

RAIGANJ UNIVERSITY

DEPARTMENT OF ECONOMICS

Revised Syllabus for M.A/M.SC in Economics under CHOICE BASED CREDIT SYSTEM (Academic Session 2019-20)



RAIGANJ UNIVERSITY
RAIGANJ, UTTAR DINAJPUR-733134
West Bengal, India

COURSE STRUCTURE OF SYLLABUS (ECONOMICS)
SEMESTER-I (20 Credits)

Course type	Name of the course	Paper No.	Course Code	Remarks	Marks (IA-25+UE-75)	Credit
CC1	Microeconomic Analysis-I	I	ECOPG1201		100	4
CC2	Macroeconomic Analysis-I	II	ECOPG1202		100	4
CC3	Mathematical Methods in Economics	III	ECOPG1203		100	4
CC4	Public Economics	IV	ECOPG1204		100	4
	GE-I Basic Statistics		ECOPG1305	<i>For students of other departments only</i>	100	4
	AEC		PG1506	Non credit	0	0

SEMESTER-II(20 Credits)

CC5	Microeconomic Analysis-II	V	ECOPG2201		100	4
CC6	Macroeconomic Analysis-II	VI	ECOPG2202		100	4
CC7	International Trade	VII	ECOPG2203		100	4
CC8	Development Economics	VIII	ECOPG2204		100	4
GE2	GE2- Development Studies		ECOPG2305	<i>For students of other departments only</i>	100	4
	SEC		PG2606	Non credit	0	0

SEMESTER-III(20 Credits)

CC09	Statistical Methods for Economics		ECOPG3201		100	4
CC10	International Economics		ECOPG3202		100	4
CC11	Research Methods in Economics		ECOPG3203		100	4
DSE 1	Economics of Gender and Development		ECOPG3404		100	4
DSE 2	Demography and Population Studies		ECOPG3405		100	4
	Co/Extra Curricular Course		PG3706	Non credit	0	0

SEMESTER-IV(20 Credits)

CC12	Environmental Economics		ECOPG4201		100	4
CC13	Indian Economic Development & policy		ECOPG4202		100	4
CC14	Dissertation		ECOPG4203		100	4
DSE 3	Economics of Growth and Development		ECOPG4404		100	4
DSE 4	Introductory Econometrics		ECOPG4405		100	4
Total					2000	80

SEMESTER – I

Course code-ECOPG 1201

Microeconomic Analysis-I

4 Credits

Module 1: Theory of Consumer Behaviour

Consumer's Preferences, Indifference Curves, Optimal Choice, Demand Functions-ordinary and compensated, The Slutsky Equation, Indirect Utility Functions; Linear Expenditure System and Duality, Consumer's Surplus, Revealed Preference theory. Choice under Uncertainty - Utility Functions and Expected Utility, Attitudes towards Risk and Risk Aversion Measures.

Module 2: Theory of Producer's Behavior

Production function, Isoquants, Homogeneous and Non-homogeneous production function- Cobb Douglas and CES Production function and their properties –Choice of Optimal Combination of Factors of Production; Expansion path; Equilibrium of multiproduct firms, Producer's surplus; Production possibility curve.

Modern Theory of Cost -Simple derivation of short and long run cost functions from production functions-duality in production and cost function.

Module 3: Market Structure

Perfect competition- Short run and long run, Imperfect competition, monopoly and profit maximizing output, discriminating monopoly, Monopolistic competition,

Readings

1. Akerlof, George A. (1970): "The Market for Lemons: Quality Uncertainty and the Market Mechanism", *Quarterly Journal of Economics* 84 (3), August 1970: 488-500.
2. Chipman, J. and J. Moore (1980): "Compensating Variation, Consumer Surplus and Welfare", *American Economic Review* 70: 933-48.
3. Cowell, F. (2006), *Microeconomics*, Oxford University Press.
4. Dixit, Avinash K. and Robert S. Pindyck (1994): *Investment under Uncertainty*, Princeton, N.J., Princeton University Press.
5. Gauld, J.P. and Edward P. L. (1996), *Microeconomic Theory*, Richard. Irwin, Homewood.
6. Gravelle, H. & R. Rees (1981): *Microeconomics*, Longman, London.

7. Green, H. and V. Walsh (1975): *Classical and Neo-classical Theories of General Equilibrium*, OUP, London.
8. Henderson J. and R.E. Quandt (1980), *Microeconomic Theory: A Mathematical Approach*, McGraw Hill, New Delhi.
9. Hicks, J. (1939): *Value and Capital*, Clarendon Press, Oxford.
10. Jeffrey, M. Perloff (1999): *Microeconomics*, Addison-Wesley.
11. Koutsoyiannis, A. (1979), *Modern Microeconomics*, (2nd Edition), Macmillan Press, London.
12. Mansfield, E. (1997): *Microeconomics* (9th Edition), W.W. Norton and Company, New York.
13. Marshall, A. (1920): *Principles of Economics*, Macmillan, London.
14. Mas-Collel, Andreu, Michael D. Whinston and Jenry R Green (2007): *Microeconomic Theory*, OUP, New Delhi.
15. N. Gregory Mankiw: *Principles of Microeconomics*, Thomson India.
16. Neumann, John von and Oscar Morgenstern (1944): *Theory of Games and Economic Behaviour*, Princeton, N.J., Princeton University Press.
17. Pindyck, Robert S. and Daniel L. Rubinfeld (2003): *Microeconomics* (5th Edition), Pearson Education, New Delhi.
18. R.S Pindyck, R.S, D.L.Rubinfeld&P.L.Mehta (2000): *Microeconomics*, 3rd edition; Prentice-Hall India.
19. Salvatore, Dominick (2002): *Microeconomic Theory and Applications*, Oxford University Press.
20. Sen, Anindya (1999), *Microeconomics: Theory and Applications*, Oxford University Press, New Delhi.
21. Spence (1974): *Market Signaling*, Cambridge, Harvard University Press.
22. Stigler, G. (1996), *Theory of Price*, (4th Edition), Prentice Hall of India, New Delhi.
23. Varian, Hal R. (2000): *Microeconomic Analysis*, W.W. Norton, New York.

Module 1: The Keynesian System:

The role of aggregate demand-money, interest, income-factors affecting equilibrium income and the interest rate-monetary influences and real influences---relative effectiveness of monetary and fiscal policy-the Keynesian contractual view of the labor market-sources of wage rigidity-the aggregate supply schedule-effects of shifts in the aggregate supply function-wage rigidity vs. sticky wages-fiscal and monetary expansion with sticky wages-supply shocks and aggregate demand policy.

Module 2: Output, Inflation and Unemployment:

Monetarist vs. Keynesian Views Friedman's restatement of the quantity theory-the natural rate theory-the Keynesian view of the output-inflation trade-off-monetarist policy prescriptions-monetarist vs. Keynesian theories of aggregate demand-monetarist vs. Keynesian theories of aggregate supply-some evidence on the monetarist- Keynesian controversy.

Module 3: Disequilibrium Macroeconomics:

Patinkin's neoclassical synthesis-non-compatibility of orthodox microeconomic theory and Keynesian macroeconomics-Walras' law- micro foundations of macroeconomics-notional and effective demand functions-dual decision hypothesis of Clower-traditional preference theory as a special case of the dual decision theory-concept of constrained demand-a general disequilibrium model involving both excess supply and excess demand situations-concepts of effective supply and forced saving.

Readings:

1. Dornbusch, R. And S. Fisher: Macroeconomics (3/e)
2. Abel, A.B. And B.S. Bernake: Macroeconomics (4/e)
3. Froyen, R.T-Macroeconomics: Theories and Policies (4/e)
4. Friedman, M.(1968): 'The Role of Monetary Policy' *In American Economic Review*, Vol.58, No.01
5. Modigliani, F. (1977): 'The Monetarist Controversy or, Should We Forsake Stabilization Policies' *In AER*.
6. Patinkin, D. (1965): *Money, Interest and Prices*.
7. Clower, R. W. (ed.) (1970) : *The Keynesian Counter Revolution : A Theoretical Appraisal*.
8. Barro, R.J. And H.I Grossman (1971): 'A General Disequilibrium Model of Income and Employment', *AER*.

Module1. Optimization:

Static optimization: Global/Local; Unconstrained Optimization - first and second derivative, Constrained multivariate optimization, Lagrange Multiplier method; Applications.

Module2. Linear programming and Input-output Model

Standard and canonical form of LP Problem; theory of simplex method; Simplex Algorithm- maximization and Minimization case; extreme point theorem, shadow prices, exceptional cases in LP solution; duality theorems; Primal-Dual relationship; economic interpretation of duality.

Module-3. Non-Linear programming:

Kuhn –Tucker condition, Graphical solution, Economic Interpretation of Kuhn- tucker condition, Kuhn-Tucker Suffency Theorem; Application

Module-4. Transportation:

Basic concepts of transportation tableau, Linear programming formulation of transportation problem; initial basic feasible solution- the North-West corner rule, Lowest cost entry method, Vogel's approximation method, optimum solution- stepping stone method, modified distribution method; exceptional cases of transporation problem,- maximization problem, prohibited route, unbalanced problem, degeneracy in transporation problem

Module-5. Game Theory:

Zero-sum game and LP Formation of game, Dominance Rule, Mixed Strategy Non-zero sum games: some simple examples, Co-operative and Non-cooperative games, Static and Dynamic games, Nash Equilibrium. Prisoners Dilemma, Duality in game theory.

Readings:

1. Dixit, A.K (1990): *Optimization in Economic Theory*, Oxford University Press.
2. Chiang and Wainwright (2005): *Fundamental Methods of Mathematical Economics*, Mcgraw-hill.

3. Chiang, A.C (1992): *Dynamic Optimization*, McGraw-Hill.
4. Silberberg, E. (1990): *The Structure of Economics: A Mathematical Analysis*, McGraw-Hill.
5. Hadley, R.(1960): *Linear Algebra*, Addison-Wesley.
6. Sundaram, R.K. (1996): *A First Course in Optimization Theory*, Cambridge University Press.
7. Osborne, M.J. (2004): *An Introduction to Game Theory*, Oxford University Press.
8. Aliprantis, C.D. and S.K.Chakrabarti (1999): *Games and Decision Making*, Oxford University Press.
9. Fudenberg, D. and Tirole, J. (1991): *Game Theory*, MIT Press.
10. Oz Shy (1997): *Industrial Organization-Theory and Applications*, MIT Press

Module-1 Theory of Government intervention in Market Economy

Fundamentals of welfare economics. The Economic basis for Government activity, Market failure and the role of Government, Government interventions in terms of efficiency and equity. Changing perspective: Government role in a mixed economy,

Module-2 Externalities and Public Goods

Externalities: Problems & Solutions. Externalities in action: Environmental and health externalities. Theory of public goods: Efficiency conditions for public goods. Public choice an political process: Mechanism for aggregating individual preferences, Representative democracy. Public choice theory: the foundation of Government failure

Module 3. Theory of Taxation and Tax policy issues

Effect and Incidence of taxation: The General and Partial Equilibrium Analysis, Tax inefficiency & Theory of Optimal Taxation, Excess burden of taxes, Measurement of dead weight losses, Issues relating to tax avoidance, evasion and black income. The effect of taxation on labour supply, saving and wealth distribution. Tax reform & Tax Policy issues in India and developing countries.

Module 4 Public Expenditure: Theory and Applied issues

Pure theory of public expenditure, Structure & growth of public expenditure and its effects on production, distribution and economic activities, Wagner's law of increasing state activities, Wiseman-Peacock hypothesis, Role of public expenditure in developing countries, Measuring the impact of public expenditure, Cost effectiveness analysis vs budget impact analysis, Cost-Benefit Analysis and Government investments, Public Expenditure programme on education, health, pension, social security & social insurance. Trends & pattern of public expenditure in India.

Module 5 Public Debt and Public Budgeting

Public debt: classification, significance and burden of public debt, principles of debt management, external debt servicing, Management of public debt - Ricardian Equivalence. Public debt sustainability in India. Public budgets: kinds of budget: programme budgeting and zero-base budgeting; different concepts of budget deficits, Union Government budget and budgetary policy in India,

Module.6 Fiscal policy and Fiscal Federalism

Fiscal Policy and its link with Monetary Operations; Fiscal policy for Stabilization. Theory of fiscal federalism: The division of responsibilities, Fiscal decentralization theorem, Tax

assignment problem, Intergovernmental grants and revenue sharing, Federalism as a principal agent problem. Club Theory and Local Public Goods; Tiebout Hypothesis, Federal Decentralization and Centre-State financial relations in India

Readings:

1. Aronson, J. Richard (1985): *Public Finance*, McGraw-Hill Book Company
2. Atkinson, A. and Stiglitz, J. (2015), *Lectures on Public Economics*, McGraw-Hill; reprinted by Princeton University Press.
3. Brown, C. V. and P. M. Jackson (1982): *Public Sector Economics*, Martin Robertson, Oxford University press.
4. C. Rangarajan and D. Srivastava (2011). *Federalism and Fiscal Transfers in India*, Oxford University Press
5. Choudhury, Rabindra Kumar (2008), *Public Finance and Fiscal Policy*, Kalyani Publishers.Mumbai
6. Cullis, John and Philip Jones (1998, 2/e): *Public Finance and Public Choice*, Oxford University Press.
7. John Cullis and Philip Jones (2009): *Public Finance and Public Choice*, Oxford University Press.
8. Due, John F. and Ann F. Friedlander (PB Indian edition 1997): *Government Finance: Economics of the Public Sector*, AITBS Publishers & Distributors. Delhi.
9. Feldman, Allan M. and Serrano, Roberto (2005). *Welfare Economics and Social Choice Theory* (2nd Edition), Springer, New York, USA.
10. Ghosh, Ambar and Chandana Ghosh (2008), *Public Sector Economics*, Prentice Hall of India,
11. Gruber, J. (2016) *Public Finance and Public Policy*, 5th edition, Worth Publishers.
12. Rosen, H. and Gayer, T. (2014) *Public Finance*, 10th edition, McGraw-Hill.
13. Hillman, A. L. (2009). *Public Finance and Public Policy: Responsibilities and Limitations of Government* (Vol. 2nd ed). Cambridge: Cambridge eText. Retrieved from
14. Hyman D.N (2010): *Public Finance, A Contemporary Application of Theory to Policy*, 10th Edition. South Western, Cengage learning. USA
15. Kaplow, L. (2008) *The Theory of Taxation and Public Economics*, Princeton University Press.
16. Laffont, Jean-Jacques (1989): *Fundamentals of Public Economics*, Boston, MIT
17. Mithani, D. M. (1993), *Principles of Public Finance and Fiscal Policy*, Himalaya Publishing House, Mumbai.
18. Mundle, S. (1999), *Public Finance Policy: Issues for India*, Oxford University Press, Delhi.

19. Musgrave, Richard A. and Peggy B. Musgrave (1989): *Public Finance in Theory and Practice*, McGraw-Hill Book Company.
20. Myles, G. (2008) *Public Economics*, Cambridge University Press
21. Myles, G.D. and J. Hindriks. *Intermediate Public Economics*. Cambridge: MIT Press.
22. Myles, Gareth (1999): *Public Economics*, Cambridge.
23. Peacock, A. and G. K. Shaw (1976), *The Economic Theory of Fiscal Policy*, George Allen
24. Rao, M. Govinda & Tapas K. Sen (2006): *Fiscal Federalism in India: Theory and Practice*. Macmillan. New Delhi:
25. Singh Nivikar and Gobindo Rao (2006) : *The Political Economy of Federalism in India*. Oxford University Press.
26. Srivastava, D. K. (ed.) (2000): *Fiscal Federalism in India*, Har-Anand Publications Ltd., Delhi.
27. Stiglitz, J. and Rosengard, J. (2015) *Economics of the Public Sector*, 4th edition, W. W. Norton & Company.
28. Tanzi, Vito and Ludger Schuknecht (2000): *Public Spending in the 20th Century: A Global Perspective*, Cambridge University Press.

GENERIC ELECTIVE-1
(For students of other department only)

Course Code - ECOPG 1305

Basic Statistics

4 Credits

Module-1: Introduction:

Statistical data - Classification and presentation - Statistical population - Collection of data –Variable and attribute - Different columns of a standard frequency distribution - Discrete and continuous variables - Choice of class intervals - Diagrammatic representation of frequency distribution - Cumulative frequency distribution - Ogive.

Module-2: Measures of Central Tendency:

Arithmetic mean, median and mode (for both grouped and ungrouped data) - Comparison of mean, Median and mode - geometric mean and harmonic mean (for both grouped and ungrouped data) - Complete mean (average from combined data).

Module-3: Measurers of Dispersion:

Definition of dispersion - Distinction between absolute and relative measures - Some absolute measures like range, quartile deviation, mean deviation and standard deviations - Properties of different measures - Mean and S.D. of a combined set- Relative measures like coefficient of variation etc. - Lorenz curve: Representation of distribution of income - Measures of inequality - Gini Coefficient and Lorenz curve, Central and non-central moments; Skewness and Kurtosis.

Module-4: Bivariate Distribution:

Scatter Diagram; Covariance; Simple Correlation Coefficient; Properties of Correlation Coefficient; Calculations of Correlation Coefficient; Concept of Regression; Properties of Linear regression; Relationship between Correlation Coefficient and Regression Coefficient ; Rank Correlation- Spearman's Rank Correlation Coefficient.

Module-5: Index Numbers:

Problems in the construction of index numbers - Purpose of construction of index number - Choice of the base period, Choice of the commodities, choice of weights/ interpretation of the index .errors, index numbers - Tests for index number - Chain index - Chain based versus fixed based indices - Cost of living index - Laspeyres'

and Paasche's formulae - Marshall and Edgeworth formulae - Fisher's ideal index -
Uses of index numbers (official index number)

Module-6: Sampling:

Method of complete enumeration or census method and partial enumeration or sampling - Sampling techniques- Random sampling - Sampling distribution of an estimator (distribution of \bar{X} from a normal distribution) - Fundamental ideas of statistical inference.

Readings:

1. Goon, A, Gupta, M and Dasgupta, B (1986): Fundamentals of Statistics, Vols. I & II, The World Press Private Limited, Calcutta.
2. Hoel, P.G., Port, S.C. and Stone, C.J (1972): Introduction to Statistical Theory, Houghton Mifflin Co., Boston (also Universal Books, Delhi)
3. Spiegel, M and Lindstrom, D (2010): Statistics, 2nd edition, Schaum Series, McGraw Hill (India).
4. Das, N.G. (2009): Statistical Methods (Part I & II), McGraw Hill (India).
5. Nagar, A.L, and R.K. Das (1977): Basic Statistics, OUP, Delhi.
6. Yule, G.U. and Kendall, M.G. (eds.) (1958): Introduction to the Theory of Statistics, Charles Griffin & Co. Ltd. London.
7. Murthy. M.N. (1967): Sampling Theory and Methods, Statistical Publishing Society, Calcutta.
8. Hogg, R.V. and A.T. Craig (1970): Introduction to Mathematical Statistics (3rd edition), Macmillan Publishing Co. New York.
9. Mathai & Rathie : Probability & Statistics, Macmillan India.

Course code- PG1506

AEC

NON CREDIT

SEMESTER-II

Course Code- ECOPG2201

Microeconomic Analysis-II

4 Credits

Module-1: Classical Oligopoly

Collusive Oligopoly models, Non-collusive Oligopoly models - Cournot, Bertrand, Chamberline, and Stackelberg- Average cost pricing theory of Hall and Hitch.

Module-2: Missing Markets

Market Failure: Externalities, Commons and Public Goods, Asymmetric Information, Contracts and Moral Hazards.

Module-3: General Equilibrium Analysis

General versus Partial equilibrium, Model with production: one consumer, one producer; Walrasian and Edgeworthian foundations of perfect competition; WalrasianEquilibria: Existence and Uniqueness, Stability, Efficiency Properties of WalrasianEquilibria. Non-WalrasianEquilibria:Non-Tatonnement Processes; Rationing Equilibria, Effective Demand, Micro foundations of Macroeconomics.

Module-4: Welfare Economics

Pareto Efficient Resource Allocation, Welfare Functions and Pareto Criterion; Pareto Efficiency and Competitive Markets, Social Welfare Functions, Theory of Second Best, Arrow's Impossibility Theorem, Equity-Efficiency Trade off.

Readings:

1. Aumann (1974): "Subjectivity and Correlation in Randomized Strategies", *Journal of Mathematical Economics* (1): 67-96.
2. Gauld, J.P. and Edward P. L. (1996), *Microeconomic Theory*, Richard. Irwin, Homewood.
3. Gravelle, H and R. Rees (2004) *Microeconomics*, (3rd Edition), Pearson Education.
4. Green, H. and V. Walsh (1975): *Classical and Neo-classical Theories of General Equilibrium*, OUP, London.
5. Hicks, J. (1939): *Value and Capital*, Clarendon Press, Oxford.
6. Jeffrey, M. Perloff (1999): *Microeconomics*, Addison-Wesley.

7. Jehle, G. and J. Reny (2000), *Advanced Microeconomic Theory*, Pearson Education.
8. K.J. Arrow and F. H. Hahn (1971), *General Competitive Analysis*, Holden-Day.
9. Kreps, D (1992), *A course in Microeconomic theory*, Prentice Hall of India.
10. Kreps, D. (1984): *Signaling Games and Stable Equilibrium*, Mimeo.
11. Mansfield, E. (1997): *Microeconomics* (9th Edition), W.W. Norton and Company, New York.
12. Mas-Colell, M.D. Whinston, J.R. Green: *Microeconomic Theory*, Oxford University Press, New Delhi.
13. Mukherji , A (2002), *Introduction to General Equilibrium Analysis: Walrasian and Non-Walrasian*
14. Nash, J.F. (1951): “Non-Cooperative Games”, *Annals of Mathematics* 54: 289-95.
15. Osborne, Martin J. (2004): *An Introduction to Game Theory*, OUP, New York.
16. R.S Pindyck, R.S, D.L.Rubinfeld&P.L.Mehta (2000): *Microeconomics*, 3rd edition; Prentice-Hall India.
17. Rosenthal, R. (1981): “Games of Perfect Information, Predatory Pricing and the Chain-Store Paradox”, *Journal of Economic Theory* 25: 92-100.
18. Salvatore, Dominick (2002): *Microeconomic Theory and Applications*, Oxford University Press.
19. Schelling, T. (1960): *The Strategy of Conflict*, Cambridge Mass: Harvard University Press.
20. Sen, Anindya (1999): *Microeconomics: Theory and Applications*, OUP, Delhi.
21. Starr, R. M (1997), *General Equilibrium Theory: An Introduction*, Cambridge University Press.
22. Tirole Jean (1996): *The Theory of Industrial Organisation*, Prentice Hall of India Pvt. Ltd.
23. Varian, H. (2000), *Microeconomic Analysis*, W.W. Norton, New York.
24. Wilson, A. James (1977): “A Test of the Tragedy of the Commons”, in Garrett Hardin and John Baden, eds., *Managing the Commons*, San Francisco, W.H. Freeman.

Module 1: The role of expectations in macroeconomics-Keynes' treatment of expectations -Adaptive Expectations Hypothesis-The Rational Expectations concept and its implications-the New Classical policy conclusions-the Keynesian counter critique-Auction market vs. Contractual Views of the labour market.

Module 2: New Classical Directions -Real Business Cycle models-central features -a simple real business cycle model-effects of technology shocks-fiscal and monetary policy impacts-questions about Real Business Cycle models.

Module 3: New Keynesian directions-the macroeconomics of wage and price rigidity Real wage rigidity-the efficiency wage model-wage determination in the efficiency wage model- employment and unemployment in the efficiency wage model-sources of price stickiness- sticky price(menu cost) models-monetary and fiscal policy-insider-outsider models and hysteresis.

Readings:

1. Begg, D.K.H: The Rational Expectations Revolution in Macroeconomics Theories and Evidence.
2. Froyen, R.T. (1993): Macroeconomics-Theories And Policies.
3. Mankiw, N.G (2002): Macroeconomics.
4. Plosser, C. (1989): Understanding Real Business Cycles In Journal OfEconomic Perspectives (Summer).
5. Gordan, R.T. (1990): 'What Is New Keynesian Economics?' in *JEL*, Sept.
6. Froyen, R.T. (1993): *Macroeconomics-Theories and Policies*.
7. Mankiw, N.G (2002): *Macroeconomics*.
8. Dornbusch,R , Fischer , Startz: Macroeconomics

Module-1. New Trade Theories; Economies of Scale and International Trade; International Trade under imperfect competition ; intra-industry trade; International Trade and Dynamic Technological Differences.

Module-2. Foreign Exchange Market:

Function of foreign exchange market, earning and spending of foreign exchange instruments of foreign payments, foreign exchange rates, exchange rate quotations and forward market quotation, Spot market and forward market, hedging in the foreign exchange market, determination of exchange rate. Factors affecting the exchange rate, Efficiency of the foreign exchange market.

Module-3: Exchange Rates:

Nominal and Real Exchange Rates; Determinants of Real Exchange Rates; Policies influencing the Real Exchange Rate; Eurodollar Market.

Module-4. Exchange Rate in the Long-run:

Purchasing Power Parity Theory; Absolute and Relative Purchasing Power Parity Theories; Limitations of the theory, Dornbusch Model of Exchange Rate Overshooting.

Module-5. Theories of Foreign Investment:

Uncovered Interest Parity Theory; Covered Interest Parity Theory; Forward Rates and Spot Rates; Covered Interest Parity Arbitrage; Covered Interest Arbitrage margin. Arbitrage in the foreign exchange market, speculation in the foreign exchange. Volatility of Exchange Rate.

Readings:

1. Appleyard, D.R and Alfred J. Field Jr. (1998): *International Economics*, Irwin-McGraw Hill.
2. Kindleberger, C.P (1973): *International Economics*. R. D Irwin, Homewood.
3. Salvatore, D (1997): *International Economics*, Prentice Hall, Upper Saddle River, N.J., New York.
4. Krugman, P.R. and Obstfeld, M. (1994), *International Economics: Theory and Policy*, Glenview, Foresman.
5. Soderston, B.O. (1991), "International Economics," Macmillan Press Ltd, London.

Module-1: Principle and concepts of Economics of Development:

Introduction. Meaning and Measurement issues of Development. Economics of Development: Fact, theories and Evidence. Economic development in Historical perspectives: Political Economy of Development, Characteristics and Institutions of Developing Countries. Theories of Development and underdevelopment.

Module-2: Capital accumulation and Technological changes

The proximate sources and determinants of economic growth. Growth and Factor of production, the neoclassical growth model and Convergences of income. New growth theories. Divergences, Technological capability of LDCs and population.

Module-3: Distribution, Human welfare and development

Broadening of Development Economics: Basic needs, capabilities and human development. Poverty, Inequality and Vulnerability. Health & Nutrition, Education and Human capital. Population growth and Economic Development.

Module-4: The deep determinant of long-run growth and economic development

Interdisciplinary approaches to Economic development: Institution: formal Institution: Property rights, Governance, Corruption, Informal Institution: Contract enforcement through networks and social capital, Openness to trade and Integration, Geography and Economic resources, History and Culture.

Module-5: Structural Changes and Development strategies

Rural-Urban linkage. Agriculture vs industry, Investment criteria. Sectoral growth, Trade, debt and Foreign aid controversy. Import substitution and export promotion. Fiscal policy. Development Planning and Policy making: The State and the Market. Macro Economic policy: Stabilization, Adjustment, Reform, and Privatization. The Washington consensus. Goal based development Strategies: MDGs and SDGs.

Module.6: Economic activity of people, firms and Government in Developing countries

Micro Economic approach of development: Economic behaviour of households in less developed countries: Informal insurance, public finance redistribution, social network & social capital. Labour, Migration and remittance, the markets of credit and savings, Discrimination, Tenancy and Moral Hazard, Credit, Risk and Micro Finance. Corruption and taxation, Social Safety net, Property right, Land redistribution. Development Program Evaluation. RCT

Readings:

1. Acemoglu, D. (2009): *Introduction to Modern Economic Growth*, Princeton University Press
2. Agenor, P.R., and P. J. Montiel, (2008), '*Development Macroeconomics*', Princeton University Press.
3. Agenor, Pierre-Richard (2004) *Economics of Adjustment and Growth* (2e), Cambridge.
4. Banerjee, A. V., & Duflo, E. (2011). *Poor economics: A radical rethinking of the way to fight global poverty*. Public Affairs Store.
5. Banerjee, Abhijit V., Roland Benabou, and Dilip Mookherjee, (eds) (2006). *Understanding Poverty*. New York, NY: Oxford University Press.
6. Bardhan, Pranab and Christopher Udry (1999) *Development Microeconomics*, New Delhi: OUP.
7. Basu.K (1997) *Analytical Development Economics*, Cambridge: MIT Press.
8. Beatriz Armendáriz , Jonathan Morduch (2007) *The Economics of Microfinance*, The MIT Press 2007
9. Chakravarti, S. (1982), '*Alternative Approaches to a Theory of Economic Growth*', Oxford University Press.
10. Chang, Ha-Joon, (2003) *Rethinking Development Economics*. London: Anthem Press
11. Chenery, H.B. and T.N. Srinivasan (Eds.) (1989), *Handbook of Development Economics*, Vols. 1 & 2, Elsevier, Amsterdam.
12. Cyphez and Dietz James L. (2009), *The Process of Economic Development*, Theory, Institutions, Applications and Evidence, Routledge, London.
13. D Mookherjee and D Ray (MR) (2001) *Readings in the Theory of Economic Development*, Blackwell.
14. D. Perkins, S. Radelet, D. Lindauer, S. Block (2012) *Economics of Development* 7th Edition, W. W. Norton, New York and London.
15. De Janvry, A. and E. Sadoulet (2016) *Development Economics: Theory and Practice*, Routledge NY.
16. Dutt, A.K. and J. Ros (eds.), (2003) *Development Economics and Structuralist Macroeconomics*. Cheltenham: Edward Elgar
17. Easterly, William (2001). *The Elusive Quest for Growth*, Cambridge: MIT Press.
18. Ghatak, Subrata (2003) *Introduction to Development Economics*, London: Routledge,.
19. Julie Schaffner (2014) "*Development Economics: Theory, Empirical Research and Policy Analysis*", John Wiley and Sons, Inc.
20. L.C. Bresser-Pereira, J.L. Oreiro, and N. Marconi (2015) *Developmental Macroeconomics: New Developmentalism as a Growth Strategy*. New York: Routledge.

21. Meier, G.M. (1995), *Leading Issues in Economic Development*, (6th Edition), Oxford University Press, New Delhi
22. Meier, Gerald M., Rauch, James E., (2000), Eds. *Leading Issues in Economic Development*. Oxford, Oxford University Press.
23. Nafziger, E. W. (2006), *Economic Development*, Cambridge University Press, New York Nations (3e), New Delhi: OUP.
24. North, Douglass (1990). *Institutions, Institutional Change and Economic Performance*, Cambridge: Cambridge University Press.
25. North, Douglass (2005). *Understanding the Process of Economic Change*, Princeton University Press.
26. Pattanaik B.K., (2016), *Introduction to Development Studies*, Sage Publications, New Delhi.
27. Peet Richard and Hartwick Elaine, (2005), *Theories of Development*, Rawat Publications, New Delhi.
28. Philippe Aghion and Peter Howitt (2009) *The Economics of Growth*, The MIT Press.
29. Ray, Debraj (1998) *Development Economics*, New Delhi: OUP
30. Sen, Amartya, *Development as Freedom* (1999) New Delhi: OUP.
31. Taylor, E & T. Lybbert (2013) *Essentials of Economic Development Economics*, Berkeley, California,
32. Taylor, L.(2004) *Reconstructing Macroeconomics*. Cambridge, UK: Cambridge University Press, 2004.
33. Todaro, M. and S. Smith (2006) *Economic Development*. 9th edition. Pearson. Univ. Press
34. Yujiro, Hayami and Yoshihisa Godo (2005) *Development Economics: From the Poverty to Wealth of Nations*, Oxford University press. New Delhi.

GENERIC ELECTIVE-2
(For students of other department only)

Course Code- ECOPG2305

Development Studies

Credits 4

Module-1: Introduction to Development studies

Development Studies in Historical perspectives, Origin & Evolution, Interdisciplinary in Development Studies, Concept and measurement of development issues: Per capita GDP, Basic Needs, PQLI, HDI, HPI & GDI, and Freedom of development & Capabilities. Common Characteristics of Developing Nations.

Module 2: Theories of Development and Underdevelopment

Classical and neoclassical theories, Marx, Schumpeter, Keynes, Rostow's Stages of Development, Leibensten's critical minimum effort, Dualism, Neo-Liberal theories, Modernization & Dependency theories, Convergence theory, Alternative approaches to well-being-from income to Capabilities & Development as freedom. The rise and fall of developmentalist models: Institutional economic thinking.

Module 3: Factors in the Development Process & Development Strategies

Land, Labour, and Agriculture, Capital and Technical progress. Market, State & Institutions. Microfinance, Credits & Debt, Trade, Fiscal policy & inflation, Foreign Aid, Human Resources & Population growth. Planning for development, balanced growth vs unbalanced growth, Choice of technique in a labour surplus economy.

Module 4: Contemporary Development Issues

Inequality, Poverty & Development, Environment & Sustainable Development, Inclusive development, Globalization & development, Labour migration & livelihood, Goal based development: MDGs & SDGs. Major obstacles to development process in developing countries.

Module 5: Environment, Ecology and Food security

Definition and Global Situation of 'Organic Agriculture'--Ecological and Environmental Issues, Biodiversity--Global Warming and Climate Changes Agriculture and Food Production: Food Security

Module 6. Decentralization and participatory development

Democratic decentralization, local governance and local organizations, decentralized planning and development, people participation, empowerment of local bodies, Participatory Development. Local Economic Development-- Issues and Challenges. Panchayati Raj Institutions and Urban Local Bodies.

Readings:

1. A. K. Shiva Kumar,(2004) *Readings in human development: concepts, measures and policies for a development paradigm*, Oxford University Press
2. Byres Terence J.(ed.), (1998) *The State, Development Planning and Liberalization in India*, Oxford University Press, Delhi.
3. Drèze, Jean and Amartya Sen (2002), *India: Development and Participation*, second edition. Oxford University Press.
4. Ghatak, S. (1986), *An Introduction to Development Economics*, Allen and Unwin, London.
5. Hayami Y & Godo Y (2005): *Development Economics: From the poverty to the Wealth of Nations*, Third edition, Oxford University Press. New Delhi
6. Hogendorn, J. (1996), *Economic Development*, Addison, Wesley, New York.
7. Jan Nederveen Pieterse (2010) *Development Theory, Deconstruction/Reconstruction*, Sage Publication India Pvt Ltd, New Delhi
8. John Ram Rapley (2007) “*Understanding Development: Theory and Practice in the third World*, Lynne Rienner Publishers, London
9. Kahkonon, S. and M. Olson (2000), *A New Institutional Approach to Economic Development*, Vistaar.
10. Meier, G.M. (1995), *Leading Issues in Economic Development*, (6th Edition), Oxford University Press, New Delhi.
11. Mukherjee A & Chakraborty S (2016) *Development Economics: A Critical Perspectives*, PHI Learning Private Ltd. New Delhi
12. Mukherjee Sampat (2015) *Contemporary Development Economics*, New Central Book Agency (P) Ltd, Kolkata. India
13. Ray Debraj (1998) *Development Economics*, Oxford University Press. New Delhi. 1st Indian Edition.
14. Richard Peet and Elaine Hartwick (2015) *Theories of Development: Contentions, Arguments and alternatives*, The Guilford Press, New York
15. Sen, Amartya (1999) *Development as Freedom*. New York: Anchor Books.
16. Tambi, E.; Aromolaran, A.; Odularu, G; and Oyeleye, B., (2014). *Food sovereignty and food security: Where does Africa stand?* Forum for Agricultural Research in Africa (FARA), Accra, Ghana.)
17. Thirwal A.P (2006) “ *Growth and development with special reference to developing countries*, Eighth Edition, Palgrave Macmillan , New York
18. Todaro P.M & Smith S.C (2003) *Economic Development*, 8th Edition, Pearson Education, New Delhi.

SEMESTER-III**Course Code: ECOPG3201 Statistical Methods for Economics 4 Credits****Module 1: Random Variables and Probability Distributions**

Random variables, Density function, Joint Density Function, Expectation and Variance of Random Variables. Discrete Distributions: Properties (Mean and Variance) of Binomial, Poisson - their applications Continuous Distributions: Properties (Mean and Variance) Uniform, Normal and Exponential- their applications, Normal Distribution as limiting forms of Binomial Distributions; Importance of the Normal Distribution in Statistics

Module 2: Sampling Theory and Sampling Distributions

Sampling Techniques, Random Sampling, Sampling Distribution of an Estimator. Sampling distributions– standard error and its uses – Distribution of sample mean, chi-square, t, F distributions–uses of these sampling distributions.

Module 3: Estimation

Parameter estimation – point and interval estimation; Properties of estimators; Methods of estimation: least square method, method of moments and maximum likelihood.

Module 4: Tests of Significance

Simple and composite hypothesis - null and alternative hypothesis - Type I and Type II errors, significance level and power, concept of P value in testing, parametric and nonparametric methods of testing.

Readings:

1. Lind A Douglas, Marchal G William and Wathen A Samuel: Basic Statistics for Business and Economics, 5th Edition, McGraw Hill International Edn
2. Mendenhall William., Beaver J Robert and Beaver M Barbara: Introduction to Probability and Statistics, 12th Edition, Thomson Brooks/Cole Publishers
3. Gupta S C and Kapoor V K: Fundamentals of Mathematical Statistics, 11th Edition, Sultan Chand and sons, New Delhi
4. Ross S: A first course in Probability, 3rd edition, Mac Millan New York 1985

5. Hamilton, Lawrence C. (1990) Modern Data Analysis: A First Course in Applied Statistics, Brooks/Cole, California.
6. Marsh, Catherine (2009) Exploring Data: An Introduction to Data Analysis for Social Scientists, Polity Press, UK, Second Edition
7. De Groot, Morris H. and Schervish, Mark J.: Probability and Statistics
8. R.V. Hogg. and A.T. Craig , An Introduction to Mathematical Statistics, Third Edition, Amerind, New York, London
9. Richard J. Larsen and Morris L. Marx, an Introduction to Mathematical Statistics and its Applications, Prentice Hall, 2011.
10. John E. Freund, Mathematical Statistics, Prentice Hall, 1992.

Module 1. Trade as an engine of growth; Thesis of Secular Deterioration of Terms of Trade (Prebisch-Singer Thesis) its empirical relevance and policy implication for LDCs.

Module 2. Economic Growth and the International Trade; Growth in Labor and Capital Accumulation over time; the Rybczynski Theorem; Different types of technical progress and the shape of the National Production Frontier; Impact of Growth on both small and large country; Immiserizing Growth; Trade under Imperfectly Competitive Market.

Module 3. Adjustments in Balance of Payments:

Measures to correct disequilibrium in the balance of payments, adjustments in the balance of payments under fixed and flexible exchange rates, cases for and against fixed exchange rate and flexible exchange rate, fixed versus flexible exchange rate, elasticity approach and absorption approach

Module 4. Monetary and Portfolio Balanced Approach to the balance of payments:

The Monetary Approach to Balance of Payments (MABP), The Monetary Approach to Exchange Rate (MAER), The Portfolio Balance Approach to Exchange Rate (PBAER), monetary and fiscal policies under fixed exchange rate system: Mundell-Fleming Model, Mundell-Fleming Model in terms of IS, LM and External balance. Stabilization by monetary and Fiscal policies under fixed exchange rate system.

Module 5. Optimum Currency Areas:

Economic Integration and The Benefits of a Fixed Exchange Rate Area; Economic Integration and the Cost of a Fixed Exchange Rate Area; The rationale behind the decision to join a Currency Area; European Economic and Monetary Union.

Readings:

1. Bhagwati, J. (Ed) (1981), "International Trade", Selected Readings, Cambridge University Press, Massachusetts.
2. Salvatore, D. (1997), "International Economics", Prentice Hall, N.J. New York.
3. Soderston, B.O. (1991), "International Economics," Macmillan Press Ltd, London.
4. Appleyard, D.R and Alfred J. Field Jr. (1998): *International Economics*, Irwin-McGraw Hill.
5. Kindleberger, C.P (1973): *International Economics*. R. D Irwin, Homewood.

Module I: Introduction to Research Methodology in Economics

Meaning and Objective of Social Science research, Scope of Research in Economics, Methodology of Economic Research: Descriptive, Analytical, Fundamental, Quantitative & Qualitative approaches. Concept of theory, empiricism, deductive and inductive theory. Steps of Scientific Method.

Module 2: Steps in research process and sampling method

Planning and designing an empirical research study, Selection of the topic, Role of literature review and identification of research problems. Formulating and clarifying research questions/hypotheses. Choosing variables to study. Different research designs for exploratory, descriptive and experimental research and case study, Model building. Surveys and Sampling techniques, sampling frame and the power of research.

Module 3: Techniques and Method of data Collection and data Analysis

Types of data. Method of collecting primary data: Observation, interview, schedules and questionnaires, case-study. Sources of secondary data. Processing of data: Editing, coding, preparation of a statistical table, measurement and scaling. Statistical techniques for data analysis: Univariate, bivariate and multivariate techniques: Descriptive Statistics, measures of Dispersion, Variability, Skewness, Normal Distribution, ANOVA & ANCOVA, Correlation & Regression techniques. Interpreting data and drawing inferences.

Module 4: Formulating and Testing statistical hypotheses

Formulating and testing statistical hypotheses, Estimation of parameter. Prerequisites for testing of hypotheses. Procedures for hypothesis testing, measuring the power of a hypothesis, Types of testing hypothesis: Parametric & Non-parametric test. Selection of right statistical test for data interpretation: Chi-Square test (non parametric), t test, Z test (Parametric). Types of errors in testing hypothesis and selection of a level of significance.

Module 5: Qualitative Research Method and data analysis

Nature of qualitative research, Qualitative research designs: Phenomenology, Ethnography, grounded theory, & case study. Methods of collecting qualitative data: Individuals interviews, Focus group discussion, observation. Handling and analyzing qualitative data: Content analysis.

Module 6: Application of research methods in programme evaluation

Introduction to Programme evaluation: The Counterfactual Framework & the Problem of Causality, Matching Estimator, Difference-in-Difference Estimator, Randomized control trial,

experimental & quasi-experimental study design, pre-post study and case-control study. Theory of change in programme evaluation. Writing of Research Proposal/Reports.

Readings

1. Baily K.D. (1982), *Methods of Social Research*, Free press Publications, New York.
2. Blaug Mark(1992): *The Methodology of Economics*, Second Edition, Cambridge University
3. Bruce, B. and Howard, L. (2014). *Qualitative Research Methods for the social sciences*, London: Pearson.
4. C.R. Kothari (2009): *Research Methodology: Methods & Techniques*, New Age International Publishers, New Delhi.
5. Chandrasekhar, R (2002) “How to write a thesis: a working guide”, available at <http://ciips.ee.uwa.edu.au/pub/HowToWriteAThesis.pdf>.
6. Ethridge, D.E (2004), *Research methodology in Applied Economics*, Blackwell
7. Flick, U. (2015). *Introducing research methodology: A beginner's guide to doing a research project*. Sage.
8. Gupta, S.L. and Gupta, H. (2011). *Research Methodology: Texts and Cases with SPSS*. Delhi: International Book House.
9. Guthrie, G.(2010). *Basic research methods: An entry to social science research*. SAGE Publications India.
10. Ghosh B.N.(1982) *Scientific Methods & Social Research*, Sterling Publishers Pvt. Ltd. New Delhi
11. Kenneth. D, and Bailey (1962), *Methods of Social Research*, Longman’s Green Co, New York.
12. Kumar, R. (1999), *Research Methodology: a Step-by-Step Guide for Beginners*, Sage publication.
13. Lal Das (2000), *Practice of Social Research*, Rawat Publication, New Delhi
14. Mukherji, Partha Nath.(2000) *Methodology in Social Research*, New Delhi: Sage Publication,
15. Newman, W. Lawrence (2000): *Social Research Methods: Qualitative and Quantitative Approaches*, Allyn & Bacon, 4th Edition
16. P Das & D. K. Lal (2000): *Practice of Social Research: Social work Perspective*, Rawat Publications.
17. Sjoberg, G., and Nett, R. (2014). *A methodology for social research*. Jaipur, Rawat Publications.
18. Thakur, Devendra., *Research Methodology in Social Science*, New Delhi: Deep and Deep
19. Trochim, William (2003), *The Research Methods Knowledge Base*, Atomicdog Publishing, Cornell University. Second Edition.
20. Veerachamy (2005), *Quantitative Methods for Economists*, New Age International Publishers, New Delhi
21. William Thomson, (2001), *A Guide for the Young Economist: Writing and Speaking Effectively about Economics*. Cambridge, MA: MIT.

Course Code: ECOPG3404 Economics of Gender and Development (DSE-1) 4 Credits

Module 1

Gender and Development: A Historical Overview---Institutionalization of WID: The UN, CEDAW, and the Equity Agenda---From WID to WAD to GAD---The Challenges from Postmodernism and Women of the Global South---Feminist Critiques of Neoliberal Policies---The Case of WDR 2012---The Capabilities Approach and Human Development---The Human Rights Approach: Economic and Social Rights

Module 2

The Study of Women and Gender in Economics---Gender and Economic Analysis: A History---Neoclassical Approach---Marxian Approach---Institutional Economics---Feminist Economics: A Critique of the Mainstream---Critique of Homo Economicus---The Rhetoric of Economics---What is Economics?---A Methodological Convergence---Gender as a Central Category of Economic Analysis---The Economy as Constituted by Provisioning Activities---Human Well-being as the Central Measure of Economic Success---Ethical Judgments are Integral to Economic Analysis---Gender Inequalities in Provisioning Activities---Wage Labor---Beyond Wage Labor---Asset Ownership, Credit, and Risk---The Dynamics of the Household---Macroeconomic Policies, Provisioning, and Well-being---Critique of Neoliberal Macroeconomic Policies---Alternative Macroeconomic Policies---Feminist Ecological Economics---Towards a More Inclusive Economics

Module 3

Markets, Globalization, and Gender---The Rise and Consolidation of Neoliberalism---Economics and the Davos Man---Commercialization and Financialization of Everyday Life---Contested Commodities and Outsourced Lives---Financialization of Lives---Concentration of Wealth, Inequality, and Vulnerability---Concentration of Wealth---Widening Income Inequalities---Global Feminization of Labor---Manufacturing---Agriculture---Services---Migration---Human Trafficking---Discrimination and Patterns of Women's Integration in Paid Employment---Feminization of Labor and the Dynamics of Gender Relations---Liberating Effect---Intensifying Effect---Reconstitution of Gender Inequalities

Module 4

Labor Markets under Globalization---Firm Restructuring and Labor Flexibility---Consequences of Labor Market Restructuring---Decline of Unions---Employment and Income Insecurity---Deterioration of Working Conditions---Rising Inequality and Social Polarization---Rising Informality---Poverty and Vulnerability---International Labor Standards: The Social Clause---ILO's Decent Work Agenda---Corporate Codes of Conduct and Ethical Trading Initiatives---Worker Organizations

Module 5

Paid and Unpaid Work: Meanings and Debates---Unpaid Work: Statistical Issues and Challenges---Subsistence Production---Informal Labor---Household Work---Volunteer Work---The Accounting Project: Making Women's Contributions More Visible---Why is it Important to Count?---Objections to the Accounting Project---Progress Towards Measurement and Valuation of Unpaid Work---Conceptualizing Work and the Economy---Theoretical Contributions---Measurement and Valuation Methods---What Difference Does Accounting Make?---Monitoring the Gendered Trends and Patterns of Unpaid Work---Enhancing Our Understanding of Poverty, Inequality, and Well-being

Module 6

Development as if All People Mattered---The Development Agenda---The Financial Crisis of 2007–08---Women's Empowerment as a Tool against Hunger---Gender Integration in Development---Looking Forward: There Are Alternatives---Building Bridges, Shaping Agendas for Change---Policies for Sustainable Economies---Global Governance Reforms--
-Change Requires Social Movements

Readings:

1. Gender, development, and globalization: economics as if all people mattered ; Lourdes Benería, Günseli Berik, and Maria Floro; published by Routledge
2. The International Handbook of Gender and Poverty Concepts, Research, Policy; Edited by Sylvia Chant; Edward Elgar Publishing, Inc.
3. Property rights and the gender distribution of wealth in Ecuador, Ghana and India; Carmen Diana Deere · Abena D.Oduro; Hema Swaminathan; Cheryl Doss; J Econ Inequal (2013)
4. Women, Gender and Everyday Social Transformation in India Edited by Kenneth Bo Nielsen and Anne Waldrop; Anthem Press 2014
5. Poor Economics

Module 1: Introduction to Demography and population studies

Definition, nature and scope of demography and human population studies. Theory of population in historical perspectives & its relationship with other disciplines. Malthusian & post Malthusian theories, Classical & neoclassical thoughts, Social & Economic theories of Population. Optimum population theory. Techniques of demographic analysis: demographic rates and ratios, Population estimation & Projections.

Module 2: Structure, Distribution and Density of population

Measures of population distribution and concentration, Factors affecting population distribution and density. Age-sex structure and population distribution, Population growth and Population Pyramid, Dynamics of age-sex structure of world population and India. Aging of population and its economic consequences. Changes in demographic structure & demographic dividend with special references to India.

Module 3: Fertility, Nuptiality and Mortality

Social and Economic theories of fertility, Fertility transition, Measuring & modelling in fertility process & determinants of fertility. Fertility level & differential in India and the World. Measures of nuptiality, Trends & pattern of marital status in India & the world. Basic measures of mortality and morbidity, Determinants and consequences of mortality and morbidity. Mortality level & differential. Life table and mortality estimates. Health transition and mortality patterns in developed and developing countries.

Module 4: Population and Economic Development

Linkage between population growth & economic development. Theory of demographic transition, the causes and consequences of high fertility in developing countries: the Malthusian thoughts & household models. Technological change & population growth. Cost & benefit of population growth, Population and the environment, Population & resources.

Module 5: Health and Population: Policies and programmes

Health, nutrition and food security. Population Policies in India. Concepts and measures of nutrition, health and disease burden. Economic evaluation of health care. Determinants of health and health inequality, Gender and reproductive health. Health care system and Policies in India. Interlinkage between health and development. Family welfare Programme.

Module 6: Migration and Urbanization

Concepts and measurement of migration, Migration theories. Causes & consequences of Migration. Factors affecting Labour force participation in India. Measurement of surplus

labour & underemployment in India. Migration & livelihood challenges in India. Theories of urbanization & urban agglomerations, Urbanization in India.

Module 7: Nature and Sources of demographic data

Population Census, Sample Registration System (SRS), Civil Registration System (CRS), National Sample Survey (NSSO), National Family Health Survey (NFHS), District Level Household and Facility Survey (DLHS), Health Management Information System (HMIS) and UNFPA.

Readings:

1. Agarwala, S.N. (1972): *India's Population Problem*, Tata-McGraw Hill, Bombay
2. Bhai, L. Thara, 2001. *Ageing: Indian Perspective*. New Delhi: Decent Books.
3. Bhende Asha A. and Tara Kanitkar, 2000. *Principles of Population Studies*. 9th edition. Mumbai: Himalaya Publishing House.
4. Bongaarts, J. (1978): "A Framework for Analyzing the Proximate Determinants of fertility", in *Population and Development Review*.
5. Coale, A.J. (1972): *The Growth and Structure of Human Populations*, Princeton University Press, NJ.
6. Cohen, Robin, (1996): *Theories of Migration, The International Library of Studies on Migration*, Edward Elgar, Cheltenham.
7. David E. Bloom, David Canning, Günther Fink (2011) *Implications of Population Aging for Economic Growth*, NBER Working Paper No. 16705, January.
8. David E. Bloom, David Canning, Jaypee Sevilla. 2003. *The Demographic Dividend: A New Perspective on the Economic Consequences of Population Change*. Santa Monica, CA: Rand Corporation
9. Ghosh, B.N (1993) *Population Economics*, Deep & Deep Publications. New Delhi.
10. Government of India (2006): *Population Projections for India and States, 2001-2026*. New Delhi: Office of the Registrar General.
11. International Organization for Migration (2019) *World Migration Report 2020*, IOM, Geneva.
12. Jacob S. Siegel and David Swanson (2004): *The Methods and Materials of Demography*, Second Edition. Academic Press.USA
13. John R. Weeks. 2015. *Population* (12th Edition). Belmont, CA: Wadsworth, Thompson.
14. Krishnaji, M., R.M.Sudarshan and A. Shariff (1999): *Gender Population and Development*, Oxford University Press, New Delhi

15. Learning, Inc. David E. Bloom, David Canning, Jaypee Sevilla. 2003. *The Demographic Dividend: A New Perspective on the Economic Consequences of Population Change*. Santa Monica, CA: Rand Corporation
16. Livi-Bacci, M. (2017). *A Concise History of World Population*. 6th ed. Wiley, Blackwell.
17. Mishra, B.D.(1981) *An Introduction to the Study of Population*, New Delhi: South Asian Publishers, Pvt. Ltd
18. Murray, C. J. L., (1994): *Quantifying the Burden of Disease: The Technical Basis for Disability Adjusted Life Years*, Bulletin of the WHO, Vol. 72(3), pp.429-445.
19. Pathak, K.B. and F.Ram (1998) *Techniques of Demographic Analysis*, Mumbai: Himalaya Publishing House,
20. Patrick Heuveline, Michel Guillot (2000) *Demography: Measuring and Modelling Population Processes*. Rutledge .USA
21. Peters, et.al (2002), *Better Health System for India's poor: Findings, Analysis and Options: The World bank*, New Delhi
22. Pollard, A.H., Yusuf, Farhat, and Pollard, G.N. (1990). *Demographic Techniques* (third edition). Sydney: Pergamon Press
23. Rowland, Donald,T. (2006) *Demographic methods and concepts*. New York: Oxford University Press.
24. Siegel, J and D.A. Swanson (2004). *The Methods and Materials of Demography* (Second Edition). Elsevier Academic Press, USA.
25. Smith, Robert et al., 1972. *Population Economics*. North Carolina: Duke University Press.
26. Spiegelnian, M. (1980): *Introduction to Demography*, Harvard University Press, and Cambridge, Mass.
27. Srinivasan, K., 1998. *Basic Demographic Techniques and Applications*. New Delhi: Sage Publications.
28. Srinivasan, L and A Shanff, (1998): *India towards Population and Demographic Goals* Oxford University Press, New Delhi.
29. Thiriwall, A.P. (2000): *Growth and Development*, Macmillan, London:
30. Todaro,M P & Smith S C (2003) *Economic Development*, Pearson Education, New Delhi. Eight Editions.
31. UNDP, *Human Development Report* (various years), OUP, Delhi
32. Weinstein J and Pillai VK (2015): *Demography, The Science of Population*, Rawat Publication, New Delhi, Second Edition.

Course Code: ECOPG4201 Environmental Economics 4 Credits**Module 1**

What Is Environmental Economics? --- Economic Analysis ---The Importance of Incentives ---Incentives: A Household Example ---Incentives and Global Warming --- Macroeconomic Questions: Environment and Growth ---Benefit–Cost Analysis ---Valuing the Environment---Environment and Development ---International Issues --- Globalization and the Environment---Economics and Politics

Module 2**The Economy and the Environment**

Natural Resource Economics ---The Fundamental Balance ---The Environment as an Economic and Social Asset--Basic Terminology--- Emissions, Ambient Quality, and Damage---Types of Pollutants---Cumulative Versus Noncumulative Pollutants--- Local Versus Regional and Global Pollutants ---Point-Source Versus Nonpoint-Source Pollutants ---Continuous Versus Episodic Emissions---Environmental Damages Not Related to Emissions

Module 3

Benefits and Costs, Supply and Demand---Willingness to Pay --- Demand---Aggregate Demand/Willingness to Pay--- Benefits---Cost---Opportunity Cost--Private and Social Costs---Technology---The Equimarginal Principle---Marginal Cost and Supply--- Markets, Externalities, and Public Goods---Economic Efficiency---Efficiency and Equity—Markets--Markets and Social Efficiency External Costs---Open-Access Resources---External Benefits--- Public Goods

Module 4

The Economics of Environmental Quality---Pollution Control—A General Model--- Pollution Damages---Damage Functions--- Marginal Damage Functions---Damages and Uncertainty---Damages and Time---Abatement Costs---Abatement Cost Functions--- Aggregate Marginal Abatement Costs---The Socially Efficient Level of Emissions--- Changes in the Efficient Level of Emissions---Enforcement Costs---The Equimarginal Principle Applied to Emission Reductions

Module 5

Frameworks of Analysis---Impact Analysis---Environmental Impact Analysis---Economic Impact Analysis---Regulatory Impact Analysis---Cost-Effectiveness Analysis---Damage Assessment---Green GDP---Benefit–Cost Analysis---The Basic Framework---Scope of the Program---Discounting---Choice of Discount Rate---Discounting and Future Generations - --Distributional Issues---Risk Analysis---Risk Assessment---Risk Valuation---Risk Management

Module 6

Benefit–Cost Analysis: Benefits---The Damage Function: Physical Aspects---Measuring Damage Costs Directly---Health Costs---The Effects of Pollution on Production Costs---Materials Damage---Problems with Direct Damage Approaches---Willingness to Pay: Estimating Methods---Willingness to Pay: Revealed Preference Methods---The Value of Human Health as Expressed in Averting Costs---The Value of Human Life as Expressed in Wage Rates---Valuing Children's Health---The Value of Environmental Quality as Expressed in House Prices---The Value of Environmental Quality and Intercity Wage Differentials---The Value of Environmental Quality as Expressed in Travel Cost---Willingness to Pay: Stated Preference Methods---Valuing an Environmental Amenity ---Valuing Health Outcomes---Problems of CV Analysis---Problems in Benefit Estimation ---Discounting---Willingness to Pay Versus Willingness to Accept---Nonuse Values

Readings:

1. Kolstad, Charles, 2011. "**Intermediate Environmental Economics: International Edition**," OUP Catalogue, Oxford University Press, edition 2,
2. Environmental Economics 7th Edition by Barry Field and Martha K Field
ISBN10: ~~013288~~
ISBN13: 9780078021893
3. **Environmental Economics: An Indian Perspective Paperback – 12 Jun 2002**
by Bhattacharya Rabindranath (Editor)

Module 1: Economic Growth and Structural change in India

Indian economic growth and structural changes in historical perspectives. Economic reforms after 1991: liberalization and privatization. Sectoral growth and performance, structural adjustment and productivity. Regional disparity in growth and issues related to the convergence debate.

Module 2: Issues in Agriculture, Industry and Services sector

Growth Performance of India's Agricultural sector, Land reform, Agricultural marketing, credit, finance and subsidy. New Agricultural Policies. Structural changes in Indian Industries since the reform period. Role of FDI in India's industrialization process. Growth and performance of MSMEs in India. Sources of Industrial finance. New Industrial Policies, Role of Services in India's growth process. FDI inflow in service sector. Disinvestment of PSUs.

Module 3: Financial Sector in India

Structure, performance and reform in Indian Financial sector. Indian banking, NBFIs, insurance, pension, and capital market. FDI inflows in Indian Financial sector. Financial Inclusion in India and PMJDY. Inflation in India. Monetary management of RBI, Multi indicator Approach vs Inflation Targeting Monetary Policy. Monetary Policy reforms and their implications.

Module 4: External Sector in India

India's trade policy. Merchandise trade performance and determinants, Dimensions of Services Trade, Capital Flows and their impact, BOP and issues related to Accumulation of Foreign Exchange Reserves, Remittances and Capital Account Convertibility. Foreign capital, Global Economic Crisis and its impact on Indian Economy. Current account deficit, EXIM policy and the Role of FDI in India's economic development.

Module-5: Poverty, Employment & Social Security

Regional and sectoral dimensions in employment, poverty and inequality, Indian labour markets reforms. Employment and livelihood security, Social protection for unorganized labours. Food Security, PDS & MGNREGA. Issues of human development in India.

Module-6: Issues in Indian Public Finance

Indian Tax structure, Tax system reform and tax policy in India, Tax and non-tax Revenue of the Union, States and local bodies. Public expenditure and deficit financing in India. Fiscal reforms and Emerging Issues in India's Fiscal Policy. Union Budget, Finance commission and federal fiscal transfer to Indian states, FRBM Act and fiscal prudence, Reform in state finances and Centre state financial relation, Issues relating to public debt in India. Perspectives on correcting fiscal imbalances in the Indian Economy.

Readings:

1. Acharya, Sankar and Rakesh Mohan (eds.) (2010), *India's Economy: Performance and Challenges*, OUP, New Delhi. •
2. Ahluwalia, M S, S S Tarapore and Y V Reddy (eds.) (2004), *Macroeconomics and Monetary Policy*, OUP, New Delhi.
3. Amit Bhaduri and Deepak Nayyar (1994): *The Intelligent Persons Guide to Liberalization*, Penguin India
4. Angus Deaton & Valerie Kozel (2005): *Data and Dogma: The Great Indian Poverty Debate*, Oxford University Press.
5. Ashima Goyal, (2014). *Handbook of the Indian Economy in the 21st Century - Understanding the Inherent Dynamism*, Oxford University Press, India
6. B A Prakash (ed) (2012) *The Indian Economy Since 1991: Economic Reforms and Performance*, Pearson, New Delhi
7. Balakrishnan, P (2010), *Economic Growth in India*, OUP, New Delhi. •
8. Bardhan, P.K. (9th Edition) (1999), *The Political Economy of Development in India*, Oxford University Press, New Delhi.
9. Basu, K (ed.) (2005), *India's Emerging Economy*, OUP, New Delhi.
10. Bhagwati Jagdish and Arvind Panagariya (2013): *Why Growth Matters: How Economic Growth in India Reduced Poverty and the Lessons for Other Developing Countries*, Public Affairs.
11. Bhalla, G.S. (2007): *Indian Agriculture since Independence*, New Delhi: National Book Trust.
12. Bhaumik, S K (ed.) (2008), *Reforming Indian Agriculture: Towards Employment Generation and Poverty Reduction*, Sage Publications, New Delhi.
13. Chakravarty, R (2006), *The Financial Sector in India*, OUP, New Delhi.
14. Chakravarty, S. (1987): *Development Planning: The Indian Experience*, OUP, New Delhi
15. Drèze J. and A.K. Sen (2013), *Uncertain Glory: India and Its Contradictions* by, Princeton University Press.
16. Dutt Rudder and K.P.M Sunderam (2019): *Indian Economy*, S Chand & Co. Ltd. New Delhi.
17. Himanshu & Sen (2014) *Revisiting the Great Indian Poverty Debate: Measurement, Patterns, and Determinants* in Himanshu, Kunal Sen, Brooks World Poverty Institute, The University of Manchester, 2014
18. J K Mishra and V K Puri (2019): *Indian Economy: The Development Experience*, Himalaya Publishing House, Mumbai
19. J. A. Hanson and S. Kathuria (eds.). (2002) *India: A Financial Sector for the Twenty-first Century*. New Delhi: OUP.

20. K. Pushpangadan and N. Shanta .(2009) *The Dynamics of Competition: Understanding India's Manufacturing Sector*, New Delhi: OUP
21. Kapila, Uma (2019): *Indian Economy: Performance and Policies: 2015-16*, Academic Foundation.
22. Kapila, Uma (Ed) (2018): *Indian Economy since Independence*, Academic Foundation, Delhi.
23. M. S. Ahluwalia, S.S. Tarapore and Y. V. Reddy. (eds.).(2004) *Macroeconomics and Monetary Policy*, New Delhi: OUP.
24. Mahendra Dev, S (2008), *Inclusive Growth in India*, Oxford University Press, New Delhi. India Development Report, Various years, OUP, New Delhi.
25. Nagaraj R (Ed) (2012): *Growth, Inequality and Social Development in India: Is Inclusive Growth Possible?*, London, Palgrave Macmillan
26. P. Balakrishnan.(2010) *Economic Growth in India*, New Delhi: OUP.
27. Panagariya Arvind (2008): *India: The Emerging Giant*, Oxford University Press. New Delhi
28. R Mohan (ed).(2002) *Facets of the India Economy*, New Delhi: OUP.
29. Rakshit, M (2008a), *Macroeconomics of Post-Reforms India*, OUP, New Delhi.
30. Rakshit, M (2008b), *Money and Finance in the Indian Economy*, OUP, New Delhi.
31. Reddy, Y V (2004) *Lectures on Economic and Financial Sector Reforms in India*, OUP, New Delhi.
32. Sebak K. Jana and Asim K. Karmakar (ed).(2015) *Financial Sector Liberalization in India: Theory and Empirics*, Regal Publications, New Delhi.
33. Srivastava, D.K. (2005): *Issues in Indian Public Finance* New Century Publications, Delhi
34. Tendulkar, S.D and T.A. Bhavani (2007): *Understanding Reforms- Post 1991 India*, OUP.
35. V. Joshi and I. M. D. (1994): *Little. India: Macroeconomics and Political Economy, 1964-1991*. New Delhi: OUP,
36. Vaidyanathan, A. (2010): *Agricultural growth in India: Role of technology, incentives and institutions*, Oxford University Press. New Delhi
37. Y.V. Reddy (2004) *Lectures on Economic and Financial Sector Reforms in India*, Oxford University Press, New Delhi.

Course code- ECOPG4203

Dissertation

4 Credits

Module-1: Concepts of Growth and Development

Meaning of Economic Growth and Development; Measuring economic development– Income measures, Basic Needs Approach, PQLI and Human Development Index; Capability Approach, Development and Freedom. Sustainable development: Theoretical and Empirical relationships between Economic Growth and Environmental Quality.

Module-2: Theories of Development

Classical theories of Development: Views of Adam Smith, David Ricardo, Thomas Malthus, J.S. Mills and Karl Marx, Schumpeter and the Capitalistic Development; Big push theory, Low level equilibrium trap theory; Balanced and unbalanced growth theory, Myrdal's Cumulative Causation theory; Theory of dualism-Lewis Model, Ranis-Fei Model and Harris-Todaro model.

Module-3: Theories of Economic Growth

Importance and Sources of Economic Growth, Harrod-Domer growth model and the dynamic instability; Neo-classical growth model of Solow; Population Growth and Technological progress in the Solow Model; The Convergence Hypothesis, The Simple Endogenous Growth Theory: The AK Model with Human Capital.

Readings:

1. Adelman, Irma (1961): *Theories of Economics Growth and Development*, Stanford University Press, Stanford.
2. Higgins, B. (1959): *Economic Development*, W.W. Norton, New Delhi.
3. Todaro, Michael P. and Stephen C. Smith (1996): *Economic Development*, Pearson Education Pvt. Ltd., New Delhi.
4. Hayami, Y. and Yoshihisa Godo (2009): *Development Economics–from Poverty to the Wealth of Nations*, Oxford University Press, New Delhi.
5. Ray, Debraj (2003): *Development Economics*, Oxford University Press, New Delhi.
6. Meier, M. Gerald and James E. Rauch (2000): *Leading issues in Economic Development*, Oxford University Press: New Delhi.
7. Sen, Amartya (2001): *Development as Freedom*, Oxford University Press, New Delhi

8. Dreze, Jean and Amartya Sen (2005): *India– Development and participation*, OUP, New Delhi
9. Ghatak, Subrata (1986): *An Introduction to Development Economics*, Rutledge, UK.
10. Kindleberger, C. P. (1977): *Economic Development*, McGraw Hill.
11. Bardhan, Pranab and Christopher Udry (1999): *Development Microeconomics*, Oxford University Press.
12. Lucas, Robert, E., Jr (2002): *Lectures on Economic Growth*, Oxford University Press.
13. Mankiw, N. Gregory, David Romer, and David N. Weil (1992): “A contribution to the Empirics of Economic Growth,” *Quarterly Journal of Economics*.
14. Thirwall, A. P (1999): *Growth and Development*, Macmillan Press Ltd, London.
15. Sen, Amartya (1985): *Commodities and Capabilities*, Oxford University Press.
16. Solow, Robert M. (2000): *Growth Theory: An Exposition*, Oxford University Press.
16. Stiglitz, J. E. and H. Uzawa (ed.)(1969): *Readings in Modern Theory of Economic Growth*, MIT Press

Module-1. Simple and Multiple Regression Model:

Assumptions about Disturbances (u), Methods of Least Squares Estimation, Gauss-Markov Theorem, The Matrix Approach - Var-Covariance Matrix of u , Properties of Least Square Estimators, Testing for the Significance of Individual Regression Coefficients Violation of assumptions of disturbance term (U). Maximum likelihood method.

Module-2. Errors in Variables:

Errors in Equation and Errors in variables, Consequences of the Properties of Least Square Estimators, Errors of Measurement in the Explanatory Variables and Consequences of the Properties of Least Square Estimators, Alternative Methods of Estimation.

Module-3. Problem of Heteroscedasticity:

The problem stated, illustrations of the problem, Plausibility of the Assumption, Consequences of Heteroscedasticity, Detection of Heteroscedasticity, and Iterative Methods of Estimation.

Module-4. Problem of Autocorrelation

Autocorrelation, The Assumption of Serial Independence, Sources of Autocorrelation, Plausibility of The Assumption, The First-Order Autoregressive Scheme, Consequences of Auto-correlation, Detection of Auto-correlation, Alternative Methods of Estimation.

Module-5. Multicollinearity

Introduction, The Assumption of Non-multicollinear Regressors, Plausibility of the Assumption, Consequences of Multicollinearity, Tests for the presence of Multicollinearity.

Module-6. Autoregressive and Distributional Lag Models

Autoregressive linear model, Distributed lag model, The Koyck Approach to Distributive Lag Models, Rationalization of the Koyck Model-The Adaptive Expectation Model, The Stock Adjustment or Partial Adjustment Model, Combination of Adaptive Expectations and Partial Adjustment Models, Estimation of Autoregressive Model, Almon scheme.

Readings:

1. Goon, Gupta, Dasgupta (2008) *Fundamental of Statistics .Vol. I*. World Press Private Ltd. Kolkata
2. Gujarati, D.N. (2003): *Basic Econometrics (4/e)*, McGraw-Hill International Edition, New York.
3. Wooldridge, Jeffrey, M. (2006): *Introductory Econometrics: A Modern Approach (3/e)*, Thomson South-Western.
4. Johnston,J (1992): *Econometric Methods(4/e)*, McGraw Hill.
5. Maddala, G.S. (1989): *Econometrics*, McGraw Hill, New York.
6. Koutsoyannis, A. (1990): *Theory of Econometrics*, London, Macmillan.
7. Wannacot, R.J. & T.H Wonnacott(1970): *Econometrics*, Wiley.
8. Klein, L.R. (1953): *A Text Book of Econometrics*, Row Peterson
9. Goldberger, A.S. (1984): *Econometric Theory*, Wiley.
10. Pindyck, R.S. & Rubinfeld D.S. (1997): *Econometric Methods and Econometric Forecasts (4/e)*, Irwin-McGraw Hill.
11. Wannacot, R.J. & T.H Wonnacott (1970): *Econometrics*, Wiley.