DEPARTMENT OF ECONOMICS

ST. JOSEPH'S COLLEGE (AUTONOMOUS)

Post Box No 27094, 36, Lalbagh Road

Bengaluru-560027

Recognised as **'College for Excellence' by UGC**

DBT – STAR & DST – FIST Sponsored College

SYLLABUS FOR EMS COURSE
(ECONOMICS, MATHEMATICS STATISTICS)

2017 ONWARDS

COURSE STRUCTURE 2015 ONWARDS COURSE STRUCTURE FOR

B.Sc. EMS

Hard Core (compulsory) Soft Core (Optional)

DEPARTMENT OF ECONOMICS

The Department Of Economics of St. Joseph's College is as old as the college itself. Established in 1882, the college had Economics as a subject at the Intermediate level till 1923. Once the college became a First Grade College in 1923, Economics became one among the major subjects of study for the degree students. The Department today offers both Undergraduate and Post Graduate courses. The Post Graduate Department was started in 2006. The undergraduate Economics- Mathematics - Statistics (EMS) course was started in 2010.

VISION:

The vision is to develop and establish the Department as a School of Economics

MISSION STATEMENT

The Undergraduate Department of Economics is committed to generating interest in the discipline of Economics among students by imparting sound theoretical knowledge and developing quantitative skills to analyze economic behavior. The department is engaged in creating good citizens with critical thinking, right attitudes and human values who will become agents of change for our developing society.

COURSE STRUCTURE

B.Sc: Economics- Mathematics - Statistics (EMS) has a different pedagogy from that of the BA courses as the papers are taught using quantitative methods. This course is suited for students who have a sound background in Mathematics in their school or pre university education.

The B.Sc curriculum have been revised and updated in order to make the courses more challenging, relevant and in tune with the emerging needs of the discipline and the needs of the employment scenario.

The syllabus has been approved by the Board of studies and will be adopted from 2017.

EVALUATION

Credit Grade Based Performance Assessment (CGPA)

Being an Autonomous college, it has adopted the Credit Grade Based Performance Assessment system (CGPA). The course gives 30% weightage to continuous internal assessment (CIA) i.e. 10 marks for Assignments and presentations, 15 marks for internal tests and 5 marks for attendance. The other 70% is allotted to End Semester Examination.

The college has adopted the Choice Based Credit System (CBCS) as prescribed by the UGC which implies that a student of Economics will opt for a course in any other discipline than from Economics in the IV semester along with a paper in Economics. The IV semester thus has two papers- CBCC of 40 marks of which 10 marks is for CIA and 30marks for end semester examination totaling 40 marks and the other International Economics paper for 60 marks of which 40 marks is for End semester examination and 20 marks for CIA.

Examination Pattern

End Semester Examination Question Paper Pattern for Hard Core and Soft Core

Papers: Time: 2.5 Hours Max Marks: 70

Section A (3x10=30 marks)

Section B (5x2 =10 marks)

Section C (15x2 =30 Marks)

Section A: **Conceptual (10x3 marks = 30) 10/12 questions**

In this section questions seek to test whether a student has gained specific information, knowledge and can comprehend concepts from the lessons taught.

Section B: Analytical (2x5marks = 10) 2/3 questions

Questions in this section are to test whether students can analyze the relationship between/ among concepts and apply or use the knowledge they have learned to explain an economic phenomena.

Section C: Descriptive and Evaluative (2 x15 marks =30) 2/3 questions

In this section, students are required to use facts, solve problems, concepts and theories to explain, or draw conclusions about certain economic phenomena/ phenomenon. Students will also exhibit their writing skills.

GUIDELINES FOR QUESTION PAPER SETTING

Points to remember:

- Question papers received will be scrutinized in the Board Of Evaluation (BOE)
- Please ensure that paper contains questions from all modules and topics as given in the syllabus
- Questions appear in the same sequence as the topics have been presented in the syllabus
- Kindly check for language , avoid repeated use of the same interrogative words like 'what'
- Punctuation marks need to be appropriately chosen
- The expected length of the answer should match the marks allotted for the question

SCHEME OF VALUATION

Points to Remember

- Scheme of valuation should enable uniform valuation among evaluators.
- Graphs, tables, calculations or equations required need to be presented accordingly.
- For three marks – outline of the concept
- For five marks- concepts, relationship among concepts, utility of concepts if required
- For fifteen marks- concepts, relationship among concepts, utility of concepts if required and desirable outcomes of a theory in its application , critical evaluation if required.
- Valuation Scheme may be handwritten.

COURSE STRUCTURE 2015 ONWARDS
COURSE STRUCTURE FOR B.Sc. EMS

Semester	Course Code	Nature of Paper	Paper Title	Credits
I	ECS 115	Hard Core(compulsory)	Microeconomics I	5
II	ECS 215	Hard Core(compulsory)	Microeconomics II	5
III	ECS 315	Hard Core(compulsory)	Macroeconomics	5
IV	ECS 415	Hard Core(compulsory)	International Economics	3
IV	ECSOE4116	Open elective	CBCS	2
V	ECS 5115	Hard Core(Compulsory)	Basic Econometrics	4
V	ECSDE5215	Soft Core(Optional)	Environment Economics	4
V	ECSDE5315	Soft Core(Optional)	Economics of Growth and Development	4
VI	ECS 6117	Hard Core(Compulsory)	Indian Economy	4
VI	ECSDE6215	Soft Core(Optional)	Financial Institutions and Markets	4
VI	ECSDE6315	Soft Core(Optional)	Public Economics	4
VI	ECSDE6417	Soft Core(Optional)	Computer Programming	4
Total credits				36
CHOICE BASED COURSES				
1		Globalization and the Individual		2
2	ECAOE4116	Insurance Services		2
3	ECAOE4216	Agro Food Marketing		2
4	ECAOE4316	Economics Of Rural Development		2
5	ECSOE4116	Basic Macro Economics For Non Economists		2
6		Basic Micro Economics For Non Economist		2

SEMESTER I
ECS115: MICROECONOMICS – I

COURSE OBJECTIVES:

• To familiarise students with fundamentals of micro economic theory

• To provide students skills necessary to deal with micro economic problems

MODULE I: MICROECONOMICS: AN INTRODUCTION (5 Hours)

Definition of Economics, Positive and normative economics, definition and scope of Microeconomics; Concept of Equilibrium, Expost and Exante, elasticity and slope of a curve, its measurement

MODULE II: THEORY OF CONSUMER BEHAVIOUR (30 Hours)

Marshallian Theory of Consumer Behaviour: Assumptions, Derivation of Equilibrium, Law of Equimarginal utility, Limitations. Indifference Curve Approach: Basic Axioms, existence of IC, shape of IC under different situation, Budget Line, mathematical and diagrammatical representation of equilibrium of the Consumer, Mathematical Problems using Lagrangian Multiplier method. Extension of Indifference Curve Approach: Derivation of Income Consumption Curve, Engel Curve, Price Consumption Curve, Price Effect, Income Effect and Substitution Effect, Slutsky equation Derivation using matrix algebra, Derivation of Marshallian Demand Function, Hicksian Demand Function and Slutsky Demand Function, Mathematical problems Revealed Preference Theory: Axioms, Derivation of the Demand curve, Mathematical problems.

MODULE III: DEMAND AND SUPPLY (8 Hours)

Elasticity of Demand- concept and measurement, law of demand, shape of demand curve under different case, limitations, Bandwagan, Snob and Veblen Effect, Elasticity of Supply, Law of Supply, Limitations; Market Equilibrium; Consumer and Producer Surplus, mathematical problems.

MODULE IV: THEORY OF PRODUCTION (16 Hours)

Short Run production function; Total Product, Average Product and Marginal Product- Concept, Measurement and relation between them (diagrammatical and mathematical representation); Production under long run: Derivation of Isoquant, Shape of isoquant Ridge Lines, Elasticity of substitution

MODULE V: THEORY OF COST (16 Hours)

Short Run average cost curve, average Variable cost, Marginal cost- concept, measurement and relation between them; Theory of Cost under Long Run: Derivation of Isocost line, Equilibrium of the firm, Expansion Path; Long Run Average Cost and Marginal cost curve Relation between AR and MR; Problems on output maximisation cost minimisation

SEMESTER II
ECS 215: MICROECONOMICS- II

COURSE OBJECTIVES:

- To familiarise students with fundamentals of micro economic theory
- To provide students skills necessary to deal with micro economic problems

MODULE I: PERFECT COMPETITION (15 Hours)

Assumptions and derivation of Short Run Equilibrium, Shut down and break-even point, Walrasian and Marshallian Stability Conditions, Numerical Problems. Long Run Equilibrium Mathematical problems

MODULE II: MONOPOLY AND MONOPOLISTIC COMPETITION (15 Hours)

Assumptions and derivation of Equilibrium of a monopolist, Comparison between perfect competition and monopoly, Deadweight Loss- consumer and producer surplus, Price discriminating monopolist and multiplant monopolist, Monopolistic Competition and excess capacity, Mathematical problems

MODULE III: OLIGOPOLY (20 Hours)

Features of Oligopolistic Competition, Concept of Nash Equilibrium, Bertrand Equilibrium in case of homogenous products , Cournot Equilibrium , Stakelberg's Price leadership Model Kinked demand curve model ,Numerical Problems

MODULE IV: GENERAL EQUILIBRIUM AND WELFARE ECONOMICS (15 Hours)

Meaning of Walrasian Equilibrium, Existence, Uniqueness and Stability of Equilibrium in Walrasian and Marshallian , General Equilibrium in an exchange economy and with production using Edgeworth Box , First and Second Fundamental Theorem of Welfare Economics Social Welfare and Arrows Impossibility Theorem. Brief overview of sources of market failure: monopoly, public good, externalities and asymmetric information.

MODULE V: THEORY OF DISTRIBUTION AND FACTOR PRICING (10 Hours)

Ricardian Theory of Distribution; Marginal Productivity Theory of Distribution; Theory of Wages under different market conditions in factor and product markets

Books for References (I &II Semester)

1.Hall R. Varian (2010)Intermediate Microeconomics: A Modern Approach, East West publication 8 th edition.

2. Henderson Mitchell and Quandt Richard E. (2003)- Microeconomics: A Mathematical Approach, Tata Mc Graw Hill Edition,

3. Koutsoyiannis, A – Modern Microeconomics, Mcmillan , 2nd Edition, 2015.

4.Mankiw Gregory - Principles of Economics, Cengage Learning, 6th edition.

5.Pyndick Robert.S and Rubinfeld Daniel L - Microeconomics,Prentice Hall (2009), 7th edition

6.Sen, A- Microeconomics: Theory and Applications, Oxford University Press (2000)

7.Simon Carl. P and Blume Lawrence (2010)Mathematics for Economists, W W Norton & Company

SEMESTER III
ECS 315: MACRO ECONOMICS

COURSE OBJECTIVES:

- To familiarise students with fundamentals of macroeconomic theory
- To provide knowledge about the macro economic issues from a historical perspective

MODULE I: INTRODUCTION TO MACROECONOMICS AND NATIONAL INCOME ACCOUNTING (10 Hours)

Issues in macroeconomics, Concept of short run, medium run and long run, importance of macroeconomics from historical perspective- different schools of thought. Various concepts of National Income Accounts-Circular Flow of Income- Methods of computing GDP- Problem of double counting- Mathematical Problems

MODULE II: CLASSICAL THEORY (10 Hours)

Characteristics of classical school- Income Employment and interest rate determination- Crowding out effect, Quantity theory of money, Classical Dichotomy- Policy Implications of Classical School.

MODULE III: KEYNESIAN THEORY OF INCOME AND EMPLOYMENT (15 Hours)

Simple Keynesian Model (SKM) - components of aggregate demand- consumption function, investment demand and government expenditure- Income determination – equilibrium, stability and multiplier. Interest rate induced investment and IS curve, Money market and LM curve, slope of ISLM curve and policy analysis. Derivation of Aggregate Demand from IS -LM curve, Aggregate supply- Complete Keynesian Model. Differences between Keynes and Classics.

MODULE IV: THEORY OF INFLATION AND UNEMPLOYMENT (10 Hours)

Keynesian theory of inflation- Inflation unemployment trade-off- Short Run and Long run Phillips Curve. Overview of Post Keynesian theory- monetarism, rational expectation, real business cycle and new Keynesian school.

MODULE V: THEORY OF CONSUMPTION, INVESTMENT AND DEMAND FOR MONEY(10 Hours)

Keynesian Consumption Hypothesis, Kuznet's findings, Fisher's Inter-temporal Model, Life cycle and permanent income hypothesis, Relative Income Hypothesis, Random walk hypothesis, Keynesian Investment Function-Marginal Efficiency of Capital, Marginal efficiency of Investment and Investment Demand, Accelerator Theory of Investment, Interaction between multiplier and accelerator, Tobin's q. Baumol's Tobin & Friedman theory of money demand

Books for Reference:

1. Blanchard Olivier(2013)– Macroeconomics, Pearson, Fourth Edition
2. Dwivedi D.N (2008) Macroeconomics Theory and Policy, Tata Mc Graw Hill, 3rd Edition.
3. Froyen R. T. (2005) Macroeconomics: Theory and Policy, Pearson Education,
4. Mankiw Gregory (2010) Macroeconomics. Worth Publishers, 7th Edition
5. Dwivedi D.N. (2008) Macroeconomics Theory and Policy, Tata Mc Graw Hill, 3rd Edition,

SEMESTER IV

ECS 415: INTERNATIONAL ECONOMICS

COURSE OBJECTIVES:

• To provide knowledge of the fundamentals of international economic theory

• To provide an understanding of the working of international economic institutions

MODULE I: CLASSICAL THEORY OF INTERNATIONAL TRADE AND EXTENSIONS (15 Hours)

Gains from trade - Adam Smith's theory of absolute advantage, Ricardian theory of comparative advantage; Opportunity cost theory and gains from trade. International equilibrium – derivation of trade indifference curve and offer curves, terms of trade - GBTT NBTT – elasticity of offer curve – relation between elasticity of offer curve elasticity of import demand and elasticity of export supply; Derivation of Marshall-Lerner condition.

MODULE II: MODERN THEORY OF INTERNATIONAL TRADE (10 Hours)

Concept of Factor intensity and relative factor abundance- physical definition and price definition of relative factor abundance - Heckscher-Ohlin Theorem; Leontief Paradox; Factor Price equalization theorem – factor intensity reversal; Rybcznski Theorem (statement only)

MODULE III: INTERNATIONAL TRADE POLICY (10 Hours)

Free trade and protection, Partial equilibrium analysis – Import tariff and quota for small country; General equilibrium analysis – effect of small country imposing tariff; Stolper-Samuelson theorem (statement only)

MODULE IV: BALANCE OF PAYMENTS AND FOREIGN EXCHANGE MARKETS (5 Hours)

Balance of payments – meanings and components, disequilibrium in BOP, methods of correctiondepreciation, devaluation. Demand and Supply of foreign exchange, Concept of spot and forward exchange rate, Purchasing power parity and BOP theory of exchange rate

MODULE 5: DEVELOPMENT INSTITUTIONS AND POLICIES (5 Hours)

Development of International Finance: Gold Standard and its failure, Formation of IMF, IBRD, Failure of Bretton Wood System and issues of international liquidity, International Trade: GATT & WTO.

Books for Reference:

1.Chacholiades, M. (1973): The Pure Theory of International Trade, McMillian press

2.Krugman P.R.and M.Obstfeld (2009): International Economics-Theory and Policy, Pearson Education.

3.Pilbeam, K. (2013): International Finance, 4th edition, Palgrave Macmillan.

4.Salvatore, Dominick (2011) International Economics: Trade and Finance , John Wiley & Sons,

5.Sodersten B. and Reed .G. (2005): International Economics, 3rd edition, McMillian press Ltd.

SEMESTER IV: CBCS (30 hours) six courses have been prepared by six faculties of the department BUT at any time only four courses will be offered to Non economics students

SEMESTER V: COMPULSORY PAPER
ECS 5115: BASIC ECONOMETRICS

COURSE OBJECTIVES:

- To provide an exposure to econometric theory
- To provide a basic understanding of empirical analysis for testing economic theories

MODULE I: NATURE AND SCOPE OF ECONOMETRICS (3 Hours)

Meaning of Econometrics, Statistical relationship and deterministic relationship; Concept of regression, causation and correlation; Nature and sources of data for Econometric analysis.

MODULE II: TWO VARIABLE REGRESSION ANALYSIS (12 Hours)

The basic two Variable Regression model: Estimation, Statistical Inference and Prediction. Extensions of two variable regression model – regression through origin, Scaling and units of measurement, Functional forms of regression model.

MODULE III: MULTIPLE REGRESSION ANALYSIS (17 Hours)

The problem of Estimation- Notation and assumptions, meaning of partial regression coefficients the multiple coefficient of determination R2 and the multiple coefficient of correlation R, R2 and adjusted R2 , partial correlation coefficients, Interpretation of Multiple Regression Equation. The Problem of Inference- The normality assumption, JB test for Normality, Hypothesis testing about Individual Partial Regression coefficients,Hypothesis testing about Individual Partial Regression coefficients, testing the overall significance of the sample regression, testing the equality of two regression coefficients, restricted least squares, testing for structural stability of regression models, testing the functional form of regression.

MODULE IV: RELAXING THE ASSUMPTIONS OF THE CLASSICAL REGRESSION MODEL (13 Hours)

Problems of Multicollinearity, Heteroscedasticity and Autocorrelation- Nature, Consequences, Detection and Remedial Measures.

MODULE V: REGRESSION ON DUMMY INDEPENDENT VARIABLES (15 Hours)

The nature of Dummy variables, regression on one quantitative variable and one qualitative variable, regression on one quantitative variable and one qualitative variable with more than two classes, regression on one quantitative variable and two qualitative variables, testing for structural stability regression models, Interaction effects, piece wise linear regression, the use of dummy variables

Books for reference

1.Dougherty, C. (1992) Introduction to Econometrics. New York: Oxford University Press.
2.Gujarathi, D (2003) Basic Econometrics, 4th Edition, New York: McGraw Hill.
3.Maddala, G (1992) Introduction to Econometrics, 2nd ed., New York: MacMillan.
4.Wooldridge, J.M. (2003), Introductory Econometrics: A Modern Approach, 2nd edition, Thomson South-Western.

SEMESTER V: OPTIONAL PAPER

ECSDE 5215: ENVIRONMENTAL ECONOMICS

COURSE OBJECTIVES:

- To learn to apply main stream economics tools to environmental issues
- To help students to appreciate the relationship between environment and development.•

MODULE I: INTRODUCTION TO ENVIRONMENTAL ECONOMICS (15Hours) Definition, need, nature and scope of Environmental economics; relation between Environmental economics and economics, the material balance model. Ecology and resource economics. Individual preference and social choice. Efficiency of markets, market failure -public bad and externalities. Some environmental regulation tools -direct and indirect - pollution fees, emission trading rights, taxes on inputs/ outputs of polluting activities, subsidies for adopting cleaner technologies, effluent treatment plants, deposit refund system. Coase Theorem Environment audit.

MODULE II: POPULATION AND NATURAL RESOURCE ECONOMICS (15 Hours) Population- density, migration, food security, environment nexus -poor and the affluent, gender and environment. Natural resources-current, potential and resource endowment, renewable and non renewable resources, rate of extraction and regeneration. Problem of common property resources.. Land degradation-types, effects; unsustainable agricultural practices- the case of pesticides. Deforestation, causes, effects. Water pollution, causes, effects, Energy resource- types, energy crisis; Waste- types, effects; Noise pollution-source, effects; Air pollution- sources, effects.

MODULE III: SUSTAINABLE DEVELOPMENT (15 Hours)

Sustainable development-concept, definition, indicators and obstacles to sustainable development, Kuznets curve. Reduce, Recycle and reuse techno centric solutions .Role of govt, Environment legislation. National issues – case studies, development and environmental issues. Environment legislation in India. International environmental issues –ozone depletion, global warming, acid rain, bio diversity loss, endangered species, desertification, international trade issue – international cooperation.

MODULE IV: ENVIRONMENTAL VALUATION AND INSTRUMENTS (15 Hours)

Need for environmental valuation, concept of total economic value; cost-benefit analysis, cost effectiveness analysis. Methods of economic valuation of environment (concepts) - methods based on market prices-change in productivity technique, change in income technique, replacement technique, preventive technique, relocation technique. Surrogate method- travel cost and hedonic, simulated method or survey method-contingent valuation method .Limitation of environmental valuation.

Books for reference

1. Bhattacharya N, Rabindra (2001) Environmental Economics- An Indian Perspective. Oxford University Press, Delhi.
2. Hanley, N; J.Shogrene, B.White (2007): Environmental Economics in Theory and Practice, Palgrave McMillan, Second Edition.
3. Kolstad C (2000) Environmental Economics. Oxford: Oxford University Press.
4. Muthukrishnan Subhashini (2015) Economics of Environment, Prentice Hall India Pvt Ltd.
5. Sankar, U. (2001): Environmental Economics, Oxford University Press.

SEMESTER IV: OPTIONAL PAPER
ECSDE 5315: ECONOMICS OF GROWTH AND DEVELOPMENT

COURSE OBJECTIVES:

- To provide knowledge of the various issues involving growth and development of nations
- To familiarize students with the theories and models of growth and development•

MODULE I: ECONOMIC DEVELOPMENT- CONCEPT AND MEASUREMENT (15 hours) Evolution of the concept of Economic Development: Economic Growth, Structural Transformation, Capability Expansion; Measurement of Economic Development: PQLI, HPI, HDI, GDI; Inequality: Kuznets curve, Lorenz curve and Gini coefficient; Poverty: Poverty Line, Absolute and Relative Poverty

MODULE II: DEVELOPMENT THEORY (15 Hours)

Theories of Development: Big- push theory, Nurske's Theory, Hirschman's Unbalanced Growth Theory, Leibenstein's Critical Minimum Effort Thesis, Nelson's Low Level Equilibrium Trap.

MODULE III: DEVELOPMENT PLANNING AND INDUSTRY AGRICULTURE INTERLINKAGE (15 Hours)

Lewis, Ranis Fei, Critique of Development Planning: Harris Todaro – Urban Unemployment, Emergence of Rural Nonfarm sector as an alternative: Ranis Stewart Model

MODULE IV: GROWTH MODELS (15 Hours)

Harrod and Domar Model, Kaldors Model, Pasenetti's Model, Solow's model, Endogenous growth model- AK Model

Books for Reference :

1. Ghatak Subrata (2007) Introduction to Development Economics, Routledge Taylor and Francis Group.

2. Mankiw Gregory (2010) Macroeconomics. Worth Publishers, 7th Edition

3. Meier Gerald M and Rauch. James E(2005) Leading Issues in Economic Development, 8th Edition, Oxford University Press.

4. Ray, Debraj (1998) Development Economics, Oxford University Press, Delhi

5. Thirlwal A.P (2006) Growth And Development: With Special Reference To Developing Economies, ELBS.

6. Todaro M.P. and Smith (1996) Economic Development, Addison-Wesley Series In Economics

SEMESTER VI: COMPULSORY PAPER
ECS 6117: INDIAN ECONOMY

COURSE OBJECTIVES

- To enable students to have an overview of the workings of the Indian economy.
- To help students examine the leading issues in India's economic development.

MODULE I: STRUCTURE OF THE INDIAN ECONOMY (15 Hours)
India-a developing economy, Overview of planning, Demographic profile-Trends in population growth-growth rate, density, age, sex, size, composition, Impact of a rising population on economic development, National Population Policy 2000, Work force participation rate and estimates of unemployment in India, Measures to reduce unemployment, Brief overview of the earlier employment generation and poverty alleviation programmes –TRYSEM,NREGP,JRY,Mahatma Gandhi National Rural Employment Guarantee Act, Regional inequalities- measures to reduce regional inequalities

MODULE II: AGRICULTURE SECTOR (15Hours)
Role of agriculture, causes of low productivity, Land reforms- Objectives, components and implementation, Green Revolution-, Agricultural Inputs - seed, irrigation - modern irrigation system-watershed development, dry land farming, fertilizers & pesticides, subsidies, Agricultural prices Policy-procurement price and minimum support price, agriculture and allied activities- animal husbandry, horticulture, floriculture, aqua culture-(concepts only), Sources of agricultural finance & insurance-institutional and non –institutional sources-micro finance ,NABARD , Agricultural marketing- structure and problems,APMC, Role of co-operative sector (finance and marketing), Food security in India- Public Distribution System.

MODULE III: INDUSTRIAL SECTOR (10 Hours)
Industrial policy resolution 1948, 1956 and Industrial Policy 1991-a critical appraisal – Strengthening of the private sector ,Liberalisation and Globalisation - Public-private partnership, Public sector enterprises in India –origin and growth and problems - disinvestment , Micro small and medium enterprises-problems, prospects and challenges.

MODULE IV: INFRASTRUCTURE SECTOR (10 Hours)
Sources of Power in India- conventional and non conventional-The energy crisis,GVY, Unbundling electricity Act, Telecom and Information Technology, Transport system- Road transport system in India-PGSY , Railways ,Water transport and Civil aviation.

MODULE V SERVICE SECTOR & TRADE (10 Hours)
Health sector- National Rural Health Mission, Education and Skill development-SSA,MSA,USA, Insurance-government and private, IT & ITES, Tourism and Hospitality, Real Estate Sector, Composition and direction of foreign trade

Reference

1. Datt, Ruddar and K.P.M, Sundharam, lndian Economy, S. Chand & Company Ltd., New Delhi
2. Misra, S. K. and V. K. Puri, Indian Economy. Mumbai: Himalaya Publishing House
3. Uma Kapila-An overview of Indian Economics-volume I-IV Academic Foundation –Economic Development of India –Monthly update

SEMESTER VI: OPTIONAL PAPER
ECSDE 6215: FINANCIAL INSTITUTIONS & MARKETS

COURSE OBJECTIVES:

- To enable students to learn the working of capital markets.
- • To help in financial decision making.

MODULE I: THEORETICAL BACKGROUND TO FINANCIAL ECONOMICS (15 Hrs)

Introduction- Decision making under risk: risk versus uncertainty; expected values; Problems with expected values – The St. Petersburg paradox and Bernoulli's hypothesis – Neumann – Morgenstern method of constructing utility index under risky situations Attitude towards risks- **Risk averter, risk lover, risk neutral. Friedman –Savage hypothesis Markowitz hypothesis.**

MODULE II: ASSET PRICING AND VALUATION (15 HOURS)

Time value of money: present value, net present value and internal rate of return, Capital-Asset pricing model and its criticism; Arbitrage pricing theory and its criticism, simple problems of asset pricing and valuation

MODULE III: CAPITAL STRUCTURE THEORIES (10 HOURS)

Optimum capital structure - Modigliani-Miller theorem – M-M theory under tax and information asymmetry

MODULE-IV: FINANCIAL INSTITUTIONS AND MARKETS (20 HOURS)

Indian Financial System -Financial institutions- Organized Sector and unorganised –features, functions, types. Money Market: functions-components -call money market, collateral loan market, acceptance market, bill market. Institutions of money market, characteristics of a developed money market. Primary Capital Market- functions, importance and structure of the Indian capital marketnew issue market- Derivatives securities-meaning and types. Secondary Capital Marketcharacteristics and Functions of Stock Exchanges, SEBI-Objectives and Functions.

Books for Reference:

1. Gomez Clifford (2015) Financial Markets, Institutions, and Financial Services. PHI Learning Pvt. Ltd.

2.Gordan and Natarajan(2012),Indian Financial System,Himalaya Publishing House.

3Gurusamy .S(2009)Indian financial system, Tata Mc Graw Hill.

4. Khan M.Y. (2013) Indian Financial System, Tata Mc Graw Hill.

5. Mishkin, F. and S. Eakins (2008) Financial Markets and Institutions, PHI Learning Pvt. Ltd

6. Shashi K Gupta, Nisha Aggarwal, Neeti Gupta (2011) Financial Institutions and Markets' Kalyani Publishers, New Delhi.

7. Vasant Desai(2012) Indian Financial System and Development, Himalaya Publishing House.

SEMESTER VI- OPTIONAL PAPER

ECSDE 6315: PUBLIC ECONOMICS

COURSE OBJECTIVES:

- To expose students to the problem of market failure and the need for intervention
- To provide knowledge about the role and working of the government in an economy

MODULE I: INTRODUTION TO PUBLIC FINANCE (15Hours)

Definition and Scope of Public Economics, Competitive Equilibrium, Concept of Pareto Efficiency, Efficiency in exchange and production, First and Second fundamental theorems of welfare economics, Departure from efficiency: Sources of market failure: monopoly, public good, externalities and asymmetric information,

MODULE II: MARKET FAILURE, DEVELOPMENT AND GOVERNMENT(15 Hours)

Role of Government- Allocative, Distributive and Stabilisation. Methods to correct problems of externality: standard setting, Pigovian tax; the tragedy of commons- property rights, Private good and Public Good, optimal provision of public good. Imperfect competition and government: measurement of competition- Herfindahl Index Lerner Index, Solutions to natural monopoly- public ownership, specific and ad valorem tax. Correction of distributional and regional inequalities - Tiebout model, Theory of Club goods

MODULE III: PUBLIC - REVENUE, EXPENDITURE AND DEBT (15 Hours)

Cannons of taxation, principles of taxation – Benefit principle and ability to pay principle, types of tax rates, Merits and demerits of direct and indirect taxes. Incidence and Impact of taxation, Value added tax. Canons of Public Expenditure, Wagner's Law of Increasing State Activities, Peacock-Wiseman Hypothesis.. Growth and effects of Public Expenditure. Public Debt, Effects, Repayment of Public Debt. Principles of debt management

MODULE IV:BUDGETING AND FISCAL POLICY (15 Hours)

Concepts –Revenue account, Capital Account, Fiscal Deficit, Revenue Deficit, Primary Deficit– Budget Estimate, Revised Estimate, Plan and Non-Plan expenditure. Preparation, legislation of the budget appropriations, Programme Budgeting and Zero Base Budgeting. Balanced Vs unbalanced budget. Finance Act. Fiscal policy – Objectives.

Books for reference :

1. Bhatia, H. L.(2012) Public Finance , Vikas Publication, New Delhi
2. Cullis Johnand Jones Philip (2009) Public Finance and Public Choice OUP
3. Hindriks Jean and Myles Gareth D(2005) Intermediate Public Economics. MIT Press
4. Lekhi R.K(2012)Public Finance, Kalyani Publishers
5. Musgrave, Richard A. (1959), Theory of Public Finane, McGraw Hill, Kognakhusa, Tokyo.
6. Musgrave R.A. and Musgrave, P.A. (1976).Public Finance in Theory and Practice, McGraw Hill.
7. Singh .S.K(2012) Public Finance in Theory and Practice, S Chand Publications

SEMESTER VI

ECSDE 6417: PROGRAMMING IN C

COURSE OBJECTIVES:

- To develop logical thinking in students with the help of the programming concepts
- To provide a practical exposure to problem solving using the C programming language.

MODULE I - PROGRAMMING (14Hrs)

Problem Solving Using Computers: Language Classification, Problem Analysis, Algorithm and Flowchart design. Algorithms: Steps in developing algorithms, Applications,advantages and disadvantages of Algorithm.Flowcharts: Symbols used in developing flowcharts, Application advantages and disadvantages of flowchart .Modular design, Program development, Coding, Testing, Debugging, Documentation and maintenance.

MODULE II - C PROGRAMMING (10Hrs)

Historyof C Programming, Conventions, Character Set, Identifiers, Keywords, Simple Data types, Modifiers, Variables, Constants, Operators, Operator precedence, Structure of a C program.

MODULE III- INPUT AND OUTPUT AND CONTROL STRUCTURES (18Hrs)

Input and Output operation: Single character input and output, formatted input and output, Buffered input. Conditional statement, if statement, if-else statement, nested if statement, else-if statement and switch statement. Goto statement, looping statement, while statement, do-while statement, for statement, break and continue, nested for statement. Application

MODULE IV-ARRAYSAND FUNCTIONS (10Hrs)

One and two dimensional, Declaration of arrays, Initialization of arrays, processing with arrays. String manipulation, declaration of string arrays, string operations. ApplicationFunctions- Introduction, advantages of subprograms, Function definition, function call, Actual and formal arguments, local and global variables, function prototypes, types of functions, recursive functions, arrays and functions. Applications

MODULE V- STORAGE CLASSES, STRUCTURES AND UNIONS, POINTERS(8 hrs)

Types of storage classes, Structure and Union, Advantages of Structure and Union, Introduction to Pointers, Pointer operator, Pointer arithmetics.

References:

1. Rajaraman V (2010) Fundamentals of Computers, PHI, 1986, 2nd Edition. 5th Ed
2. Bartee, Thomas C(1987), Digital Computer Fundaments by McGraw Hill, VI Edition.
3. Balagurusamy (2008)Programming in ANSI C, Tata McGraw-Hill Education,

CHOICE BASED CREDIT SCHEME (30 hours)

These courses are offered to Non economics students. At any given time four of these courses will be offered. Economics students will have to take non economics courses offered by other departments.

GLOBALIZATION AND THE INDIVIDUAL

Course Objectives:

- To describe the main issues, dynamics and debates surrounding globalization
- Synthesize knowledge of globalization with individual experiences

MODULE I: AN OVERVIEW OF GLOBALIZATION (10hours)

Definition , global interdependency , causes and effects of globalization, developing countries, Uneven development, poverty and the market . Individual in a globalised economy-3 'Rs' - reaction, resistance and resilience.

MODULE II: GLOBALIZATION, TRADE, FINANCE AND LABOUR MARKETS(10hours)

Trade agreements and the globalization- commodity markets – commodity chains -global value chain -MNCs , role of technology .Bretton woods - the rise of global finance. Changing geographical division of labor, product and process Outsourcing, the global worker

MODULE III: GLOBALSIATION, EDUCATION, HEALTH AND THE ENVIRONMENT (10hours)

Education – growing international markets. Health- global determinants of health- Global environmental issues, urbanization.

ECAOE 4116: INSURANCE SERVICES

Course Objectives:

to provide an overview of the working of the insurance sector•

MODULE 1 : BASIC CONCEPTS (5 hours)

Meaning of actuarial science - Concept of Risk. - Classification of Risks - Assessment of RiskTransfer of Risk - Insurance as tool to transfer of risk .The Concept of Insurance – Classification of Insurance Principles of Insurance -Basic, Economic, Legal, Financial and Actuarial.

MODULE II: LIFE, HEALTH (10 hours)

Purpose of Life Insurance - Plans -Term Plans, Traditional Plans, ULIP plans. Types of Claims under Life Insurance Policy - survival benefit, maturity claims, early death claims, death claims, Accident benefit and disability benefit claims, claims under critical illness settlement options. Health Insurance Insurance Products in India, Health Insurance Underwriting, Health Insurance policy forms and clauses. Group Insurance- Nature, scope, types,

MODULE III: GENERAL INSURANCE (10hours)

Motor Insurance, Fire Insurance, Marine Insurance & Agricultural Insurance . Group Insurance– Nature and Type, Gratuity liability, Group - Superannuation Schemes- life insurance and general insurance.

MODULE IV: APPLICATIONS AND SCHEMES (5 hours)

Applications - Underwriting and Acceptance - Proposal form and related documents - Documents for proof of age, Medical reports, special medical reports - underwriting of proposal.Policy Document: Policy document, policy conditions, duplicate policy, alteration, types of revivals including calculations. Premium: Premium calculation, Days of grace, Non-Forfeiture Options, Lapse and -Revival Schemes.

ECAOE4216: AGRO-FOOD MARKETING

Course Objectives:

- To provide an over view of the marketing of agro produce

MODULE 1: AGRICULTURAL AND ECONOMIC DEVELOPMENT (5 hours)

Role of Agriculture in Economic and Rural Development. Marketing of agricultural produce, status of agro-food industry, features of agro-food industry, marketing problems, marketing philosophy and process, market environment. Present status of food retail marketing system in India: Organized and Unorganized marketing system.

MODULE II: ORGANIZED MARKETING SYSTEMS (5 HOURS)

Formats of Organized Marketing systems- Discounters (Subhiksha, Reliance Fresh), the value-formoney store (Nilgiris, Big Bazaar, Cooperative Stores), the experience shop (Food world, Trinetra), the home delivery (Fabmart), super stores and wide reach stores (Reliance Fresh, Spencer, Food Mart), etc. E-marketing. Retailing and FDI: Retailer's efficiency and competitiveness, employment opportunities, franchising, cash and carry wholesale operations and strategic license agreements.

MODULE III: UN-ORGANIZED MARKETING SYSTEM (5 hours)

Formats of Un-organized Marketing System: Kirana Stores and Hawkers, viz. the road side hawkers, mobile retailers, including open format more organized outlets and small to medium food retail outlets.

MODULE IV: MARKETING INFRASTRUCTURE (15 Hours)

Post-harvest Handling and Packaging, Grading Facilities, Transportation, Storage, Cold Storage and Refrigerated Containers/Vans, Processing and Value Addition, Telecommunication, Market Yards and Sub-yards, Investment Requirements, Schemes for Encouraging Private Investment Role of Information Technology and telecommunication in marketing of agricultural commodities, Market research, Market information service, electronic auctions (e-bay),

Books for reference :

1. Crawford (1997), 'Marketing and Agribusiness Texts', FAO.
2. Gary Armstrong and Philip Kotler (2012), 'Marketing: An Introduction', 11th ed. Prentice Hall, Upper Saddle River.
3. FAO (2009), 'Agribusiness Handbook: Food Retail'.
4. Kotler, P and Keller, KL. (2008). 'Marketing Management'. 13th ed. Upper Saddle River, New Jersey: Prentice Hall.
5. Peter J. Paul and Jerry Olson (2009), 'Consumer Behaviour and Marketing Strategy', 9th ed. McGraw-Hill, United States.

ECAOE4316: ECONOMICS OF RURAL DEVELOPMENT AND AGRICULTURE

COURSE OBJECTIVE:

- To provide an overview of rural economy

MODULE I: INTRODUCTION TO RURAL DEVELOPMENT: 5 hrs

Meaning of Rural Development- Basic Elements of Development- Objectives of DevelopmentStrategies of Rural Development- Policies for Rural Development-Need for Rural Development policy-Rural Development under Five year Plans.

MODULE II : EMPLOYMENT AND RURAL INDUSTRIES: 15 hrs

Rural Measures-Rural Income-Size, Growth and Occupational Structure of Rural PopulationEmployment under employment and unemployment in rural areas. Sources of rural credit Policies for Rural Development. Types of Rural Development Programmes in India. Growth and Development of Rural Industries in India- Cottage and rural industries- Problems and perspectives. Rural Industrial during the planning period.

MODULE III: Infrastructure Rural Agriculture: 10 hrs

Agriculture and the Rural Economy of India-Planning for Village Industries. Technical changes in traditional agriculture. Rural Infrastructure-Rural Transport-Rural Electricity-Rural Education-Rural Housing-Rural Health, Sanitation, Water Supply

ECSOE4116: BASIC MACROECONOMICS FOR NON-ECONOMISTS

Course objectives:

- To provide basic knowledge about the principles of aggregate economic behavior

Module 1: Questions in macroeconomics, importance of macroeconomics from historical perspective, concept of GDP – actual versus potential, Inflation, Unemployment, circular flow diagram, fiscal and monetary policy (10 hours)

Module 2: Classical view of self correcting economy, Keynesian position, output inflation trade off, Keynesian dilemma arise because of stagflation (10 hours)

Module 3: Brief overview of Post Keynesian Macroeconomics, Macroeconomic policy and Developing Countries (10 hours)

BASIC MICROECONOMIC FOR NON-ECONOMISTS

Course objective:

- To provide basic knowledge about the principles of individual economic behavior

MODULE I: BASIC BUILDING BLOCKS OF MICROECONOMIC THEORY (10 Hours) Scope of microeconomic theory- concept of 'choice' in microeconomic theory - idea of opportunity cost; absolute price and relative price – production possibility curve; positive and normative economics; market demand and supply curve – factors affecting demand and supply curve – market equilibrium; Government's intervention in the market- basic concept of elasticity.

MODULE II: CONSUMERS AND FIRMS: TWO PILLARS OF THE ECONOMY (10 Hours)

Choice and preferences of consumers (demand side) – idea of budget line and indifference curve; equilibrium of the consumer; production decision by firms (supply side) – concept of cost and production – input choice decision of firm

MODULE III: IDEA OF MARKET IN MICROECONOMIC THEORY (10 Hours)

Idea of market – different forms of market structure – Two extreme cases: perfectly competitive market; monopolistic market; different forms of monopoly: natural monopoly; various forms of price discrimination.

Reference

Sen, A. (2007): Microeconomics: Theory and Application, Oxford University Press.