

**Vidyasagar University**  
**Faculty of Arts**  
**Department of Economics**

**Syllabus**

**M.Phil. (Economics)**

2016

**The Course Structure and Division of Marks: M.Phil. ( Economics) 2016**

Year	Semester	Course/ Paper	Paper Name	F.M.
1 <sup>st</sup> Yr.	I	Eco-111	Research Methodology in Economics with Computer Applications	50 ( Written -40, IA-10)
		Eco – 112	Econometric Methods	50 ( Written -40, IA-10)
		Eco-113	Applied Econometrics	50 ( Written -40, IA-10)
		Eco-114	Contemporary Issues of the Indian Economy	50 ( Written -40, IA-10)
	II	Eco- 121	Advanced Microeconomics: Theory and Applications	50 ( Written -40, IA-10)
		Eco- 122	Advanced Macroeconomics: Theory and Applications	50 ( Written -40, IA-10)
		Eco-123	Development Economics including Rural Development	50 ( Written -40, IA-10)
		Eco-124	Environmental Economics and Public Economics	50 ( Written -40, IA-10)
2 <sup>nd</sup> Yr.		Eco -201	Dissertation	100 ( Written -70, Viva Voce-30)

## **Programme Outcome**

Completing M. Phil. degree in economics from the Department of Economics, Vidyasagar University, the students are expected to have comprehensive knowledge of modern theories of economics as an academic discipline. They are also expected to be able to analyse economic problems of different countries or regions, to acquire skill for data analysis and data interpretation using statistical methods, to evaluate economic and public policies using appropriate models and also to exchange economic ideas. The programme will help students to pursue research work in the subject or related disciplines. The programme is also expected to improve analytical and argumentative skills of the students that are crucial for winning job in the present day job market.

## Paper Eco-111

### Research Methodology in Economics with Computer Applications

(F.M. 50, Written – 40, IA - 10)

#### Course Outcomes:

This course offers an overview of research methodology including basic concepts employed in quantitative and qualitative research methods. It also Includes computer applications for research. Upon completing this course, each student will be able to: 1. demonstrate knowledge of research processes (reading, evaluating, and developing); 2. perform literature reviews using print and online databases; 3. employ American Psychological Association (APA) formats for citations of print and electronic materials; 4. identify, explain, compare, and prepare the key elements of a research proposal/report; 5. define and develop a possible research interest area using specific research designs; 6. compare and contrast quantitative and qualitative research.

#### Group – A (Marks: 25, Written -20, IA-5)

##### 1. Introduction

- Research meaning and significance
- Characteristics of scientific Research
- Type of research : pure, applied, analytical, exploratory,
- Research process
- An overview of research methodologies in Economics

##### 2. Data : Types, Sources and Sampling methods

- Data types Qualitative and Quantitative; Cross and Time series
- Sources of data: Primary and secondary (Use of Government Reports),
- Designing of Questionnaire, PRA
- Sampling Methods with applications in the Indian context

##### 3. Analysis of data

- Descriptive Statistics with software applicatoins
- Analysis of Variance ( ANOVA): Concepts and Applications using computer software

#### Group B (Marks: 25, Written -20, IA-5)

##### 1. Hypothesis Testing

- Hypothesis testing – parametric and non-parametric
- Data based applications of Hypothesis Testing

## 2. Report Writing

- Meaning and significance of a Research Report
- Types of Research Report
- Format of a Research Report : Title to Bibliography
- Principles of writing the Research Report : Organization and Style
- Writing the report on the survey conducted

## 3. Computer Applications

- Excel, SPSS, Eviews and Stata
- Internet Applications:

### References:

1. Wilkinson and Bhandarkar, *Methodology and Techniques of Social Research*, Himalaya Publishing House.
2. Kothari R.C., *Research Methodology, Methods and Techniques*, New Age International Publishers, 11nd revised edition, reprint 2008.
3. Cooper D. and Schindler P. *Business Research Methods*, Tata McGraw Hill. Sultan Chand & Sons.
4. Don E. Ehridge, *Research Methodology in Applied Economics : Organizing Planning and Conducting Economics Research*, John Wiley and sons, April 2004.
5. Deepak Chawla And Neena Sondhi, *Research Methodology Concepts And Cases*, Vikas Publishing House Pvt. Ltd.-Noida, 2011.
6. Goon, A.M., Gupta, M.K. and Dasgupta, B.(2005): *Fundamentals of Statistics*, The World Press Private Limited.
7. Mathai, A. M. and Rathie, P.N.(1977): *Probability and Statistics*, Macmillan.

## Paper - Eco-112

### Econometric Methods

(F.M. 50, Written – 40, IA - 10)

#### Course Outcomes:

At the end of course student will be able to: learn the basics of time series data and panel data, understand the stationary time series models and advantages of panel data, perform forecasting with time series data, fixed effects, random effects model, LSDV model and dynamic panel also, apply time series techniques to state ARCH and multivariate time series, conduct research on panel data after knowing panel data handling, and opportunities for employability in marketing, finance and other business houses, Principal Component Analysis, and Simultaneous Equation Methods. Students will be able to learn when and how to apply the above econometric methodologies to analyse economic problems.

#### Group – A (Marks: 25, Written -20, IA-5)

##### Multiple Regression Analysis

Motivation for multiple regression; Estimation and interpretation of OLS; Sampling distributions of the OLS estimators; Testing Hypothesis; Functional form; Goodness of fit.

##### Time Series Analysis

Univariate time series; AR, MA, ARMA; Stationarity; Unit roots; Integrated Series; Cointegration and Error Correction; VAR; Granger causality; Impulse response functions; Structural Breaks

(JD, Chapter 7-8.)

##### Growth and Volatility

Different Approaches, Structural Break analysis, Modelling Volatility: ARCH Models and its extension.

#### Group – B (Marks: 25, Written -20, IA-5)

##### Panel Data Methods

Why panel data is necessary. Problems with panel data: attrition. Pooled OLS, random effects and fixed effects estimators.

(WOO, Chapters 13-14. )

## **Discrete and Limited Dependent Variable Models**

Discrete choices; Linear probability model; Probits, Logits, Tobits

(WOO, Chapter 17.)

## **Factor Analysis and Data Reduction**

Principal Component Analysis

## **References**

1. Baltagi Panel Data Analysis
2. Wooldridge J. M. Econometric Analysis of Cross Section and Panel Data. The MIT Press, 2002.
3. Cameron, C.A. and Trivedi, P.K. Microeconometrics: methods and applications. Cambridge U.P., 2005.  
(CT)
4. Cameron, C.A. and Trivedi, P.K. Microeconometrics Using STATA. STATA Press, 2009.
5. Ruud P.A. An Introduction to Classical Econometric Theory. Oxford U.P., 2000.
6. Greene, W.H. Econometric Analysis. 6th Ed. Prentice-Hall, 2008.
7. Morgan, S.L. and Winship, C. Counterfactuals and Causal Inference: Methods and Principles for Social Research. Cambridge U.P., 2007.
8. Kennedy, P. A Guide to Econometrics. The MIT Press, 2003.
9. Jeffrey M. Wooldridge (2016): Introductory Econometrics A Modern Approach (5<sup>th</sup> edition)(Chapters 3, 4 and 6)
10. Enders, W., Applied Econometric Time Series, Third Edition, Wiley.
11. Judge, Hill, Griffiths, Lütkepohl, Lee: Introduction to the Theory and Practice of Econometrics.
12. Johnston, J. and Dinardo, D.: Econometric Methods, Fourth Edition, McGraw-Hill, 2006.

## **Internet Resources and Databases**

1. Data and other materials for Wooldridge's textbook. [www.msu.edu/~ec/faculty/wooldridge/book2.htm](http://www.msu.edu/~ec/faculty/wooldridge/book2.htm).
2. Data and Computer Programs for Cameron and Trivedi's textbook. [www.econ.ucdavis.edu/faculty/cameron](http://www.econ.ucdavis.edu/faculty/cameron).

## Paper Eco-113

### Applied Econometrics

(F.M. 50, Written – 40, IA - 10)

#### Course Outcomes:

After taking the course, the students will be equipped with various techniques to handle econometric data and will also have total grapes over applied econometrics. The course will provide sufficient knowledge regarding the econometric applications to households such as demand analysis, estimation of consumption function, family budget study etc. Completing this course will also provide sufficient knowledge over econometric applications to firms, money market, labour economics, investment function etc. Again, this course also contains important aspects in the construction of HDI, evaluating structural breaks, trends in macro econometric model construction and RBI- MSE macro model for the Indian economy.

#### **Group A** (Marks: 25, Written -20, IA-5)

1. Econometric applications to Indian industries:
  - a. Production function estimation: CD, CES, Trans-log.
  - b. Cost function estimation
  - c. Employment function estimation.
  - d. Capacity utilization.
  - e. Growth, Volatility and Productivity
2. Econometric applications to Indian Agriculture:
  - a. Agricultural Production Function
  - b. Uncertainty and Risk
  - c. Technological change in Indian agriculture

#### **Group B** (Marks: 25, Written -20, IA-5)

1. Indian Money and financial markets
  - a. Single equation estimation of money demand function.
  - b. Simultaneous equation models of money demand and money supply.
  - c. Money and inflation.
  - d. Contemporary issues in Indian financial markets
2. Applications to macro-econometric models:
  - a. The trends in macro-econometric model construction.
  - b. RBI-MSE Macro model for the Indian economy.

## References:

1. Michael Intriligator (1980): *Econometric Models, Techniques and Application*, Prentice Hall, Private India Ltd, New Delhi.
2. K. L. Krishna ed. 1997, *Econometric Applications in India*, OUP
3. Jeffrey M. Wooldridge (2016): *Introductory Econometrics A Modern Approach* (5<sup>th</sup> edition)
4. Julia Hebden, *Applications of Econometrics*
5. M. Desai, *Applied Econometrics*
6. Kerry Patterson, *An Introduction to Applied Econometrics –A Time Series Approach*
7. K. L. Krishna ed. 1997, *Econometric Applications in India*, OUP
8. Robert Chambers (1988): *Applied Production Analysis*, Cambridge University Press.

## Paper Eco-114

### Contemporary Issues of the Indian Economy

(F.M. 50, Written – 40, IA - 10)

#### Course Outcomes

This course is specific to different aspects of Indian economy in relation to the growth and development of agriculture, industry and external sector. In specific terms it covers the issues of agricultural policies, food security, agricultural retailing, industrial productivity, financial sector development, exports-imports under WTO regime, trading blocs at regional levels. Besides it covers the topics on demography and social sector's developments. The readers will have the scope of grasping the knowledge on different facets of contemporary economic events happening in Indian soil.

#### **Group A** (Marks: 25, Written -20, IA-5)

1. Issues related to Agricultural Policy in India
  - (a) Agricultural Productivity
  - (b) Food inflation in India
  - (c) Food Security
  - (d) Challenges and outlook – Agricultural Retailing
2. Contemporary Issues related to Industrial development policies in India
  - (a) Growth without Employment
  - (b) Productivity trends in manufacturing sector
3. Issues related to financial sector – Reforms and Impact on Indian Economy

#### **Group B** (Marks: 25, Written -20, IA-5)

1. Issues concerning India's external sector policies
2. Demographic dividend in India
3. Globalisation and Social Sector
4. Issues related to WTO, RTBs and the Indian Economy

## References

1. Basu ,K.(2011) India's Foodgrains Policy: An Economic Theory Perspective, EPW, Jan 29.
2. Gulati ,A. & Saini S. (2013) Taming Food Inflation in India > Discussion Paper No. 4, Commission for Agricultural Costs and Prices, Ministry of Agriculture, Govt. of India.
3. Sasmal ,J. (2015) Food price inflation in India : The Growing economy with sluggish agriculture , Journal of Finance, Economics and Administrative Science, Elsevier, 20(38).
4. Nicholls, W.H.(1955) ' Imperfect Competition in Agricultural Industries" in H. G. Halcrow (ed) Contemporary Readings in Agricultural Economics,
5. Sarkar , A, (1993) On the Formation of Agricultural Prices, JDE, June.
6. Sasmal , J.(2003) Agricultural Price and Price Policy and Agricultural Trade Liberalisation in India, Artha Beekshan, June, 12( 1).
7. Thomsen, F.L. (1951) Agricultural Marketing, McGraw-Hill.
8. Sikdar, S. (2006), *Contemporary Issues in Globalization: An Introduction to Theory and Policy in India*, OUP India.
9. "WTO Compatibility of Border Trade Measures for Environmental Protection", *Frequently Asked Questions*, Centre for WTO Studies.
10. Kallummal, M. and H. Kaushwaha (2014), "Doha Negotiations and India's Trade in Environmental Goods: Analysis of NAMA Sectoral Impact, *WP No. 13*, Centre for WTO Studies, IIFI New Delhi, January.
11. Pal, P. P (2008), "Regional trade agreements and improved Market access in Developed countries: the evidence", *EPW*, November 29.
12. Das, K. (2008), "Addressing SPS Challenges in India", *Centre for WTO Studies*, IIFI New Delhi,September.
13. Sandesera, J.C. (1992) Industrial Policy and Planning: 1947-1951, Sage Publication.
14. Sen, Rajkumar (ed), 2005, Social Sector Development in India, Deep and Deep
15. Joshi, V, and Little, I.M.D. India's Economic Reforms: 1991-2001,OUP
16. Govt. of India Economic Survey 2004-05.
17. Bhagwati, J. 2004; In Defense of Globalization, OUP.
18. Tisdell, Clem and Sen, Rajkumar (ed): economic Globalization, 2004
19. Chandra, P.: Financial Markets, Tata McGraw-Hill Education, Second edition, 2008
20. Sharan, V & Mukherjee. I. N, India's External Sector Reforms, 2001, OUP

## Year -2, Semester -II

### Paper Eco-121

#### Advanced Micro Economics: Theory and Applications

(F.M. 50, Written – 40, IA - 10)

#### Course Outcomes

This course deals with utility analysis in an advanced manner in the situations of certainty and uncertainty and explains how social welfare maximization can be made in consumption, production and aggregate sectors. Besides it deals with different components of industrial organization using the concepts of game theory. Industrial Organization provides a foundation for the study of many fields that rely on an understanding of interactions among firms in the economy, applications of different game strategies, including business strategy, corporate finance, marketing, international trade, banking, and the economics of organizations. On successful completion of this course, students will be able to explain the social welfare issues, how price and non-price competition among firms affect economic welfare, explain how market structure affects behaviour and vice versa, analyze and evaluate models of monopoly, oligopoly and competitive markets, analyze basic antitrust and regulatory policy issues among others.

#### Group – A (Marks: 25, Written -20, IA-5)

1. Stone- Geary Utility Function, Duality Theories of consumption and Production, General Equilibrium Theory
2. Pareto Optimality, Externality and Market Failure; Coase Theorem
3. Theory of Oligopoly; Industrial Concentration, Cartel, Mergers and Acquisitions; some selected industries.

#### Group- B (Marks: 25, Written -20, IA-5)

1. Normal Form Games and Extensive form games – Pure Strategies, Dominance, Nash Equilibrium –and; Subgame perfect equilibrium
2. Choice and decision making under uncertainty
3. Applications of General Equilibrium Theory

#### References

1. P.R.G. Layard and A.A. Walters, McGraw-Hill , Microeconomic Theory

2. A. Mas-Colell, M.D. Whinston and J.R. Green Microeconomic theory , OUP
3. Silberbberg E, Mathematical Economics
4. M.J. Osborne An Introduction to Game Theory, OUP
5. Microeconomic theory by A. Mas-Colell, M.D. Whinston and J.R. Green , OUP
6. Microeconomic Theory by P.R.G. Layard and A.A. Walters, McGraw-Hill
7. The Structure of Economics- A Mathematical Analysis by E. Silberberg, McGraw –Hill
8. Economic Growth by R.J. Barro and X. Sala-i- Martin, McGraw-Hill
9. Advanced Macroeconomics by D. Romer, McGraw-Hills
10. International Trade and Development Economics (ed) s. Marjit, OUP
11. The Structure of Simple General Equilibrium Models by Ronald W. Jones ,The Journal of Political Economy, Vol. 73, No. 6. (Dec., 1965)
12. Shy, O., Industrial Organization, The MIT Press, 1995.
13. Tirole, J, The Theory of Industrial Organization, The MIT Press, 1988.
14. Pindyck, R.S. and D.L. Rubinfeld, Microeconomics, Third Edition, Prentice Hall of India
15. Gravelle and Rees, Microeconomics, Longman.
16. Gibbons, R.: Game Theory for Applied Economists, Princeton University Press, 1992.
17. Osborne, Martin J. and Ariel Rubinstein: A Course in Game Theory, The MIT Press, 1994.

## Paper: Eco-122

### Advanced Macro Economics: Theory and Applications

(F.M. 50, Written – 40, IA - 10)

#### Course Outcomes

This course discusses on how individuals' rational behavior is incorporated into the economy and how such inclusion leads to policy ineffective results. It also discusses on the overlapping generation model where the focus is put on how an individual takes different decisions across different ages and how such behavior affects the aggregate economy in a finite horizon. It further focuses on asset pricing in an open macroeconomic framework. Besides, it discusses on basic and some typical theories of economic growth. Solow model and endogenous growth theories are the two main pillar of the syllabus. The understanding of economic growth will help us to understand the movements of macroeconomic variables more confidently. This course will give a broad idea about the measurement and causes of fluctuation in economic growth path. The macroeconomic variables and their behaviour can be vigorously grasped by the learners. This course will enrich the students in their research activities in the said fields.

#### **Group A** (Marks: 25, Written -20, IA-5)

1. Theory of Rational Expectations in Macroeconomics
2. Model of Real Business Cycles (RBC)
3. Overlapping Generations Model in Macroeconomic theory
4. Exchange rate overshooting . Asset market in the context of open economy macroeconomics

#### **Group B** (Marks: 25, Written -20, IA-5)

1. Steady State Growth in Solow Model; Inada conditions, Absolute and Conditional Convergence: Introductory Remarks, Ramsey Model
2. Endogenous Growth and Human Capital – Romer and Lucas
3. Conservation Capital and Sustainable Balanced Growth

#### **References**

1. Barro and Sala-i-Martin, 'Economic Growth', Mc.Graw Hill, 2004, 2<sup>nd</sup>ed.
2. David Romer, Advanced Macroeconomics, Mc.Graw Hill, 2001, 2<sup>nd</sup>ed.
3. Sargent T.J. and N. Wallace, Rational Expectations and the Theory of Economic Policy.
4. John Muth, Rational Expectations and the Theory of Price Movements, Econometrica, 1961, 29(6)
5. Robert Lucas, 'Models of Business Cycles' Basil Blackwell, 1987
6. Sargent Thomas, "Rational Expectations", in David R. Henderson (ed.), 'Concise Encyclopedia of Economics', (2<sup>nd</sup> edition)

7. Wiekens – Macroeconomic Theory, 2014
8. Dornbusch, Open economy macroeconomics
9. Gondolfo: International Trade: Theory and Policy

## Paper Eco-123

### Development Economics including Rural Development

(F.M. 50, Written – 40, IA - 10)

#### Course Outcomes

This course sheds light upon different aspects of dual economic structure comprising of the formal and informal sectors. Specifically it deals with the rural urban wage gap, employment differentials. Role of democracy, micro financial institutions and nonfarm employment etc are the other facets of the course. On the other hand it deals with the issues of inequality; its measurement methods and impact analysis. The course will help the readers in enriching the knowledge on the grass roots of the society and citizens' well beings.

#### **Group A** (Marks: 25, Written -20, IA-5)

1. Dual Economy: Structure; Rural-Urban Wage Gap and Labour Turnover Model; Surplus Labour and Wage Productivity Model.
2. Informal Sector: Size and role of development; Democracy, Development, and the Informal Sector.
3. Rural Non-Farm Sector: Role in Rural Development; Pattern of Growth in India; Determinants of Rural Non-Farm Employment.
4. Credit Market Analysis – Analytical and Applied Issues

#### **Group B** (Marks: 25, Written -20, IA-5)

5. Economic Inequality: Measurement, Interconnections of Inequality and Development.
6. Multidimensional Poverty: Theory; Issues of Measurement; Fuzzy Set Approach; Analysis of Case Studies.
7. Social Protection: Notion, Evidence of Social Protection in LDC like India, Impact on Poverty and Food Insecurity.

#### References

1. Kaushik Basu – Analytical Development Economics: The Less Development Economy Revisited, The MIT Press, Cambridge (2003).

2. Sugata Marjit & Meenakshi Rajeev (ed.), Emerging Issues in Economic Development: A Theoretical Perspective, OUP (2015).
3. Rose-Ackerman, S.: Corruption and Government: Causes, Consequences and Reform, Cambridge University Press (1999).
4. Misra, A. (ed.) Economics of Corruption, Oxford University Press (2005).
5. Debraj Ray- Development Economics, Princeton University Press (1998).
6. Das, Pinaki, Rural Non-Farm Employment in India: Pattern of Growth and Determinants, Firma KLM Pvt. Limited, 2011.
7. Sabina Alkire, James Foster, Suman Seth, Maria Emma Santos, José Manuel Roche, and Paola Ballon; Multidimensional Poverty Measurement and Analysis, OUP (2015).
8. Kakwani and Silber, Quantitative Approach to Multidimensional Poverty, Palgrave Macmillan (2008).
9. Das, Pinaki, Social Protection and Poverty Reduction: A Reflection of Less Developed Region, ICSSR Project Report, 2015.
10. Ravi S. Srivastava, A social protection floor for India, International Labour Office, 2013.
11. Pranab Bardhan, Land, Labour and Rural Poverty: Essays in Development Economics, OUP. 1984.
12. Abhijit Vinayak Banerjee, Roland Benabou, and Dilip Mookherjee .Dynamics of Poverty.OUP

## Paper Eco-124

### Environmental Economics and Public Economics

(F.M. 50, Written – 40, IA - 10)

#### Course Outcomes

After completion of this course, the students should be able to learn and understand different issues and modern approaches of environmental and resource economics. Some of the topics covered here are : different concepts of sustainable development, valuation methods of environmental goods, economic instruments of pollution control, economics of renewable and non renewable resources and some aspects of energy economics. The course will be useful for the students in understanding of the issues that are relevant for their careers as well as personal lives and society.

#### **Group A** (Marks: 25, Written -20, IA-5)

1. Concept of Sustainable Development
2. Valuation Methods of environmental goods.
3. Market and non-market instruments for pollution control, their relative effectiveness in LDCs: Applications
4. Economics of renewable and non renewable resource – Case Studies
5. Energy consumption, Energy security and energy pricing – Case Studies

#### **Group B** (Marks: 25, Written -20, IA-5)

1. Burden of Public Debt
2. Public Resource Mobilization
3. Public Finance and Public Policy

#### References:

1. Kolstad C D- Intermediate Environmental Economics, Oxford University Press, Second Edition, 2011.
2. Berck P and G. Helfand, The Economics of the Environment, First Edition, Addison-Wesley, 2011.
3. Hanley N., F. Shogran and B. White, Environmental Economics in Theory and Practice, McMillan, 2004.
4. Hanley N., F. Shogran and B. White, An Introduction to Environmental Economics , OUP, 2004.
5. Pearce D.W. and R.K Turner, Economics of Natural Resources and the Environment, Harvester Wheatsheaf. 1991.
6. Stephen Smith, Environmental Economics – A very short introduction, OUP, 2011.
7. Wills Ian, Economics and the Environment, Allen and Unwin, 2007.

8. Devarajan S, Swarup V and Zou H(1996), 'The Composition Public Expenditure and Economic Growth', Journal of Monetary Economics, 37.
9. Richard A. and Peggy B. Musgrave, Public Finance in Theory and Practice, Fifth Edition (New York: McGraw Hill, 1989).
10. Joseph E. Stiglitz, Economics of the Public Sector, Third Edition (New York: W.W. Norton & Co., 2000).
11. Richard W. Tresch, Public Sector Economics (New York: Palgrave Macmillan, 2008).
12. Harvey S. Rosen and Ted Gayer, Public Finance, Eighth Edition (New York: McGrawHill/Irwin, 2007).
13. Jonathan Gruber, Public Finance and Public Policy, Second Edition (New York: Worth Publishers, 2007).
14. Ganguly, S., Public Finance A Normative Approach, The World Press Private Limited, Calcutta.

**Year -2, Semester – I and II**

**Paper Eco-201**

**Dissertation**

**( Written – 70, Viva Voce -30)**

It helps to develop the research ability among the students.