# ST. JOSEPH'S COLLEGE (AUTONOMOUS) DEPARTMENT OF ECONOMICS BANGALORE-27



## Re-accredited with 'A++' GRADE and 3.79/4 CGPA by NAAC Recognised by UGC as COLLEGE OF EXCELLENCE

#### **SYLLABUS FOR B.A ECONOMICS**

HISTORY -ECONOMICS-POLITICAL SCIENCE (HEP)

ECONOMICS- POLITICAL SCIENCE- SOCIOLOGY (EPS)

ECONOMICS- SOCIOLOGY -INDUTRIAL RELATIONS (IES)

COMMUNICATIVE ENGLISH-POLITICAL SCIENCE-ECONOMICS (CPE)

#### **2018 ONWARDS**

Cover page  Table of content  Introduction to the Department, Course and Evaluation  Course Structure  Micro Economics  Macro Economics  Statistical Methods  International Economics  Development Economics  Environmental Economics (optional)  Mathematical Methods for Economists (optional)  Public Economics (optional)  Advanced Statistical Methods for Economics. (optional)  Advanced Statistical Methods for Economics. (optional)	- NO
Table of content  Introduction to the Department, Course and Evaluation  Course Structure  Micro Economics  Macro Economics  Statistical Methods  International Economics  Development Economics  Environmental Economics (optional)  Mathematical Methods for Economists (optional)  Public Economics (optional)  Advanced Statistical Methods for Economics. (optional)  Indian Economy  Financial Institutions & Markets (optional)  1.	E NO.
Introduction to the Department, Course and Evaluation  Course Structure  Micro Economics  Macro Economics  7  Statistical Methods  International Economics  Development Economics  Environmental Economics (optional)  Mathematical Methods for Economists (optional)  Public Economics (optional)  Advanced Statistical Methods for Economics. (optional)  Indian Economy  Financial Institutions & Markets (optional)  1.	1
Course Structure 5  Micro Economics 6  Macro Economics 7  Statistical Methods 8  International Economics 9  Development Economics (optional) 1  Mathematical Methods for Economists (optional) 1  Public Economics (optional) 1  Advanced Statistical Methods for Economics. (optional) 14-  Indian Economy 16-  Financial Institutions & Markets (optional) 15	2
Micro Economics  Macro Economics  7  Statistical Methods  International Economics  Development Economics  Environmental Economics (optional)  Mathematical Methods for Economists (optional)  Public Economics (optional)  Advanced Statistical Methods for Economics. (optional)  Indian Economy  16-  Financial Institutions & Markets (optional)  17	-4
Macro Economics 7  Statistical Methods 8  International Economics 9  Development Economics 11  Environmental Economics (optional) 12  Mathematical Methods for Economists (optional) 13  Public Economics (optional) 14  Advanced Statistical Methods for Economics. (optional) 14-  Indian Economy 16-  Financial Institutions & Markets (optional) 16-	5
Statistical Methods  International Economics  Development Economics  Environmental Economics (optional)  Mathematical Methods for Economists (optional)  Public Economics (optional)  Advanced Statistical Methods for Economics. (optional)  Indian Economy  16-  Financial Institutions & Markets (optional)	3
International Economics  Development Economics  Environmental Economics (optional)  Mathematical Methods for Economists (optional)  Public Economics (optional)  Advanced Statistical Methods for Economics. (optional)  Indian Economy  16-  Financial Institutions & Markets (optional)	7
Development Economics 11  Environmental Economics (optional) 1  Mathematical Methods for Economists (optional) 1  Public Economics (optional) 1  Advanced Statistical Methods for Economics. (optional) 14-  Indian Economy 16-  Financial Institutions & Markets (optional) 15-  Total Control of the Control of	3
Environmental Economics (optional)  Mathematical Methods for Economists (optional)  Public Economics (optional)  Advanced Statistical Methods for Economics. (optional)  Indian Economy  Financial Institutions & Markets (optional)  12	9
Mathematical Methods for Economists (optional)  Public Economics (optional)  Advanced Statistical Methods for Economics. (optional)  Indian Economy  Financial Institutions & Markets (optional)	0
Public Economics (optional)  Advanced Statistical Methods for Economics. (optional)  Indian Economy  Financial Institutions & Markets (optional)  15  16  17  18  19  19  19  10  10  10  10  10  10  10	1
Advanced Statistical Methods for Economics. (optional)  Indian Economy  Financial Institutions & Markets (optional)  14-	2
Indian Economy 16- Financial Institutions & Markets (optional) 17-	3
Financial Institutions & Markets (optional)	-15
	-17
Basic Econometrics (optional)	8
	9
Entrepreneurship and Business Development (optional)	0
Economic Doctrines. (Optional) 21-	-22

#### **DEPARTMENT OF ECONOMICS**

The Department Of Economics of St. Joseph's College is as old as the college itself. St. Joseph's College, which was established in 1882, 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 Undergraduate courses, Post Graduate courses and Certificate programs. The Post Graduate Department was started in 2006. The Economics- Mathematics - Statistics (EMS) course was started in 2010 and the Communicative English-Political Science-Economics (CPE) course in 2016.

#### 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**

Three **B.A** courses in combination with other branches of social sciences are designed from a social sciences perspective and are suitable for students who prefer to study the subject as part of a social sciences curriculum.

**B.A**: History- **Economics**- Political Science (HEP)

**Economics** -Political Science -Sociology (EPS)

Industrial Relations- Economics – Sociology (IES)

Communicative English-Political Science-Economics (CPE)

**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 suitable for students who have a sound background in Mathematics. [*This syllabus is available in another file.*]

The B.A 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 is being followed from June 2018.

**Note:** All students have to opt for any one choice based course offered by any other department of the college during their fourth semester, syllabus for which will be available in the respective department.

#### CHOICE BASED COURSES OFFERED BY THE DEPARTMENT

ECA OE 4118	Insurance Services	2 credit
ECA OE 4218	Agro Food Marketing	2 credit
ECA OE 4318	Economics Of Rural Development	2 credit
ECA OE 4418	Globalization and the Individual	2 credit
ECS OE 4118	Basic Microeconomics For Non-Economists	2 credit

#### **EVALUATION**

#### **Credit Grade Based Performance Assessment (CGPA)**

Being in an Autonomous system, the college has adopted the Credit Grade Based Performance Assessment (CGPA). As per the Bangalore university notification about weightage of marks, the course gives 30% weightage to continuous internal assessment (CIA) i.e.10 marks for Assignment/presentations, 15 marks for internal test and 5 marks for attendance. The other 70% is from End Semester Examination.

#### **Examination Pattern**

End Semester Examination Question Paper Pattern:

Time: 2.30 Hours Max Marks: 70 Section A (3x10=30 marks)
Section B (5x2 = 10 marks)

**Section C (**2x15 = 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 (2x 5 marks = 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, 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 of 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 valuers.
- Graphs, tables, calculations or equations required need to be presented accordingly.
- For two marks outline of the concept
- For ten 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 2018 ONWARDS**

#### FOR B.A HEP/EPS/IES/CPE

Semester	Course Code	Nature of paper	Paper Title	Credits
I	ECA 1118	Hard Core (compulsory)	Micro Economics	5
II	ECA 2118	Hard Core (compulsory)	Macro economics	5
III	ECA 3118	Hard Core (compulsory)	Statistical Methods	5
IV	ECA 4118	Hard Core (compulsory)	International Trade	3
IV	ECAOE	Open Elective	Choice Based Credit Courses (CBCS)	2
V	ECA 5118	Hard Core (compulsory)	Development Economics	4
V	ECA DE 5218	Soft Core (Department elective)	Environmental Economics	4
V	ECA DE 5318	Soft Core (Department elective)	Mathematical Methods for Economics	4
V	ECA DE 5418	Soft Core (Department elective)	Public Economics	4
V	ECA DE 5618	Soft Core (Department elective)	Advanced Statistical Methods for Economics.	4
VI	ECA 6118	Hard Core (compulsory)	Indian Economy	4
VI	ECA DE 6218	Soft Core (Department elective)	Financial Institutions and Markets	4
VI	ECA DE 6318	Soft Core (Department elective)	Econometrics	4
VI	ECA DE 6418	Soft Core (Department elective)	Entrepreneurship and Business Development	4
VI	ECA DE 6618	Soft Core (Department elective)	Economic Doctrines	4
Total credits				

## I SEMESTER ECA 1118: MICRO ECONOMICS

Total Teaching Hours Per Semester: 75 Number of Teaching Hours Per Week: 5

Number of Credits: 5

#### **COURSE OBJECTIVES:**

- To introduce students to the framework that economists use to analyze choices
- To introduce the concepts and theories of micro economics
- To familiarize students with the application of microeconomics

#### **MODULE I - INTRODUCTION TO MICRO ECONOMCIS (5 Hours)**

Basic problems of choice of production and consumption- Lionel Robbins' scarcity definition. Micro economics, Branches of Micro economics, Merits and limitations of Micro economics -Positive and Normative Economics, inductive and deductive methods.

SELF STUDY: Applications of micro economics

#### **MODULE II - THEORY OF CONSUMER BEHAVIOR (25 Hours)**

Cardinal Utility analysis-Law of Diminishing marginal utility .Law of Equi-marginal Utility.Marshallian Consumer's surplus. Law of Demand-Changes in demand. Elasticity of demand -types of elasticity of demand, Methods of calculating elasticity of demand, Factors determining elasticity of demand and practical importance of the concept. Hicksian Ordinal Utility Analysis-Indifference Curves- Meaning, Properties, Consumer's equilibrium-Income effect- Price effect - substitution effect.

#### **MODULE III - THEORY OF PRODUCTION (20 Hours)**

Production function -Law of variable proportions, Law of Returns to Scale – internal and external economies of scale. Production possibility curve and Pareto's concept of efficiency. Cost concepts - TFC, TVC, TC, AC,MC- Short run and long run analysis -Opportunity cost Revenue concepts –TR ,AR,MR under perfect and imperfect markets .

SELF STUDY: Supply- Law of supply

#### **MODULE IV -THEORY OF PRODUCT PRICING (20 Hours)**

Firm and industry equilibrium of a firm. Perfect Competition–features, Price and Output determination, role of time element .Monopoly– features- price and output determination, Price discrimination. Monopolistic Competition- features - product differentiation, selling cost.

**SELF STUDY:** Meaning and features of oligopoly.

#### **MODULE V - THEORY OF FACTOR PRICING (5 Hours)**

Pricing of Factors of Production—Rent—Ricardo and Modern, The Marginal Productivity Theory of wages, Wage differential. Interest-Classical theory.

**SELF STUDY:** Profit—Risk, Uncertainty, Dynamic and Innovation.

#### REFERENCE BOOKS: (I &II Semester)

- 1. Ahuja H.L: Advanced Economic Theory, 21st ed 2017.
- 2. Lipsey.G: An Introduction to Positive Economics. Littlehampton Book Services Ltd, 1973.
- 3. Seth M.L- A Text Book of Economic Theory, Lakshmi Narain Agarwal 1999
- 4. Stonier A.W. And Hague A Text Book of Economic Theory, AbeBooks, 1958.
- 5. Varian .H –Intermediate Micro Economics, Norton & Company, 2014.

## II SEMESTER ECA 2118: MACRO ECONOMICS

Total Teaching Hours Per Semester: 75 Number of Teaching Hours Per Week: 5 Number of Credits: 5

#### **COURSE OBJECTIVES:**

• To enable students to understand the nature and behaviour of important macro economic variables in the functioning of an economy.

• To impart knowledge regarding the formulation and implementation of macroeconomic policies.

#### **MODULE I - INTRODUCTION TO MACRO ECONOMICS (20 Hours)**

Definition and branches of Macro economics -stocks and flow, functional relationships, statics, comparative statics and dynamics. Interdependence between micro and macro economics. Micromacro paradox. Uses and limitations of Macro economics .Circular flow of income and wealth, Concepts and methods of measuring National Income

**SELF STUDY**: Problems in the measurement of National Income.

#### **MODULE II - THEORY OF INCOME AND EMPLOYMENT (20 Hours)**

Basic assumptions of the Classicists, Say's Law of Markets, Pigou's concept of wage cut, Wage-price flexibility and Full Employment, saving investment equality, Criticisms of the Classical theory. The Keynesian Theory -The concept of under employment equilibrium, Effective Demand-Aggregate Demand and Aggregate Supply, Consumption Function and its determinants, psychological law of consumption. Investment Function and its determinants, Multiplier, Accelerator.

#### **MODULE III - MONEY AND BANKING (20 Hours)**

Determinants of Demand for money-Theory of Liquidity preference. Composition of Supply of money-M1,M2,M3. Value of money— Quantity theory of money— Fisher, Cambridge equations.General equilibrium in the product and money market-IS and LM Model-Hicks-Hansen's. Commercial banking functions—credit creation, central banking functions-Monetary policy-Credit Control techniques—quantitative and qualitative methods.

**SELF STUDY**: Definition and functions of money.

#### **MODULE IV - INFLATION AND TRADE CYCLES (15 Hours)**

Meaning and types of inflation ,Demand-pull -Cost push Inflation, Inflationary gap. Effects of inflation, measures to control inflation ,employment-inflation trade off- Philips curve. Measuring inflation— Use of Index numbers. Meaning ,types . Consumer Price Index and Wholesale Price Index (only concepts).

**SELF STUDY:** Trade cycle-Phases ,Hawtrey's monetary theory , Schumpeter's theory of innovation.

#### **REFERENCE BOOKS: (in addition to books mentioned in 1st Semester)**

- 1. Dornbusch, R and S. Fisher , Macro Economics McGraw Hill, 11th edition, 2010.
- 2. Mankiw Gregory Macro economics Harvard University Worth Publishers, 2010.
- 3. Olivier Blanchard, Macroeconomics, Pearson Education, Inc., 5th edition, 2009.

#### III SEMESTER ECA 3118: STATISTICAL METHODS

Total Teaching Hours Per Semester: 75 Number of Teaching Hours Per Week: 5

Number of Credits: 5

#### **COURSE OBJECTIVES:**

- To introduce students to the basic concepts of statistics
- To develop skills of data analysis and interpretations

#### MODULE I - COLLECTION, CLASSIFICATION AND TABULATION OF DATA (10 Hours)

Statistics-definition and uses of statistics, primary and secondary data, Sampling methods random-stratified, systematic, cluster; non random-judgment sampling, convenience and quota sampling. Making a frequency table-discrete and continuous. Cumulative frequency distribution- Bivariate distribution. Rules of tabulation- parts of a table, types of tab les- one way, two way, three way and higher order tables. Graphical representation- bar chart, histogram, pie chart

#### **MODULE II - MEASURES OF CENTRAL TENDENCY (10 Hours)**

Definition-Characteristics of a good average Arithmetic mean- Median-Mode- Individual observations, deviation method, step deviation method and Grouping method.

#### **MODULE III - MEASURES OF DISPERSION (10 Hours)**

Range, Mean Deviation, Standard Deviation, Quartile Deviation, Skewness and Kurtosis

#### **MODULE IV - CORRELATION AND REGRESSION ANALYSIS (10 Hours)**

Meaning of correlation -Karl Pearson's coefficient of correlation-Rank method. Meaning of regression analysis-regression lines-regression Simple regression equation- OLS method

#### **MODULE V - INDEX NUMBERS AND TIME SERIES ANALYSIS (10 Hours)**

Index numbers-definition-uses-problems- unweighted and weighted index numbers-Laspeyers, Paasche, fisher's methods-Time Reversal test and Factor Reversal test. Consumer Price Index, Wholesale Price Index. Analysis of time series-definition-uses-components- methods of estimating component- method of semi averages.

#### **MODULE VI- Theory of Probability (10 Hours)**

Classical definition of probability and problems, Expected Value, Probability distribution – Normal distribution.

SELF STUDY: problems solving for all modules

- 1. Elhance D.N, Veena Elhance and B.M Aggarwal Fundamentals Of Statistics, Kitabahal 2014
- 2. Gupta, S. C. Fundamentals of Statistics, Himalaya Publishing House Pvt. Ltd.2015

## IV SEMESTER ECA 4118: INTERNATIONAL ECONOMICS

Total Teaching Hours per Semester: 45 Number of Teaching Hours per Week: 3

Number of Credits: 3

#### **COURSE OBJECTIVES**

- To provide knowledge on the basic concepts, tools and theories of international trade.
- To examine important issues in commercial policy and international economic integration.

#### **MODULE I - INTRODUCTION TO INTERNATIONAL ECONOMICS (10 Hours)**

Differences between internal and International trade, Classical theory -Theory of absolute cost advantage, Theory of Comparative cost advantage. Gains from Trade- Terms of trade – Importance and types, offer curves, factors affecting terms of trade. Heckscher-Ohlin theory, Leontief's paradox.

#### **MODULE II - TRADE POLICY AND ECONOMIC DEVELOPMENT (15 Hours)**

Free trade policy - case for and against, Protection - case for and against. Types of tariffs, Effects of tariffs-partial equilibrium analysis, Non-tariff barriers- commodity arrangements, Cartels, Dumping. Type and role of foreign capital in development. Singer- Prebisch thesis. Balance of trade and payments - methods of correcting imbalances in BOP. Theory of customs union, trade creation and trade diversion.

#### **MODULE III - FOREIGN EXCHANGE (10 Hours)**

Functions of foreign exchange markets .Theories of exchange rate determination- The Mint Par Parity theory, purchasing power parity theory, balance of payment theory. Determination of equilibrium exchange rates- Fixed and floating exchange rate, arbitrage, spot and forward rates, futures and options (only concepts).

#### **MODULE IV - INTERNATIONAL MONETARY AND TRADE SYSTEM (10 Hours)**

The Bretton Woods System, International Monetary Fund-objectives and role. World Bank-objectives and role in economic development. GATT Uruguay round, WTO core agreements-MFA, TRIPS, TRIMS, GATS.

SELF STUDY: MFA, TRIPS, TRIMS, GATS.

- 1. Chacholiades, M. (1973), The Pure Theory of International Trade, McMillian press
- 2. Salvatore Dominick (2011), International Economics: Trade and Finance, John Wiley and Sons, Ltd.
- 3. Sodersten Bō and Reed. G. (2005), International Economics, 3rd edition, McMillian Press Ltd.
- 4. Cherunilam, F.(2008), International Economics, 5<sup>th</sup>edition,Tata McGraw Hill Education Private Ltd.

## V SEMESTER ECA 5118: DEVELOPMENT ECONOMICS

Total Teaching Hours per Semester: 60 Number of Teaching Hours per Week: 4

Number of Credits: 4
COURSE OBJECTIVES:

#### •To examine the core issues and theories in economic development

•To enable students to gain knowledge about the dynamics of development

#### **MODULE I - CONCEPTION OF DEVELOPMENT (15 Hours)**

Meaning of economic development and economic growth, Characteristics of developing world-diversity within commonality-values in development, Measurement of development--PCI, HDI, PQLI, GDI, Green GDP, Happiness Index. Poverty - Absolute and relative, poverty line, vicious circle of poverty. Inequality of income and wealth distribution-Kuznets curve, Lorenz Curve, Gini coefficient -Sen's capability approach. Factors facilitating development --Economic and non economic factors, obstacles to development-scarcity of capital --market imperfections- Lewis model..

**SELF STUDY:** Factors facilitating development –Economic and non economic factors, obstacles to development-scarcity of capital –market imperfections. Women in development. Education and development, Health and development.

#### **MODULE II - RESOURCES FOR DEVELOPMENT (15 Hours)**

Natural Resources and economic development, Human Resources- Population growth and economic development, causes and consequences -Malthusian theory, theory of demographic transition. Human capital formation- Schultz. Rural- Urban Migration- Harris Todaro Model-push and pull model. Urbanization, Urban informal sector, internal migration and the brain drain.

#### **MODULE III - CAPITAL FORMATION AND DEVELOPMENT (15 Hours)**

Resources for Capital Formation-domestic resources- domestic savings, taxation, deficit financing, profits from public sector enterprises. Role of technology in economic development. Choice of techniques-Labour intensive techniques versus capital intensive techniques. Capital –output ratio-incremental, Capital -output ratio, Factors determining capital –output ratio . Investment criteria in economic development-objectives-

**SELF STUDY:** Foreign Capital, types and role. Entrepreneurs in economic development- Social Marginal Productivity criterion-Capital Turn over Criterion-Balance of payments Criterion.

#### **MODULE IV - THEORIES OF ECONOMIC DEVELOPMENT AND GROWTH (15 Hours)**

Adam Smith's contribution to the economic growth, Karl Marx's theory of development, Rostow's stages of growth, Rosenstein Rodan –Big push theory ,Ragnar Nurkse –Balanced growth, Hirschman-Doctrine of planned unbalanced growth, Leibenstein-Critical Minimum Theory, Harrod-Domar theory.

SELF STUDY: Gandhian model and Myrdal thesis

- 1. 1.Gerald M. Meier and James E. Rauch, Leading Issues in Economic Development, 8th Edition, Oxford University Press 2005
- 2. Taneja M.L and R.M. Myer Economics of Development and Planning 13<sup>th</sup> Edition, Vishal publications, 2014.
- 3. Todaro, Micheal and Smith Stephen Economic Development Addison-Wesley, 2008
- 4. 4. Debraj Ray, Development Economics, Oxford University Press, 2014

## V SEMESTER ECA DE 5218: ENVIRONMENTAL ECONOMICS

Total Teaching Hours Per Semester: 75 Number of Teaching Hours Per Week: 5

Number of Credits: 5

#### **COURSE OBJECTIVES:**

• To learn to use of main stream economics to environmental issues

• To help students to appreciate the relationship between environment and development.

#### **MODULE I - INTRODUCTION TO ENVIRONMENTAL ECONOMICS (15 Hours)**

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.

#### **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. Deforestation, causes, effects. Water pollution, causes, effects, Energy resource- types, energy crisis;

**SELF STUDY:** 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 government, National issues-case studies, development and environmental issues. Environment legislation in India.

**SELF STUDY:** Environment legislation in India. International environmental issues – global badozone depletion, global warming, acid rain, bio diversity loss, endangered species, desertification, international trade issue – Climate change, 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.

- 1. Bhattacharya N, Rabindra Environmental Economics- An Indian Perspective. Oxford University Press, Delhi, 2001.
- 2. Kolstad C Environmental Economics, Oxford: Oxford University Press, 2000.
- 3. Muthukrishnan Subhashini, Economics of Environment, Prentice Hall India Pvt Itd 2015..
- 4. Shogren, J Hanley, N and White, B., Introduction to Environmental Economics, 2nd edn, Oxford: Oxford University Press 2013.

## V SEMESTER ECA DE 5318: MATHEMATICAL METHODS FOR ECONOMICS

Total Teaching Hours Per Semester: 60 Number of Teaching Hours Per Week: 4

Number of Credits: 4

#### **COURSE OBJECTIVES:**

• To enable the use of quantitative methods and its application to economics

• To provide valuable insights for using mathematics to further learning of mathematical economics

#### **MODULE I - BASIC MATHEMATICS (10 Hours)**

Elementary Concepts of algebra, introduction to geometry, analytical & application of quadratic curves. Concept of function and types of functions. Simple problems of market equilibrium. Calculation of simple interest ,compound interest, calculation of nominal and real interest rates.

#### **MODULE II - DIFFERENTIATION AND INTEGRATION (15 Hours)**

Concept of limit, continuity, Rules of differentiation ,rules of partial differentiation and interpretation of partial derivatives; Concept of integration; simple rules of integration; definite integrations. Static optimization- maxima , minima ,Constrained and unconstrained optimization

#### **MODULE III - APPLICATIONS OF DIFFERENTIATION AND INTEGRATION (20 Hours)**

Euler's theorem, elasticity theorems, derivation of marginal utility from utility functions, marginal product from total product and marginal revenue from total revenue, profit maximization, break even point, sales maximization. Cournot and Stackleberg. Cobb-Douglas production function, concept of elasticity, utility maximization subject to budget constraint.

#### **MODULE IV - MATRIX (15 Hours)**

Types, simple operations on Matrices, Determinants and Matrices: Basic properties of determinants. Solution of simultaneous equations through Cramer's rule; matrix inversion.

- 1. Jean Webber, Mathematical Analysis, Harper & row publishers, 1982.
- 2. Chiang, A. C. Fundamental Methods of Mathematical Economics, McGraw Hill, 1984.
- 3. Yamane, Taro, Mathematics for Economists, Prentice Hall of India, 1975.
- 4 Allen, R.G.D, Mathematical Analysis for Economists, Macmillan Press and ELBS,1975.
- 5 Simon Carl P. and Blume Lawrence Mathematics For Economists, Norton, Business & Economics 1994.

#### V SEMESTER ECA DE 5418: PUBLIC ECONOMICS

Total Teaching Hours Per Semester: 60 Number of Teaching Hours Per Week: 4

Number of Credits: 4

#### **COURSE OBJECTIVES:**

• to enable students to learn about the working of the public finance system

• to gain knowledge about the working of Indian public finance

#### **MODULE I - THEORY OF PUBLIC ECONOMICS (15 Hours)**

Meaning and subject matter of Public Finance. Distinction between private finance and public finance. Musgrave's view on Economic activities of the state. Principle of maximum social advantage. Public goods vs. private goods, Pure public goods, Merit goods. Market failure. Externalities. Tiebout model, Theory of Club goods- correction of distributional and regional inequalities.

#### **MODULE II - PUBLIC REVENUE (15 Hours)**

Sources of public revenue- tax and non tax, Canons of taxation- Adam Smith and Bastable. Merits and demerits of direct and indirect taxes- Impact and Incidence. Effects of taxation on production, consumption and distribution.

**SELF STUDY:** Sources of Public revenue for Union and State Governments in India. Value added tax and Goods and Services tax.

#### **MODULE III - PUBLIC EXPENDITURE AND PUBLIC DEBT (10 Hours)**

Public Expenditure –Wagner's Law of Increasing State Activites, Peacock-Wiseman Hypothesis. Canons of Public Expenditure, Growth and effects of Public Expenditure. Public Debt , Effects, Repayment of Public Debt. Principles of debt management.

#### **MODULE IV - BUDGETING AND FISCAL POLICY (10 Hours)**

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

#### **MODULE V - FEDERAL FINANCE (10 Hours)**

Concept of fiscal federalism. Vertical and Horizontal imbalances. Principles for division of functions and financial resources between different levels of government. Need for federal financial adjustments, need and mechanism for federal transfers

**SELF STUDY:** Indian federal finance- distribution of functions, Role of the Finance Commission. Objectives and features of the present Finance Commission.

- 1. Lekhi R.KPublic Finance, Kalyani Publishers, 2016.
- 2. Musgrave .A. Richard The Theory of Public Finance, McGraw Hill Book Company Tokyo
- 3. Musgrave R.A. and Musgrave, P.A. Public Finance in Theory and Practice, McGraw Hill. 1976.
- 4. Singh .S.K, Public Finance in Theory and Practice, S Chand Publications, 2016
- 5. Tyagi B.P, Public Finance, Jai Prakash Nath and Co 2016.

### V SEMESTER ECA DE 5618: ADVANCED STATISTICAL METHODS FOR ECONOMICS

Total Teaching Hours per Semester: 60 Number of Teaching Hours per Week: 4

Number of Credits: 4

#### **COURSE OBJECTIVES:**

- To provide necessary statistical background for analyzing data and drawing inferences from that analysis.
- This course also aims at providing students with an understanding of inferential statistics (making valid generalizations from sample data) including estimation and tests of simple and composite hypotheses.

#### Learning outcome:

The students are expected to learn the conceptual underpinnings of statistical methods and to apply them to address more advanced statistical question than are covered in an introductory statistics course. The statistical methods covered in the course are useful for many types of questions that relate to multiple variables groups. At the end of the course, students should be able to critically analyze and apply the tools of statistics to improve decision making.

#### Module I: Basic concepts of Probability [15 hours]

Descriptive versus inferential analysis-Descriptive analysis of univariate data and bivariate data-Probability-Random experiments, Sample space events, definitions of probability, Conditional probability-Discrete and continues- - laws of addition- Multiplication, independent events, Bayes theorem- Discrete probability distributions

**Self Study:** Descriptive statistics, measures of central values and variability

#### Model II: Theories of probability distribution [15 hours]

Probability density functions - univariate Bivariate- Discrete random variables, continues random variables, expected value, Variance, co variance and correlation coefficient-Continuous probability distributions. Binomial and Poisson distributions. Normal distribution normal curve, Standard normal probability distribution- t distribution- F distribution-

**Self study:** Deriving the normal curve, practicing the problems under each distribution theorems.

#### Module III: Hypothesis testing and Estimation. [15 Hours]

Statistical hypothesis- hypothesis testing-procedure of hypothesis testing--Critical region typestype I error and type II error-power of a test-Standard error for population and sample-application of the hypothesis testing with known and unknown variances- Properties of a good estimator-Approaches to estimation-point and interval-Test of significance for large sample-two tailed test for difference between the means of two samples- Test of significance for small sample - Chi square distribution-Student's t distribution- properties of t distribution-application of t distribution .

**Self Study:** Properties of t distribution-application of t distribution, Problem solving in Excel and SPSS

#### Module IV: Testing of Means and Variances

[15 Hours]

Testing of Means: Test of Single Sample Mean-Two Independent Mean Tests-Testing for

Means of Paired Data-ANOVA-One way and Two way- Testing for the Equality of Population Means.

Testing of Variance: Test of Single Sample Variance – Two Sample Variance Test-Assumptions - Testing of Population Variance- Comparing the Variance of Estimates. F test-Applications of F test-

Self Study: Meaning of variance and Means. Problem solving in Excel and SPSS

#### References:

- 1. Paul Newbold: Statistics for Business and Economics,
- 2. Anderson, Sweeny and Williams: Statistics for Business and Economics, Thomson Western, US
- 3. Lind A douglas, William G Marchal and Samuel A Wathen: Statistical techniques in business and economics, 17<sup>th</sup> Edition, Mcgraw hill publications.
- 4. Myer, P.L. (1970): Introductory Probability and Statistical Applications, Oxford & IBH Publishing, New Delhi
- 5. Goon A.M., Gupta M.K.: Das Gupta.B. (2005), Fundamentals of Statistics, Vol. I, World Press, Calcutta.
- 6. Monga, G.S. (1972), Mathematics and Statistics for Economists, Vikas Publications, NewDelhi.
- 7. David P Doane and Lori E Seward: Applied statistics in Business and Economics

#### VI SEMESTER ECA 6118: INDIAN ECONOMY

Total Teaching Hours per Semester: 60 Number of Teaching Hours per Week: 4

Number of Credits: 4

#### **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, Regional inequalities-measures to reduce regional inequalities

**SELF STUDY:** Brief overview of the earlier employment generation and poverty alleviation programmes –TRYSEM ,NREGP ,JRY, Mahatma Gandhi National Rural Employment Guarantee scheme

#### **MODULE II - AGRICULTURE SECTOR (15 Hours)**

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, 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.

**SELF STUDY**: Agriculture and allied activities- animal husbandry, horticulture, floriculture, aqua culture-(concepts only).

#### **MODULE III - INDUSTRIAL SECTOR (10 Hours)**

Industrial policy resolution 1948, 1956 and Industrial Policy, 1991-A critical appraisal of New industrial policy - Strengthening of the private sector, Liberalisation and Globalisation, Public sector enterprises in India- origin, growth and problems, Disinvestment, privatization and Public-private partnership, 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

**SELF STUDY:** Transport system- Road transport system in India-PGSY, Railways, Water transport and Civil aviation.

#### **MODULE V - SERVICE SECTOR & TRADE (10 Hours)**

Health sector features, Education –literacy and gross enrollment ratios - Insurance-government and private, IT & ITES, Tourism and Hospitality, Real Estate Sector, Composition and direction of foreign trade

**SELF STUDY:** National Rural Health Mission, JNURM, Sarva Shiksha Abhiyan, Madhyamik Shiksha Abhiyan Ucchattars Shiksha Abhiyan, Skill Development Programme

- 1. Datt and Sundharam, Indian Economy, S. Chand & Company Ltd., New Delhi 2016
- 2. Misra, S. K. and V. K. Puri, Indian Economy. Mumbai: Himalaya Publishing House 2016
- 3. Uma Kapila-An overview of Indian Economics-volume I-IV Academic Foundation Economic Development of India –Monthly update
- 4. Omkarnatth, G (2012) Economics: A primer for India, Orient BlackSwan, Hyderabad.
- 5. Economic Survey of India latest issue.
- 6. India Development Report latest issue by Oxford India.

## VI SEMESTER ECA DE 6218: FINANCIAL INSTITUTIONS & MARKETS

Total Teaching Hours per Semester: 60 Number of Teaching Hours Per Week: 4

Number of Credits: 4

#### **COURSE OBJECTIVES:**

• to provide an over view of the structure and features of the financial system

• to provide knowledge about the working of the financial system

#### **MODULE I - FINANCIAL SYSTEM (5 Hours)**

Introduction, functions of Financial System, Components of Indian Financial System- financial institutions, financial markets, financial instruments and financial services.

SELF STUDY: Financial System and Economic Development.

#### **MODULE II - FINANCIAL INSTITUTIONS (15 Hours)**

Financial institutions- Banking Institutions-Organized Sector-features, functions, types-Commercial Banks, Co-operative Banks, Regional Rural Banks, Foreign Banks.. Non Banking Institutions-features, functions, classification-Development Finance Institutions, Investment Institutions, non banking financial companies, Hire Purchase Companies, Equipment Leasing Finance Companies, Nidhis, Chit Funds. Mutual Fund-Meaning, Concept, Types Advantages and Problems of Mutual Fund in India.

**SELF STUDY:** Unorganized Sector-features, functions, types- Indigenous Bankers, Money Lenders

#### **MODULE III - MONEY MARKET (15 Hours)**

Introduction and functions of money market, structure of money market, components of money market- call money market, collateral loan market, acceptance market, bill market. Institutions of money market, characteristics of a developed money market. Instruments – commercial bills treasury bills, call and short notice money market, certificate of deposits, commercial paper, Repos, ADR and GDR(concepts only).

#### **MODULE IV - PRIMARY CAPITAL MARKET (15 Hours)**

Introduction, functions, importance and structure of the Indian capital market. Components of capital market, new issue market, capital market instruments, ownership securities- equity shares preference shares, deferred shares, no par stock/shares, shares with differential rights, sweat equity .Creditorship securities, debentures or bonds.Derivatives securities-meaning and types. Types of security buyers and methods of marketing securities- public issue, offer for sale, placement method, tender method, over the counter, placement right issue, bonus issue and book building (concepts only)

**SELF STUDY:** importance and structure of the Indian capital market.

#### **MODULE V - SECONDARY CAPITAL MARKET (10 Hours)**

Introduction, characteristics of Stock Exchanges, Functions of Stock Exchanges. Stock Exchanges in India. Venture Capital and Buy Back of Shares (Concepts Only). Depository System and Dematrialisation (Concepts Only)

SELF STUDY: SEBI-Objectives and Functions.

#### **REFERENCE BOOKS:**

1. Gordan and Natarajan ,Indian Financial System,Himalaya Publishing House,2016.

- 2. Shashi K Gupta, NishaAggarwal, Neeti Gupta ,Financial Institutions and Markets' Kalyani Publishers, New Delhi 2016..
- 3. Vasant Desai, Indian Financial System and Development Himalaya Publishing House 2016 **VI SEMESTER**

#### **ECA DE 6318: BASIC ECONOMETRICS**

Total Teaching Hours Per Semester: 60 Number of Teaching Hours Per Week: 4 Number of Credits: 4

#### **COURSE OBJECTIVES:**

- To provide a basic understanding of regression analysis as it is practiced in the social sciences.
- To enable to construct a simple theoretical model

#### **MODULE I - INTRODUCTION TO ECONOMETRICS (15 Hours)**

Nature and Scope of Econometrics-Meaning of Econometrics, Relationship Between Statistics, Mathematics and Economics, Economic and Econometric Models, the aims and methodology of Econometrics, Historical origin of the term regression and its modern interpretation, statistical Vs deterministic relationship, regression Vs Causation, regression Vs correlation, terminology and notation, the nature and sources of data for Econometric analysis.

#### **MODEL II - BASICS OF STATISTICS AND PROBABILITY (15 Hours)**

Review of basic statistical concepts, Population and Sample, Random variables, Probability distribution function, Multivariate probability density functions, Characteristics of probability distribution, Expected value, Variance, Co variance Correlation Co efficient. Important probability distributions-Normal distributions, Chi-Square distribution, t distribution,

F-distribution, Meaning of hypothesis testing, properties of estimators, types of errors and level of significance.

#### **MODULE III - LINEAR REGRESSION MODELS (10 Hours)**

Two Variable Regression Analyses-The basic two Variable Regression model: OLS Estimation, Hypothesis testing, Normality assumptions Statistical Inference and Prediction. Extensions of two variable regression model –Regression through origin, Functional forms of regression model.

#### **MODULE IV - MULTIPLE REGRESSION ANALYSIS (10 Hours)**

The problem of Estimation- Notation and assumptions, meaning of partial regression coefficients the multiple coefficient of determination R and the multiple coefficients of correlation R, R and adjusted Partial correlation coefficients, Goodness of Fitness-Introduction to Specification Bias, Interpretation of Multiple Regression Equation.

## MODULE V - RELAXING THE ASSUMPTIONS OF THE CLASSICAL REGRESSION MODEL (10 Hours)

Multicollinearity, Heteroscadasticity and Autocorrelation- Nature, Consequences, Detection and Remedial Measures

SELF STUDY: All modules will have problem solving

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

#### **VI SEMESTER**

#### ECA DE 6418: ENTREPRENEURSHIP AND BUSINESS DEVELOPMENT

Total Teaching Hours Per Semester: 60 Number of Teaching Hours Per Week: 4

Number of Credits: 4

#### **COURSE OBJECTIVES:**

- To motivate students to venturing into entrepreneurship as an alternative career option.
- To develop and equip students with the necessary knowledge, skill for pursuing Entrepreneurship.

#### **MODULE I - ENTREPRENEURSHIP (10 Hours)**

Concepts and Theories of Entrepreneurship-definition, role of entrepreneurship in economic development, entrepreneurship mind set, advantages of entrepreneurship, common mistakes and challenges faced by entrepreneurship. Skills required in entrepreneurship- creativity-process, observation, managerial. Intrapreneurship, Schumpeter's theory of innovation, Locus of control, McClelland achievement motivation.

SELF STUDY: role of entrepreneurship in economic development

#### **MODULE II - DEVELOPING A BUSINESS PLAN (15 Hours)**

Entrepreneurial process--generating business ideas, identifying and evaluating business opportunities, product evolution and innovation, developing business plan, new entry strategy. The marketing plan -Market Analysis- market research for the new venture, elements of marketing-mix- product, price, promotion and place, SWOT analysis. Marketing strategy, growth. Ethics and social responsibility of entrepreneurs.

#### **MODULE III - TYPES OF BUSINESS ORGANISATION (15 Hours)**

Types of companies- limited and unlimited; proprietary, partnership and corporation. Formation of companies-documents-memorandum of association, articles of association, prospectus. Designing the organization- Principles of management, building the management team

**SELF STUDY:** Legal issues for entrepreneurs- patents, trade marks, copy rights, licensing, signing of contract

#### **MODULE IV - FINANCING OF A BUSINESS (10 Hours)**

Operating Activities, Investing Activities and Financing Activities. Sources of New Venture Funding. Angel Investors, Venture Capitalists, Private Equity, Public Equity, and Banks .Preparing Financial Projections- Basic Financial Concepts—book keeping, financial accounting, cost in decision making- Break Even Analysis, Ratio analysis (concepts only).

#### **MODULE V - NET WORKING FOR ENTREPRENEURS (10 Hours)**

Net working for entrepreneurs- Social net working, Role of Govt. Agencies in Promoting Entrepreneurship,

**SELF STUDY:** Small Industries Services Institutes, SIDBI, Khadi and Village Board and Financial Institutions, self help groups, women entrepreneurs- challenges. Social entrepreneurship.

#### REFERENCE BOOKS:

1. Hirsch. D Peters, Peters P Michael, and Shepherd A Dean , Entrepreneurship, Tata McGraw- Hill , Delhi.

2. Thomas W. Zimmerer, Norman M. Scarborough Essentials of Entrepreneurship and Small Business Management, Pearson Education.

## VI SEMESTER ECA DE 6618: ECONOMIC DOCTRINES

Total Teaching Hours Per Semester: 60 Number of Teaching Hours Per Week: 4

Number of Credits: 4

#### **COURSE OBJECTIVES:**

- To enable a student to understand the rich contributions of eminent thinkers to economic thought.
- To enable a student to understand the evolution of economic ideas over time.
- To enable a student to understand the importance of the economic ideas as developed by various thinkers.

#### Learning outcome:

- To critically evaluate the arguments for and against any Economic thought.
- To learn more about the Economic philosophy of various times.

#### **MODULE- I: PRE-CLASSICAL ECONOMIC IDEAS: [Total: 15 Hours]**

Significance of the study of economic doctrines .Ancient economic thought-Hebrew, Greek and Roman.

· Mercantilism- Mercantilist ideas, representative mercantilist, decline of mercantilism. Physiocracy-factors giving rise to Physiocracy-ideas-representative Physiocrats, decline of Physiocracy.

**SELF STUDY:** Medieval Economic Thought- St. Thomas Aguinas

#### MODULE II: CLASSICAL and NEO-CLASSICAL SCHOOL [Total: 15 Hours]

Tenets of Classicism · Economic ideas of Adam Smith · Thomas Robert Malthus · David Ricardo · J.B. Say

Birth of the Neo-classical school · Contributions of Alfred Marshall, Chamberlain, Joan Robinson, J.B. Clark.

#### **MODULE III: WELFARE SCHOOL: [Total: 10 hours]**

Pigou, Hobson. Pareto. JR Hicks. Kenneth Arrow. Amartya Sen

**SELF STUDY:** Karl Marx

#### MODULE IV: MARGINAL SCHOOL · [Total: 10 Hours]

Significance of the Marginal School · Ideas of the Marginal school · Contributions of Gossen · Karl Menger · W.S. Jevons · Leon Walrus ·

**SELF STUDY:** Austrian School · Bohm Bawerk

#### **MODULE V: INDIAN ECONOMIC THOUGHT: [Total: 10 hours]**

Kautilya's Arthasthastra, Dadabhai Naoroji, J.K Mehta, C.N.Vakil, Jawaharlal Nehru, Gandhian economics.

SELF STUDY: Dr.Gadgil, R.C.Dutt, Gopal Krishna Gokhale

#### References:

- Gide Charles and Rist Charles (2007), A History of Economic Doctrines- From the Time of the Physiocrats to the Present Day. (1<sup>st</sup> Indian reprint), surject Publications, New Delhi.
- Haney Lewis (1979), History of Economic Thought, Surject Publications, New Delhi.
- Hunt EK, M Lautzenheiser (2011), History of Economic Thought: A Critical Perspective, 3<sup>rd</sup> Edition PHI.
- Jhingan ML, Girija M, Sasikala L (2011), History of Economic Thought, Vrinda Publications Pvt Ltd.
- Kapp William (1960), History of Economic Thought, Barnes and Noble.
- Eric Roll- Theory of economic development

\*\*\*\*\*\*