

POST GRADUATE TEACHING DEPARTMENTS OF ECONOMICS

GONDWANA UNIVERSITY, GADCHIROLI

Master of Arts(M.A.)Applied Economics

Syllabus

Session 2018-2019 onwards

Submitted By

Board of Studies in Economics

Gondwana University, Gadchiroli

POST GRADUATE TEACHING DEPARTMENTS OF ECONOMICS

GONDWANA UNIVERSITY, GADCHIROLI

Board of Studies in Economics

Syllabus for

Master of Arts (M.A.) Applied Economics

Semester – I,II,III,IV

Session 2018-2019 onward

Syllabus Committee

S.N.	Name of Committee member	Designation
1	Dr.Shriram S.Kawale	Dean of Humanities
2	Dr.Janardhan M.Kakde	Member
3	Dr.Prakash B.Titre	Member
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5	Dr.Ashish K.Mahatale	Member
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POST GRADUATE TEACHING DEPARTMENTS,

GONDWANA UNIVERSITY, GADCHIROLI

Master of Arts (M.A.) Applied Economics

Scheme

SEMESTER – III

Course code	Title of Paper	Core/ Elective	Credits	Contact Hours/ Week	Continuous evaluation Marks	External Evaluation Marks	Total Marks
ECO2101	FRONTIERS OF INTERNATIONAL ECONOMICS	C	4		20	80	100
ECO2102	ECONOMIC DATA ANALYTICS	C	4		20	80	100
ECO2103	Optional	E	4		20	80	100
ECO2104	Optional	E	4		20	80	100

Optional papers :-

- 1) PUBLIC ECONOMICS
- 2) FINANCIAL ECONOMICS
- 3) Institutional Economics
- 4) ECONOMICS OF INSURANCE

SEMESTER – IV

Course code	Title of Paper	Core/ Elective	Credits	Contact Hours/ Week	Continuous evaluation Marks	External Evaluation Marks	Total Marks
ECO2201	PROJECT REPORT AND VIVA VOCE	C	4		20	80	100
ECO2202	INDIAN ECONOMIC DEVELOPMENT	C	4		20	80	100
ECO2203	Optional	E	4		20	80	100
ECO2204	Optional	E	4		20	80	100

Optional papers :-

- 1) INDUSTRIAL ECONOMICS
- 2) ECONOMICS OF GOVERNANCE AND PUBLIC POLICY
- 3) OPTIMIZATION AND FORECASTING MODELS
- 4) BEHAVIORAL AND EXPERIMENTAL ECONOMICS

M. A. Applied Economics

Semester - III

FRONTIERS OF INTERNATIONAL ECONOMICS (Compulsory Paper)

Course Contents: (4 Credits and 52 Classes)

1. Theories of International Trade: (10 Classes)

- a. **Classical & Neo-Classical Trade Theories:** Mercantilist Doctrine of Balance of Trade – Adam Smith and Absolute Advantage – Ricardian Theory – Limitations – Neoclassical and Modern Theories of Trade and Market Imperfections (Helpman, Krugman, Lancaster) – Factor Endowment – The Theorems of Heckscher-Ohlin – The Empirical Evidence on Heckscher Ohlin Theory – The Leontief Paradox and Factor Price Equalization – Dynamic Version of Trade Theories – New International Economy of Scale (Antweiler & Trefler) – Linder's Hypothesis – Intra Industry Trade (Grubel & Lloyd, Greenway & Tortensson, Ruffin).
- b. **Trade and Technology:** Alternatives to the Standard Trade Theories Including the Product Cycle and Technology Gap Models – Intra-Industry Trade – Model of Technology and Trade – International Technology Transfer and Foreign Trade – Effect of Trade on Welfare – Income Distribution and Growth – Trade and New Economic Geography – Krugman & Venables.

2. Trade and Growth: (12 Classes)

- a. **Export Led or Outward Looking Industrialization:** Import Substituting or Inward Looking Industrialization – Case of South Asian Economies with Special Reference to India – Growth and Terms of Trade – Foreign Exchange Constraint on Growth – Savings Gap Versus Foreign Exchange Gap Controversy – Theories of Protection – Rybczynski Theorem – Immiserising Growth – Technical Progress and Economic Growth – Partial and General Equilibrium Effects Analysis.
- b. **The Elasticity Approach:** Marshall-Lerner Condition – Multipliers – Mundell Fleming Model – Purchasing Power Parity – Fischer Effect – Monetary Approach – Overshooting – Monetary Policy and Fiscal Policy.
- c. **Globalisation and Trade:** Gold Standard – Bretton Wood System – Fixed and Flexible Exchange Rate Regimes – Sterilization – Monetary & Money – Interest Rates and Exchanges Rates and Fiscal Intervention – Devaluation – J-Curve Effect and BOP Crisis – Capital Flight – Internal and External Balances – Zones of Economic Discomfort – Expenditure Reducing and Switching – Absorption Approach – Optimum Currency Areas – International Monetary System – Benefits and Costs of the Globalisation Process.

3. Trade Policy and International Market Structures: (10 Classes)

- a. **Under Perfect Competition:** Tariffs and Welfare for Small and Large Countries – Tariffs Versus Quantitative Restrictions – The Concept of the Optimum Tariff – Empirical Modelling of Trade Policy – Domestic Factor – Distortions and the Effects of Trade Policy – Multilateral Trade Agreements and Political Economy.
- b. **Under Imperfect Competition:** Monopolistic Competition Models of Trade – Love-For-Variety Preferences – Gains from Trade – Tariff Versus Quota Under Monopoly – Alternative to Standard Theories Including the Product Cycle and Technology Gap Models – Intra-Industry and Intra-Firm Trade.
- c. **Strategic Trade Policy:** Cournot and Bertrand Competition – Voluntary Import Expansion and Export Restrictions.

4. Tariff and Non-Tariff Barriers: (10 Classes)

- a. **The Rationale of Tariffs, Quotas and Subsidies:** Distortions In Commodity and Factor Markets – The Optimum Tariff Rate — Infant Industry Argument – Tariffs and Factor Income Distribution – Tariff and Terms of Trade and Domestic Prices –The Theorems of Stolper-Samuelson Theorem and Rybczynski Theorem – Quota and VER – Optimal Tariff – Free Trade Versus Protection – PTAS – Economic Integration – Multilateralism.
- b. **Effect Of Tariffs And Non Tariff Barriers:** Dumping – Subsidies – Technical Administration and Other Regulations – Tariffs as Instrument to Market Imperfection and Strategic Device – Preferential Trading – Economic Integration and Regional Groupings – Tariff Vs Quotas – Non-Tariff Barriers – Theory of Dumping – Anti-Dumping Measures – Policy Interventions in Terms of Tariffs (Metzler Paradox) –Offer Curves – Determination of International Equilibrium Price – Different Concepts of Terms of Trade.

5. Economic Integration and Global Trade Scenario: (10 Classes)

- a. **Multilateral Trade Negotiation:** GATT And Its Objectives – The GATT Rounds – WTO & The Indian Position– Issues At Successive Rounds Of Discussion – New Issues at Uruguay Round – Trade in Services – UNCTAD and Evolution of World Trading Arrangements – Formation of World Trade Organization and Fair Trade – IPR and Trade in Agriculture – Issues.
- b. **The Theory of Customs Unions and Welfare Effects:** Trade Creation Versus Trade Diversion – Partial and General Equilibrium Approaches to the Theory of Customs Union – Static and Dynamic Effects – Actual Experiences of Economic Integration of Nations.

c. **Formation of Regional Trade Blocs:** European Economic Community, NAFTA, PAFTA, ASEAN, SAARC, TPP, TTIP – Regional Trade Blocs And Barriers To Free Flows Of Trade – 21st century Trade – Role Of GVCS – Governance – Scope and Limitations of WTO – WTO Plus Rules – Multilateralism Vs Regionalism.

d. **Recent Development in Trade Theory and Policy:** Trade – Labour and Environmental Standards – FDI and Role of Multinationals Trade and Sustainable Development Goals.

References:

1. Bhagwati, Jagdish (2004), In Defence of Globalization, Oxford University Press, ISBN10:0195170253
2. Bhagwati, Jagdish, Arvind Panagariya and T.N. Srinivasan (1998), Lectures on International Trade, MIT Press, 2nd edition
3. Carbaugh, R. J (2008), International Economics, (11th Edition), Thomson South Western, NewDelhi
4. Caves, R E., J. A. Frankel and R. W. Jones (2006), World Trade and Payments: An Introduction, Pearson Education
5. Daniele Archibugi, Jonathan Michie (Eds.) (1998), Trade, Growth and Technical Change Cambridge University Press,. ISBN10: 052155641
6. Dennis, Appleyard and Alfred Field Jr (2001), International Economics: Trade Theory and Policy, McGraw–Hill UK, ISBN10: 0071181016
7. Dornbusch, Rudiger (1980), Open Economy Macroeconomics, Basic Books.
8. Gandolfo, Giancarlo (2004), Elements of International Economics, Springer.
9. Krugman, Paul, and Obstfeld, Maurice (2008), International Economics: Theory and Policy, Addison Welsey.
10. Salvatore, D (2007), International Economics, (8th Edition), Wiley India, New Delhi.
11. Soderston, B. and Reed G.(1999), International Economics, 3rd Edition, McMillan Press Ltd., London.
12. Stiglitz, Joseph (2003), Globalization and Its Discontents, New York: W.W. Norton & Company.

Additional Readings:

1. Feenstra. R., Advanced International Trade (2009), Theory and Evidence, Princeton University Press.
2. Vernon, R. (1966), International Investment and International Trade in Product Cycle, Quarterly Journal of Economics, Volume 80(2): 190–207.
3. Shaikh, Anwar (2003), Globalization and the Myth of Free Trade, to be found at <http://homepage.newschool.edu/~AShaikh/>
4. Samuelson, P. A. (1962), The Gains from International Trade Once Again, The Economic Journal, Volume 72 (288): 820–829.
5. Hossain Akhand Akhtar and Chowdhury Anis (2000), Open–Economy Macroeconomics for Developing Countries, Edward Elgar.
6. Samuelson, P. A (1939), The Gains from International Trade, *Canadian Journal of Economics and Political Science* 5: 195– 205

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Semester - III

Economic Data Analytics – I (Compulsory Paper)

Course Contents (4 Credits and 52 Classes)

1. **Data Mining:** Introduction to Data Mining, Terminology of Data Mining, Types of Variables: Interval, Unordered Categorical, and Ordered Categorical, Hypothesis Testing versus Prediction – Data Warehousing – Marts – Quality - Data Mining from a Process Perspective - Data Mining Methods as per the nature of Data - Data Preparation - Core Ideas in Data Mining – Supervised and Unsupervised Learning - Steps in Data Mining - Building a Model: Example of Big Data – Data Limitations or What data cannot do.
2. **Data Exploration and Dimension Reduction:** Introduction - Practical Considerations - Data Summaries - Data Visualization - Similarity, Neighbors and Clusters - Analysis of Associations - Bivariate and Multivariate Analytics - Overfitting and its Avoidance - Reducing the Number of Categories in Categorical Variables; Principal Components Analysis – Matrix operations and use of matrices - Using Principal Components for Classification and Prediction.
3. **Deterministic and Stochastic Models:** Revision of Regression and Time series models; Introduction to Structural Equation Models - Similarities and Difference between Traditional Statistical Methods and SEM - SEM Process - Definitions - Types of model identification - Maximum Likelihood Estimation - Evaluation of model fit - Stochastic models. Decision Analytic Thinking and Visualizing Model Performance.
4. **Classification Models:** Classification problems - Taxonomy of classification models; Evaluation of classification models - Holdout method - Repeated random sampling - Cross-validation - Confusion matrices - ROC curve charts - Cumulative gain and lift charts; Classification trees - Splitting rules - Univariate splitting criteria - Example of development of a classification tree - Stopping criteria and pruning rules; Bayesian methods - Naive Bayesian classifiers - Example of naive Bayes classifier - Bayesian networks; Logistic regression; Discriminant Analysis - Introduction - Distance of an Observation from a Class - Fisher's Linear Classification Functions - Classification Performance of Discriminant Analysis - Prior Probabilities - Unequal Misclassification Costs - Classifying More Than Two Classes - Advantages and Weaknesses.
5. **Applications:** Examples from relations marketing - examples from sales-force management - examples of logistic and production models. Introduction to Business Intelligence Applications.

Reference Books

1. Provost, F. and Fawcett, T. (2013), Data Science for Business, O'Reilly.
2. Shmueli, G., Patel, N. R., and Bruce, P. C. (2016), Data Mining for Business Intelligence, Wiley.
3. Vercellis, C. (2009), Business Intelligence: Data Mining and Optimization for decision making, Wiley.

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Semester - III

PUBLIC ECONOMICS (Elective Paper)

Course Contents(4 Credits and 52 Classes)

1. Theoretical base of Public Economics:

- a) **Public Good:** Understanding the Properties of Public good / bad - Pareto Optimality: Pure Exchange Economy and Economy with Production, consumption and distribution - Social Welfare Maximization - Theory of Second Best - Market Failure and Rationale for Government Intervention - Public goods and externalities - Merit goods –private and public – Samuelson’s theory – Externality - Problem of Free riders -, Lindahl solution, Coasian theory, Theory of clubs
- b) **Economic Decision Making in Government** – Theory of Public Choice - Political Process vs Economic Rationale - Public Choice - Limitations of Getting Rational Choice - Problems of preference revelation and aggregation of preferences - Normative social choice theory: Arrow’s theorem - Majority voting - The median voter model - representative democracy - Positive social choice theory: The Leviathan hypothesis - Theory of rent-seeking - lobbying and interest groups – Public Economics and Public Finance – Overlapping and Spill-overs.

2. Public Finance- Theory and Practice:

- a) **Taxation and Tax Reforms:** Direct and indirect taxes – Canons of Taxation - Benefits and Ability to Pay - efficiency and equity - dead weight loss - taxation and monopoly - measurement of income and expenditure - tax incidence: partial (income tax - input tax - commodity tax etc.) - Taxation and labour supply - taxation and savings - risk-taking and wealth - general equilibrium (Herberger) models of tax incidence - theory of optimal taxation - recent developments in theory of taxation - measuring progressivity of taxation - user charges - Taxation in a Federal system: assignment issues - vertical and horizontal imbalances and externalities - evolution of tax structures - tax evasion and avoidance - designing of modern tax system - reform in direct taxes - reform in indirect taxes: the value-added tax - taxation of property - Laffer curve analysis
- b) **Public Expenditure and the Macro-economy:** Determining optimal size of government - Wagner’s law - Wiseman-Peacock hypothesis - financing of public expenditure: debt versus tax financing - fiscal federalism: central and sub-national expenditures – Public Expenditure Committee - Impact of government expenditure on output and employment - designing optimal government expenditure policy: issues of size and composition - designing subsidy-theory and policy.

3. **Fiscal Policy Issues:** Budget deficit and public debt - Keynesian - neo-classical - and Ricardian equivalence - debt dynamics - interdependence of fiscal and monetary policies - theory of inter-governmental transfers - Subsidies - Theory of fiscal federalism - issues of equity and efficiency - designing equalization transfers - conditional and unconditional grants.
4. **Indian Public Economics:**
 - a) **Indian Tax System:** Emergence and Development - Constitutional assignment of taxing and expenditure responsibilities to various levels of government - Selective taxes and tax reforms – Raja Chellaiah Committee – Parthasarathy Shome Committee - Personal Income tax - Corporate Profit Tax - CENVAT - Sales Tax - Stamps and Registration Fees - GST and Implications – History of Indian Tax reforms – Gains and Issues.
 - b) **Public Expenditure Management in India:** Introduction to budgets of Centre and State governments-Plan and Non-plan expenditure - Capital and Revenue heads - Growth of public expenditure - Subsidies in India – Debate on Subsidies - Social security and Pension reforms - Deficit and Public Debt: Concepts of Deficits - Fiscal Deficit - Primary Deficit - Revenue Deficit - Public Enterprises and the Budget - Public Debt Dynamics in India.
5. **Fiscal Responsibility and Budget Management (FRBM) Act:** An Evaluation of FRBM Act - Intergovernmental transfers in India: Vertical and Horizontal Imbalances - Types of Grants-Matching - Non-Matching - Conditional and Unconditional - Finance and Planning Commissions - Pattern of Transfers - Equity and Efficiency Aspects – History of Reforms & possible lines of Reforms.

Reference Books

1. Alan, J. Auerbach and Martin Feldstein, (1985 & 1987). *Handbook of Public Economics Vol. 1 & 2*, Elsevier, Amsterdam, North Holland
2. Alan, T. Peacock (1979). *The Economic Analysis of Governments, and Related Themes*, St Martin Press, New York
3. Auerbach, A. and Feldstein M. (2002). *Handbook of Public Economics*, Vol. 3, North Holland,
4. Bailey, S.J. (2004). *Public Sector Economics*, Macmillan
5. Boadway, R. (1984). *Public Sector Economics*, 2nd Sub edition, Scott Foresman & Co., London
6. Chelliah, R.J. (1996). *Towards Sustainable Growth: Essays in Fiscal and Financial Sector Reforms in India*, Oxford University Press
7. Cullis John and Jones Philip (2010). *Public Finance & Public Choice*, 3rd Edition, Oxford Publications.
8. Hindriks, J. and G.D. Myles (2006). *Intermediate Public Economics*, MIT Press
9. Mundle, S (1997). *Public Finance Policy Issues for India*, Oxford University Press, New Delhi
10. Musgrave, R.A. and P.B. Musgrave (1970). *Public Finance in Theory and Practice*, McGraw Hill, Tokyo
11. Musgrave, Richard A, Musgrave, Peggy B (2004). *Public Finance in Theory and Practice*, Tata Mc Graw Hill Company, New Delhi
- Singh S.K. (2008). *Public finance in theory and practice*, S Cha

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Semester - III

FINANCIAL ECONOMICS(Elective Paper)

Course Contents: (4 Credits and 52 Classes)

1. Structure and Working of a Financial System Markets and Instruments: (15 Classes)

a. **Financial Systems:** International and Indian – Financial Institutions – Role & operations of Banks and Insurance companies – Processes – Technology – Non Banking Financial Companies (NBFCs) – Merchant Banks – Private Equity and Venture Capital Companies – Regulatory and Legislative Bodies – Role and Operations of RBI, SEBI and IRDA – Money Markets – Bond Markets – Equity Markets – Property Markets – Options – Futures and Other Derivates – Collective Investment Schemes – Overseas Markets – Investment Environment – Economic Influences on Investment Markets – Interest Rates – Inflation – Exchange Rates – International Environment – Role of International Agencies – Contemporary Issues and Trends – FII, FDI, Listing in International Markets – GDR/IDR.

b. Financial Markets

- i. **Derivatives Markets** – Forwards – Futures – Options – Swaps – Role of Derivatives Markets – Linkages between spot and Derivatives Markets – Criticisms of Derivatives Markets
- ii. **Forward and Futures** – Market Structure – Types of Future Contracts – Pricing principles – Futures Hedging Strategies
- iii. **Options** – Options markets – Options pricing principles – The put-call parity theorem – Binomial Models – Black-Scholes Model – Introduction to Option Greeks – Option Trading Strategies
- iv. **Currency Derivatives** – Currency forwards – Currency futures – Currency options – Pricing – Trading Strategies
- v. **Interest Rate Derivatives** – Interest Rate Futures – Forward Rate Agreements – Swaps – Options – Swaptions – Term – Structure and pricing principles – Trading Strategies – Bond Returns and Prices – Systematic and Unsystematic Risk involved in Fixed Income Securities – Present Value Model and Bond Valuation – Duration Shifts – Convexity – Bond Price Volatility – Term Structure of Interest Rates – Analysis of Bonds with Embedded Options.

2. Risk and Efficiency in Financial Markets: (12 Classes)

a. **Capital Markets and Risk:** Consumption and Investments With and Without Capital Markets – Market Places and Transaction Costs – Fisher Separation Theorem – The Agency Problem – Maximization of Shareholder's Wealth – The Economic Properties Of Utility Functions – Concept & Measures to Model Attitudes Towards Risk – Relationship Between Risk and Return – Expected Utility Maximization Market Hypothesis (EMH) – Evidence For and Against EMH – Stochastic Dominance – Risk Aversion – Axioms of Choice Under Uncertainty – Utility Functions – Expected Utility Theorem – Certainty Equivalence – Measures of Risk – Absolute and Relative Risk Aversions – Stochastic Dominance First

Order, Second Order and Third Order – Mean Variance as Choice Criteria – Measuring Portfolio Return and Risks (The Markowitz Model) – Effect of Diversification – Minimum Variance Portfolio – Perfectly Correlated Assets – Minimum Variance Opportunity Set – Optimal Portfolio Choice – Mean Variance Frontier of Risky and Risk – Free Asset – Optimum Portfolio Weights Choice.

- b. **Efficiency in Financial Markets:** Introduction to Efficient Market Hypothesis (EMH) — The Weak, Semi-Strong and the Strong Form of EMH – Implications of EMH for Financial Markets – Empirical Models of EMH – Stock Exchanges – The Over the Counter Stock Market – Random Walk – Martingales – Causes of Volatility – Volatility Testing.

3. Asset Pricing Models, Risk and Term Structure of Interest Rate: (10 Classes)

- a. **Value at risk of a portfolio:** Definition of VAR – Security market line – Standard Capital Asset Pricing Model (CAPM) – Empirical evidence on CAPM – Multi factor models of asset returns – macroeconomic models, fundamental factor models, statistical factor models; Single factor model – Arbitrage Pricing Theory model (APT) – Measuring performance using APT – Drawing the term structure – Methods of computing the yield to maturity – Market expectations theory of the term structure – yield curve analysis – Liquidity preference theory of the term structure – Market segmentations theory of the term structure – Estimating the expected return of a bond for portfolio analysis.

- b. **Models of Securities Prices in Financial Markets:** Single period models – Asset dynamics – Portfolio and Wealth process – Multi-period models – General model specifications – Cox –Ross Rubinstein Binomial model – Continuous time models – Simple facts about the Merton Black –Scholes model – Brownian Motion process – Diffusion process – Stochastic Integrals – it's rule .

4. Regulation of Financial Markets: (5 Classes)

General characteristics of securities – Government bonds – Index linked bonds – Corporate Securities – equities – bonds – convertible securities –Stock market operations – Money market funds – Claims on financial institutions – The ethics of finance and the economic function of financial markets – The purpose of regulation – levels of regulation – Securities Contract Regulation Act – Securities and Exchange Board of India (SEBI).

5. Behavioral Finance: (10 Classes)

- a. **Financial Decision Making:** The Expected Utility Rule – Frames for Actions – Contingencies and Outcomes – Discounting – The Discounted Utility Model – How and Why Discount Rates Vary – Hyperbolic Discounting Factors – Learning – Rational Learning – Over Inference and Law of Small Numbers – Disagreement – Tastes and Capital Asset Pricing Model – Bubbles – Past, Present and Future – Tulipmania and the Didactic Value of Bubbles – Regulatory Origins of the Bubble.

- b. **Investor Biases:** Overconfidence Bias – Representativeness Bias – Anchoring and Adjustment Bias – Cognitive Dissonance Bias – Availability Bias – Self –Attribution Bias – Illusion of Control Bias – Conservatism Bias – Ambiguity Aversion Bias – Endowment Bias – Self -Control Bias – Optimism Bias – Mental Accounting Bias – Confirmation Bias –

Hindsight Bias – Loss Aversion Bias – Recency Bias – Regret Aversion Bias – Framing Bias – Status Quo Bias.

Reading List:

1. Bodie Zvi, Kane Alex and Marcus Alan J. (2009), Investments, 8th ed, Mc Graw- Hill.
2. Brealey, R. A., Myers, S. C., Allen, F. (2005), Corporate finance. 8th ed. McGraw - Hill.
3. Cochrane, J. (Revised Edition), 'Asset Pricing', Princeton.
4. Copeland, T. E. and J. F. Weston (1992), Financial Theory and Corporate Policy, Addison Wesley.
5. Cvitanic J. and Zapatero F (2004), Introduction to Economics and Mathematics of Financial Markets, MIT Press, Cambridge, London.
6. Damodaran, Aswath (1997), Corporate Finance: Theory and Practice, John Wiley and Sons.
7. Dubofsky David A. and Miller Thomas W. (2003), Derivatives: Valuation and Risk Management, OUP.
8. Echberger Jurgen and Harper Ian R. (1997), Financial Economics. OUP.
9. Elton E J, Gruber M J, Brown S J and Goetzmann W N (2003), Modern Portfolio Theory and Investment Analysis, John Wiley.
10. Gordon E and Natarajan K (2007), Financial Markets and Institutions, Himalaya Publishing.
11. Hart O (1995), Firms, Contracts and Financial Structure, OUP.
12. Houthakkar H.S. and Williamson P.J. (1996), The Economics of Financial Markets, Oxford University Press.
13. Haug C and Litzenberger R (1988), Foundations for Financial Economics, North-Holland.
14. Hull John C (2009), Options, Futures and Other Derivatives, Pearson Prentice Hall.
15. Tuckman Bruce (2002), Fixed Income Securities, Willey Finance.
16. Fabozzi, Frank J. (1994), Investment Management, Eenglewood Cliffs, Prentice Hall.

M. A. Applied Economics

Semester - III

Institutional Economics(Elective Paper)

Course Contents: (4 Credits and 52 Classes)

1. Introduction to Institutional Economics: Institutional Economics as Departure from Neo-classical & Marxian Economics – Old & New Institutional Economics - Veblen & Commons – Adam Smith's Moral Sentiments

a. Old and New Institutional Economics: The old and New Paradigms in Institutional Economics - The Theory of the Leisure Class - Institutions as Rules of the Game - Informal and Formal Institutions – Galbraith - North – Mitchell – Establishment of Institutions – G Myrdal - Institutions as Game Theoretic Equilibria – Institutions and Economic Development – Inter-linkages - Role of the State –Anarchy and Order - Agency Problem

b. Institutional Analysis: Interaction Situations and the Types of Norms – Information Asymmetry & Opportunistic Behaviour - Prisoners' Dilemma type situation – Nash Equilibrium - Co-ordination Situation - Inequality Situation - Enforcement Characteristics - Institutional Structure of a Society - Formal and informal institutions.

2. Economic Theory of Property Right – What is Property and Rights - Problems of Ill-defined Property Rights - Property Rights in Different Legal Traditions - The Property Rights Approach - Basic Concepts – Externalities, Market failure and Property Rights - Coase Theorem - Critic of Coase - Alternative Property Rights Regimes - Common Property (open access) - Exclusive Property Rights - Hardin's Tragedy of the Commons - Collective Action and Assurance Problem - The interest-group Theory of Property Rights - The Costs of Collective Action - The Theory of Rent-seeking - Interest-groups and Rent-seeking in an Economy.

3. Economics of Transaction Cost - The Concept of Transaction - Types of Market Transaction Costs and Means of Transaction Costs - Market and Intra-firm Transactions - Transaction Costs as Friction in the Economy - Issues Relating to Transaction Costs - Transaction Costs and Transformation Costs - Interdependency between Transaction Costs and Transformation costs - Social cost vis-à-vis individual costs- Identification and measurements of transaction costs - Coase Theorem

4. Markets and Organisations:

a. Markets and Contracts: Why Firms Exist – Coase - Nature of Markets and Market Imperfections - Information Costs -Governance Modes as Responses to Minimize Costs - Contractual Arrangements – Adverse Selection - Legal Enforcement of Contracts - Role of Uncertainty - Bounded Rationality - Opportunism & Incomplete Contracts – Problem of

Moral Hazard – The role of Trust – Market for Lemons - Principal-agent Problem and Agency Costs - Unified Governance - Agency Issues and Mechanisms to Minimize Agency Costs - The role of trust - Institutional Environment and its Role in the Choice of Contract.

b. Organizational Arrangements: Embedding Organizational Arrangements - Meso-institutions - Cooperative versus Competitive Arrangements - Social organization - Role of State, Markets & Communities in Organizational Structures - Organizations for Common Pool Resources.

5. Analysing Institutional Changes:

a. The Theory of Change: Stability of institutions and institutional change. The Main Sources of Institutional change - The Role of the State in the Process of Institutional Change - The problem of Compensation of the Disadvantaged Groups

b. Theory of State and Changes: State as an Institution - Social Mechanisms for Constraining Open Access - Contractual Theories of the State - Hobbes Predatory Theory of the State - North's Model of the State - Corruption and its Economics - The Principal-agent Framework - Incentive Structures - The Threat System and the Authority - Collusion, Rent-seeking Behaviour and Free-riding - Basil Model of Corruption and its Analysis

Reference Books:

1. Brousseau, Eric and Glachant (2008). *New Institutional Economics*, Cambridge University Press.
2. Coase, Ronald H. (1987). *The Firm, the Market and the Law*, University of Chicago Press.
3. Geoffrey, M Hodgson (Ed) (2003). *Recent Developments in Institutional Economics*, Edward Elgar Publishing.
4. Groenewegen, John et. al. (2010). *Institutional Economics: An Introduction* Palgrave Macmillan.
5. Kapp, William (2011). *The Foundations of Institutional Economics*, Routledge.
6. Menard, Claude and Mary Shirley, (2008). *Handbook of Institutional Economics*, Springer.
7. North, D. (1990). *Institutions, Institutional Change and Economic Performance*, Cambridge University Press.
8. Ostrom, E. (1990). *Governing the Commons*, University of Cambridge.
9. Ostrom, E. (2005). *Understanding Institutional Diversity*, Princeton, NJ: Princeton University Press.
10. Rutherford, Malcolm (1996). *Institutions in Economics: the Old and the New Institutionalism*, Cambridge University Press.

Additional

1. Coase, R. (1937). "The Nature of the Firm", *Economica*, pp. 386-405.

2. Coase, R.H. (1960). "The Problem of Social Cost", *Journal of Law and Economics*, 1-44
3. Costanza, R., B. Low, E. Ostrom and J. Wilson (eds.) (2001). *Institutions, Ecosystems, and Sustainability*, New York: Lewis.
4. Dietz, T., E. Ostrom and P. Stern (2006). 'The Struggle to Govern the Commons', in D. Kennedy (ed.) *State of the Planet 2006–2007*, Washington, DC: Island Press, pp. 126–141.
5. Eggertsson, Thrainn (1990). *Economic Behaviour and Institutions*, Cambridge University Press.
6. Kherallah, Mylène and Johann Kirsten (2001). *The New Institutional Economics: Applications For Agricultural Policy Research In Developing Countries*, MSSD DISCUSSION PAPER NO. 41, International Food Policy Research Institute.
7. Milgrom, P. and Roberts J. (1992). *Economics, Organization and Management*, Prentice-Hall.
8. North, D. (1994). "Integrating Institutional Change and Technical Change in Economic History: A Transaction Cost Approach", *Journal of Institutional and Theoretical Economics*, pp. 609-624.
9. North, D. C. (2005). *Understanding the Process of Institutional Change*, Princeton, NJ: Princeton University Press.
10. Posner, E. (2000). *Social Norms and the Law*, Harvard University Press
11. Schmid, Allan (2004). *Conflict and Cooperation: Institutional and Behavioural Economics*, Blackwell Publishing.
12. Shelanski, H. and Klein P. (1995). "Empirical Research in Transaction Cost Economics: A Review and Assessment", *Journal of Law, Economics and Organization*, Vol. 11, N 2., pp.335-361.
13. Ullman-Margalit, E. (1977). *The Emergence of Norms*, Oxford, Clarendon Press
14. Williamson, O. (1996). *Comparative Economic Organization: The Analyses of Discrete Structural Alternatives*, In: *Mechanisms of Governance*, Oxford University Press.
15. Williamson, O. (1985). *The Economic Institutions of Capitalism*, The Free Press, N.Y.

M. A. Applied Economics

Semester - III

ECONOMICS OF INSURANCE (Elective Paper)

Course Contents: (4 Credits and 39 Classes)

1. Economic Foundations in Insurance: (7 Classes)

Expected utility – St. Petersburg Paradox – Bernoulli's Solution – Von Neumann Morgenstern Expected Utility Theorem – Risk Preference – Demand For Full Insurance – Maximum Premium – Insurance at Fair Odds – Partial Insurance – Insurance Market – State Space Approach – Contingent Commodities – Zero Profit Constraint – Odd Price Ratio – Moral Hazard and Insurance – Insurance and Selection Problems – Single Crossing Property – Imperfect Information: Pooling Contract – Separate Insurance – Self Selection Constraint – Separating Equilibrium.

2. Risk Management Insurance and Underwriting: (8 Classes)

The Concept of Risk – Business Risks and Individual Risks – Risk Management Methods Loss Control – Loss Financing and Internal Risk Reduction Methods – Frequency of Loss – Magnitude and Severity Of Loss – Important Distributions Of Claim Costs – Diversification and Polling Arrangement – Contract Costs – Diversification of Underwriting Risk – Reinsurance – Proportional and Non Proportional Contracts – Insolvency Issues – Underwriting Policy in Relation to the Objectives of an Insurer – Factors Affecting – Financial Underwriting – Theory of Rating – Actuarial Principles – Mortality Tables – Physical and Moral Hazard – Representations – Warranties – Conditions – Risk Appraisal – Risk Selection – Underwriting. General Insurance Underwriting – Underwriting Practice In India And Other Important Insurance Markets.

3. Insurance in Practice: (16 Classes)

a. Classification Of Insurance: Types Of Life Insurances – Term Life Insurance – Increasing / Decreasing Term Policy – Whole Life Insurance – Endowment Insurance – Money Back Endowment Plan – Marriage Endowment Plan – Educational Annuity Plan – Children Deferred Assurance Plans – Annuities – Group Insurance – Nature of Group Classification of Insurance Life Vs General – Types of General Insurance (Fire, Marine, Motor, Engineering, Aviation and Agricultural) – Insurance of Property – Pecuniary Interest – Liability and Person – Insurance Professionals and Intermediaries – Economic Principles of Insurance – Sharing – Subrogation – Contribution.

b. Insurance Pricing and Selective Insurance Products Fundamentals: Fair Premium – Fair Profit Loading – Actuarial Science Pricing Techniques – Individual Risk Theory and Collective Risk Theory – Financial Pricing of Insurance – Insurance Capital Asset Pricing Model – Present Value Model and Option Pricing Model – Types of Insurance Products – Life and Health Insurance – Term – Endowment and Whole Life Policies – Universal and Variable Life – Group Insurance – Annuity Contracts With Level and Varying Benefits – Future Life Time Random Variable – Its Distribution Function – Force of Mortality –

Curtate Future Life Time – Deferred Probabilities – Analytical Laws of Mortality – Gompertz – Maheham – Single Decrement Life Table – Select and Ultimate Life Table.

c. Mathematics of Insurance: (Practicals) Elements of Compound Interest – Accumulated Value and Present Value – Nominal and Effective Rates of Interest – Immediate Annuities Certain and Deferred Annuities Certain – Perpetuities – Functions Included in Compound Interest Tables and Their Uses – Redemption of Loans – Sinking Funds – Average Interest Yield on The Fund of a Life Office – Elementary Theory of Profitability – Mortality Table – Concept of Stationary Population – Expectation of Life – Select Rates.

4. Experience Rating and Credibility Theory Experience: (5 Classes)

Risk Classification – Bonus Malus System – Credibility Theorem – Empirical Bayes Approach To Credibility Theory – Credibility Premium Formulae and Standard Elementary Models – Credibility Premiums – Full and Partial Credibility – The Aggregate Claim Distribution for Short Term Insurance Contracts – Aggregate Claim Distribution and Application of Binomial – Poisson – Negative Binomial Distribution and Normal Distribution.

5. Legal Aspects of Life Assurance: (5 Classes)

Legal Principles of Insurance – The Indian Contract Act-1872 – Insurable Interest – Nomination and Assignment Life Insurance Contracts – Basis of Contract Wagering Contracts – Modification of the Principle of Indemnity in Life Insurance – Human Life Value Concept – Legal Implications the Indian Contract Act-1872 – Insurable Interest – Nomination and Assignment – Utmost Good Faith – Indemnity – Subrogation – Contribution – Proximate Cause – Insurance Legislation – General Insurance Business (Nationalization) Act 1972 – The Insurance Act 1938 (As Amended)

Reference Books:

1. Black K. and H. Skipper (2004), Life and Health Insurance , Pearson Hall.
2. Borch K.H., Sandmo A. and Aase K.K. (1990), Economics of Insurance, Elsevier.
3. Carter Robert L.(1979), Economics and Insurance, Witherby & Co Ltd.
4. Connolly Sean (2011), Insurance, Amicus Publishing.
5. Harrington S. and G. Niehaus (2004), Risk Management and Insurance , Tata McGraw–Hill.
6. Rejda George E. (2013), Principles of Risk Management and Insurance, Prentice Hall.
7. Zartman Lester W. (2003), Yale Readings in Insurance: Life Insurance, William S. Hein & Co.
8. Zweifel, Peter & Eisen, Roland (2012), Insurance Economics, Springer.
9. Insurance Institute of India , Books on various aspects of General Insurance. IC51 to IC54, IC, 71 , 72, 73, 74, 77), Insurance Institute of India, (Latest Editions)
10. Insurance Institute of India , Books on various aspects of Life Insurance (IC, 22 to IC 26, IC, 81, IC, 85), Insurance Institute of India (latest Editions).
11. National Insurance Academy (2009), Practical Approach to General Insurance Underwriting, Cengage Learning India

Additional Reference:

1. Arrow, Kenneth J. (1971), *Essays in the Theory of Risk, Bearing*. Amsterdam: North, Holland.
2. Bates, Ian & Atkins, Derek (2009), *Management of Insurance Operations*, Global Professional Publishing.
3. Dionne, Georges & Harrington Scott E. (1992), *Foundations of Insurance Economics: Readings in Economics and Finance*, Springer.
4. Dionne, Georges (Ed.) (1992), *Contributions to Insurance Economics*, Springer.
5. Gastel Ruth (Ed.) (2004), *Reinsurance: Fundamentals and New Challenges*, Insurance Information Institute.
6. Gollier, Christian (2001), *The Economics of Risk and Time*, Cambridge: MIT Press.
7. Hans U. Gerber (1997), *Life Insurance Mathematics*, Springer.
8. Hiller Brian (1997), *The Economics of Asymmetric Information*, Palgrave.
9. Hun Seog S.(2010) *The Economics of Risk and Insurance* , Wiley, Blackwell .

Semester - IV

M. A. Applied Economics

Semester - IV

INDIAN ECONOMIC DEVELOPMENT (Compulsory Paper)

Course Contents: (5 Credits and 65 Classes)

1. Introduction to Indian Economy: (10 Classes)

- a. **Historical View of Indian Economy:** India as a Historically Strong Economy – The Colonial Control of the Indian Economy – Colonial Trade – Colonial Residual Policies and Impact – Economy During Transition – Economic Ideologies: Gandhi, Kumarappa, Ambedkar, Nehru And Their Thinking About India's Development – Mixed Economy – Centralized Planning in Post-Colonial India – Historical Roots, Evolution of Plan Models, Limitations and Lessons.
- b. **Understanding Indian Economy:** Indian Economy a Macro Perspective – National Income – History and Methods – National Accounts Statistics of India – Critics – Changes in GDP – GDP Deflator and Real GDP – Inflation Measurement and Trends – Employment and Trends – Macro Economic Indicators since Independence – Savings and Investment in India – Growth Rates of National Income: Comparisons Over Time and Across Countries – Sectoral Composition of Output and Growth – Regional Variations in Growth – An Overview of Changes in Monetary and Fiscal Policy.

2. Contemporary Issues in Indian Economy: (10 Classes)

- a. **Economic Development and Resource Distribution:** Distribution of Productive Assets (Land, Capital, Human Capital, Education and Health) – Social Justice – Poverty – Debates on Poverty Measurement – Review of Poverty – Ameliorating policies and Social Change since Early Fifties – National Sample Surveys – Extent of Reduction in Poverty – Social Security – Growth and Prices.
- b. **Understanding Demographic Change in India:** Development and Demographic Change – Population Policy – Employment and Migration Issues – Challenge of Urbanization and Emerging Issues.

3. Changing Sectoral Contours of Indian Economy: (20 Classes)

- a. **Agriculture:** An Overview of the Sector's Growth – Main Springs of Agricultural Growth – Land Reforms and Debates – Land, Labor, Capital and Agrarian Relations – Green Revolution – Fallouts of the Green Revolution – Review of Cost, Price, Risk, Credit and Insurance – Other Policies Relating to Agriculture – Emerging Crisis/Disparities in Agriculture – Economics of Farm Size Debate – Farm-Nonfarm Linkages and Diversification of Rural Economic Activities – Migration and Rural Economy – Forced Migration, Seasonal Migration and Remittance – Investment in Agriculture and Irrigation – Micro Finance – Sustainable Rural Livelihoods – Market and Government Failure – Economic Reforms in Agriculture – New Agricultural Policy – Decentralized Planning for Rural Development – Capital Formation – Strategies for Rural Development – Impact of Liberalization and WTO on Agricultural Sector.
- b. **Industries:** Evolution of Indian industry, Growth and Productivity – Industrial Policy Changes – Public Sector Enterprises and their Performance – Critiques of Industrial Policies – Industrial Reforms – Sources of Industrial Finances – Role of Foreign Capital for Direct Investment and Portfolio Investment – Multinationals – Reform of Public Sector Enterprises – Privatization and Disinvestment Debate – Globalization and its Impact on Industrial Development – Trade as an Engine of Growth – Regional Disparities in Industrial and Structural Growth – Issues Facing Small Scale Sector –

Unorganized Sector – Reservation Policy Relating to Small Scale Industries– Industrial Relations and Labour Welfare.

- c. **Infrastructure and Social Sector:** State of Infrastructure – Reforms Towards Restructuring – Pricing and Regulation – Promoting Investment in Infrastructure – Public- Private Partnership – Sectoral Issues: (Energy, Transport, Telecom, Road And Water) – Promoting Investment in Infrastructure – Health Services and Policy – Education Policy – Financing Of Health And Education– Human Development Indices in India – Gender Related Development Index – Inclusive Growth Debate.

4. **India's Internal and External Economic Policies: (20 Classes)**

- a. **Experience of Planning in India:** Beginning of the Planning Commission – Functions and Objectives – Models of Planning – Changing Focus Across Five Year Plans – Growth and Development During the 12 Five Year Plan Periods and Impact on the Development –Closing Down of the Planning Commission – The Niti Ayog and its Operations.
- b. **Monetary and Financial Policies:** Monetary Policy Changes – Money and Capital Markets – Changing Role of RBI –Monetary Policy of RBI and Interest Rate Polices – Issues of Commercial Banks – Development of Finance Institutions, Foreign Banks and Non-Banking Financial Institutions – Changing Stance of Monetary Policy – Monetary Targeting – Inflation Targeting – Multiple/ Lead Indicator Approach – Systemic Stability – Financial Sector Reforms – Stock Exchange – Working of SEBI and Capital Market Reforms – New Exchange Rate Regime: Partial And Full Convertibility – Capital Account Convertibility – Exchange Rate Policies in Recent Years – Capital Inflows and Sterilized Intervention in the Foreign Exchange Market.
- c. **Fiscal Policy:** Analysis of Price Behavior In India – Policies of Price Control – Trends in Revenue and Expenditure – Debt-Tax Reforms – Central Government Finances and Fiscal Federalism – Fiscal Reforms – State of Fiscal Responsibility Legislations and FRBM Act – Goods And Services Tax (GST) – Direct Tax Code (DTC) – Centrally-Sponsored Schemes – Nuances of Budgets.

5. **Political Economy of India's Development: (05 Classes)**

- a. **Political Economy of World Trade :** Composition of Trade – Direction and Organization of Trade – Balance of Payments – New Economic Policy and Trade – Review of Trade (EXIM) Policies – Intellectual Property Rights, Implications of MFA,TRIPS, TRIMS, GATS – Emergence of WTO and Issues – Impact of WTO on Various Aspects of Indian Economy – Balance of Payments – Tariff Policy – Exchange Rate and WTO Requirements.
- b. **Mixed Economy Model :** Changing Development Paths – Political Economic Scenario – Phases in the Political Economic Development – Issues Debated in these Phases – India as an Institutional Economy.

Reference Books:

1. Balakrishnan P (2015), Economic Growth and its Distribution in India, Orient Blackswan
2. Basu, K. (ed) (2004), India's Emerging Economy, New Delhi Delhi: OUP.
3. Bhagwati, Jagdish and Arvind Pangariya (2011), India's Tryst with Destiny, Harper Collins,
4. Bramhanada PR and Panchamukhi VR (1987), The Development Process Of The Indian Economy Himalaya Publishing House New Delhi.
5. Chakrabarti, Anjan, Anup K Dhar and Byasdeb Dasgupta (2015), The Indian Economy in Transition, Cambridge University Press.
6. Guha, Ramchandra (2007), India after Gandhi, Picador, New Delhi.
7. Kapila, Uma (2017). (Eds), Indian Economy since Independence, New Delhi: Academic Foundation, New Delhi.
8. Pangariya, Arvind (2008), India: The Emerging Giant, Oxford University Press, New Delhi
9. Roy, Tirthankar (2011), The Economic History of India 1857–1947, 3rd edition, Oxford University Press India, Delhi, India, 2011.
10. Subramanyam, Arvind (2008), India's Turn: Understanding the Economic Transformation, Oxford University Press.
11. Tomlinson, B.R. (1993), Economy of Modern India 1860–1970, New Cambridge History, Cambridge University Press.
12. Vaidyanathan, A (2013), India's Evolving Economy, Puzzles and Perspectives, Academic Foundation, New Delhi

M. A. Applied Economics

Semester - IV

INDUSTRIAL ECONOMICS (Elective Paper)

Course Contents: (4 Credits, 52 Classes)

1. **Theory of Firm:** Models of Oligopoly - Cournot - Stackelberg - Bertrand - Dominant firm - Chamberlin's Model (Large and small group) - Kinked demand theory - Bain's limit pricing; Game theoretical models - Normal and extensive form games - Nash equilibrium - Sub-game-perfect equilibrium in extensive form games with perfect information - Explicit collusion - Tacit co-operation; Managerial theory of firm - Baumol's sales maximization - Morris's theory.
2. **Investment Decisions:** Investment decision and project appraisal methods - Understanding the accommodation of Risk and Uncertainty - Sensitivity analysis - Financial Statements - Ratio analysis - Inflation accounting - Sources of finance - FDI and its role - Capital structure - Separation of ownership and control.
3. **Markets and Competition:** Market Structures and Conditions - Market Power. Monopoly Market - Social Cost of Monopoly Power - Measurement of Monopoly Power - Monopoly and Backward Integration - Price discrimination - Possibility of Price Discrimination - Types of Price Discrimination - Price Discrimination and Social Welfare - Barriers to Entry.
4. **Product Differentiation and Asymmetric Information:** Lancasterian and Hotelling approaches – Representative consumer approach and Model of diversity of tastes; Address Approach-Competition in address-Free entry-Pure profit and non-uniqueness in free entry equilibrium product diversity and multi address firms - Bargains and ripoffs - Theory of sales - Quality and reputations-Product variety- Imperfect discrimination and price dispersions -Advertising - Dorfman Steiner condition - Asymmetric information - Market for Lemons.
5. **Technical Change and Market Structure:** Process of Innovation - Concepts and Relationship - Measurement of Innovation Activities and Patents - Theory of Technological Innovation: Kamien and Schwarts - Mansfield's Model - Nordhaus's Model - Diffusion of New Technology - Market Concentration - Measurement of Market Concentration (Concentration Ratio - Hirschman - Herfindahl Index - Entropy Index) - Effect of concentration/Structure Conduct Performance (on Profit - Price-cost margin - Growth of firms) - Contestable markets(Fixed costs - Sunk costs and contestability - Stackelberg - Spence - Dixit model); Network Externalities - Compatibility and standards - Two-sided markets - Contracts and Incentives - Unobservable efforts - Incentive from ownership. Incentives and insurance - Internal labour markets - Efficiency wage theory.
6. **Indian Industry:** Infant Industry Argument - Small scale Industry – Phases of Indian Industrial Development - Changing Role in economy - Competition policy - Industrial policy resolutions - Importance of co-ordination across policies - Policies and performance - Industrial location - Central place theory - Renner's theory - Rawstron's principles - Weber's theory - Palander market area theory - Losch theory - Regional

imbalance in the country; Privatization; Pricing policy; Competitiveness; Industrial growth in India; Industrial sickness.

Reference Books

1. Ahluwalia, Isher J(1991), "Productivity and Growth in Indian Manufacturing", Oxford University Press, Delhi.
2. Barthwal, R. R. (2010), Industrial Economics: An Introductory Text Book, New Age International.
3. Bernadette, A. & Jacobson, D. (2005), Industrial Economics and Organisation, McGraw-Hill.
4. Church, J. & Ware, R. (2000), Industrial Organization: A Strategic Approach, Irwin McGraw-Hill.
5. Hay, D. A. & Morris, D. J. (1979), Industrial Economics: Theory and Evidence, Oxford University Press.
6. Nayyar, Deepak. (ed.) (1994): Industrial Growth and Stagnation, Oxford University Press, India.
7. Osborne, M. (2004), Introduction to Game Theory, Oxford University Press.
8. Pepall, L., Dan, R. & Norman, G. (2013), Industrial Organization: Contemporary Theory and Empirical Applications, Wiley.
9. Philips, L. (1998), Applied Industrial Economics, Cambridge University Press.
10. Shy, O. (1996), Industrial Organization: Theory and Applications, MIT Press.
11. Stead, R., Curwen, P., & Lawler, K. (1996), Industrial Economics, McGraw-Hill.
12. Tirole, J. (1988), Theory of Industrial Organization, MIT Press.

M. A. Applied Economics

Semester - IV

ECONOMICS OF GOVERNANCE AND PUBLIC POLICY(Elective Paper)

1. Course Contents: (4 Credits, 52 Classes)

2. Government, Governance and Planning

- a. **Concepts of State, Politics, Government:** State in the Political Economy context –State as an Institution of Governance and Administration – Various Forms and Structures of the State – Indian State – Emergence and Structure – Economic Bed Rock of State – Constitution and Economic Organisations - The Legislative Branch – The Executive Branch – The Judiciary Branch – Constitutionalism – Origins – Classifications – Characteristics.
- b. **Theories of Governance:** Governance – Meaning and Features – Government and Governance – Theories of Governance – Rational Choice Theory - Systems and New Institutionalism – Governance, Market and Economy – Democracy – Various Forms and Structures - Economic Theory of Democracy – Rent Seeking and Directly Unproductive Profit Seeking Activities – Economics of Corruption.

3. Decentralized Planning and Institutions:

- a. **Need for Decentralized Planning:** History – Concepts - Importance and Approaches – Difference between Centralized Planning and Decentralized Planning – Recent Initiatives of Decentralized Planning in India – Local Level Planning – Objectives, Significance, Advantages and Disadvantages – Decentralized Planning Process – District Planning – Consolidation of District Plan – Model (States) of Decentralized Planning.
- b. **Role of Institutions in Decentralized Planning:** The Planning Process in PRIs – Multi-layer Planning – The Constitutional Provisions – Village Level Planning Process – Procedure for Preparation of Draft Plan – Role of *Gram Sabha* – Procedure for Approval of Plan – Block level planning process – Challenging issues.

4. Good Governance Initiatives:

- a. **Good Governance:** Essential Features of Good Governance – Accountability – Transparency – Responsiveness – Equity & Inclusiveness – Effectiveness & Efficiency – Rule of law – Participatory – Consensus – Initiatives for Good Governance: Right to Education – Right to Information and Right to Public Services.
- b. **E-Governance:** Meaning – Nature – Definition – Scope of E-Governance – Concept of Public Private Partnership – Technology Frame work for E-governance – E-governance and Good

Governance – Benefits and Reasons for the Introduction of E-Governance – Major E-governance Projects (Local, State and National Level) – Issues and Challenges of E-Governance.

4. Public Policy:

- a. **Concepts and Issues of Public Policy:** Nature, Scope and Significance of Public Policy – Definition and Types of Public Policy – Regulatory, Welfare, Distributive and Re-distributive – Evolution of Public Policy Studies – Review of World Economic Policy Changes.
- b. **Decision Making:** Theories of Decision Making – Risk appreciation – Economic Analysis of the Developmental Projects - Decision Criteria in Policy Systems – Programming approach to Decision Making - Political – Economic – Social – Legal – Technical & Ethical aspects.
- c. **Policy Making in India** – Constitutional framework for Policy Making – Institutional Factors – Legislature, Executive, Judiciary, Planning Commission and National Development Council – Public Opinion, Political parties, Pressure groups, Media and Professional Bodies – External Influencing Agencies: UNDP, WHO, ILO, UNEP, ADB, World Bank, and IMF.

5. Policy Analysis:

- a. **Basics of Analysis:** Frameworks for Policy Analysis and Policy Development Public Policy & Development – Assumptions – Issues – Applied Policy Analysis – Concepts & Communication – Approaches to Policy Analysis – What Counts as Evidence – Cost Benefit Analysis - The Impact of Election Cycles, Legislative Cycles, Budget Cycles, and Strategic Planning Cycles.
- b. **Monitoring and Evaluation Policy Monitoring:** Approaches and Techniques – Constraints in Policy Monitoring – Measures for Effective Policy Monitoring – Theories governing Monitoring and Evaluation - Policy Evaluation: Role, Process and Criteria – Types of Evaluation – Evaluating Agencies – Problems in Policy Evaluation – Evaluation and Policy Learning.
- c. **Global Governance:** Global Political Economy - Global Economic Governance – Global Trade Governance – Global Monetary & Financial Governance – Global Environmental Governance – Challenges of Global Governance

Reference Books:

1. Anderson, James (2003). *Public Policy Making: An Introduction*, Houghton Mifflin.
2. Ayyar, R. V. Vaidyanatha (2009). *Public Policy Making in India*, Pearson Education India, New Delhi.
3. Bevir, Mark (Ed.) (2011). *The Sage Handbook of Governance*, Sage Publication.
4. Bhatnagar, Subhash (2009). *Unlocking E–Government Potential – Concepts, Cases and Practical Insights*, Sage, New Delhi.
5. Chakraborty, B and M. Bhattacharya (Eds.) (2008). *The Governance Discourse*, Oxford University Press.
6. Dunn, William N. (1994). *Public Policy Analysis – An Introduction*, Prentice Hall, New Jersey.
7. Hill, Michael and Peter Hupe (2002). *Implementing Public Policy*, Sage Publication.
8. Miller, William L, Dickson, M., and Stoker, G. (2000). *Models of Local Governance*, Palgrave Macmillan.
9. Sanyal, Bikash Mohan (2001). *India: Decentralized Planning: Themes and Issues*, Concept Publishing Company, New Delhi.
10. Wittman, D. (2017). *The Economics of Governance*, Edward Elgar Publishing.

Additional Readings (Books and Articles)

1. Atkinson, A. and Stiglitz, J. (1980). *Lectures in Public Economics*, McGraw Hill, London.
2. Bromley, D.W. and Chapagain, D.P. (1984). “The Village Against the Centre: Resource Depletion in South Asia”, *American Journal of Agricultural Economics*, Vol. 6 (5), pp. 869–873.
3. Cappe, Mel (2011). *Analysis and Evidence for Good Public Policy*, Tansley Lecture, JSGS website.
4. De, Prabir Kumar (2012). *Public Policy and Systems*, Pearson Education India, New Delhi.
5. Dye, Thomas (1995). *Understanding Public Policy*, Prentice Hall, New Jersey.
6. Pretty, Jules and Ward, H. (2001). “Social Capital and the Environment”, *World Development*, Vol. 29, No. 2, pp. 209–222.
7. Raj, B Srinivas (2008). *E–Governance Techniques – Indian and Global Experiences*, New Century Publications, New Delhi.
8. Rochefort, David and Roger Cobb (1993). “Problem Definition, Agenda Access, and Policy Choice.” *Policy Studies Journal*, 56–71
9. Sapru, R. K. (2010). *Public Policy: Formulation, Implementation and Evaluation*, Sterling Publishers Pvt. Limited., New Delhi.
10. Simeon, Richard (1976). “Studying Public Policy”, *Canadian Journal of Political Science IX*
11. Smith, B.C. (2007). *Good Governance and Development*, Palgrave Macmillan, 2007.
12. Wade, R. (1987). “The Management of Common Property Resources: Finding a Cooperative Solution”, *The World Bank Resource Observer*, Vol. 2. No. 3, pp. 219–234.
13. Williamson, O. E. (2005), “The Economics of Governance”, *The American Economic Review*, Vol 95, No 2.

M. A. Applied Economics

Semester - IV

OPTIMIZATION AND FORECASTING MODELS (Elective Paper)

Course Contents: (4 Credits, 52 Classes)

1. Introduction to Optimization: (12 Classes)

- a. **Optimization:** Static Equilibrium – One and Two Goods – Profit Maximization of Firm– Utility Maximization in a Two Good and 'N' Good World (Equality and Inequality Constraints) – Choice Between Labour and Leisure.
- b. **Review:** Random Variables – Distribution – Moments – Multivariate Random Variables – Sample Statistics – Random Walks – Ergodicity – Stationarity and Covariance Stationarity – Lag Operators – Eigen Values and Stationarity – Law of Large Numbers for Serially Dependent Processes – Martingale Difference Sequence – Central Limit Theorem for Martingale Difference Sequence (Without Proof) – Distribution of OLS Estimators for Random Walk Processes – Tests for Unit Roots: ADF-KPSS-HEGY and Canova-Hansen Regression Analysis.

2. Basics of Forecasting: (08 Classes)

- a. **Introduction to Forecasting:** Objective – Statement – Horizon – Information Set – Use of Parsimony and Shrinkage.
- b. **Data Collection and Preparation:** Types of Data – Sources of Data – Preparing the Data for Analysis– Importance of Scatter Plots and Simple Statistics.

3. Forecasting Techniques: (08 Classes)

- a. **Forecasting in Microeconomics:** Demand Estimation – Firm Level Estimation of Sales- Revenue-Costs-Prices and Profits.
- b. **Forecasting in Macroeconomics and Financial Economics:** Macroeconomic and Financial Variables that Need to be Forecasted Modeling and Forecasting Trend –Modeling and Forecasting Seasonality – Characterizing Modeling and Forecasting Cycles.

4. Advanced Modeling Techniques: (14 Classes)

- a. **Forecasting:** AR and Invertible MA Processes – Autocorrelation and Partial Autocorrelation Functions – Yule Walker Equation– Identification of ARIMA models– Estimation of ARIMA models – Diagnostic Testing– Forecasting Model with Trend – Seasonal and Cyclical Components – Modeling and Forecasting Volatility – Evaluating Forecasts – Forecasting Errors – Dealing with Outliers – Demand Estimation of Macro Variables – Supply estimation of Macro Variables.

- b. *Vector Auto Regression and Volatility*:** Identification and Estimation in VAR Models – Causality – Impulse Response Function – Variance Decomposition – Cointegration in VAR Models – ARCH and GARCH Models – Testing for ARCH Effects – FGLS Estimation of ARCH(1) – ARCH in Mean – EGARCH Models.

5. Modelling Important variables: (10 Classes)

GDP – Inflation – Exchange Rate – Stock Prices – Oil Prices – Interest Rate – Supply Estimation of Food Crops Using Structural Equation Modeling – Demand Estimation for Food Crops.

Reference Books:

1. Bisgaard S. & Kulahci M. (2011), Time Series Analysis and Forecasting by Example, Wiley.
2. Diebold F. X. (2006), Elements of Forecasting, South Western.
3. Enders W. (2009), Applied Econometric Times Series, Wiley.
4. Evans– M. K. (2003), Practical Business Forecasting, Blackwell.
5. Gonzalez Rivera G. (2012), Forecasting for Economics and Business, Prentice Hall.
6. Hill R. C., Griffiths W. E., & Lim G. C. (2011), Principles of Econometrics, Wiley.
7. Hyndman R.J. & Athanasopoulos G. (2013), Forecasting: Principles and Practice, OTexts.org/fpp/ (Free available for online reading).
8. Makridakis S. G., Wheelwright S. C. & Hyndman R. J. (1997), Forecasting: Methods and Applications, Wiley.
9. Ord K. & Fildes R. (2012), Principles of Business Forecasting, Cengage Learning.
10. Stock J. H. & Watson M. W. (2010), Introduction to Econometrics, Addison Wesley.
11. . Shumway Robert and David Stoffer (2006), Time Series Analysis and its Applications with R Examples, Springer NY.
12. Enders Walter (2004), Applied Econometric Time Series, Wiley India.

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Semester - IV

BEHAVIORAL AND EXPERIMENTAL ECONOMICS (Elective Paper)

Course Outline: (4 Credits and 39 Classes)

1. Foundations of Behavioural Economics: (05 Classes)

Nature of Behavioural Economics – Behavioral Economics: Past, Present and Future – Rationality Assumptions and Behaviour – Do Human Being Behave Rationally? – Methodological Approach – Origins of Behavioral Economics – Neo-Classical and Behavioral Approaches to Studying Economics – Perspective on Psychology and Economics – Daniel Kahneman and Behaviouralism.

2. Preferences, Choices and Decision Making: (07 Classes)

a. **Values, Preferences and Choices:** Choice Under Uncertainty – The Standard Model – Axioms, Assumptions and Definitions – The Neuro-Scientific Basis of Utility.

b. **Decision Making Under Risk and Uncertainty:** Prospect Theory – Reference Points – Risk Concept and Understanding – Loss Aversion – Shape of Utility Function – Decision Weighting – Probabilistic Judgment.

3. Beliefs, Heuristics and Biases: (12 Classes)

a. **The Standard Model:** Probability Estimation – Self-Evaluation Bias – Projection Bias – Causes of Irrationality – Behavioral Law and Economics – Selection Among Multiple Strict Equilibria Via Structure, Framing, Fairness, Complexity – Revealed Preference Belief and Game Theory.

b. **Mental Accounting:** Nature and Components of Mental Accounting – Framing and Editing – Budgeting and Fungibility – Choice Bracketing and Dynamics – Time Discounting.

c. **Strategic Interaction:** Nature of Behavioural Game Theory – Mixed Strategies – Bargaining – Social Preferences: Altruism, Envy, Fairness and Justice – Intentions, Reciprocity And Trust– Limited Strategic Thinking – Cognitive Mistakes and Efforts – Fear and Responses.

4. Introduction to Experimental Methods: (12 Hours)

What is an Experiment in Economics Material and Processes – Induced Value Theory: – Experimental Design: Randomisation, Blocking and Other Efficient Designs – Dealing with Human Subjects – Mechanics of Conducting an Experiment Including Guidelines – Data Analysis and Statistical Testing.

5. Markets and Mechanisms: (03 Hours)

Classic Experiments – Hayek Hypothesis – Learning in Markets – Auctions: Classical Theoretical and Empirical Results – Implementation Games and Mechanism Design: Experimental Evidence on Canonical, Groves, Ledyard and Walker Mechanisms.

Readings:

1. Altman Morris (2006), Contemporary Behavioral Economics: Foundations and Developments, M E Sharpe
2. Angner Erik (2012), A Course in behavioural Economics, Palgrave Macmillan.
3. Camerer Colin, Loewenstein George, and Rabin Matthew (eds.) (2003), Advances in Behavioral Economics, Russell Sage Foundation and Princeton University Press,.
4. Diamond Peter and Vartiainen (2007), Behavioral Economics and Its Applications, Princeton University Press.
5. Friedman Daniel and Cassar Alessandra (2004), Economics Lab: An Intensive Course in Experimental Economics, Routledge.
6. Friedman Daniel and Sunder Shyam (1994), Experimental Methods: A Primer for Economists, Cambridge University Press.
7. Just R David (2014), Introduction to Behavioral Economics, Wiley
8. Kagel J.H. and Roth A.V. (1997), Handbook of Experimental Game Theory, Princeton University Press.
9. Kahneman, Daniel and Tversky Amos (2000), Choices, Values and Frames, Cambridge University Press.
10. oda, Sobei Hidenori (2007), Development on Experimental Economics: New Approaches to Solving Real-World Problems, Springer.
11. Wilkinson Nick and Hales Matthias (2012), An Introduction to Behavioural Economics, Palgrave Macmillan.

Additional Readings:

1. Ariely Dan (2009), Predictably Irrational: The Hidden Forces that Shape Our Decisions, Harper Collins.
2. Camerer Colin (2003), Behavioral Game Theory: Experiments on Strategic Interaction, Princeton.
3. Cartwright Edward (2011), Behavioural Economics, Routledge.
4. Morgan John (2005), Advances in Applied Microeconomics: Experimental and Behavioral Economics, Elsevier.
5. Plous Scott (1993), The Psychology of Judgement and Decision Making, McGraw Hill.
6. Smith Vernon (2000), Bargaining and Market Behavior: Essays in Experimental Economics, Cambridge University Press.
7. Thaler Richard and Sunstein Carl (2009), Nudge: Improving Decisions about Health, Wealth and Happiness, Penguin UK.
8. Wendel Stephen (2014), Designing for Behavior Change: Applying Psychology and Behavioral, O'Reilly.
9. Zamir Eyal and Teichman Doron (2014), The Oxford Handbook of Behavioral Economics and the Law, OUP