

DEPARTMENT OF ECONOMICS:: MADHABDEV
UNIVERSITY

Propose Course Structure of Ph. D Pre-Registration Course Work in Economics in -

The Ph. D Pre-Registration Course Work in Economics shall be of one semester. A student has to register in courses of minimum 16 credits. The course structure is shown below:

Course Structure

Course Code	Course Title	Course Type	No. of Credits
10100	Research Methodology	Core	4
10200	Advanced Economic Analysis	Optional	4
10300	Issues of Indian Economy	Optional	4
10400	Quantitative Techniques in Economics	Optional	4
10500	Tools, Techniques and Assignment	Core	4+2=6

* Research Methodology Course will be common for social sciences department. Here the syllabus for Economics only

Each student shall have to opt any two of the three optional courses.

Assessment and evaluation shall be as per M.D.U. Regulations for Research Council and for the Degree of Doctor of Philosophy (Ph. D.)

Course Title: Research Methodology		Course Code: 10100		
Marks 100 (In Sem. 40, End Sem. 60)				
Unit	Topics	Number of Lectures	Number of Tutorials	Number of Practical
I	Fundamentals of Research: Definition, Objectives of research, Importance of research, Nature and characteristics of research, Research and scientific methods, Research methods and methodology, Criteria of good research, Types of research.	15	0	0
II	Research Design: Identification and formulation of research problem, Review of literature, Statement of research objectives, Formation of research hypothesis and questions - types and characteristics of hypothesis, Statistical techniques for hypothesis testing, Sampling methods and determination of sampling design; Construction of questionnaire, Actual investigation, Data entry and processing; Report writing – Characteristics of a good report, Layout of research report – Preliminary pages; Main text - Analysis of data, drawing conclusions; End matters.	15	0	0
III	Basic Econometrics: Linear Regression Model- Violation of Assumptions, Model Specification, Time Series Econometrics, Dummy Variables, Model with Dummy Dependent Variables, Panel Data Models.	15	0	5
IV	Basic Computer Applications: Theory and Practice: Data Presentation- Use of Computer for Office Automation- Internet- Data entry and Processing Techniques- Basic Statistical and Econometric Functions- Statistical Package handling and Common Description.	10	0	5
Total		55	0	10

Readings List:

1. Good and Hatt : Methods in Social Research, McGraw Hill.
2. Panels P. Forcesses : Social Research Methods, Prentice Hall.
3. Paul Oliver : Writing your Thesis, Vistaar Publication, New Delhi.
4. Panneerselvam, R : Research Methodology, PHI, New Delhi.
5. Johnston, J & Dinardo : Econometric Methods, McGraw Hill.
6. Maddala, G.S : Econometrics, McGraw Hill.
7. Rajaram, V. : Fundamentals of Computers, PHI, New Delhi.
8. Studenmund : Using Econometrics- A Practical Guide, Addison Wesley.

Course Title: Advanced Economic Analysis		Course Code: 10200		
Marks 100 (In Sem. 40, End Sem. 60)				
Unit	Topics	Number of Lectures	Number of Tutorials	Number of Practical
I	Microeconomics: Recent developments of Demand Theory; Imperfect Competition, Theory of Game: Cooperative and Non-Cooperative, Dominant strategy, Nash equilibrium, Prisoner's Dilemma, Economics of Uncertainty: choice under uncertain situations; Insurance, Choice and Risk; Walrasian General Equilibrium Analysis, Welfare Economics: Pigovian vs. Paretian Approach, Social Welfare function, Externality and Public goods, Arrow's Impossibility theorem, Social Choice and Welfare.	15	0	0
II	Monetary Theory and Financial Markets: Monetarism vs. Keynesianism; Output, inflation & unemployment- Monetarists view, Keynesian View, New Classical Economics, Keynesian counter critique, Real business cycles, Financial markets- Money & capital markets.	15	0	0
III	Economics of Development: The Solow Model, AK Model, Endogenous Growth Model, Human Capital Approach, Human Development Approach, Sustainable Development.	15	0	0
IV	International Trade & Balance of Payments: Current account, Capital account, International Capital flows; International Financial crises- sources, domestic issues & policies; Monetary policy in open economy- Mundell-Fleming Model; Imperfect Capital Mobility; Perfect Capital Mobility.	15	0	0
Total		60	0	0

Readings List:

1. Gerber James : International Economics, Pearson.
2. Froyen Richard T. : Macroeconomics: Theories & Policies, Pearson.
3. D'Souza Erol : Macroeconomics, Pearson.
4. Pindyck Robert S, Daniel L Rubinfeld, Prem L Mehta : Microeconomics, Pearson.
5. Maddala G.S., Ellen Miller : Microeconomic Theory and Applications, Tata-Mcgraw Hill.
6. Todaro M.P. : Economic Development, Pearson.
7. Thirlwall A.P. : Growth and Development, Palgrave Macmillan.
8. Naqvi Syed Nawab Haider : Economics of Development: Toward Inclusive Growth, Sage.

Course Title: Issues of Indian Economy		Course Code: 10300		
Marks 100 (In Sem. 40, End Sem. 60)				
Unit	Topics	Number of Lectures	Number of Tutorials	Number of Practical
I	Inclusive growth: Context and Rationale; Human Development- Performance, Policy Issues and Challenges.	10	0	0
II	Agricultural Growth in India: Trend and Pattern, Diversification of Agriculture, Role of Technology and Institutions, Irrigation and Water management, Agriculture Credit, Crop Insurance, Price Policy, Subsidies and Investments, WTO and Agriculture.	10	0	0
III	The Industrial Sector and Liberalization: Role of Public Sector in India, Public Sector and Economic Reforms, Disinvestment and Privatization, Emerging role of Private Sector The Information Technology Industry- Information Technology and Knowledge Economy, Role and Future Prospects of Information Technology, The IT Sector and Outsourcing.	15	0	0
IV	The External Sector: Direction of India's Foreign Trade, Balance of Payments since the New Economic Reforms, Trade Reforms and Foreign Exchange Management Act (FEMA), Trade Negotiations.	10	0	0
V	Problem Areas: Poverty, Inequality, Inflation, Rural Indebtedness and Food Insecurity.	15	0	0
Total		60	0	0

Readings List:

1. Jalan, Bimal : The Indian Economy: Problems and Prospects, Penguin Books.
2. Basu, K (ed.) : India's Emerging Economy, OUP.
3. Subramanian, Arvind : India's Turn- Understanding the Economic Transformation, OUP.
4. Jalan, Bimal : India's Economic Policy, Penguin Books.
5. Dev, S.Mahendra : Inclusive Growth in India, OUP.
6. Datt, Rand Sundharam, K.P.M : Indian Economy, S. Chand.
7. Human Development Reports.
8. Economic Surveys.
9. CMIE Reports.

Course Title: Quantitative Techniques in Economics		Course Code: 10400		
Marks 100 (In Sem. 40, End Sem. 60)				
Unit	Topics	Number of Lectures	Number of Tutorials	Number of Practical
I	Linear Regression with Multiple Variables, Shortcomings of Linear Regression Models Introduction to Non Linear Regression Function.	10	0	6
II	Introduction to Logistic Regression, Cumulative Odd Models for Ordinal Outcomes, Continuous Ratio Model, Adjacent Category Model, Probit, Logit and Tobit Introduction to Spatial Regression Models; Spatially Lagged Dependent Variables, Spatial Error Models.	10	0	6
III	Introduction to Multiple Time Series Models, Vector Auto Regression Model, Unit Root and Error Correction, Stationarity; Introduction to Poisson Regression and Survival Analysis; Regression with Panel Data, Fixed Effect Regression.	10	0	6
IV	The Simultaneous Equation Models, Identification, Instrumental Model. Dummy and Proxy Variables.	8	0	6
V	Introduction to Multivariate Analysis; Factor, Cluster and Discriminant.	7	0	6
Total		45	0	30

Readings List:

1. Gujarati D. : Basic Econometrics, McGraw Hill.
2. Walter Ender : Applied Econometric Time Series, Wiley.
3. Matyas, Laszlo, Sevester & Patric (ed): The Econometrics of Panel Data, Springer
4. Koutsoyiannis A. : Theory of Econometrics, Ane Books.
5. Johnston J. : Econometric Methods, McGraw Hill.
6. Maddala G. S. : Econometrics, McGraw Hill.
7. Goldberger, A.S. : Introductory Econometrics, HUP.

Course Title: Tools and Techniques for Statistical Analysis Marks 100 (In Sem. 40, End Sem. 60)		Course Code: 0500		
Units		Number of Lectures	Number of Tutorials	Number of Practical
1.	Descriptive Statistics: Measures of Central Tendency :Arithmetic Mean, Median and Mode (for both Grouped and Ungrouped Data), Properties of Arithmetic Mean, Comparison of Mean Median and Mode; Geometric and Harmonic Mean Measures of Dispersion : Range, Quartile Deviation, Mean Deviation and Standard Deviation, Measures of Skewness and Kurtosis. The Concept of Moments.	15	0	
2.	Elementary Probability Theory: Probability: Concepts of Sample Space and Events, Probability of an Event, Addition and Multiplication Theorems; Conditional Probability and Independence of Events; Inverse Probability; Bayes' Rule (concepts only);Mathematical Expectation	15	0	
3	Sampling: Distinction between sampling and census, Principal steps in a sample survey; Errors in statistics: sampling vs. non-sampling errors, Methods of sampling; Testing of hypothesis: chi square and t test	15	0	
4	Correlation and Regression Analysis: Elementary Analysis of Linear Correlation: Covariance, Scatter Diagram, Karl Pearson's Coefficient of Correlation–Properties and the Method of Calculation, Concept of Spearman's Rank Correlation. The Concept of Regression, Regression Lines and their Estimation in a Bivariate series, Least Squares Method, The coefficient of determination (r^2) and Standard Error of Estimate. R^2 and Adjusted R^2	15	0	
Total		60	0	

Reading List:

1. Jay L. Devore, *Probability and Statistics for Engineers*, Cengage Learning, 2010.
2. John E. Freund, *Mathematical Statistics*, Prentice Hall, 1992.
3. Richard J. Larsen and Morris L. Marx, *An Introduction to Mathematical Statistics and its Applications*, Prentice Hall, 2011.
4. William G. Cochran, *Sampling Techniques*, John Wiley, 2007.