
 ॥ वसुधैव कुटुम्बकम् ॥ <b>SYMBIOSIS</b>	<b>Symbiosis College of Arts and Commerce</b> (An Autonomous College Affiliated to SPPU)													
Subject code		Semester	I	II	III	IV	V	VI	M.A.	I	II	III	IV	
Title of the Paper-For Approval of BOS	<b>AGRICULTURAL ECONOMICS</b>													
Objectives	<ol style="list-style-type: none"><li>1. To understand nature of Agricultural Economics.</li><li>2. To equip the students at the postgraduate level to latest agricultural developmental policies for empirical analysis.</li><li>3. To study the types of models for the development of agricultural produce.</li><li>4. To study the relevance of Agricultural policies, to enhance the students' awareness on contemporary debates in the literature, and leads them to analysis of current governmental policies and strategies for surviving agricultural sector in the globalizing world.</li></ol>													
<b>Detailed syllabus</b>														
<b>Unit 1</b>	<b>Role of agriculture and agricultural models for development</b>													<b>Number of Hours</b>
	1.1 Role of agriculture in a developing economy vis-à-vis a developed economy. 1.2 Theories of agricultural development (Lewis, Schultz, Mellor, Fei Renis model) 1.3 Production function in agriculture; size of farm and law of returns;													14
<b>Unit 2</b>	<b>State and Agriculture</b>													
	2.1 <b>Agricultural finance in India:</b> Importance; types of requirements; sources: non-institutional and institutional: existing rural credit delivery system(multi agency approach); 2.2 <b>Agricultural marketing in India:</b> markets and marketing functions, channels of distribution of various commodities; regulated markets and warehousing; Role of cooperatives in Agriculture.  2.3 <b>Agricultural Price Policy (APP):</b> Nature of demand and supply of agricultural products: Need for state intervention; objectives of APP; instruments and evaluation. 2.4 Government strategy for agricultural development in India , Role of public investment in Indian agriculture, MNCs and contract farming,													16
<b>Unit 3</b>	<b>Technological Changes in Agriculture and Sustainable Development</b>													
	3.1 <b>Technology in agriculture:</b> Traditional and new techniques and practices, HYV Seeds — fertilizers, water technology (green revolution); Sustainable agriculture; Emerging trends in agricultural technology; 3.2 <b>Dry land farming, use of bio-technology techniques</b> 3.3 Agricultural Diversification and Agribusiness 3.4 Food Security: Concept, measurement, magnitude, and critical evaluation of													16

	government policies	
<b>Unit 4</b>	<b>Agriculture and External sector</b>	
	4.1 Agreement on Agriculture under WTO. 4.2 Issues and Impact of WTO on Indian Agriculture. 4.3 Terms of Trade -Trends in India's agricultural exports and imports implications 4.4 Impact of globalization on Indian agriculture.	14
	<b>Total Number of Hours</b>	60
<b>Suggested Reference Books</b>  Bhaduri, A. (1984), The Economic Structure of Backwar Agriculture, Macmillan, Delhi. Singh, A.; Sadhu, A.; Singh J, Fundamentals of Agricultural Economics Himalaya Publishing House Pvt. Ltd. 11 <sup>th</sup> Edition Bilgrami, S.A.R. (199 Agricultural Economics, Himalaya Publishing House, Delhi. Dantwala, M.L. et. al (1996), Indian Agricultural Development Since Independence, Oxford & IBH, New Delhi. Government of India (1976), Report of the national Commission on Agriculture, New Delhi Government of India, Economic Survey (Annual), New Delhi. Gulati, A. and T. Kelly (1999), Trade Liberalisation and Indian Agriculture, Oxford University Press, New Delhi. Joshi, P.C. (1975), Land Reforms in India: Trends and Prospects, Allied Publishers, Bombay. Kahlon, .A.A. and Tyagi D.S. (1983), Agriculture Price Policy in India, Allied Publishers, New Delhi. Rao, C.H. Hanumantha (1983), Agriculture Growth, Rural Poverty and Environmental Degradation in India, Oxford University Press, New Delhi. Rudra A. (1982), Indian Agricultural Economics: Myths and Reality, Allied Publishers, New Delhi. Saini, G.R. (1979), Farm Size, Resource use Efficiency and Income Distribution, Allied Publishers, New Delhi. Datt, R. and K.P.M. Sundharam (2001), Indian Economy, S. Chand & Company Ltd., NewDelhi. Dhingra, I. C. (2001), The Indian Economy : Environment and Policy, Sultan Chand & Sons,New Delhi. Singh, A.; Sadhu, A.; Singh, J. (2000) Fundamentals of Agricultural Economics by Himalaya Publishing House Pvt. Ltd. 11th Edition State of Indian Farmer-A millennium study (various volumes) by Ministry Of Agriculture, Academic Foundation		
<b>Suggested Journals &amp; Database</b> <ul style="list-style-type: none"> <li>• Economic Survey: Various Issues</li> <li>• Journals,World Development Reports,GOI Publications</li> <li>• CMIE DATSBASE</li> </ul>		


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Subject code		Semester	I	II	III	IV	V	VI	M.A.	I	II	III	IV	
Title of Subject For Approval of BOS		Economic Growth and Development Theories												
Objectives		1.To expose students to Economic growth & Development theories and inculcate an analytical approach to the subject matter. 2. To equip the students at the postgraduate level to latest theoretical developments for empirical analysis. 3.To study the relevance of economic theories to contemporary economic issues. 4. To understand the various problems related to growth and development and the policy responses in the economies												
<b>Detailed syllabus</b>														
<b>Unit</b>	<b>Contents of the syllabus</b>													<b>Number of Hours</b>
1	<b><u>Perspectives on Economic Growth and Development</u></b> Contents : 1.1 Growth and Development: A Contrast in Concepts 1.2 Measuring Economic Growth 1.3 Measuring Economic Development 1.4 The Development Gap 1.5 Modern Growth and the rise in International Inequalities 1.6 Convergence of Development Levels													16
2	<b><u>Human Development</u></b> Contents : 2.1. Concept of Human Development 2.2. Components of Human Development 2.3. Measurement of Human Development Index, Gender related development Index, Human Poverty Index 2.4. Sustainable Development Goals (SDG's)													12
3	<b><u>Models of Development</u></b> Contents : 3.1 Classical Theories of development- Adam Smith, Ricardo and Malthus 3.2. Marx's theory of Development 3.3. Schumpeter's theory of Development 3.4. Theory of Unlimited Supply of Labour- Lewis 3.5. Theory of Circular Causation-Myrdal 3.6. Big Push Theory- Rosenstein- Rodan													18
4	<b><u>Issues in Economic Growth and Development</u></b> Contents : 4.1 Environment Degradation and Sustainable Development 4.2. Population Growth and Economic Development 4.3. Human Capital Formation and Manpower 4.4. Technological change and Development													14
	<b>Total Number of Hours</b>													60

**Suggested Reference Books**

- Misra SK and V K Puri (2010): Economics of Development and Planning, Himalaya Publishing House, Mumbai.
- Jhingan, M L (2010): The Economics of Development and Planning, Vrinda Publishers(P) Ltd., Delhi.
- Meier, G M (1995): Leading Issues in Economic Development, Oxford University press, New Delhi.
- Todaro M P (1996): Economic Development, Orient Longman, London
- Higgins B. (1959), Economic Development, W.W. Norton Publisher, New York
- Behrman, S. and T.N. Srinivasan (1995), Handbook of Development Economics, Vol. 3, Elsevier, Amsterdam.
- Thirwal, A.P. (1999), (6th Edition), Growth and Development, Macmillan, U.K.
- Brown, M. (1966), On the Theory and Measurement of Technical Change, Cambridge University Press, Cambridge, Mass.
- Chenery, H. and T.N. Srinivasan (Eds.) (1989), Handbook of Development Economics, Vols.1 & 2, Elsevier, Amsterdam.
- Dasgupta, P. (1993), An Enquiry into Well-being and Destitution, Clarendon Press, Oxford.
- Gillis, M., D.H. Perkins, M. Romer and D.R. Snodgrass (1992), Economics of Development, (3rd Edition), W.W. Norton, New York.
- Kindleberger, C.P. (1977), Economic Development, (3rd Edition), McGraw Hill, New York.
- Meier G.M. Leading Issues in Development Economics
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**Suggested Journals**

- Economic Survey: Various Issues
- Journals, World Development Reports, GOI Publications
- CMIE DATABASE

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Subject code		Semester		I	II	III	IV	V	VI	M.A.	I	II	III	IV	
Title of Subject (For Approval of BOS)		• International Economics and Trade Policy													
Objectives and Learning Outcomes		<p>The broad focus and outcome of this course will be:</p> <ul style="list-style-type: none"><li>The students will be able to integrate trade policies with economic theories.</li><li>The course enables students to acquaint and familiarize themselves with the process of multilateral/regional trade integration.</li><li>The students will be able to understand various issues concerning trade policy through a review of trade history.</li><li>The students will be able to understand various instruments of trade policy and also relate to the impact of domestic policies vis-a-vis international trade.</li></ul>													
Detailed syllabus															
Units	Contents of the syllabus													Number of Hours	
1.	<b><u>Introduction to Course, Trade History and Theories</u></b>  i) Theories of Trade (Neo-Classical & Modern) a)Modern Theory b)Immizerizing Growth b)The Stopler-Samuelson Theorem c)Linders Theory ii) Relevance of theories in today’s globalized world													16	
2.	<b><u>Measurement of Gains from International Trade</u></b>  i) Measurement of gains from trade and their distribution,Concepts of terms of trade, their uses and limitations ii) Hypothesis of Secular deterioration of terms of trade,its empirical relevance and policy implications for Less developed Countries iii) Trade as a Engine of Growth													10	
3.	<b><u>WTO Genesis &amp; Basis</u></b>  i) History of WTO and its relevance today ii) Increasing/Decreasing importance of WTO iii) Basic Principles of WTO iv) Relevance of current policies in the light of principles (GST)													10	
4.	<b><u>Indian Policies vis-à-vis WTO Trade Agreements</u></b> i) Types of Trade Agreements i) Important agreements of the Globe and WTO ii) Tariff and Non-Tariff Barriers iii) Foreign Trade Policy of India													12	

	iv) Trade Promotion Programmes and Schemes	
5.	<u><b>Global / Domestic Trade Initiatives</b></u> <ul style="list-style-type: none"> <li>i) TRIPS vis a vis Indian IPR, TRIMS vis a vis Foreign Direct Investments, GATS (Services)</li> <li>ii) Global Taxation, Transfer Pricing</li> <li>iii) Make in India/Made in World Initiative</li> <li>iv) Global Legal Systems</li> </ul>	12
	<b>Total Number of Lectures</b>	<b>60</b>
<p><b>Books Recommended:</b></p> <ul style="list-style-type: none"> <li>The International Trade System, Alice Landau, Routledge, 2004</li> <li>Feenstra, Robert. 2003. <i>Advanced International Trade: Theory and Evidence</i>, Princeton, NJ, Princeton University Press.</li> <li>International Economics, Dominick Salvatore, 2000.</li> </ul> <p><b>Other References:</b></p> <ul style="list-style-type: none"> <li>Bhagwati, Jagdish. 2002. <i>Free Trade Today</i>, Princeton, Princeton University Press.</li> <li>Bhagwati, Jagdish. 2004. <i>In Defense of Globalization</i>, New York, Oxford University Press.</li> <li>Bradford, Scott and Lawrence, Robert .2004. <i>Has Globalization Gone Far Enough?</i> Washington, D.C., Institute for International Economics.</li> <li>Cline, William .2004. <i>Trade Policy and Global Poverty</i>, Washington, D.C., Institute for International Economics.</li> <li>Frieden, Jeffry, Pastor Jr., Manuel and Tomz, Michael. 2000. <i>Modern Political Economy and Latin America</i>, Boulder, CO, Westview.</li> <li>Jackson, John.1997. <i>The World Trading System</i>, 2nd Edition, Cambridge, MA, the MIT Press.</li> <li>Krugman, Paul.1997. <i>Pop Internationalism</i>, Cambridge, MA, the MIT Press.</li> <li>Rodrik, Dani.1997. <i>Has Globalization Gone Too Far?</i> Washington, D.C., Institute for International Economics.</li> <li>Sampson, Gary (Ed.) 2001. <i>The Role of the World Trade Organization in Global Governance</i>, Tokyo, United Nations University Press.</li> <li>Srinivasan, T.N. 1998. <i>Developing Countries and the Multilateral Trading System</i>, Boulder, CO, Westview Press.</li> <li>Steve Suranovic. 2010 <i>International Trade – Theory and Policy</i></li> <li>Stiglitz, Joseph. 2002. <i>Globalization and Its Discontents</i>, New York, Norton.</li> <li>Wolf, Martin. 2004. <i>Why Globalization Works</i>, New Haven, Yale University Press.</li> </ul>		
<p><b>Web sites:</b></p> <ul style="list-style-type: none"> <li><a href="http://www.wto.org">www.wto.org</a></li> <li><a href="http://commerce.gov.in/Index.aspx">http://commerce.gov.in/Index.aspx</a></li> <li><a href="http://unctad.org/en/Pages/Home.aspx">http://unctad.org/en/Pages/Home.aspx</a></li> <li><a href="http://www.wipo.int/portal/en/index.html">http://www.wipo.int/portal/en/index.html</a></li> </ul>		

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Subject code		Semester	I	II	III	IV	V	VI	M.A.	I	II	III	IV	
Title of Subject For Approval of BOS		<b>Econometrics and Computer Application in Economics</b>												
Objectives		1. This course aims to provide students with a thorough background in the fundamentals of econometrics. 2. After the course, students should be able to understand the basic concepts and methods of econometrics; 3. Studnets should be able to read and interpret research and should master the basic steps for conducting statistical/econometric analyses in own research projects. 4. This course furthermore serves as a basis for subsequent master courses in which statistical methods will be learned or applied.												
<b>Detailed syllabus</b>														
<b>Unit</b>	<b>Contents of the syllabus</b>													<b>Number of Hours</b>
1	<b>1. <u>Simple Linear Regression Model with short review of Elementary Matrix Algebra</u></b> Contents : 1.1 Specifications of the Model – Assumptions – Deriving the Ordinary Least Squares 1.2 (OLS) Estimates – Gauss Markov Theorem – Estimation of the Error Variance – 1.3 Reverse Regression - Statistical Inference in the Linear Regression Model – 1.4 Confidence Intervals for the Estimated Parameters and the Testing of Hypotheses – 1.5 Coefficient of Determination – Prediction with the Simple Regression model. 1.6 Computer Application : Gretl, R, E-views, RATS													20
2	<b>2. <u>Problems in OLS Methods</u></b> Contents : 2.1 Analysis of Residuals – Heteroschedasticity and Autocorrelation Problems – First 2.2 Order Autoregressive Process – Consequences of applying OLS under Heteroschedasticity and Autocorrelation – 2.3 Durbin-Watson Test, Glesjer Test, Goldfeld-Quandt Test. 2.4 Computer Application : Gretl, R, E-views, RATS													20
3	<b>3. <u>Introduction to Multiple regression and problem of Multicollinearity</u></b> Contents : 3.1 Regression, causality, and control; anatomy of multivariate regression coefficients 3.2 Omitted variables formula, short vs. long regressions- Dummy variables and interactions; 3.3 Testing linear restrictions using F-tests - Regression analysis of natural experiments, Differences-in-differences 3.4 Computer Application : Gretl, R, E-views, RATS													10
4	<b>4. <u>Time-Series Analysis</u></b>													10

	<p>Contents :</p> <p>4.1 Models of Time Series: Purely Random Process, Random Walk, Moving Average,</p> <p>4.2 Auto Regressive Process, Auto Regressive Moving Average Process.</p> <p>4.3 Different components of time series and their measurements.</p> <p>4.4 Computer Application : Gretl, R, E-views, RATS</p>	
	<b>Total Number of Hours</b>	60
<p><b>Suggested Reference Books</b></p> <ol style="list-style-type: none"> <li>1. D. N. Gujarati and D.C. Porter, Essentials of Econometrics, McGraw Hill, 4<sup>th</sup> edition, International Edition, 2009.</li> <li>2. Christopher Dougherty, Introduction to Econometrics, Oxford University Press, 3<sup>rd</sup> edition, Indian Edition, 2007.</li> <li>3. Jan Kmenta, Elements of Econometrics, Indian Reprint, Khosla Publishing House, 2nd edition, 2008.</li> <li>4. Maddala, G. S.: Introduction to Econometrics, Wiley</li> <li>5. Ramanathan, R.: Introductory Econometrics with Applications, Harcourt Publishers.</li> <li>6. Wooldridge J. M. Econometric Analysis of Cross Section and Panel Data. The MIT Press, 2002.</li> <li>7. Johnstone &amp; Dinardo, Econometric methods, McGraw Hill</li> <li>8. Nachane, D. M.: Econometrics: Theoretical foundations and empirical perspectives,</li> <li>9. OUP Ramanathan, R.: Introductory Econometrics with Applications, Harcourt Publishers.</li> <li>10. Principles of Econometrics: An Introduction (Using R), Neeraj Hatekar, SAGE Publication</li> </ol>		
<p><b>Suggested Journals</b></p> <ol style="list-style-type: none"> <li>1. Journal of Econometrics</li> <li>2. Econometrica</li> <li>3. Journal of Applied Econometrics</li> </ol>		



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Subject code		Semester	I	II	III	IV	V	VI	M.A.	I	II	III	IV	
Title of Subject		1. To introduce the student with the concepts and methods of research. 2. To orient the student to make an informed choice from the large number of alternative methods and experimental designs available. 3. To enable the student to present a good research proposal. 4. To familiarize the student with the nature of research tools and writing skills 5. To empower the student with the knowledge and skills they need to undertake research projects, to present a conference papers and to write quality articles												
Research Methodology														
Objectives														
<b>Detailed syllabus</b>														
Unit	Contents of the syllabus													Number of Hours
1	<b>Introduction to research methodology</b> 1.1 Objective and motivation of research 1.2 Hypothesis 1.3 Sampling design													08
2	<b>Descriptive Statistics</b> 2.1 Methods of data collection 2.2 Measures of central tendency , dispersion , skewness 2.3 Graphical presentation													08
3	<b>Correlation and regression</b> 3.1 Karl Perason’s correlation, Rank correlation 3.2 Regression – linear, nonlinear 3.3 Multiple correlation and regression													10
4	<b>Application and selection of Appropriate parametric test</b> 4.1 Large sample tests 4.2 Small sample test 4.3 Chi square test 4.4 Application of ANOVA													16
5	<b>Non parametric tests</b> 5.1 Sign Test 5.2 Signed rank test 5.3 Wilcoxon rank sum test or Wilcoxon two sample test 5.4 Kruskal wallis test 5.5 Run test													08
6	<b>Theory of Attributes</b> 6.1 Attribute concept 6.2 Classification and frequency distribution 6.3 Consistency of the data upto 2 attributes 6.4 Independence and association of two attributes 6.5 Yule’s coefficient of association (Q)													10

#### **Suggested Readings/References ( For research methodology)**

- Wilkinson and Bhandarkar : Methodology and Techniques of Social Research- Pauline, Young – Scientific Social Surveys and Research.
- Goode and Halt – Methods in Social Surveys and Research.

- Sharma Prasad and Satyanatrayana (ed) Research Methods in Social Sciences.
- Krishnaswamy, O.R. and Ranganathan, M. (2005) Methodology of Research in Social Research
- Moser and Kolton – Survey Methods in Social Investigations.
- Gupta S.C. and V.K. Kapoor (1993) Fundamentals of Applied Statistics, S.Chand and Sons
- Sadhu and Singh – Research Methodology in Social Sciences.
- Kothari C. R., Research Methodology : Methods and Techniques (Second Revised Edition), New Age International Publishers.
- Thanulingom, N. (2000), “Research Methodology” Himalaya Publishing House
- Devendra Thakur – Research Methodology in Social Sciences.
- Basotia G.R. Sharma K.K. – Research Methodology.

#### **Additional Readings:**

- Acoff. Russel L.(1961) The Design of Social Research, Chicago, Uni. Of Chicago,
- Allen, T. Harrell (1978) New Methods in Social Science Research. New York; Praeger Publishes.
- Berdie, Douglas R. & Andesson, John F. (1974) Questionnaires, Design and use Metuchen N.J. the sear escrow press Inc.
- Ghosh B.N. (1982) Scientific Methods & Social Research New Delhi, Sterling Publishers Pvt. Ltd.
- Goode, William J. & Hatt, Paul K. (1952) Methods in Social Research, New York MacGrow Hill.
- Nachmias David & Nachmias Chava, (1981), Research Methods in the Social Sciences, New York, St.
- Lundberg, George A. : Social Research, Long mans, Green and Co., New Delhi

#### **Suggested Reference Books ( For Statistics)**

1. Agarwal Y.P: Statistical Methods: Concepts, Applications and Computations, New Delhi: Sterling Publishers, 1988.
2. Blalock, Hubert M: Social Statistics, London: McGraw Hill, 1981.
3. Croxton Frederiel, Dudley J. Gowden and Sidney Klein: Applied General Statistics, New Delhi: Prentice Hall, 1975
4. Edward A.L: Statistical Methods for the Behavioural Sciences, New York: Rinchart & Co, 1954.
5. Edward W Frees (2004), Longitudinal and Panel Data: Analysis and Applications in Social Sciences, Cambridge University Press.
6. Garrett E: Statistical Methods for Research Worker, New York, Hafner Publishing & Co, 1950.
7. Grewal P.S: Methods of Statistical Analysis, New Delhi: Sterling Publishers, 1990.
8. Griffiths, D., W., Douglas and K. Laurence Weldon (1998): Understanding Data: Principles & Practice of Statistics, John Wiley and Sons
9. Gupta S.P: Statistical Methods, New Delhi, Chand & Co, 2005.
10. Gupta C.B: An Introduction to Statistical Methods, New Delhi, Vikas Publishers, 2005.
11. Gupta. S.C: Fundamentals of Statistics, Bombay, Himalaya Publishing House, 2000.
12. Mansfield, Edwin: Statistical for Business and Economics, New York : Norton and Co, 1980.
13. Philip Hans Franses (1998), Time Series Models for Business and Economic Forecasting, Cambridge University Press
14. Walker H.M & Lev J: Statistical Inference, New York: Holt, 1980.