



ST. XAVIER'S UNIVERSITY, KOLKATA

SYLLABUS FOR MA ECONOMICS

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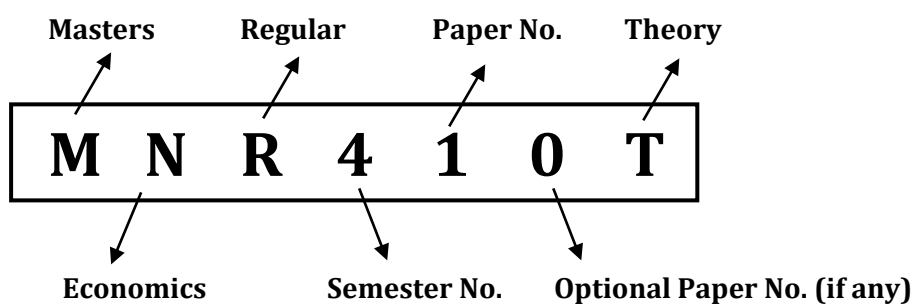
COURSE OUTLINE

Sem	Paper Code	Course Title	Full Marks	Pass Marks	CIA MARKS		End-Sem Marks	Credits
					WT	O		
I	MNR110T	Micro Economics - I	100	40	10	10	80	6
	MNR120T	Macro Economics - I	100	40	10	10	80	6
	MNR130T	Statistics and Econometrics	100	40	10	10	80	6
	MNR140T	Development Economics	100	40	10	10	80	6
TOTAL			400	TOTAL			24	
II	MNR210T	Micro Economics - II	100	40	10	10	80	6
	MNR220T	Macro Economics - II	100	40	10	10	80	6
	MNR230T	Econometrics and Computer Applications (Th.)	60	24	5	5	50	6
	MNR230P	Econometrics and Computer Applications (Pr.)	40	16	10		30	
	MNR240T	Contemporary Issues in Indian Economy	100	40	10	10	80	6
TOTAL			400	TOTAL			24	
III	MNR310T	International Economics	100	40	10	10	80	6
	MNR320J	Guided Study	100	40		20	80	6
	MNR330T	Advanced Econometrics - I (Th.)	50	20	10	-	40	6
	MNR330P	Advanced Econometrics - I (Pr.)	50	20	-	10	40	
	MNR340T	Financial Economics - I	100	40	10	10	80	6
TOTAL			400	TOTAL			24	
IV	MNR410T	Public Economics	100	40	10	10	80	6
	MNR420J	Guided Study	100	40	-	20	80	6
	MNR430T	Advanced Econometrics - II (Th.)	50	20	10	-	40	3
	MNR430P	Advanced Econometrics - II (Pr.)	50	20	-	10	40	3
	MNR440T	Financial Economics - II	100	40	10	10	80	6
TOTAL			400	TOTAL			24	

ACRONYMS (AS APPLICABLE)

T = Theory WT = Written Test P = Practical O= Others (seminar/ presentation/class room activity, etc.)
J = Project

PAPER CODE ILLUSTRATION



Signature
Professor-In-Charge (with Date)

Signature
Dean (with Date)

Controller of Examinations,
St. Xavier's University, Kolkata

MICROECONOMICS-I

Learning Objective :

1. To provide advanced knowledge of microeconomic theory and its applications
2. To provide the students the knowledge of utility maximization problem of a consumer along with concepts of compensating variation, equivalent variation, duality in consumption using a mathematical approach
3. To expose students to the concept of general equilibrium analysis with the help of exchange economy, Pareto optimality and core
4. To provide the knowledge of public goods and externalities problem and how to find solutions to such problems

Course Outcome :

1. To comprehend how efficient allocation of productive resources takes place in a free market economy
2. To be able to comprehend what motivates the consumption choice of a household and production choice of a firm.
3. To be able to differentiate between private cost and social cost in economy caused by externality
4. To find solutions to externality problem
5. To link the current microeconomic theory to economic policies
6. To strengthen the problem-solving skills that are applied to microeconomic theory

Syllabus :

1. **Consumer Behaviour** :Choice of a representative consumer – Duality approach - Indirect Utility Function, Expenditure Function - Consumer surplus, Equivalent and compensating variation - revealed preference; Uncertainty- Concept of lotteries, Expected utility, Measures of risk aversion, the demand for insurance, asset market and capital asset pricing.
2. **Theory of the Firm and the Competitive Market** :Cost minimization –Shephard’s Lemma and Properties of Cost function and Conditional factor demand functions; Profit maximization- Profit function and its properties, Hotelling’s Lemma and properties of factor demand functions; The competitive firm – market equilibrium -- taxes and subsidies.
3. **General equilibrium** :The exchange economy – Equilibrium (Existence, uniqueness, stability) – Pareto Optimality -concept of core - Core equivalence theorem. One consumer one producer Economy The Production Model- fixed and flexible coefficients – relation between endowments and product mix – relation between commodity prices and factor prices.
4. **Welfare** : Fundamental theorems of welfare economics; Public goods: Efficient provision of a discrete public good and a continuous public good, Externalities and solution to externalities

problem.

References :

1. Anjan Mukherji, *An Introduction to General Equilibrium Analysis*, Oxford University Press, 2002.
2. Avinash Dixit, *Optimization in Economic Theory*, Oxford University Press, 1990.
3. David M. Kreps, *A Course in Microeconomic Theory*, Princeton University Press, 2020.
4. Hal R. Varian, *Microeconomic Analysis*, 3rd Edition, Viva Books Pvt. Ltd., 2009.

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Total Marks : 100

Paper Code: MNR120T

MACROECONOMICS-I

Learning Objective :

1. To provide a brief review of the topics taught in the Undergraduate course and
2. To understand the more advanced macroeconomic models.

Course Outcome :

1. Understanding and analyzing the factors that affects income, demand, employment, price in an economy.
2. Develop the skill to understand and examine the macroeconomic policy in an open economy.
3. Develop an idea about the formation of expectation in an economy

Syllabus :

1. **Overview of AD-AS Model** :Derivation of AD curve; derivation of the AS curve and role of indexation; economy wide equilibrium and role of policies: fiscal policy, monetary policy and wage cut; implication of class division: a simple Kaleckian framework; interest rate targeting and Keynesian economics without the LM curve: an alternative approach.
2. **Open Economy Macroeconomics** :BOP adjustment under alternative exchange rate regimes; Mundell-Flemming model and impossible trinity and role of risk premium; exchange rate overshooting.
3. **Credit Effective Demand and Output** :Role of credit in macro economy; Asset- Liability structure of commercial banks; term structure of interest rates; effective demand and monetary policy- money view and credit view.
4. **Patinkin's full employment model** :Balance sheet effect of central bank, commercial banks, firms and households; determination of wealth; AD and wealth effect; price flexibility and full employment; neutrality of money.
5. **Expectation and the macro economy** :Adaptive expectation; the Friedman-Phelps model of policy analysis; hyperinflation; rational expectation: the Barro-Lucas model of equilibrium business cycle and monetary policy; overlapping wage contracts and non-neutrality of money.

References :

1. Barro, Robert J. "Rational expectations and the role of monetary policy." *Journal of Monetary economics* 2, no. 1 (1976): 1-32.
2. Blinder, Alan S., and Ben S. Bernanke. "Credit, Money, and Aggregate Demand." *National Bureau of Economic Research*, 1989.
3. David Romer, *Advanced Macroeconomics*, McGraw-Hill, 2018.
4. Errol D'Souza, *Macroeconomics*, Pearson, 2009.
5. Olivier J. Blanchard & Stanley Fischer, *Lectures on Macroeconomics*, MIT Press, 1989.
6. Paul Krugman, Maurice Obstfeld & Marc Melitz, *International Economics: Theory & Policy*, Prentice Hall PTR, 2011.
7. Robert J. Barro, *Macroeconomics*, John Wiley, 1997.
8. Rudiger Dornbusch, *Open Economy Macroeconomics*, New York.

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Total Marks : 100

Paper Code: MNR130T

STATISTICS AND ECONOMETRICS-I

Learning Objective :

1. To develop the theoretical knowledge of econometric tools
2. To develop the knowledge of application of these tools in the real-life data set.

Course Outcome :

1. To analyse models for time series and binary choice datasets.
2. Ability to use different software (EXCEL)
3. To understand the application of the econometric tools in Indian dataset.

Syllabus :

I. Review of Probability and Statistics :

[30 Lectures]

- Review of Descriptive Statistics, Fundamentals of Probability : Random Variables and their Probability Distributions (Binomial, Poisson and Normal), Mathematical Expectation and its Properties, Joint Distributions, Conditional Distributions and independence, Probability Density Function and Central Limit Theorem.
- Sampling Theory Distributions of sample mean and sample variance.
- Estimation: Parameter, Statistic, estimates and estimators, point estimators and its properties (small sample and its asymptotic properties) and confidence intervals for population parameters.
- Practical Lab Sessions : Exposure to MS-Excel.

II. Classical Linear Regression Model :

[30 Lectures]

- Two-variable and K-variable CLRM – Assumptions, Estimation (using OLS & ML Method)

- Properties of Estimators.
- ANOVA in CLRM
- Inference Analysis, Prediction, Applications.

III. Violation of the OLS Assumptions : [30 Lectures]

- Heteroscedasticity – Meaning, Problems created by its Presence, Testing for its presence, Estimating Methods in its Presence
- Autocorrelation – Meaning, Problems created by its Presence, Testing for its presence Estimating Methods in its Presence.
- Multicollinearity – Meaning, Problems created by its presence, Testing for its Presence, Estimating Methods in its Presence.

References :

1. A. M. Goon, B. Dasgupta & M. K. Gupta, *Fundamentals of Statistics*, Vol I, World Press Private limited, 1968.
2. A. M. Mathai & P. N. Rathie, *Probability and Statistics*, Palgrave Macmillan, 1977.
3. Damodar N Gujarati & Dawn C. Porter, *Basic Econometrics*, McGraw Hill, 2009.
4. Dilip M. Nachane, *Econometrics: Theoretical Foundations and Empirical Perspectives*, Oxford University Press, 2006.
5. G. S. Maddala & Kajal Lahiri, *Introduction to Econometrics*, Wiley, 2009.
6. Jan Kmenta, *Elements of Econometrics*, McMillan-Maxwell, 1986.
7. Jeffrey M. Wooldridge, *Introductory Econometrics: A Modern Approach*, Cengage Learning, 2012.
8. John Johnston & John Enrico DiNardo, *Econometric Methods*, McGraw Hill, 2007.

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Total Marks : 100

Paper Code: MNR140T

DEVELOPMENT ECONOMICS

Learning Objective :

1. To explain and apply key development economic growth theories, international trade development theories, and related economic development theories
2. To analyse and describe the features of less developed economies and the macroeconomic and microeconomic development challenges they face.
3. To analyse and describe significant policy options available to government and international organization to address economic development challenges.
4. To develop analytical and critical thinking skills and use them to judge the appropriateness of economic development policy options.
5. To identify and appraise economic development policy failures, and suggest adjustments or

alternatives.

Course Outcome :

1. Students would be able to understand immense and varied economic challenges facing the world's impoverished and developing economies in general, and interpret what practical and effective policies can be implemented to address these challenges.
2. Students would be able to understand and interpret theoretical models that illustrate important development issues.
3. It will develop capability to derive and discuss policy implications.
4. Students would be familiarized with cutting edge research topics in the field

Syllabus :

1. **Roots of Development theory** :Underdevelopment as a historical process and underdevelopment structures; production, growth and development; capability and functioning and freedom; economic policy and the state; Gender related issues

References :

a) Bardhan, Pranab. "Alternative approaches to development economics." *Handbook of development economics* 1 (1988): 39-71.

2. **Dualism and Sectoral interlinkage** :Dualism in the history of economic thought; Lewis Model; Harris Todaro Model; Structural disequilibrium; Wage goods constraint and Effective demand problem.

References :

a) Amitava Bose. "Price-Income Fluctuations and Agricultural Shocks in a Semi-Industrialized Economy" in *Theoretical Issues in Development Economics*, Ed by Bhaskar Dutta et al.

b) Kaushik Basu, *Analytical Development Economics*, MIT Press, 2003.

3. **Coordination Failure and Big Push** :External Economies and multiple equilibria; Vicious circle of poverty and industrialization.

References :

a) Kaushik Basu, *Analytical Development Economics*, MIT Press, 2003.

b) Krugman, Paul. "History versus expectations." *The Quarterly Journal of Economics* 106, no. 2 (1991): 651-667.

c) Murphy, Kevin M., Andrei Shleifer, and Robert W. Vishny. "Industrialization and the big push." *Journal of political economy* 97, no. 5 (1989): 1003-1026.

4. **Labor Market in Developing Countries** :Incidences of Child Labor; Labor Market segmentation and Informal Labor market

References :

a) Basu, Kaushik. "Child labor: cause, consequence, and cure, with remarks on international labor standards." *Journal of Economic literature* 37, no. 3 (1999): 1083-1119.

b) Sarbajit Chaudhuri & Ujjaini Mukhopadhyay, *Revisiting the Informal Sector, A General*

Equilibrium Approach, Springer New York, 2010.

- c) Sugata Marjit & Saibal Kar, *The Outsiders - Economic Reform and Informal Labour in a Developing Economy*, Oxford University Press, 2011.

5. Trade and Development : Trade as vent for surplus; Trade as an engine of growth; Capital Flow, International Labor Mobility and Welfare; Terms of Trade and Growth

References :

- a) Evans, David. "Alternative perspectives on trade and development." *Handbook of Development Economics* 2 (1989): 1241-1304.
- b) Rajat Acharyya & Saibal Kar, *International Trade & Economic Development*, Oxford University Press, 2014.
- c) Sarbajit Chaudhuri & Ujjaini Mukhopadhyay, *Foreign Direct Investment in Developing Countries*, Springer India, 2014.

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SEMESTER : II

Total Marks : 100

Paper Code: MNR210T

MICROECONOMICS - II

Learning Objective :

1. To provide advanced knowledge of microeconomic theory and its applications
2. To provide the students the required knowledge to identify diverse economic situations using techniques of game theory
3. To expose students to the concept of information economics

Course Outcome :

1. To be able to identify and analyze economic situations using different techniques of game theory
2. To be able to address different issues that are related to economics of information
3. To be able to identify research problems and pursue research work that is related to microeconomic theory
4. To be able to develop different problem-solving skills related to theory of firms and game theory

Syllabus :

1. The Theory of firm: The nature of the Firm, Critique of the Classical Theory of the Firm, Firms' Objectives and Alternative Hypothesis.
2. Game Theory:

- a) Strategic Form Games: Strategic Form Games and Dominant Strategies; Dominance Solvability, Nash Equilibrium, Mixed Strategies.
 - b) Extensive Form Games: Backward Induction; Subgame Perfect Equilibrium, Finitely Repeated Games, Infinitely Repeated Games.
 - c) Imperfect Information, Bayesian Games.
 - d) Bargaining
3. Oligopoly and Strategic Interactions: Static Models of Oligopoly, Limit pricing and Entry Deterrence; The Cartel Problem- Detection and Public Policy; Dynamic Price Competition and Tacit Collusion.
 4. Information Economics:
 - a) Adverse Selection- Signaling and Screening.
 - b) Moral Hazard and Principal Agent Problem- Symmetric information and Asymmetric information.

References :

1. Drew Fudenberg & Jean Tirole, *Game Theory*, The MIT Press, 1991.
2. Geoffrey A. Jehle & Philip J. Reny, *Advanced Microeconomic Theory*, The Addison-Wesley, 2001.
3. Jean Tirole, *The Theory of Industrial organization*, MIT Press, 1988.
4. Lynne Pepall, Daniel J Richards & George Norman, *Industrial Organization: Contemporary Theory and Empirical Applications*, Wiley, 2011.
5. Martin J. Osborne, *An Introduction to Game Theory*, Oxford University Press, 2009.
6. Martin J. Osborne & Ariel Rubinstein, *A Course in Game Theory*, MIT Press, 1994.
7. Oz Shy, *Industrial Organization: Theory and Application*, MIT Press, 1995.
8. Prajit K. Dutta, *Strategies and Games: Theory and Practice*, MIT Press, 1999.

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Total Marks : 100

Paper Code: MNR220T

MACROECONOMICS - II

Learning Objective :

To provide a glimpse of the recent advancement in Macroeconomics

Course Outcome :

1. To develop the advanced analytical skill.
2. Understanding and analyzing the issues like business cycles and growth theory.

Syllabus :

1. Disequilibrium Macroeconomics: Quantity rationing and dual decision hypothesis, Regimes of excess supply in different markets

2. Real Business cycle: Some facts about economic fluctuations, Behavior of household and firm, A baseline real business cycle model – technology shock and fiscal shock
3. New Keynesian Macroeconomics: Micro foundation for unemployment
 - a) Menu cost, Aggregate demand externality and Non-neutrality of money
 - b) Wage price staggering, Efficiency wage theory
 - c) Technological complementarities, coordination failure and recession
4. Solow Model: Steady state and golden rule of capital accumulation, Technological progress, Dynamic inefficiency, Role of fiscal policy
5. Dynamic optimization and Optimal growth: Ramsey-Cass-Koopmans model
6. Structuralist Macroeconomics: Role of effective demand, Stock-flow relationship, food constraint, credit constraint and balance of payment constraint – Alternative model closures.

References :

1. Barro, Robert J., and Herschel I. Grossman. "A general disequilibrium model of income and employment." *The American Economic Review* 61, no. 1 (1971): 82-93.
2. David Romer, *Advanced Macroeconomics*, McGraw-Hill, 2018.
3. Lance Taylor, *Reconstructing Macroeconomics*, Harvard University Press, 2009.
4. Mihir Rakshit, *The Labour Surplus Economy: A Neo-Keynesian Approach*, Macmillan, 1982.
5. Mihir Rakshit, *Studies in the Macroeconomics of Developing Countries*, Oxford University Press, 1997.
6. Olivier J. Blanchard & Stanley Fischer, *Lectures on Macroeconomics*, MIT Press, 1989.
7. Russell W. Cooper, *Coordination Games – Complementarities and Macroeconomics*, Cambridge University Press, 1999.
8. Wendy Carlin & David W. Soskice, *Macroeconomics: Institutions, Instability, and the Financial System*, Oxford University Press, 2014.

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Total Marks : 100

Paper Code: MNR230T & MNR230P

ECONOMETRICS AND COMPUTER APPLICATIONS (TH. & PR.)

Learning Objective :

1. To develop the theoretical knowledge of econometric tools.
2. To develop the knowledge of application of these tools in the real-life data set.

Course Outcome :

1. To analyse models for time series and binary choice datasets.
2. Ability to use different software (EViews)
3. To understand the application of the econometric tools in Indian dataset.

Syllabus :

Theory :

I. Violation of Assumption :

- Autocorrelation
- Multicollinearity
- Omitted variable
- Errors in variable

II. Model Evaluation and Diagnostic tests :

- Test for Stability
- The LR, Wald and LM test
- AIC, SIC, HQ
- Functional form, Non-normality of errors, Selection of regressors

III. Dummy Variables :

- Dummy variable for change in Intercept and Slope
- Dummy variables for testing stability of regression coefficient
- Dummy dependent variable – Linear Probability model, Logit and Probit model

IV. Simultaneous Equation System :

- Problem of Identification: Structural Form and Reduced Form, Observational
- Equivalence, Rank and Order Condition.
- Method of Estimation – ILS, 2SLS, 3SLS and Instrumental variable method
- Test for exogeneity.

V. Stochastic Trends: Time Series Data :

- An introduction to time series Data: Structure of time series- AR, ARMA, MA,
- ARIMA, identification of series-Box-Jenkins approach
- Trend Stationary Process & Difference Stationary Process
- Concept of Stationarity and Unit root test
- Cointegration and Error Correction
- Test for Causality

VI. Introduction to Panel Data :

- Pooled versus Panel Data
- Random Effect and Fixed Effect Models.

Practical: (Using EViews)

- Bivariate and Multivariate OLS regression and its interpretation
- Hypothesis testing
- Model evaluation
- Test for Heteroscedasticity, Autocorrelation, Multicollinearity
- Model Evaluation and other Diagnostic tests
- OLS estimation with Dummy independent variables
- Estimation of Simultaneous Equations
- Introductory Time series – Identification of AR, MA process, ACF, PACF, Unit root test,

References :

1. Chris Chatfield, *The Analysis of Time Series: An Introduction*, CRC Press, 2003.
2. G. S. Maddala & Kajal Lahiri, *Introduction to Econometrics*, Wiley, 2009.
3. Jeffrey M. Wooldridge, *Econometric Analysis of Cross Section and Panel Data*, MIT Press, 2010.
4. Jeffrey M. Wooldridge, *Introductory Econometrics: A Modern Approach*, Cengage Learning, 2012.
5. John Johnston & John Enrico DiNardo, *Econometric Methods*, McGraw Hill, 2007.
6. M. Hashem Pesaran, *Time Series and Panel Data Econometrics*, Oxford University Press, 2015.
7. Samprit Chatterjee & Ali S. Hadi, *Regression Analysis by Examples*, Wiley, 2006.
8. Walter Enders, *Applied Econometric Time Series*, Wiley, 2010.
9. William H. Greene, *Econometric Analysis*, Pearson, 2003.

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Total Marks : 100

Paper Code: MNR240T

CONTEMPORARY ISSUES IN INDIAN ECONOMY

Learning Objective :

1. The primary objective of this course is to provide a macroeconomic understanding of the Indian Economy since Independence.
2. To develop basic knowledge of factors governing Indian economy and its growth
3. Understand the role of the Indian economy in the global context.

Course Outcome :

1. Develop ideas of the basic characteristics of Indian economy, its potentials.
2. Grasp the importance of planning undertaken by the government of India, have knowledge on the various objectives, failures and achievements as the foundation of the ongoing planning and economic reforms taken by the government.
3. To understand the basic characteristics of economic development and growth of Indian economy.
4. To analyze new economic policies (privatization, liberalization, and globalization) in India.
5. Ability to understand the problems and measures in their contextual perspective.
6. Ability to identify and analyze current issues

Syllabus :

1. **Pre-reform development experience** : Indian Economy at Independence; Food crisis; Industrial stagnation since mid-60s; Macroeconomic crisis of 1980s: causes and dimensions – Rationale of Economic reforms in India – Issues related to regional disparity in growth and per

capita income – the convergence debate

2. **Growth and Sectoral Performance in the Post Reform** : Aggregate GDP growth – Structural changes and Productivity growth during reform era – Reforms in Agriculture sector and rural indebtedness – Agriculture growth and Distribution – Manufacturing growth and productivity issues – Disinvestment and Privatization – Service led growth.
3. **Trade Reforms** :Trade and Payments reform in India – Merchandise trade performance and determinants – Trade in services – Balance of Payments – Issues related to Foreign Exchange Reserves and Capital account convertibility.
4. **Fiscal Reforms** :Outline and Dimensions of Fiscal reforms – FRBM Act and fiscal prudence – Budgetary Developments with respect to state finances.
5. **Financial Sector Reforms** : Monetary policy reforms and their implication – Issues related to NPAs and Financial sector Reforms with emphasis on Banking sector reforms Narsimham Committee (I & II) – Insurance – Exchange rate and capital market; Finance and Growth in India, Corporate Firm performance and Economic growth in India
6. **Inclusive Growth in India and Related Issues** :Poverty and Income inequality: measurement issues – Poverty reduction – Employment generation (quantity and quality) – Reduction in regional disparities – Food security and the Public Distribution System – Education and Health – Gender equity – Environmental sustainability.

References :

1. Arvind Panagariya, *India the Emerging Giant*, Oxford University Press, 2008.
2. Bibek Debroy, *India: Redeeming the Economic Pledge*, Academic Foundation, 2004.
3. Economic Survey, Different Volumes.
4. Isher Judge Ahluwalia & I.M.D. Little, *India's Economic Reforms and Development: Essays for Manmohan Singh*, Oxford University Press, 2012.
5. Isher Judge Ahluwalia, *Industrial Growth in India stagnation since the Mid-Sixties*, Oxford University Press, 1987.
6. Rao, J. Mohan, and Amitava K. Dutt. "A decade of reforms: the Indian Economy in the 1990s." *External liberalization in Asia, post-socialist Europe, and Brazil* 13980 (2006).
7. John Felix Raj, *Disinvestment in India: Trends, Problems, and Prospects*, Regal Publications.
8. John Felix Raj, *Indian Economy: A Visionary Perspective*, Regal Publications.
9. Joshi, Vijay, and I. M. D. Little. "Macro-economic stabilization in India, 1991-1993 and Beyond." *Economic and Political weekly* (1993): 2659-2665.
10. Charles W Calomiris & Jagdish N. Bhagwati, *Sustaining India's Growth Miracle*, Columbia University Press, 2008.
11. Jean Dreze & Amartya Sen, *An Uncertain Glory*, Penguin Books, 2013.
12. Jean Dreze and Amartya Sen, *India Development and Participation*, Oxford University Press, 2002.
13. Kaushik Basu & Annemie Maertens, *The Oxford Companion to Economics in India*, Oxford

University Press, 2010.

14. Kaushik Basu, *An Economist in the real world*, Oxford University Press, 2016.
15. K. N. Raj et al., Dharma Narain studies on Indian Agriculture, Chapter 8, *Growth and Imbalances in Indian agriculture*, Oxford University Press.
16. Gupta, Monica Das, and PN Mari Bhat. *Intensified Gender Bias in India: A Consequence of Fertilty Decline*. Harvard University, Center for Population and Development Studies, 1995.
17. Pranab Bardhan, *The Political Economy of Development in India*, Blackwell, 1984.
18. Simmons, Colin. "The Indian economy: Recent development and future prospects edited by Robert E. Lucas and Gustav F. Papanek.(Delhi, Oxford University Press, 1988, pp. 374)." *Journal of International Development* 3, no. 4 (1991): 565-566.
19. T. N. Srinivasan, Indian economic reforms: background, rationale, achievements, and prospects in *Economic Policy and state intervention* Edited by N. S. S. Narayanan, Oxford University Press.
20. Terence J. Byres, *The Indian Economy: Major Debates Since Independence*, Oxford University Press, 1999.
21. Uma Kapila, *Indian Economy Since Independence*, Academic Foundation, 1990.

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SEMESTER : III

Total Marks : 100

Paper Code: MNR310T

INTERNATIONAL ECONOMICS

Learning Objective :

1. Recognize the cause of trade, sources of the gains from trade and the domestic and international distribution of those gains.
2. Examine instruments and consequences of trade policy measures—including tariffs and quantitative restrictions;
3. Identify the basic difference between inter and intra industry trade, and understand how international trade has helped countries to acquire goods at cheaper cost and explain it through the various international trade theories.

Course Outcome :

1. Have a good conceptual understanding of the key concepts and practical applications of international trade.
2. To understand the processes of international economic relations as the part of global market economy development;
3. Ability to outline the development trade theory historically, differentiating standard classical and orthodox trade theories.

4. To acquire skills that would help them to take rational decisions in issues related with the international economy.

Syllabus :

Module-1

Trade Theory & Policy under Perfect Competition :

1. Basis of Trade: Absolute vs Comparative Advantage, Gains from Trade
2. Ricardian Model of trade- Derivation of World Supply Curve; Multi-country extension, world PPF, Multi-good extension of Ricardian Model-; Dornbusch- Fisher- Samuelson model of continuum of goods
3. Specific Factor Model: Output and income distribution, growth in factor endowments, the Dutch disease.
4. Heckscher- Ohlin Model; Rybczynski Theorem; Stolper Samuelson Theorem; Factor Price Equalization; Empirical Tests of H-O Theorem
5. Trade Practices:
 - i) Commercial Policy in Trade; Effects of Tariff: Welfare effects; Theory of Optimal Tariff; Metzler's Paradox; Quota and other non-tariff barriers
 - ii) Regional Trading Blocks: Trade creation and Diversion effects

Module-2

Trade, Imperfect Competition and Development :

1. International Trade, Imperfect competition and Increasing Returns to Scale: IRS and Monopolistic Competition- Intra-industry Trade; Horizontal Product Differentiation; Vertical Product Differentiation : strategic trade theory and policy.
2. Immiserizing growth: Bhagwati - Johnson - Brecher and Alejandro models of trade and welfare.
3. Trade and wage inequality in Developing Countries: A Simple General Equilibrium Analysis
4. Introduction to Factor content approach

References :

1. Giancarlo Gondolfo, *International trade theory and policy*, Springer, 2013.
2. Henryk Kierzkowski, *Monopolistic competition and international trade*, Oxford University Press, 1989.
3. Jagdish N. Bhagwati, T. N. Srinivasan & Arvind Panagariya, *Lectures on International Trade*, MIT Press, 1998.
4. Luis Rivera-Batiz, Maria-Angels Oliva i Armengol & Maria-Angels Oliva, *International Trade: Theory, Strategies & Evidence*, Oxford University Press, 2003.
5. Paul R. Krugman, *Rethinking International Trade*, MIT press, 1994.
6. P.Krugman & M.Obstfeld, *International Economics*, Pearson Education, 2005.
7. Rajat Acharyya, *International Economics: An Introduction to Theory and Policy*, Oxford University Press, 2013.

8. Richard E. Caves, Jeffrey A. Frankel, Ronald Winthrop Jones, *World Trade and Payments*, Pearson Addison Wesley, 2007.
9. Ronald W. Jones, *International Trade: Essays in Theory*, North Holland, 1979.

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Total Marks : 100

Paper Code: MNR320J

GUIDED STUDY

Learning Objective :

1. To allow independent learning in a structured format with the guidance and feedback of a mentor. This course includes a detailed week-by-week calendar or schedule that will guide students through reading, writing and viewing assignments. Mentors, assigned formally assess academic progress through written assignments and proctored examinations.
2. To develop an understanding of the processes and skills required to undertake a supervised research project at master's level of study, and to write this up as dissertation.
3. To develop research skills commensurate with the accomplishment of a master's degree.
4. To develop skills in independent inquiry.
5. To produce a coherent and logically argued piece of writing that demonstrates competence in research and the ability to operate independently.

Course Outcome :

On completion of this course, the students will be able:

1. To design and manage a piece of original project work;
2. To develop a research proposal and protocol;
3. To discuss the ethical dimensions of their research and obtain appropriate ethical approval if needed;
4. To synthesize knowledge and skills previously gained and applied to an in-depth study;
5. To establish links between theory and methods within their field of study;
6. To select from different methodologies, methods and forms of analysis to produce a suitable research design, and justify their design;
7. To present the findings of their project in a written report
8. Critically appraise and interpret published literature;

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Total Marks : 100

Paper Code: MNR330T

ADVANCED ECONOMETRICS – I (Th.)

Learning Objective :

1. To develop the theoretical knowledge of econometric tools.
2. To develop the knowledge of application of these tools in the real-life data set.

Course Outcome :

On completion of this course, the students will be able :

1. To analyse models for time series and binary choice datasets;
2. Ability to use different software (Eviews)
3. To understand the application of the econometric tools in Indian dataset.

Syllabus :**I. Advanced Time Series Econometrics :**

- Unit -1: Unit root and structural break; Vector Auto Regression Model - (Impulse Response Function, variance decomposition; vector error Corrections; Cointegration
- Unit - 2: Modeling volatility: Motivation and test for non-linearity; Historical and implied volatility; Univariate volatility models - ARCH, GARCH, EGARCH, TAR, and GARCH in Mean; Multivariate volatility models; Application in Finance
- Unit - 3: Models of Expectations and Distributed Lags
- Practical Lab Sessions

II. Advanced Cross- Sectional Econometrics :

- Limited Dependent Variable Models; Censoring, Truncation & Selection Bias; Multinomial Response Models – Ordered and Sequential response Models
- Practical Lab Sessions

References :

1. A. Colin Cameron & Pravin K. Trivedi, *Microeconometrics: Methods and Applications*, Cambridge University Press, 2005.
2. Anindya Banerjee, Juan Dolado, John W. Galbraith & David F. Hendry, *Cointegration, Error Correction and the Econometric Analysis of Non-stationary Data*, Oxford University Press, 1993.
3. G. S. Maddala, *Limited-Dependent and Qualitative Variables in Econometrics*, Cambridge University Press, 1986.
4. G. S. Maddala & In-Moo Kim, *Unit Roots, Cointegration and Structural Change*, Cambridge University Press, 1998.
5. James Douglas Hamilton, *Time series analysis*, Princeton University Press, 1994.
6. John Y. Campbell, Andrew W. Lo & A. Craig MacKinlay, *The Econometrics of Financial Markets*, Princeton University Press, 2012.
7. Luc Bauwens, Christian Hafner & Sebastien Laurent, *Handbook of Volatility Models and Their Applications*, Wiley, 2012.
8. Walter Enders, *Applied Econometric Time Series*, Wiley, 2010.
9. William H. Greene, *Econometric Analysis*, Pearson, 2003.

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FINANCIAL ECONOMICS - I

Learning Objective :

1. To develop the knowledge of financial tools to understand the profitability of a firm.
2. To develop the knowledge of activities of the financial markets.

Course Outcome :

On completion of this course, the students will be able :

1. To understand the financial structure of a firm.
2. To analyse the financial structure by different financial tools.
3. To understand the activities of financial markets using macroeconomic tools.

Syllabus :

1. Stock Market, Tobin's Q & Economic Activity
2. Capital Structure and basic concepts –
Modigliani-Miller theorem and the financial structure puzzle; Corporate tax and personal tax; Limits to debt and cost of financial distress; Pecking order theory.
3. Corporate financing and Agency cost –
The role of net worth and credit rationing; Debt overhang; Borrowing capacity; The equity multiplier.
4. The Industrial organization approach to banking –
A model of perfect competition; The Monte-Kelein model of monopolistic bank.
5. Capital budgeting and Financial Ratio analysis –
Net Present value approach; Payback period method; Discounted payback period method; Internal rate of return; Profitability index; Financial statement and Ratio analysis; term structure of Interest rate, spot rate and Yield to maturity; Weighted average cost of capital and dividend growth model

References :

1. J. C. Hull, *Options, Futures and Other Derivatives*, Pearson Education, 2014.
2. J. Tirole, *The theory of Corporate finance*, Princeton University Press, 2010.
3. Jonathan B. Berk, Jarrad V. T. Harford, Peter M. DeMarzo, David Stangeland & András Marosi, *Fundamentals of Corporate Finance*, Pearson Education Canada, 2019.
4. Richard A. Brealey, Stewart C. Myers & Franklin Allen, *Principles of Corporate Finance*, McGraw Hill, 2011.
5. S. Kevin, *Portfolio Management*, Prentice Hall India, 2006.
6. X. Freixas & J. C. Rochet, *Microeconomics of Banking*, MIT Press, 2008.

SEMESTER : IV

Total Marks : 100

Paper Code: MNR410T

PUBLIC ECONOMICS

Learning Objective :

1. It develops an analytical framework that facilitates the evaluation of public policy and subsequently informs the public debate.
2. To understand the economics of government expenditure and taxation.
3. To use economic analysis to predict and verify the effects of government intervention on behaviour of individuals, households, and firms.
4. To discuss the implications of policy for efficiency and equity.

Course Outcome :

On completion of this course, the students will be able :

1. Describe the major items of government revenue and expenditure
2. Compare explanations for government intervention
3. Demonstrate why competition is efficient
4. Explain the sources of market failure and potential policy responses
5. Discuss the design of the tax structure using the concepts of efficiency and equity
6. Describe how the level of government expenditures is determined
7. Demonstrate how the interaction between jurisdictions affects the choice of policy
8. Employ economic analysis to evaluate policy proposals.

Syllabus :

1. **Equilibrium and Efficiency** :The exchange economy; The production and exchange; The efficiency of competition
2. **Public good** :Definition; Private provision; Efficient provision; Publicly provided private good; Voting; Mechanism design
3. **Club good** :Definition; Single product clubs – Fixed utilization, Variable utilization, Two-part tariff
4. **Externalities and Merit goods** :Market inefficiency; Externality examples – River pollution, The tragedy of commons; Pigouvian taxation; Internalization; Coase theorem
5. **Tax incidence**: Canons of taxation, Simple competitive equilibrium model, Static Two-sector model; Incidence of corporation tax; General tax incidence

6. Effects of tax on labour supply, Savings and Risk taking – comparison between Income tax and Expenditure tax
7. Public debt – Barro-Ricardo equivalence theorem; Debt and growth in Solow model
8. Fiscal policy and the macroeconomy; Macroeconomics of budget deficit – Sustainability, Solvency and Optimality.

References :

1. Anthony B. Atkinson & Joseph E. Stiglitz, *Lectures on Public Economics*, Princeton University Press, 2015.
2. Blinder, A. S., and R. M. Solow. "Does fiscal policy matter? vol. 144." *Econometric Research Program, Princeton University* (1972).
3. Jean Hindriks & Gareth D. Myles, *Intermediate Public Economics*, MIT Press, 2013.
4. John Cullis, Philip Jones & Philip R. Jones, *Public Finance and Public Choice: Analytical Perspectives*, Oxford University Press, 2009.
5. Rakshit, Mihir. "Budget Deficit: Sustainability, Solvency and Optimality." *Readings in Public Finance, Oxford University Press, New Delhi* (2005): 143-164.

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Total Marks : 100

Paper Code: MNR420J

GUIDED STUDY

Learning Objective :

1. To allow independent learning in a structured format with the guidance and feedback of a mentor. This course includes a detailed week-by-week calendar or schedule that will guide students through reading, writing and viewing assignments. Mentors, assigned formally assess academic progress through written assignments and proctored examinations.
2. To develop an understanding of the processes and skills required to undertake a supervised research project at master’s level of study, and to write this up as dissertation.
3. To develop research skills commensurate with the accomplishment of a master’s degree.
4. To develop skills in independent inquiry.
5. To produce a coherent and logically argued piece of writing that demonstrates competence in research and the ability to operate independently.

Course Outcome :

On completion of this course, the students will be able:

1. To design and manage a piece of original project work;
2. To develop a research proposal and protocol;
3. To discuss the ethical dimensions of their research and obtain appropriate ethical approval if needed;
4. To synthesize knowledge and skills previously gained and applied to an in-depth study;

5. To establish links between theory and methods within their field of study;
6. To select from different methodologies, methods and forms of analysis to produce a suitable research design, and justify their design;
7. To present the findings of their project in a written report
8. Critically appraise and interpret published literature;

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Total Marks : 100

Paper Code: MNR430T& MNR430P

ADVANCED ECONOMETRICS-II

Learning Objective :

1. To develop the theoretical knowledge of econometric tools.
2. To develop the knowledge of application of these tools in the real-life data set.

Course Outcome :

1. To analyse models for time series and binary choice datasets.
2. Ability to use different software
3. To understand the application of the econometric tools in Indian dataset.

Syllabus :

I. Advanced Panel Data Econometrics :

- Balanced and Unbalanced Panel
- One way and two way error components
- Panel Unit Root
- Panel Estimation
- Fixed effects model, LSDV estimation, Random effects model
- Hypothesis testing
- Panel Limited dependent model
- GMM estimation – System GMM; Difference GMM
- Seemingly Unrelated regression (SUR) model
- Applications using suitable Statistical Packages

II. Multivariate Techniques :

- Multivariate Analysis and Indexing: Factor Analysis; Principal Component Analysis
- Grouping Observations - Discriminant Analysis; Cluster Analysis

III. Applied Econometric Methods :

- Use of different database: International data – World Bank, IMF, ILO, WTO, UNCTAD and international agency data; RBI database; ASI data, Prowess- CMIE, NSSO data.

References :

1. Badi H. Baltagi, *Econometric Analysis of Panel Data*, Wiley, 2005.
2. Cheng Hsiao, *Analysis of Panel Data*, Cambridge University Press, 2003.
3. David F. Hendry, *Dynamic econometrics*, Oxford University Press, 1995.
3. Jadhav, Narendra. "Monetary modelling of the Indian economy: a survey." *Reserve Bank of India, Occasional Papers* 11, no. 2 (1990): 83-152.
4. Jeffrey M. Wooldridge, *Econometric Analysis of Cross Section and Panel Data*, MIT Press, 2010.
5. J. J. A. Tacq, *Multivariate Analysis Techniques in Social Science Research*, Sage, 1997.
6. Julia Hebden, *Applications of Econometrics*, Philip Allan, 1983.
7. K.L. Krishna, *Econometric Applications in India*, Oxford University Press, 1997.

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Total Marks : 100

Paper Code: MNR440T

FINANCIAL ECONOMICS-II

Learning Objective :

1. To develop the knowledge of financial tools to understand the profitability of a firm.
2. To develop the knowledge of activities of the financial markets.

Course Outcome :

1. To understand the financial structure of a firm.
2. To analyse the financial structure by different financial tools.
3. To understand the activities of financial markets using macroeconomic tools

Syllabus :

1. **Efficient Market hypothesis** :Foundation of Efficient market hypothesis; Different types of efficiency; The behavioral and empirical challenge to market efficiency; Implications for Corporate finance
2. **Mean-Variance Portfolio Theory** :Asset return; Random variables; Portfolio Mean and Variance; The feasible set; The Markowitz Model; The One-Fund theorem; The Two-Fund Theorem.
3. **Capital Asset Pricing Model** :Market Equilibrium; Capital market line; The Pricing model; The Security market line; Investment Implications; Performance Evaluation; CAPM as a Pricing Formula
4. **Derivative market: Forwards, Futures, Options and Swap** :Forward contracts; Forward

Prices; Swaps; Basics of Futures contracts; Future Prices; Relation to expected spot price; The Perfect hedge; The Minimum-variance hedge; Optimal hedging; Hedging nonlinear risk; The boundary space for call and put options; Option prices and interest rate; Option prices and stock price movements; Option prices and the riskiness of stocks; The single-period binomial model; The multi-period binomial model;

5. Exchange rate dynamics & financial crisis

References :

1. D. G. Luenberger, *Investment Science*, Oxford University Press, 1998.
2. John. Hull, *Options, Futures and Other Derivatives*, Pearson Education, 2009.
3. R.A. Brealey & S.C. Myers, *Principles of Corporate Finance*, McGraw Hill/ Irwin, 2007.
4. Robert W. Kolb, *Futures, Options, and Swaps*, Wiley, 1999.
5. S. Kevin, *Portfolio Management*, Prentice Hall India, 2006.
6. Stephen A. Ross, Mark Christensen, Michael Drew, Robert Bianchi, Randolph Westfield & Bradford D. Jordan, *Fundamentals of Corporate Finance*, McGraw-Hill, 2013.

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