NBFIs: Definition and Types of NBFIs: UTI, Mutual Funds, Insurance Companies, Provident Funds and Pension Funds, Growth and impact of NBFIs, Control of NBFIs, The Securities and Exchange Board of India - Genesis, Organization, Objectives and Functions, Performance of SEBI, IRDAI and its role in financial markets, Financial Sector reforms in India [14]

Text Book:

1. Hajela, T N (2008): Monetary Economics, Konark Publisher Pvt. Ltd., New Delhi.

References:

1. Lewis M. K. and P.D.Mizen (2000): Monetary Economics, Oxford.
2. Jadhav Narendra (2006): Monetary Policy, Financial Stability & Central Banking, Macmillan.
3. Baye and Jansen(1996): Money, Banking and Financial Markets, AITBS.
4. Gail E. Makinen (1978): Macroeconomics: Concepts, Theories and Policies, Money, The Price Level and Interest Rate, Prentice hall India Ltd.
5. David E.W.Laidler(1977): The Demand for Money: Theories & Evidence, Dun-Donnelly.
6. O. P. Kotwal (1987): Theories of Inflation: A Critical Survey, Tata-McGraw-Hill Publishing Co. Ltd.
7. Ackley G, (1978): Macroeconomics: Theory & Policy, New York, Macmillan.

EM 324 Financial Economics

3-0-0-3

Introduction: Evolution of limited liability companies, Alternative sources of fund for a firm, Debt and equity instruments of various types- a brief discussion of advantages and disadvantages associated with each type of instrument due to asymmetric information and agency problems

-Concepts of Primary market and Secondary market

[11]

Concept of Present Value and its use in Finance: Time value of money and opportunity cost of capital, Investment decisions based on the concept of present value, Basics of bond valuation, Basic of stock valuation

[10]

Financial Statement Analysis: Analysis of financial statement and ratios, Accounting concepts, Profit and loss accounts and cash flow statements, Ratio analysis

[11]

Financial derivatives: Various forms of derivatives, Functioning of derivative markets

[8]

Text Book:

1. Gupta, S.B, Monetary Economics- Institutions, Theory and Policy, S. Chand & Sons, New Delhi.

References:

1. John Hull : Fundamentals of futures and options market, Prentice Hall; 5th edition.
2. P.Chandra : Financial management theory and practice, Mc Graw Hill, (2004)
3. Bharati.V. Pathak. The Indian Financial System : Markets , Institutions and Services, Pearson Longm, 2nd edition, (2007).
4. Bhole. LM.- Financial Institutions and Markets.