

# SOPHIA COLLEGE, (AUTONOMOUS)

Affiliated to

UNIVERSITY OF MUMBAI

Programme: B.A. ECONOMICS

Programme Code: SBAECO

T.Y.B.A. 2020-2021

(Choice Based Credit System with effect from the year 2018-19)

# **Programme Outline: TYBA (SEMESTER V)**

Course Code	Unit No	Name of the Unit	
SBAECO501		MICROECONOMICS	4
	1	Oligopoly Behaviour and Game Theory	
	2	General Equilibrium and Welfare Economics	
	3	The Economics of Information	
SBAECO502		ECONOMICS OF DEVELOPMENT	4
	1	Concepts of Economic Growth and Development	
	2	Structural Issues in Development Process	
	3	Inequality, Poverty and Development	
SBAECO503		ECONOMICS OF AGRICULTURE AND COOPERATION	3
	1	Agricultural Productivity	
	2	Agricultural Credit and Marketing	
	3	Agricultural Policy	
SBAECO504		MATHEMATICAL AND STATISTICAL TECHNIQUES FOR ECONOMIC ANALYSIS	4
	1	Equations, Graphs and Derivatives	
	2	Liner Algebra	
	3	Descriptive Statistics and graphing techniques for presenting data	
	4	Elementary Probability Theory	
SBAECO505-A		INTRODUCTION TO ECONOMETRICS	4
	1	Idea of a Random Variable	
	2	Statistical Inference	
	3	Regression Analysis	
SBAECO505-B		ENVIRONMENTAL ECONOMICS	4
	1	Introduction to Environmental Economics	
	2	Measuring Benefits of Environmental Improvements	
		and Global Environmental Issues	
	3	The Design and Implementation of Environmental Policy	
SBAECO506		HISTORY OF ECONOMIC THOUGHT	3
SDALCOM		INSTORT OF ECONOMIC INOUGHI	J

1	Classical Period	
2	Marshall, Pigou and Keynes	
3	Post-Keynesian Developments	

# **Programme Outline: TYBA (SEMESTER VI)**

Course Code			Credits
CD A ECO(01	No	MACROECONOMICS	
SBAECO601	1	MACROECONOMICS  The Coods Market and Financial Markets in the	4
	1	The Goods Market and Financial Markets in the	
	2	Closed Economy The Goods Market and Financial Markets in the	_
	2		
	3	Open Economy and Mundell-Fleming	
	3	International Monetary and Financial Crisis	
SBAECO602		INTERNATIONAL ECONOMICS	4
	1	Introduction of International Economics and Trade	-
		Theories	
	2	International Trade and Economic Development	
	3	Trade Policy, Restriction and Economic Integration	-
		<u> </u>	
SBAECO603		INDIAN FINANCIAL SYSTEM	3
	1	Indian Financial system: Structure, Trends and	
		Turns	
	2	Monetary Policy of RBI, NBFI's and NBFC's in	
		India	
	3	Money and Capital Markets in India	
SBAECO604		MATHEMATICAL AND STATISTICAL	4
		TECHNIQUES FOR ECONOMIC ANALYSIS	_
	1	Techniques and Applications of Partial Derivatives	_
	2	Integral Calculus	
	3	Correlation and Regression	
	4	Index Numbers and Time Series	
SDAECO(05.A		THEODY AND DRACTICE OF ECONOMETRICS	1
SBAECO605-A	1	THEORY AND PRACTICE OF ECONOMETRICS	4
	1	Generalised Least Squares  Regression and Consolity	_
	2	Regression and Causality  Tanias in Factorius	_
	3	Topics in Econometrics	

SBAECO605-B	AECO605-B DEVELOPMENT THEORY AND EXPERIENCE		4
	1	Demography and Development	
	2	Structural Transformation	
	3	Modern Development in Economics and the	
		Environmental Policy Debate	
SBAECO606		INTERNATIONAL TRADE, POLICY AND	3
		PRACTICE	
	1	Introduction to Advances in International Trade	
		Theory	
	2	International Trade Policy and Emerging New	
		International Economic Order	
	3	International Monetary Relations	

#### **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 TYBA Economics program at Sophia College for Women is designed to provide students with a comprehensive understanding of economic theories, principles, and practices. Through a structured curriculum, students will explore various facets of microeconomics, macroeconomics, international trade, development studies, mathematical and statistical techniques, econometrics, history of economic thought, agricultural economics, environmental economics, and Indian financial system. The program aims to equip students with quantitative tools, analytical skills, critical thinking and a global perspective to navigate the complexities of the modern economic landscape. By fostering a deep understanding of economic concepts and their real-world applications, the TYBA Economics program at Sophia College prepares students for a successful career in economics, finance, research, and policymaking. The papers which would be offered to the students of Sophia College at TYBA in Semester V and Semester VI have been enlisted below.

#### PROGRAMME OBJECTIVES

PO 1	Enhance students' understanding of the contemporary socio-economic issues at the local, national and international level
PO 2	Apply critical thinking in pursuit of everyday living
PO3	Develop an in-depth understanding of various theories in economics and to impart skills in data analysis and interpretation
PO 4	Use analytical skills acquired through the programme to seek gainful employment

### PROGRAMME SPECIFIC OUTCOMES

PSO 1	Gain better understanding about the stream of economics
PSO 2	Apply the basic ideas of economic theory to understand the consumers and producers behaviour
PSO 3	Enable students to do basic calculation of economic concepts
PSO 4	Students will be able to apply their analytical skills, knowledge and improve their ability to respond sensitively while dealing with these socio-economic issues
PSO 5	Students will be able to critically analyse the implications of governments policies and have opinion on the same based on their competent knowledge in economics and skills in data analysis

### **SEMESTER V**

NAME OF THE COURSE	MICRO ECONON	MICS (PAPER IV)
CLASS	TY	BA
COURSE CODE	SBAE	CO501
NUMBER OF CREDITS	4	4
NUMBER OF LECTURES PER	4	1
WEEK		
TOTAL NUMBER OF LECTURES	52	
PER SEMESTER		
EVALUATION METHOD	INTERNAL	SEMESTER END
	ASSESSMENT	EXAMINATION
TOTAL MARKS	50	50
PASSING MARKS	20	20

# **COURSE OBJECTIVES**

CO 1.	To improve students' understanding of the microeconomics concepts	
	through applications to oligopoly decision making in the real world.	
CO 2.	To make students understand the general equilibrium framework of economic analysis &	
	introduce them to the basic principles of welfare economics.	
CO 3.	To introduce students to the problems resulting from information asymmetry	
	in economic decision making.	
CO 4.	To familiarize students with the fundamental principles of behavioral	
	economics	

CLO 1.	Students will be able to identify the difference between the pure & differentiated
	oligopoly.
CLO 2.	Students will be able to compare, on the basis of different behavioural assumptions, the
	various types of duopoly and oligopoly models.
CLO 3.	Students will be able to draw a diagram/ solve algebraic equations to determine
	equilibrium level of output & price for the various types of oligopoly models.
CLO 4.	Students will be able to comprehend the application of game theory concepts in
	oligopoly decision making.
CLO 5.	Students will be able to distinguish between partial and general equilibrium framework
	of economic analysis.
CLO 6.	Students will understand the concept of Pareto Optimality & will be able to state the
	conditions under which it is attained.

CLO 7.	Students will be able to draw an Edgeworth box diagram & explain the existence of a
	general equilibrium in exchange, production & resource allocation.
CLO 8.	Students will be able to explain the similarities and differences between the perfect competition and Pareto Optimality conditions.
CLO 9.	Students will be able to understand the principles of maximum social welfare.
CLO 10.	Students will be able to describe the importance of information & the role of search cost.
CLO 11.	Students will be able to discuss the problems resulting from information symmetry in the
	used car market, insurance market, credit market & labor market.
CLO 12.	Students will be able to understand psychological dimensions of human behaviour &
	will be able to explain the importance of assumption of rationality in economic decision
	making.

UNIT 1	Oligopoly Behaviour & Game Theory
1.1	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 –
1.2	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
1.3	Collusion and Cartels: Cartel cheating, Extensive form games – game tree - Solving finite extensive form game.
1.4	Price Leadership: Low Cost, Dominant Firm.
UNIT 2	General Equilibrium and Welfare Economics
2.1	Interdependence in the Economy – General Equilibrium and its Existence
2.2	The Pareto Optimality Condition of Social Welfare, Marginal Conditions for Pareto Optimal Resource Allocation
2.3	Perfect Competition and Pareto Optimality - Kaldor- Hicks Compensation Criterion
2.4	Arrow's Impossibility Theorem
UNIT 3	The Economics of Information
3.1	The economics of search - Searching for the lowest price - Markets with Asymmetric Information : Market for Lemons and adverse selection, Signaling & Screening.
3.2	The Principals, Agents & Moral Hazard, Using Contracts to Reduce Moral Hazard.
3.3	Asymmetric Information in Labor Markets: Efficiency Wage Theory

3.4	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 York, 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.

#### **SEMESTER V**

NAME OF THE COURSE	ECONOMICS OF	DEVELOPMENT	
CLASS			
	TY	DA	
COURSE CODE	SBAE	CO502	
NUMBER OF CREDITS	4	1	
NUMBER OF LECTURES PER	4	1	
WEEK			
TOTAL NUMBER OF LECTURES	52		
PER SEMESTER			
EVALUATION METHOD	INTERNAL	SEMESTER END	
	ASSESSMENT	EXAMINATION	
TOTAL MARKS	50	50	
PASSING MARKS	20	20	

### **COURSE OBJECTIVES**

CO 1.	This course is designed to acquaint students with diverse concepts
	related to economic growth and development by giving special emphasis
	on structural issues related to the process of development.

CO 2.	To understand the various theories of development, study development indicators and	
	Sen's views on development	
CO 3.	An attempt is made to create an awareness about the pressing problems in the	
	path of development such as inequality, poverty and technological aspects	
	and the policy options to deal with these problems	

# **COURSE LEARNING OUTCOMES:**

CLO 1.	Students will be able to think critically about the issues related to growth	
	and development	
CLO 2.	Understand development achievements globally and critically examine the policies	
	undertaken by governments.	
CLO 3.	Students will be able to analyze the role of technology in the development process.	

UNIT 1	Concepts of Economic Growth and Development
1.1	Meaning of Growth and Development, Distinction between growth & development, , Sustainable development, Green GDP
1.2	Concept of human development, HDI, GDI
1.3	Three core values of development
1.4	Capabilities & functioning
UNIT 2	Structural Issues in Development Process
2.1	Big push theory, Lewis's model, Schumpeter's theory of development& Theory of human capital
2.2	Role of Education, Health & nutrition in economic development - Role of Infrastructure in economic development –
2.3	Role of technology in economic development - Types of technical progress.
2.4	Solow's growth model
UNIT 3	Inequality, Poverty and Development
3.1	Measures of poverty and inequality
3.2	Kuznets inverted U-hypothesis
3.3	Policy options for poverty alleviation

3.4	Inclusive growth	&	Rural	credit	institutions.	Intermediate/	Appropriate	technology,	Green
	technology								

- Todaro, Michael P. and Stephen C. Smith. Economic Development, 8e. Delhi: Pearson Education, 2003
- Thirlwall, A.P. Growth and Development 8e. New York: Palgrave MacMillan, 2005.
- Meier, Gerald M. and James E. Rauch. Leading Issues in Economic Development, 8e. New Delhi: Oxford Univ. Press, 2006.

### **SEMESTER V**

NAME OF THE COURSE	ECONOMICS OF COOPERATION (PAPER	AGRICULTURE AND	
CLASS	TY	BA	
COURSE CODE	SBAE	CO504	
NUMBER OF CREDITS	2	.5	
NUMBER OF LECTURES PER		3	
WEEK			
TOTAL NUMBER OF LECTURES	36		
PER SEMESTER			
EVALUATION METHOD	INTERNAL	SEMESTER END	
	ASSESSMENT	EXAMINATION	
TOTAL MARKS	50	50	
PASSING MARKS	20	20	

### **COURSE OBJECTIVES**

CO 1.	This paper aims at providing an overview of the role of agriculture in the	
	Economic development of the country and the salient features associated	
	With agricultural productivity and agricultural labour	
CO 2.	The pertinent aspects related to agricultural credit, agricultural marketing as well as the	
	global problems existing in the marketing are dealt in	
CO 3.	Discuss the features of agricultural policy relating to price, agricultural inputs	
	and discuss the issue of agrarian crisis and farmers' suicide	

nd the role of agriculture in economic
--

	development with reference to the stages of economic development
CLO 2.	Students will be able to identify the cropping seasons & the types of
	crops grown during these seasons
CLO 3.	Students will be able to analyse the causes of low agricultural
CLO 3.	
	productivity
CLO 4.	Students will be able to explain the most important dimensions of
	effective water management
CLO 5.	Students will be able to suggest measures to improve the condition of
	agricultural labour
CLO 6.	Understanding of the rural credit market and practical real life problems
	of agricultural marketing.
CLO 7.	Students will be able to critically analyse agricultural price policy in India
CLO 8.	Students will be able to evaluate the various schemes of the Food Security Programme in
	India
CLO 9.	Students will be able to appraise the existing policies on agricultural inputs like fertilizer
	and power
CLO 10.	Students will be able to highlight the features of crisis in the agriculture sector and
	describe the situations of farmers' suicide in India

UNIT 1	Agricultural Productivity
1.1	Role of agriculture in economic development
1.2	Cropping Pattern, Agricultural Productivity, Causes of Low Productivity in Agriculture - Measures taken to improve the Agricultural Productivity in India
1.3	Water Management and agricultural development
1.4	Agricultural labour- Problems and suggestions.
UNIT 2	Agricultural Credit & Marketing
2.1	Institutional and Non-Institutional Sources of Credit Co-operative Credit and Agriculture
2.2	Commercial Banks and Regional Rural Banks. NABARD Rural Indebtedness. Micro finance
2.3	Agricultural Marketing: Types of Agricultural Marketing - Problems of Agricultural Marketing - Measures to correct it.
2.4	National Agricultural Market - WTO and Indian Agriculture.
UNIT 3	Agricultural Policy
3.1	New Agricultural Policy & recent developments in agricultural policy

3.2	Agricultural Price Policy in India and Its evaluation		
3.3	Subsidies on Agricultural Inputs. Food Security in India		
3.4	Agricultural Crisis and Farmers' Suicide		

- Bilgram, S.A.R, Agricultural Economics, Himalaya Publication House, Delhi, 1966
- Raj K.N, Essays in Commercialization of Indian Agriculture, Oxford University Press, New Delhi, 1988.
- Thamarajalaxmi R, Intersectoral Relationship in Developing Economy, Academic Foundation, Delhi, 1994.
- Memoria C. B, Agricultural Problems of India, Kitab Mahal Allahabad, 1979.
- Datt and Sundaram, Indian Economy, S.Chand & Company, New Delhi, 2012.
- Mishra & Puri, Indian Economy, Himalaya Publishing House, New Delhi, 2012.
- World Development Report 2008: Agriculture for Development

### **SEMESTER 5**

NAME OF THE COURSE	MATHEMATICAL AND STATISTICAL			
	TECHNIQUES FOR ECONOMIC ANALYSIS			
CLASS	TY	TYBA		
COURSE CODE	SBAECO504			
NUMBER OF CREDITS	4			
NUMBER OF LECTURES PER	4			
WEEK				
TOTAL NUMBER OF LECTURES	64			
PER SEMESTER				
EVALUATION METHOD	INTERNAL	SEMESTER END		
	ASSESSMENT	EXAMINATION		
TOTAL MARKS	20	50		
PASSING MARKS	20	50		

### **COURSE OBJECTIVES**

CO 1.	To introduce students to the basic mathematical & statistical tools, which will enable them to apply these to economic decision making.
CO 2.	To equip the students with quantitative skills that will help them in better

	understanding of economics.	
CO 3.	To facilitate the description, interpretation and understanding of data.	
CO 4.	To enhance the computational & numerical skills, ability to interpret	
	numerical data & diagrammatic presentations required to analyse economic	
	concepts.	

# **COURSE LEARNING OUTCOMES:**

CLO 1.	Students will be able to apply mathematical approach to study market	
	equilibrium and impact of indirect tax on market equilibrium.	
CLO 2.	Students will be able to differentiate single variable functions and apply the	
	differentiation method to optimise economic functions.	
CLO 3.	Students will be able to solve a system of linear equations using method of matrix	
CLO 4.	Students will be able to apply the method of matrix in economics.	
CLO 5.	Students will be able to identify the different types of data.	
CLO 6.	Students can classify & present numerical data using tables, graphs & diagrams.	
CLO 7.	Students will be able to compute mean, median, mode & measures of dispersion	
-	(absolute & relative).	
CLO 8.	Students will be able to graphically locate the mode & median.	
CLO 9.	Students will be able to draw graphs showing (based on the relative positions of mean,	
	median & mode) positively skewed & negatively skewed frequency distributions.	
CLO 10.	Students will be able to understand the construction of the Lorenz Curve.	
CLO 11.	Students will be able to describe the merits & demerits of measures of central tendency	
	& dispersion.	
CLO 12.	Students will be able to identify the specific uses of these measures to specific	
	situations/problems.	
CLO 13.	Students will be able to compute the probability of an event using the classical definition	
CEO 13.	of probability.	
CLO 14.	Student will be able solve problems based on application of binomial & normal	
CLO 14.	distributions	
CLO 15.	Students will be able to understand and apply the properties of the probability	
	distributions for the random variable (for discrete & continuous) to solve numerical problems.	

	UNIT 1	A: Microeconomic applications of equations and graphs
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	B: Derivatives and their applications in various areas of economic analysis	
1.1	Linear and non-linear relationships in economic analysis, Market demand and supply	
	models, taxes, elasticity	
1.2	Derivatives, Higher order derivatives	
1.3	Increasing and decreasing functions; Necessary and sufficient conditions for maxima	
	and minima	
1.4	Optimisation of economic functions	
UNIT 2	Linear Algebra	
2.1	Matrices and basic operations on matrices, Rank of a Matrix, Inverse of a matrix	
2.2	Cramer's Rule	
2.3	Input-Output Analysis and policy implications	
2.4	Linear Programming Problem: Formulation and graphical solution	
UNIT 3 A: Descriptive Statistics and graphing techniques for presenting data		
	B: Commercial Statistics	
3.1	Concept of primary and secondary data along with tabulation and graphs	
3.2	Measures of central tendency (only arithmetic-mean, median, and mode)	
3.3	Absolute and relative measures of dispersion (range, quartile deviation, mean deviation	
and standard deviation) with simple applications.		
3.4	Measures of skewness and kurtosis, Lorenz Curve	
UNIT 4	INIT 4 Elementary Probability Theory	
4.1	Sample space and events, Mutually exclusive, exhaustive and complimentary events	
4.2	Conditional probability. Binomial probability distribution	
4.3	Nature and Properties of the Normal Probability Distribution; Standard Scores and the Normal Curve.	
4.4	The Standard Normal Curve: Finding Areas when the Score is Known, Finding Scores when the Area is Known.	

# <u>REFERENCES:</u>

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.
- 4. Lerner Joel J and P.Zima: Theory and Problems of Business Mathematics, McGraw Hill, New York, 1986.
- 5. Pfitzner Barry C.: Mathematical Fundamentals of Microeconomics, Biztantra, New Delhi, 2003.
- 6. Sancheti D.C. and V.K. Kapoor: Statistics-Theory, Methods and Applications, S. Chand, New Delhi
- 7. V. K. Kapoor and S. C. Gupta: Fundamentals of Mathematical Statistics, Sultan Chand &Sons, New Delhi.
- 8. Wisniewski Mik: Mathematics for Economics-An integrated approach, Palgrave Macmillan, 2013.

### **SEMESTER V**

NAME OF THE COURSE	INTRODUCTION TO ECONOMETRICS		
CLASS	TYBA		
COURSE CODE	SBAECO505-A		
NUMBER OF CREDITS	4		
NUMBER OF LECTURES PER	4		
WEEK			
TOTAL NUMBER OF LECTURES	64		
PER SEMESTER			
EVALUATION METHOD	INTERNAL	SEMESTER END	
	ASSESSMENT	EXAMINATION	
TOTAL MARKS	50	50	
PASSING MARKS	20	20	

### **COURSE OBJECTIVES**

CO 1.	To develop a way of thinking in quantitative terms.
CO 2.	To impart a basic statistical knowledge that will aid in understanding econometrics.
CO 3.	To analyse economic data using the method of regression

CLO 1.	Apply binomial, poisson and normal distribution to calculate probability
CLO 2.	Conduct test the hypothesis on mean using z and t test
CLO 3.	Conduct test of hypothesis on variance using chi-square and F -test.

CLO 4.	Estimate simple regression model using OLS
CLO 5.	Report and interpret simple regression model results
CLO 6.	Interpret multiple regression model results

UNIT 1	Idea of a random variable	
1.1	Concept of a random variable: Discrete and continuous, Expectation and Variance of a random variable	
1.2	Discrete random variables: Bernoulli, Binomial, Poisson. Continuous random variables The normal distribution, Joint and marginal distributions for bivariate random variables	
1.3	Conditional probability, Conditional mean and variance, Covariance, Correlation and Partial correlation.	
1.4	Central limit theorem (without proof)	
UNIT 2	Statistical Inference	
2.1	Estimation: Point and interval estimation	
2.2	Hypothesis testing: The Null and Alternate hypotheses	
2.3	Significance testing for mean using Z distribution when population variance is known. The cl square distribution and testing for sample variance with known population Variance.	
2.4	The F distribution and comparing sample variances. The t distribution and hypothesis tests when population variance in unknown.	
UNIT 3	1 1	
3.1	Two variable regression model. The concept of the PRF and SRF. Classical assumptions of regression.	
3.2	3.2 Derivation of the OLS estimators and their variance. Gauss-Markov Theorem: Properties of OLS estimators under classical assumptions (without proof) Tests of Hypothesis, confidence intervals for OLS estimators. Tests Hypothesis, confidence intervals for OLS estimators.	
3.3	Measures of goodness of fit: R square and its limitations, adjusted R square and its Limitations.	
3.4	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.

### **SEMESTER V**

NAME OF THE COURSE	ENVIRONMENTAL ECONOMICS	
CLASS	TYBA	
COURSE CODE	SBAECO505-B	
NUMBER OF CREDITS	4	
NUMBER OF LECTURES PER	4	
WEEK		
TOTAL NUMBER OF LECTURES	64	
PER SEMESTER		
EVALUATION METHOD	INTERNAL	SEMESTER END
	ASSESSMENT	EXAMINATION
TOTAL MARKS	50	50
PASSING MARKS	20	20

#### **COURSE OBJECTIVES**

CO 1.	The course focuses on the evolution of environmental economics, global environmental problems and measuring sustainability.
CO 2.	In particular, students will get acquainted with the economic valuation of environmental goods.
CO 3.	To sensitize students about the global & local environmental challenges.
CO 4.	To create awareness about environmental policy issues with reference to the developing & developed countries.
CO 5.	To improve understanding regarding the classification and mechanism of the various
	policy Instruments.
CO 6.	To sensitize students about the major concerns related to the effective implementation of

the policy.

CLO 1.	Students will be able to list out and explain the problems in managing the environmental
	resources.
CLO 2.	Students will be able to understand the nature of the environmental resources as: public
	good.
CLO 3.	Students will develop analytical skills to understand the management of environmental
	resources using the common pool resource framework.
CLO 4.	Students will be able to appreciate the complexity of the transboundary environmental
	challenges.
CLO 5.	Students will be able to judge the efficacy of the environmental policy based on a
	specified criteria.
CLO 6.	Students will be able to describe the relative merits & demerits of the various
	environmental policy instruments.
CLO 7.	Students will be able to explain (with diagram) the mechanism involved in the working
	of the various policy instruments.
CLO 8.	Students will be able to evaluate a case study related to the design & implementation of
	environmental policy in the context of developing countries.
CLO 9.	Students will be able to analyze the difference between rigorousness (or permissiveness)
	of the environmental policy framework in the developed country & the poor country.

UNIT 1	Introduction to Environmental Economics
1.1	Introduction, Definition, scope, evolution and growth of environmental economics, Perspectives in environmental economics.
1.2	Rio declaration, Agenda 21. Kyoto protocol
1.3	Economy & 11 environment linkage. Economic development & environment. Consequences of environment mismanagement.
1.4	Environmental Kuznets curve. Sustainable development. Environmental Accounting.
UNIT 2	Measuring benefits of environmental improvements& Global Environmental Issues
2.1	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.
2.2	The global environment- Trans-boundary environmental problems
2.3	Global warming, greenhouse effect, economics of climate change, Ozone Layer Depletion, Acid Rain, Microplastics Pollution, Destruction of bio-diversity
2.4	Nuclear Energy & Environment, Local Environmental Issues.
UNIT 3	The design and implementation of Environmental Policy
3.1	Overview, Importance of Environmental Policy. Goals of environmental policy
3.2	Criteria for evaluating environmental policies -types of instruments environmental Standards. Issues in implementation of environmental policy-National Environmental Policy.
3.3	Environmental Policy Instruments: Types of instruments: Environmental Standards, Pigovian taxes and effluent fees, tradable permits, carbon credits, property rights and Coase theorem.
3.4	Issues in implementation of environmental policy.

- 1. Barry C. Fields: Environmental Economics: An Introduction, McGraw Hill International Edition, 1997
- 2. Charles Kolstad): Environmental Economics, Oxford University Press, New York, 2000
- 3. Kaltschmitt, Martin, Streicher, Wolfgang, Wiese, Andreas, Renewable Energy: Technology, Economics and Environment, Springer, Germany, 2007.
- 4. Hanley Nick, Shogren Jason and white Ben: Introduction to Environmental Economics, Oxford University Press, New York, 2011

- 5. Smith Stephen: Environmental Economics: A very Short Introduction, Ist Edition, Oxford University Press, New York, 2011
- 6. United Nations Sustainable Development, UN Conference on Environment & Development, Rio de Janerio, Brazil, Agenda 21
- 7. <a href="https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf,1992">https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf,1992</a>.

### **SEMESTER V**

NAME OF THE COURSE	HISTROY OF ECONOMIC THOUGHT		
CLASS	TYBA		
COURSE CODE	SBAE	SBAECO506	
NUMBER OF CREDITS	3		
NUMBER OF LECTURES PER	RES PER 3		
WEEK			
TOTAL NUMBER OF LECTURES	48		
PER SEMESTER			
EVALUATION METHOD	INTERNAL	SEMESTER END	
	ASSESSMENT	EXAMINATION	
TOTAL MARKS	50	50	
PASSING MARKS	20	20	

### **COURSE OBJECTIVES**

CO 1.	To expose students to the contributions made by the celebrated economists to the	
	field of economics.	
CO 2.	To enhance students' understanding about the evolution of economic ideas.	
CO 3.	To enable students to appreciate the importance of the Nobel Prize winning	
	contribution of the Nobel Laureate.	
CO 4.	To encourage students to carry out a project/assignment with a presentation	
	exploring life, work and celebrated work & its applications to modern day	
	economics by eminent scholars.	

CLO 1.	Students will be able to describe the main features of Mercantilism, Physiocracy &
	Classical School ideology.

CLO 2.	Students will be able to analyse Adam Smith's views on division of labour,
	productive& unproductive labour, theory of value and capital accumulation.
CLO 3.	Student will be able to evaluate Ricardo's views on theory of value, rent &
	distribution(with diagram).
CLO 4.	Students will be able to distinguish between the difference between the Smith's &
	Ricardo's approach to theory of value.
CLO 5.	Students will be able to comprehend Karl Marx's concepts of dynamics of social
	changes, theory of values, surplus value, profit and crisis of capitalism and
	contemporary relevance.
CLO 6.	Students will be able to critically explain the economic views (taught in the class) of
	Marshall, Pigou and Keynes.
CLO 7.	Students will be able to examine & present the life, work and applications of the
	celebrated work by the post Keynesian economists.

UNIT 1	Classical Period
1.1	Adam Smith - Division of labour, theory of value, capital accumulation, distribution
1.2	David Ricardo - Value, theory of rent, distribution.
1.3	Karl Marx - dynamics of social changes, theory of values, surplus value, profit and crisis of capitalism and Contemporary Relevance.
UNIT 2	Marginalist: Marshall to Schumpeter
2.1	Marshall Role of time in price determination, economics methos, ideas of consumer's surplus, representative firm, external and internal economies, quasi-rent, nature of profit
2.2	Pigou- Welfare Economics
2.3	Schumpeter – Role of entrepreneur and innovation
UNIT 3	Keynesian Ideas
3.1	Liquidity Preference Theory and Liquidity Trap

3.2	Consumption Function, MPC, Multiplier and Accelerator principles and their interaction
3.3	Wage rigidities, Underemployment equilibrium
3.4	Role of fiscal policy: deficit spending and public works, multiplier principles, cyclical behaviour of the economy
UNIT 4	Post-Keynesian Developments
4.1	Hayek. Supply side economics: Arthur Laffer, Evans
4.2	Monetarism: Milton Friedman's Don Patinkin
4.3	An overview of new classical economics: Robert Lucas
4.4	Nobel Prize winners in Economics: A.K. Sen (1998), Joseph Stiglitz (2001), Paul Krugman (2008), Jean Tirole (2014), Angus Deaton (2015), Richard Thaler (2017)

- 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.

### **SEMESTER VI**

NAME OF THE COURSE MACRO ECONOMICS (PAPER IV)
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CLASS	TYBA	
COURSE CODE	SBAECO501	
NUMBER OF CREDITS	4	
NUMBER OF LECTURES PER	4	
WEEK		
TOTAL NUMBER OF LECTURES	52	
PER SEMESTER		
EVALUATION METHOD	INTERNAL	SEMESTER END
	ASSESSMENT	EXAMINATION
TOTAL MARKS	50	50
PASSING MARKS	20	20

# **COURSE OBJECTIVES**

CO 1.	To introduce the students to formal modelling of a macroeconomic theory with analytical tools.	
CO 2.	To make students understand the implications of openness on goods & financial	
	markets, .	
CO 3.	To discuss the Mundell Fleming Trilemma and the benefits and costs of fixed	
	and flexible exchange rates	
CO 4.	To familiarize students with a brief history of the international monetary	
	system	

CLO 1.	Students will be able to explain and derive (graphically & algebraically) the IS & LM	
	relationship.	
CLO 2.	Students will be able to identify factors affecting the slopes & position of the IS & LM	
	curves.	
CLO 3.	Students will be able to analyze the effects of different slopes of IS & LM curves on the efficacy	
	of monetary and fiscal policy	
CLO 4.	Students will be able to understand the implications of openness for goods & financial markets	
	equilibrium.	
CLO 5.	Students will be able to describe the advantages and advantages of fixed/ Flexible exchange	
	rates.	
CLO 6.	Students will be able to understand the concepts of nominal, real, effective exchange	
	rates.	
CLO 7.	Students will be able to solve numerical problems based on open economy equilibrium	
	equations for goods/financial markets	
CLO 8.	Students will be able to suggest the policy mix given a situation related to	
	macroeconomic problems	
CLO 9.	Students will be able to explain the policy trilemma in macroeconomics.	
CLO 10.	Students will be able to trace the evolution of international exchange standards	
CLO 11.	Students will be able to understand the factors leading to the currency crisis.	

UNIT 1	The Goods Market & Financial Markets in the Closed Economy
1.1	Product Market Equilibrium (IS) curve - Derivation of IS Curve: algebraic & graphical method, Factors influencing slope & position of the IS Curve -Fiscal & Monetary Policy & the IS curve.
1.2	Assets Markets Equilibrium (LM) curve - Derivation of LM curve: algebraic & graphical method, Factors influencing the slope & position of the LM curve. Fiscal & Monetary Policy & LM curve.
1.3	General Equilibrium in the IS - LM curves Model.
1.4	Nature of Equilibrium - Fiscal & Monetary Policy efficacy & slopes of the IS & LM curves.
UNIT 2	The Goods Market & Financial Markets in the Open Economy and Mundell-Fleming
2.1	Trade Balance and its implications for GDP calculations, Export and Import Functions,
2.2	The Real Exchange Rate and why it matters, why equilibrium GDP is consistent with a trade imbalance, Fiscal and Exchange Rate Policy with a Fixed Exchange Rate.
2.3	The IS & LM equations for the open economy, Uncovered Interest Parity and its implications for exchange rate determination, the combined IS/LM/UIP model.
2.4	Fiscal and Monetary Policy under Fixed and Flexible Exchange Rates, The Mundell-Fleming trilemma.
UNIT 3	International Monetary System and Financial Crisis
3.1	A brief history of international monetary system: The Gold Standard (1815 to 1914), The Inter-War Period (1919 – 1939), The Gold Exchange Standard-Bretton Wood (1944 to 1971), the collapse of the Bretton Woods system.
3.2	The Ushering of Flexible Exchange Rates and Currency Instability (1971-1985).
3.3	The Current System of Managed Floats and Targeted Inflation: 1985 – Present. Key institutions: International Monetary Fund & the World Bank.
3.4	The choice of exchange rate regime: Fixed vs. Flexible Rates- Exchange Rate Crises, The relation between Exchange Rate crises and other kinds of crises (banking crises, debt, financial crises, etc.

# References

- 1. Blanchard, Oliver; Macroeconomics (4th edition, 9th impression), Pearson education, New Delhi, India.
- 2. Dornbusch R S, Fischer and R Startz; Macroeconomics, 8e Tata Mc Grow Hill, New Delhi 2004.
- 3. Froyen, R. T.; Macroeconomics: Theory and Policy, Pearson Education Asia, Delhi 2001.
- 4. Mankiw, Gregory; Macroeconomics, 6e, Worth Publishers, New York, 2003.
- 5. Salvatore, D.; International Economics, Printice Hall, New York, 1997. 6. Robert Feenstra & Alan Taylor, International Macroeconomics, 2nd ed.

#### **SEMESTER VI**

NAME OF THE COURSE	INTERNATIONAL ECONOMICS	
CLASS	TYBA	
COURSE CODE	SBAECO502	
NUMBER OF CREDITS	4	
NUMBER OF LECTURES PER	4	
WEEK		
TOTAL NUMBER OF LECTURES	52	
PER SEMESTER		
EVALUATION METHOD	INTERNAL	SEMESTER END
	ASSESSMENT	EXAMINATION
TOTAL MARKS	50	50
PASSING MARKS	20	20

### **COURSE OBJECTIVES**

CO 1.	This course develops a systematic exposition of models which explain the composition, direction, and consequences of international trade, and the determinants and effects of trade policy.
CO 2.	Provide students with an analytical account of the causes and consequences of the rapid expansion of international financial flows in recent years.
CO 3.	Describe country specific case studies. Analyze the role of trade in economic development and discuss the role of regional trade blocs

CLO 1.	Understand the nature, scope and theories of international trade. Applicability of trade theories to the real world situation.	
CLO 2.	Critically analyze the role of MNCs, and FDI in the development process.	
CLO 3.	Understand the importance of new trade agreements, trade instruments and regional trade blocs in	
	the global economy.	

UNIT 1	Introduction of International economics and trade theories		
1.1	Importance of the study of International Economics - Distinction between domestic & international Trade.		
1.2	Adam Smith's Theory of International Trade, The Ricardian Theory.		
1.3	Heckscher- Ohlin Theory of International Trade, Leontief Paradox.		
1.4	Terms of trade, Law of reciprocal demand and offer curves.		
UNIT 2	International Trade and Economic Development		
2.1	An overview of world trade - pattern of trade, gravity model. Trade as an engine of growth, Vent for Surplus.		
2.2	Prebisch – Singer thesis - Export Orientation and Import substitution: India vs South Korea, Understanding China's growth. Trade problems of developing countries.		
2.3	International Capital flows - FDI: The concept and role, FDI Inflows- FDI Outflows.		
2.4	MNC's, BPO's.		
UNIT 3	Trade Policy, Restriction and Economic Integration		
3.1	Instruments of trade policy		
3.2	International Commodity Agreements		
3.3	Protectionism - Why countries cooperate? Free trade policy		
3.4	GATT, GATS, - Trans – Pacific Partnerships		

### **REFERENCES**:

- Paul Krugman, Maurice Obstfeld, and Marc Melitz, International Economics: Theory and Policy, Addison-Wesley (Pearson Education Indian Edition), 9th edition, 2012.
- Dominick Salvatore, International Economics: Trade and Finance, John Wiley International Student Edition, 10th edition, 2011.
- Gordon Hanson, "The Rise of Middle Kingdoms: Emerging Economies in Global Trade", Journal of Economic Perspectives, Spring 2012.
- Melitz M. and Trefler D., "Gains from Trade When Firms Matter", Journal of Economic Perspectives, Spring 2012.
- Kindleberger Charles P, International Economics, Homewood, USA, 1978
- Bo Sodersten and Geofrey Reed, International Economics, Palgrave Macmillan, 1994.

### **SEMESTER VI**

NAME OF THE COURSE INDIAN FINANCIAL SYSTEM (PAPER V		STEM (PAPER VI)
CLASS	TYBA	
COURSE CODE	SBAECO504	
NUMBER OF CREDITS	2.5	
NUMBER OF LECTURES PER	3	
WEEK		
TOTAL NUMBER OF LECTURES	36	
PER SEMESTER		
EVALUATION METHOD	INTERNAL	SEMESTER END
	ASSESSMENT	EXAMINATION
TOTAL MARKS	50	50
PASSING MARKS	20	20

### **COURSE OBJECTIVES**

CO 1.	The basic purpose of this paper is to acquaint students with various components of the Indian		
	financial system, its working and the trends that have taken place over the years especially		
	since financial sector reforms.		
CO 2.	Acquaint the students with the role of RBI' Monetary policy framework, role of NBFI's,		
	NBFC's and financial services like insurance, mutual fund etc.		
CO 3.	To Provide a detailed understanding of how capital market and money market operates and recent reforms in the capital market and money market.		

CLO 1.	Students will be able to describe the various components of financial systems.	
CLO 2.	Students will be able to explore the role of financial markets, institutions, markets	
	and services.	
CLO 3.	Students will be able to analyse the relationship between financial sector	
	development & economic development.	
CLO 4.	Examine RBI's monetary policy and transmission mechanism of monetary policy.	
	Familiarize with the operations and growth of financial markets and services.	
CLO 5.	Students will be able to differentiate between the capital market and money market.	
CLO 6.	Students will be able to describe the operations in the secondary market.	
CLO 7.	Students will be able to state the features of different instruments traded in the money market.	
CLO 8.	Students will be able to state the recent reforms in the capital market and money market.	
CLO 9.	Students will be able to evaluate the role of SEBI as a regulator of the capital market in India.	
CLO 10.	Students will be able to explain the basic terms and concepts in the debt market and	
	describe the debt market operations.	

UNIT 1	Indian Financial System: Structure, Trends and Turns		
1.1	Meaning and components of the Financial System - Financial System and Economi Development		
1.2	Indicators of Financial Development: FR, FIR, NIR and IR		
1.3	Overview of financial sector reforms since 1990s –.		
1.4	Trends and turns in Indian financial sector: 1950-2017		
UNIT 2	Monetary Policy of RBI, NBFI's and NBFC's in India		
2.1	Monetary policy of the RBI –Changes in RBI monetary policy since1990s - Monetary Policy Committee (MPC), Transmission Channels of Monetary policy.		
2.2	Management of Non-Performing Assets (NPAs); Capital Adequacy Norms - Basel Accord		
2.3	Non-Banking Financial Intermediaries in India, NBFC's in India.		
2.4	Insurance sector, Investment/Merchant banking, Mutual funds, Credit Rating agency, Payment Banks, Mudra Bank		
UNIT 3	<u> </u>		
3.1	Money Market: Components/ Instruments of organized money market – Features of Indian Money Market		
3.2	Reforms in the money market		

I	Capital Market: Structure of the Indian Capital Market – Recent Developments in the Capital Market. Role of SEBI - Interlink between Money Market and Capital Market
3.4	Overview of Debt Market in India

- Pathak, Bharati, The Indian Financial System –Markets, Institutions, and Services, Pearson Education, New Delhi, 2008.
- Bhole, L. M, Financial Institutions and Markets, Growth and Innovation, Tata McGraw-Hill, New Delhi, 2008.
- Khan, M.Y, Financial Services, Tata McGraw Hill, New Delhi, 2007.
- Reserve Bank of India (various issues) Report on Currency and Finance, RBI, Mumbai. rbi.org. 5. Rakesh Mohan &Partha Ray, Indian Financial Sector: Structure, Trends & Turns; IMF Working Paper (WP/17/7). <a href="https://www.imf.org">https://www.imf.org</a> Issues > 2017/01/20
- Dutta Abhijit, Indian Financial System, Excel Books, Delhi, 2012.

### **SEMESTER 6**

NAME OF THE COURSE	MATHEMATICAL AND STATISTICAL		
	TECHNIQUES FOR ECONOMIC ANALYSIS		
CLASS	TYBA		
COURSE CODE	SBAECO604		
NUMBER OF CREDITS	4		
NUMBER OF LECTURES PER	4		
WEEK			
TOTAL NUMBER OF LECTURES	60		
PER SEMESTER			
EVALUATION METHOD	INTERNAL	SEMESTER END	
	ASSESSMENT	EXAMINATION	
TOTAL MARKS	50	50	
PASSING MARKS	20	20	

### **COURSE OBJECTIVES**

CO 1.	Develop the requisite quantitative skills needed for application of mathematical techniques in economics.	
CO 2.	Apply the methods of partial differentiation and integration in solving problems and understanding of economics	
CO 3.	To equip students with the tool to study the relationship between two or more variables.	
CO 4.	To introduce the concept of linear regression using OLS	
CO 5.	To expose students to the concepts of index numbers and time series	

### **COURSE LEARNING OUTCOMES:**

CLO 1.	Students will be able to use the method of partial differentiation to obtain	
CLO 1.	Students will be able to use the method of partial differentiation to obtain	
	various functions like marginal revenue, marginal product, marginal cost	
CLO 2.	Students will be able to calculate price, income and cross elasticity of demand given	
	the demand function.	
CLO 3.	Students will be able to calculate constrained optimisation problems in economics	
CLO 4.	students will be able to apply integration method to obtain various economic	
	functions like total revenue, total cost, consumption function ,etc	
CLO 5.	Students will be able to apply integration to calculate present value, consumer's surplus,	
	producer's surplus,	
CLO 6.	Students will be able to apply a method of integration learning curve to calculate labour	
	requirement	
CLO 7.	Students will be able to compute numerical problems based on correlation and regression	
	analysis	
CLO 8.	Students will be able to solve numerical problems based on index numbers and time	
	series analysis	
CLO 9.	Students will be able to describe the application and limitations of index numbers	

UNIT 1	Techniques and applications of partial derivatives	
1	Functions of several variables and partial derivatives, Second order partial derivatives.	
	Optimisation of multivariable functions, Constrained optimisation with Lagrange multiplier and its economic interpretation.	
1.3	Marginal productivity, Income and price elasticities of demand.	
1.4	Homogeneous production functions and returns to scale. Cobb-Douglas production function	
UNIT 2	Integral Calculus	
2.1	Integration and Definite integral; area under the curve. Economic applications.	
1	Present value of cash flows (present value of a sum to be received in future and present value of a stream of future income)	

2.3	Consumer's and Producer's Surplus.
2.4	Learning curve.
UNIT 3	Correlation and Regression
3.1	The meaning and significance of Correlation; Scatter plot of Bivariate Distributions; Correlation and Causation
3.2	Karl Pearson's coefficient of correlation. Spearman's rank correlation coefficient
3.3	Simple regression analysis- Method of Least Squares and Regression Lines
3.4	Regression Coefficients, Relationship between correlation coefficients and regression coefficients.
UNIT 4	Index Numbers and Time Series
4.1	Simple and composite index numbers. Construction, uses and problems of index numbers.
4.2	Laspeyre's, Paasche's and Fisher's Index numbers. Cost of living index numbers-real income – wholesale price index number.
4.3	Splicing of index numbers.
4.4	Components of time series. Estimation and forecasting of trend by the Least Squares Method

- 1. Dowling Edward T: Introduction to Mathematical Economics, Schaum's Outline Series in Economics, Tata McGraw Hill, New Delhi, 2004
- 2. Lerner Joel J and P. Zima: Theory and Problems of Business Mathematics, McGraw Hill, New York, 1986.
- 3. Dowling Edward T: Theory and Problems of Mathematical methods for Business and Economics, McGraw –Hill, 1993
- 4. Gupta S.P. Statistical Methods, S. Chand, New Delhi.
- 5. Sancheti D. C. and V. K. Kapoor: Statistics-Theory, Methods and Applications, S. Chand, New Delhi

### **SEMESTER VI**

19-2-19-19-19-19-19-19-19-19-19-19-19-19-19-		
NAME OF THE COURSE	THEORY AND PRACTICE OF	
	ECONOMETRICS	
CLASS	TYBA	

COURSE CODE	SBAECO605-A	
NUMBER OF CREDITS	4	1
NUMBER OF LECTURES PER	4	
WEEK		
TOTAL NUMBER OF LECTURES	60	
PER SEMESTER		
EVALUATION METHOD	INTERNAL	SEMESTER END
	ASSESSMENT	EXAMINATION
TOTAL MARKS	50	50
PASSING MARKS	20	20

# **COURSE OBJECTIVES**

CO 1.	To help understand the assumptions underlying the method of OLS and consequences of its violations
CO 2.	To give an understanding of basic knowledge of how to detect and treat violations of OLS assumptions
CO 3.	To introduce advanced methods and techniques in econometrics

### **COURSE LEARNING OUTCOMES:**

CLO 1.	Explain the consequences of violation of assumption underlying the OLS method of estimating a regression model.
CLO 2.	Detect and treat problems like multicollinearity, heteroscedasticity, autocorrelation, omitted variables bias in the regression model.
CLO 3.	Explain the methods used in estimating panel data models.
CLO 4.	Describe the method of estimating the Distributed lag model.
CLO 5.	Define the concept of stationarity.
CLO 6.	State the properties of AR(1), MR(1) and ARMA models.

UNIT 1	Generalised Least Squares

1.1	Autocorrelation & Heteroscedasticity: Meaning, implication, tests, remedy: FGLS & GLS	
1.2	Multicollinearity: Nature of the problem, sources and remedial measures.	
1.3	consequences, detection: VIF	
UNIT 2	Regression and Causality	
2.1	Errors in measurement of independent variable	
2.2	Omitted Variables Bias	
2.3	Instrumental variables, estimation and inference	
2.4	Simultaneity bias, identification and instrumental variables	
UNIT 3	Topics in Econometrics	
3.1	Introduction to Panel data: Fixed and random effects	
3.2	Introduction to time series models; Classical decomposition of time series	
3.3	moving average models, linear and log linear trends	
3.4	Distributed lag model	

- Gujarati Damodar (2012), Basic Econometrics, Tata McGraw Hill Education Private Limited, New Delhi.
- Hatekar Neeraj (2010), Principles of Econometrics An Introduction [Using R], Sage Publications India Pvt Ltd.
- A.H. Studenmund (2017), A Practical Guide to using Econometrics, Pearson India Education Services Pvt. Ltd.
- Dougherty Christopher, (2011), Introduction to Econometrics, Oxford University Press.
- Salvatore Dominick, Theory and Problems of Statistics and Econometrics, Schaum's outline series.

### **SEMESTER VI**

NAME OF THE COURSE DE	EVELOPMENT THEORY AND EXPERIENCE
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CLASS	TYBA	
COURSE CODE	SBAECO605-B	
NUMBER OF CREDITS	4	
NUMBER OF LECTURES PER	4	
WEEK		
TOTAL NUMBER OF	48	
LECTURES PER SEMESTER		
EVALUATION METHOD	INTERNAL	SEMESTER END
	ASSESSMENT	EXAMINATION
TOTAL MARKS	50 50	
PASSING MARKS	20 20	

# **COURSE OBJECTIVES**

CO 1.	Understand the problem of the aging population and India's population policy.			
CO 2.	To explore the structural transformation process for the developing countries.			
CO 3.	To make students aware about the field of RCT's as a new evolving field of research			
	in economics. The structure of rural agricultural markets and contracts is linked to the			
	particular problems of enforcement experienced in poor countries.			
CO 4.	To sensitize students about the environmental policy debates.			

CLO 1.	Students will be able to understand the demographic changes taking place globally
CLO 2.	A realistic view of the Agricultural sector and understanding about the emerging field of research in economics.
CLO 3.	Students will be able to explain with the help of a diagram Lewis Model, Structural change model.
CLO 4.	Students will be able to trace the trends in urbanization with reference to India.
CLO 5.	Students will be able to evaluate the policies related to the urban informal sector.
CLO 6.	Students will be able to understand the differences in the formal and informal sector activities.
CLO 7.	Students will be able to appreciate the role of migration in the process of development.
CLO 8.	Students will be able to describe the main features of the Harris- Todaro model.
CLO 9.	Students will be able to examine the relationship between economic development & environmental quality.

CLO 10.	Students will be able to analyse issues related to air pollution, groundwater exploitation
	& deforestation.

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UNIT 1	Demography and Development
1.1	Demographic concepts; birth and death rates, age structure, total fertility rates, fertility
	and mortality.
1.2	Demographic transitions during the process of development. Connections between
	income, mortality and fertility choices
1.3	Gender bias. Population Stabilization; Population policy in India
1.5	Gender olds. I optilation Statistically in optilation policy in mala
1.4	Aging population- Social & Economic Challenges & Policy Implications
UNIT 2	Structural Transformation
2.1	The Lewis model
2.2	Clark-Fisher model of structural change
2.3	Urbanization: Trends and Projections with reference to India, Urbanization and Development, Causes of urbanization, Urban informal sector, Policies for the urban informal sector
2.4	Migration and development, Economic theory of rural-urban migration: Harris-Todarc migration model.
UNIT 3	Modern Development Economics and The Environment & Development
3.1	RCT and its Applications; Role of Agriculture in Economic Development, Market Failure and Agriculture
3.2	The distribution of land ownership; Land reform and its effects on productivity; contractual relationships between tenants and landlords; Land Acquisition
3.3	Nutrition and Labour productivity
3.4	Rural credit market, inter-linkages between Rural Factor Markets
3.5	The relationship between economic development and environmental quality
3.6	The causes of over-use of environmental capital by humans: common pool resources
3.7	Development & Forests, Ground Water Policy, Air Pollution

3.8	Nordhaus'	model	examining	the	consequences	of	climate	policy	interventions,	for	example
	carbon taxe	es									

- Debraj Ray, Development Economics, Oxford University Press,2009.
- Partha Dasgupta, Economics: A Very Short Introduction, Oxford University Press,2007.
- Abhijit Banerjee, Roland Benabou and Dilip Mookerjee, Understanding Poverty, Oxford University Press, 2006.
- Amartya Sen, Development as Freedom, Oxford University Press,2000.
- Daron Acemoglu and James Robinson, Economic Origins of Dictatorship and Democracy, Cambridge University Press, 2006.
- Michael Todaro and Stephen Smith: Economic Development,12th edition, (2015)
  Pearson Publication
- A P Thirlwall, Growth & Development, with special reference to developing countries, 5\* edition, (1994), The Macmillan Press Ltd.
- Field, Barry C., | Field, Martha K, Environmental Economics, An Introduction, 7th edition, (2017), Published by McGraw-Hill.
- Jane Roberts, (2004), Environmental Policy, Routledge.

### **SEMESTER VI**

NAME OF THE COURSE	INTERNATIONAL TRADE, POLICY			
	AND PRACTICE			
CLASS	TYBA			
COURSE CODE	SBAECO606			
NUMBER OF CREDITS	2.5			
NUMBER OF LECTURES PER WEEK	3			
TOTAL NUMBER OF LECTURES PER	48			
SEMESTER				
EVALUATION METHOD	INTERNAL	SEMESTER END		
	ASSESSMENT	EXAMINATION		
TOTAL MARKS	50	50		
PASSING MARKS	20	20		

### **COURSE OBJECTIVES**

CO 1.	To trace advances in the development of international trade theory.			
CO 2.	To explore contemporary policy issues related to international trade.			
	To discover the issues involved in the settlement of international trade transactions & finance.			

CLO 1.	Students will be able to explain the three theorems associated with the modern theory of
	trade.
CLO 2.	Students will be able to identify the contributions made by Heckschr, Ohlin, Samulson,
	Stolper, Rybezynski and others to the field of international trade theory.
CLO 3.	Students will be able to prove using graphical presentation the effect of free trade on
	international factor prices.
CLO 4.	Students will be able to describe the effect of free international trade on factor incomes.
CLO 5.	Students will be able to trace the impact of different factor intensities on their incomes.
CLO 6.	Students will be able to explain the pattern of international trade with imperfect
	competition.
CLO 7.	Students will be able to analyze the effect of technological progress & economies of
	scale on trade patterns.
CLO 8.	Students will be able to evaluate arguments for and against free trade.
CLO 9.	Students will be able to evaluate arguments for and against protectionism.
CLO 10.	Students will be able to distinguish between the tariff and nontariff instruments of trade
	policy.
CLO 11.	Students will be able to analyse with the help of a diagram the economic effects of tariff.
CLO 12.	Students will be able to make relative comparison between tariff, quota, subsidies and
	voluntary restraints.
CLO 13.	Students will be able to argue for & against Free & Flexible Exchange Rate Regimes.
CLO 14.	Students will be able to understand the emergence of the trade blocs & working of
	EU,WTO & G20.
CLO 15.	Students will be able to explain the evolution of the international financial system.
CLO 16.	Students will be able to discuss the issues related to the capital account
	convertibility.
	convertionity.

UNIT 1	Introduction to Advances in International Trade Theory					
1.1	The three basic theorems of the Heckscher-Ohlin-Samuelson model: the factor-price equalization theorem, Stolper-Samuelson theorem, the Rybczynski theorem					
1.2	Specific Factors and Income Distribution: The Specific Factor Model					
1.3	New Trade Theories: trade theories based on economies of scale, imperfect competition, and differences in technological changes among nations.					
1.4	Inter-regional and international trade					
UNIT 2	International Trade Policy and Emerging new International Economic Order					
2.1	The political economy of trade policy: Case for and against free trade, Protectionist Trade Policy					
2.2	Instruments for regulating trade: Tariffs, Non-Tariff Instruments - Import Quota, Voluntary Restraints of Exports, Export Subsidies, technical, administrative, and other regulations					
2.3	International Negotiations and trade policy: Regional Integration Versus Multilateralism					
2.4	Regional Trade Blocs- Types -WTO, EU & G 20					
UNIT 3	International Financial Institutions and International Debt Problem					
3.1	Foreign Exchange Rate: Concepts - Spot and Forward rates - Foreign Exchange rate determination: short run and long run – Fixed and flexible exchange rate system.					
3.2	Balance of Payments: Current Account, Capital Account, Currency Convertibility.					
3.3	Emerging Global Financial Architecture: Meaning of the term "global financial architecture"-emerging trends.					
3.4	Analysis of the three aspects of the trilemma- monetary independence, exchange rate stability and financial openness.					

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