SOPHIA COLLEGE (AUTONOMOUS)

DEPARTMENT OF ECONOMICS

TYBA SYLLABUS

SEMESTER-V

SOPHIA COLLEGE (AUTONOMOUS)

COURSE STRUCTURE

(APPLICABLE FROM ACADEMIC YEAR 2020-2021)

TYBA ECONOMICS- (SEMESTER –V)

PREAMBLE:

The Board of Studies in Economics, Sophia College for Women (Autonomous) has finalized the syllabi of papers at the TYBA which will be made effective from the Academic Year 2020-2021. The syllabus of TYBA has been framed keeping in view the recent trends in the subject of economics. The papers which would be offered to the students of Sophia College at TYBA in Semester V and Semester VI have been enlisted below. A broad overview of the structure, followed by the syllabi of individual papers, is given below.

DURATION:

The course shall be a full time course.

The duration of B.A. course shall be of Three years /Six Semesters.

- FYBA: SEMESTER – I & II (One paper each semester)
- SYBA: SEMESTER – III & IV (Two papers each semester)
- TYBA: SEMESTER – V & VI (Six papers each semester)

PATTERN:

The T.Y.B. A. [Entire Economics] Course shall have 12 papers. Every semester shall have six papers, each carrying 100 marks. However students can opt combination of any two subjects (Economics and any other subject) in which every semester shall have three papers of each subject, carrying 100 marks. All Papers in both Semesters are bifurcated into 75 marks of written exam and 25 marks of internal assessment.

SCHEME OF EXAMINATION:

The duration of the examination, paper pattern and the allotment of lectures as well as marks are given in detail as follows:

Duration:

Two and Half an Hour for each 75 marks paper at the end of each Semester.

Allotment of Lectures:

The allotment of lectures is as per the common guidelines stipulated by the Academic Council for Humanities of University of Mumbai.

Paper Pattern:

- There shall be three questions each of 20 marks divided into three sub questions (a, b, c,) with an internal option to choose any two, one question of 15 marks for 75 marks paper.
- All questions shall be compulsory with internal choice within the questions.
- Questions may be subdivided into sub-questions a, b, c as mentioned earlier and the allocation of marks shall depend on the weightage given to the topic.

PAPER PATTERN:

Questions	**Modules**	**Marks**
Question 1	Unit I	20
Question 2	Unit II	20
Question 3	Unit III	20
Question 4 (short note)	Unit I,II &III	15

COURSE STRUCTURE

(APPLICABLE FROM THE ACADEMIC YEAR 2020-2021)

TYBA ECONOMICS- (SEMESTER –V)

The following Economic papers would be offered to the TYBA students of Sophia College in Semester V:

MICROECONOMICS – III: PAPER IV

SEMESTER V- COURSE CODE SBAECO501

Preamble: *The course is designed to provide sound training in microeconomic theory. The aim of this course is to improve students' understating of the concepts through applications to the real world. Since students have already studied the types of market structures (viz. perfect competition, monopoly & monopolistic competition), the focus of this course is on the study of oligopoly behaviour, application of game theory, general equilibrium approach and welfare economics, the economics of information & behavioural economics.*

Module I: Oligopoly Behaviour & Game Theory

Features of Oligopoly, Pricing & Output decisions under oligopoly : the Cournot model – the Bertrand model - the Edgeworth model – the Chamberlin model – the Kinked demand curve model – Collusion and Cartels – Price Leadership : Low Cost, Dominant Firm.

Basic Concepts in Game Theory & its application to Oligopoly: dominant strategy equilibrium – Battle of Sexes game – Nash equilibrium – Prisoner's dilemma, Price and non price competition & Cartel cheating,- Extensive form games – game tree - Solving finite extensive form game.

Module II: General Equilibrium and Welfare Economics

Interdependence in the Economy – General Equilibrium and its Existence -The Pareto Optimality Condition of Social Welfare, Marginal Conditions for Pareto Optimal Resource Allocation, Perfect Competition and Pareto Optimality - Kaldor- Hicks Compensation Criterion - Arrow's Impossibility Theorem.

Module III: The Economics of Information

The economics of search - Searching for the lowest price - Markets with Asymmetric Information : Market for Lemons and adverse selection, Signaling & Screening, The Principals, Agents & Moral Hazard, Using Contracts to Reduce Moral Hazard- Asymmetric Information in Labor Markets: Efficiency Wage Theory.

Behavioural Economics: human decision making differs from that of the rational individual of conventional economic theory.

References:

1. Jeffrey M. Perloff , Microeconomics, 7th edition, Pearson Education, Inc., publishing as Addison-Wesley, 2015.
2. Robert S. Pindyck & Daniel L. Rubinfeld, Microeconomics,8th edition, Pearson Education, Inc., publishing as Prentice Hall, 2013.
3. Robert H. Frank, Microeconomics & Behaviour, 9th edition, McGraw-Hill Education, New Yourk, 2015.
4. Mankiw, N. Gregory, Principles of Microeconomics,7th edition, Cengage Learning, 2015.
5. Mansfield, Edwin, Micro-economics: Theory & Applications, 5th edition, W.W. Norton & Company, New York, 1985.
6. Salvatore, D., Microeconomics: Theory and Applications, New Delhi Oxford, New Delhi, Oxford University Press, 2006.

ECONOMICS OF DEVELOPMENT: PAPER V

SEMESTER V- COURSE CODE SBAECO502

Preamble:

This course is designed to inculcate diverse concepts related to economic growth and development by giving special emphasis on structural issues related to the process of development. In order to create an awareness on policy options, the pressing problems on the path of development such as inequality, poverty and technological aspects are dealt in.

Module 1: Concepts of Economic Growth and Development

Meaning of Growth and Development, Importance of growth rate - Basis of change in GDP measurement in India,– Concept of human development, HDI, GDI, Sustainable development – Green GDP – Three core values of development – Capability Approach.

Module 2: Structural Issues in Development Process

Big push theory – Schultz theory of human capital –Schumpeter's theory of development, Lewis's model of growth, Solow's growth model- Role of Education, Health & nutrition in economic development - Role of Infrastructure in economic development –Role of technology in economic development - Types of technical progress.

Module 3: Inequality, Poverty and Development

Measures of poverty and inequality – Kuznets inverted U-hypothesis – Policy options for poverty alleviation – Inclusive growth – Micro Finance –Schumacher's Concept of Intermediate/ Appropriate technology, Green technology.

References:

1. Todaro, Michael P. and Stephen C. Smith. Economic Development, 8e. Delhi: Pearson Education, 2003.

2. Thirlwall, A.P. Growth and Development 8e. New York: Palgrave MacMillan, 2005.

3. Meier, Gerald M. and James E. Rauch. Leading Issues in Economic Development, 8e. New Delhi: Oxford Univ. Press, 2006.

4. Baldwin, Economic Development: Theory, History and Policy, Willy Publishers, 1957

5. Sinha Francis, Microfinance self Help Groups in India: Living up to Their Promises, Practical Action Publishing, England, 2009.

ECONOMICS OF AGRICULTURE AND COOPERATION: PAPER VI

SEMESTER V - COURSE CODE SBAECO503

Preamble:

This paper provides an overview of the role of agriculture in the economic development of the country and the salient features associated to agricultural productivity and agricultural labour. The pertinent aspects related to agricultural credit, agricultural marketing as well as the global problems existing in the marketing are dealt in. Students can acquire understanding about the features of agricultural policy and the agrarian crisis as well as the problems and challenges in the field of agriculture and cooperation.

Module 1: Agricultural Productivity

Role of agriculture in economic development - Cropping Pattern -Agricultural Productivity, Causes of Low Productivity in Agriculture - Measures taken to improve the Agricultural Productivity in India - Water Management and agricultural development - Agricultural labour: Problems and suggestions.

Module 2: Agricultural Credit and Marketing

Agricultural Credit- Sources of Credit - Co-operative Credit and Agriculture, Commercial Banks and Regional Rural Banks, microfinance- NABARD - Rural Indebtedness,.
Agricultural Marketing: Types of Agricultural Marketing - Problems of Agricultural Marketing - Measures to correct it - National Agricultural Market - WTO and Indian Agriculture.

Module 3: Agricultural Policy

New Agricultural Policy & recent developments in agricultural policy
Agricultural Price Policy in India and Its evaluation
Subsidies on Agricultural Inputs
Food Security in India
Agricultural Crisis and Farmers' Suicide

References:

1. Bilgram, S.A.R, Agricultural Economics, Himalaya Publication House, Delhi, 1966

2. Raj K.N, Essays in Commercialization of Indian Agriculture, Oxford University Press, New Delhi, 1988.

3. Thamarajalaxmi R, Intersectoral Relationship in Developing Economy, Academic Foundation, Delhi, 1994.

4. Memoria C. B, Agricultural Problems of India, Kitab Mahal Allahabad, 1979.

5. Datt and Sundaram, Indian Economy, S.Chand & Company, New Delhi, 2012.

6. Mishra &Puri, Indian Economy, Himalaya Publishing House, New Delhi,2012.

7. World Development Report 2008: Agriculture for Development

MATHEMATICAL AND STATISTICAL TECHNIQUES FOR ECONOMIC ANALYSIS: PAPER VII

SEMESTER V -COURSE CODE SBAECO504

Preamble

A plethora of data has emerged at an exponential rate and it is the description, interpretation and understanding of these data and drawing of accurate conclusions that is imperative for a student of Economics. The aim of this paper is to provide students with the mathematical and statistical skills and understanding needed for 'knowing why' and 'when' to apply these techniques.

Module 1: Equations, Graphs and Derivatives

A. Microeconomic applications of equations and graphs

Linear and non-linear relationships in economic analysis

Market demand and supply models, impact of taxes

B. Derivatives and their applications in various areas of economic analysis

Derivative and the rules of differentiation

Higher order derivatives

Application of derivatives: Increasing and decreasing functions, Concave and convex functions, relative extremes, inflection point

Application of derivatives in Economics: Obtaining marginal functions, price elasticity of demand, Optimising economic functions

Module 2: Linear Algebra

Matrices and basic operations on matrices

Determinant of a matrix

Rank of a matrix

Inverse of a matrix

Cramer's rule

Input-Output Analysis and policy implications

Module 3: Descriptive Statistics and graphing techniques for presenting data

Concept of primary and secondary data along with tabulation and graphs – Measures of central tendency (only arithmetic-mean, median, and mode) – Absolute and relative measures of dispersion (range, quartile deviation, mean deviation and standard deviation) with simple applications – Measures of skewness and kurtosis – Lorenz Curve.

Module 4: Elementary Probability Theory

Sample space and events– Mutually exclusive, exhaustive and complimentary events– Conditional probability– Binomial probability distribution– Nature and Properties of the Normal Probability Distribution; Standard Scores and the Normal Curve; The Standard Normal Curve: Finding Areas when the Score is Known, Finding Scores when the Area is Known.

References:

1. Dowling Edward T: Introduction to Mathematical Economics, Schaum Outline Series in Economics, Tata McGraw -Hill, New Delhi, 2004.

2. Dowling Edward T: Theory and Problems of Mathematical Methods for Business and Economics, McGraw –Hill, 1993.

3. Gupta S.P.: Statistical Methods, S. Chand, New Delhi, 2014.

4. Lerner Joel J and P.Zima: Theory and Problems of Business Mathematics, McGraw Hill,New York, 1986.

5. Sancheti D.C. and V.K. Kapoor: Statistics-Theory, Methods and Applications, S. Chand,New Delhi, 2014.

6. Chiang A. C.: Fundamental Methods of Mathematical Economics, 3rd edition, McGraw-Hill, 1984.

7. Peter Goos and David Meintrup: Statistics with JMP: Graphs, Descriptive Statistics, and Probability, John Wiley & Sons, Ltd, 2015.

INTRODUCTION TO ECONOMETRICS: PAPER VIII(A)

SEMESTER V - COURSE CODE SBAECO505(A)

Preamble: *The objective of this course is to impart a basic understanding of econometrics. The student will be able to appreciate the theoretical basis of the subject. At the same time, it will enhance the student's ability to apply the theoretical techniques to the problems of the real world. Topics like forecasting have been introduced to impart this practical orientation.*

Module 1: Idea of a random variable

Concept of a random variable: Discrete and continuous

Expectation and variance of a random variable

Discrete random variables: Bernoulli, Binomial, Poisson

Continuous random variables: The normal distribution

Bivariate random variables: Joint and Marginal distribution

Conditional probability, Conditional mean and conditional variance

Covariance, Correlation

Central Limit Theorem (without proof)

Module 2: Statistical Inference

Estimation: Point and Interval estimation

Hypothesis testing: The Null and Alternate hypotheses

Significance testing for mean using Z distribution when population variance is known

The Chi-square distribution and testing for sample variance with known population variance

The F distribution and comparing sample variances

The t distribution and hypothesis tests when population variance in unknown

Module 3: Regression Analysis

Two variable regression model

The concept of the PRF and SRF

Classical assumptions of regression

Derivation of the OLS estimators and their variance

Gauss-Markov Theorem: Properties of OLS estimators under classical assumptions

Tests of Hypothesis, confidence intervals for OLS estimators

Measures of goodness of fit: R square and its limitations, adjusted R square and its Limitations

Multivariable Regression Model

Analyzing summary of multivariable regression model

References:

1. Gujarati Damodar (2012), Basic Econometrics, Tata McGraw Hill Education Private Limited, New Delhi.

2. Hatekar Neeraj (2009), Econometrics: The First Principles A Friendly Introduction (using R), Sage Publications India Pvt Ltd.

3. A.H. Studenmund (2017), A Practical Guide to using Econometrics, Pearson India Education Services Pvt. Ltd.

4. Dougherty Christopher , (2011), Introduction to Econometrics, Oxford University Press.

5. Salvatore Dominick, Theory and Problems of Statistics and Econometrics, Schaum's outline series.

6. Sancheti D.C. and V.K. Kapoor: Statistics-Theory, Methods and Applications, S. Chand, New Delhi.

ENVIRONMENTAL ECONOMICS: PAPER VIII(B)

SEMESTER V- COURSE CODE SBAECO505(B)

Preamble:

This course focuses on economic causes of environmental problems. In particular, economic principles are applied to environmental questions and their management. Economic implications of environmental policy are addressed as well as valuation of environmental improvements.

Module 1: Introduction to Environmental Economics

Introduction, Definition, scope, evolution and growth of environmental economics- Perspectives in environmental economics - Rio declaration, Agenda 21, Kyoto protocol - Economy & environment linkage - Economic development & environment - Consequences of environment mismanagement - Environmental Kuznets curve - Sustainable development-Environmental accounting..

Module 2: Measuring benefits of environmental improvements & Global Environmental Issues

(A) Economic value of Environment- Measurement method:-market based and non-market based methods, contingent valuation, travel cost method, hedonic price method, risk assessment and perceptions.

(B) The global environment - Trans-boundary environmental problems –global warming, greenhouse effect, economics of climate change, Ozone Layer Depletion, Acid Rain, Micro-Plastics Pollution, Destruction of bio-diversity- Nuclear Energy & Environment – Local Environmental Issues.

Module 3: The design and implementation of Environmental Policy

Overview- Importance of Environmental Policy-objectives/goals of environmental policy- Criteria for evaluating environmental policies, Environmental Policy Instruments-types of instruments-environmental Standards, Pigovian taxes and effluent fees, tradable permits, carbon credits, property rights and Coase theorem. Issues in implementation of environmental policy-National Environmental Policy.

References:

1. Barry C. Field and Martha K. Field (2017): Environmental Economics: An Introduction, MacGraw Hill.
2. Charles Kolstad (2000): Environmental Economics, Oxford University Press, New York.
3. Anil Shishodia and Katar Singh (2007): Environmental Economics: Theory and Applications, Sage Publications.
4. Ahmed M. Hussen,(2004): Principles of Environmental Economics, Routledge, New York.
5. Roger Perman, Yue Ma, James McGilvray Michael Common (2003): Natural Resource and Environmental Economics, Pearson Education Limited.

HISTORY OF ECONOMIC THOUGHT: PAPER IX

SEMESTER V- COURSE CODE SBAECO506

Preamble: *This course provides basic understanding about the celebrated economists and their contributions starting from the classical period. It throws light on the contributions of Nobel Laureates of recent period too.*

Module 1: **Classical Period**

Adam Smith (1723- 1790) - Division of labour, Productive vs. unproductive labour, theory of value, capital accumulation & development.

David Ricardio (1772- 1823) - Value, theory of rent &distribution.

Karl Marx (1818-1883) - dynamics of social changes, theory of values, surplus value, profit and crisis of capitalism and contemporary relevance.

Module 2: **Marshall, Pigou & Keynes**

Alfred Marshall (1842 - 1924): Role of time in price determination, economic methods, ideas of consumer's surplus, representative firm, external and internal economies, quasi-rent.

Arthur Cecil Pigou (1877-1959) : Pigou Effect, Pigovian tax

John Maynard Keynes (1883 - 1946): The General Theory of Employment, Interest & Money.

Module 3: Post Keynesian Developments

Milton Friedman (1912 - 2006), Don Patinkin (1922 -1995), Robert Lucas (1937), Arthur Laffer (1940)

Nobel Prize Winning work in recent times by **:** A. K. Sen (1998), Joseph Stiglitz (2001), Paul Krugman (2008), Jean Tirole (2014), Angus Deaton (2015), Richard Thaler (2017), Michael Kremer, Abhijit Banerjee, Esther Dufflo (2019).

References:

1. Gide, O. and G. Rist , A History of Economic Doctrine, George Harrop Co., London, 1956.
2. Roll, E, A History of Economic Thought, Faber Landon, 1973.
3. Dasgupta A. K, Epochs of Economic Theory Oxford University Press. New Delhi, 1985.
4. Schumpeter, J.A, Ten Great Economist, Oxford University Press, New York, 1951.
5. Ghosh and Ghosh, Concise History of Economic Thought, Himalaya Publishers,1996.
6. Puttaswamaiah K, Nobel Economists – Lives and Contributions, Indus Public Co., New Delhi, 1995.
7. Lokanathan. V., A History of Economic Thought 10th Edition, S Chand & Company Limited, New Delhi ,2018.
8. Jürgen Georg Backhaus (ed) , Handbook of the History of Economic Thought: Insights on the Founders of Modern Economics, Springer Science+ Business Med

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