

Banaras Hindu University
Faculty of Social Sciences
Department of Economics

Masters of Arts (Economics)

(In force from Session 2021-22)

**Revised & Updated Ordinance, Course
Structure & Curriculum**

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BANARAS HINDU UNIVERSITY
Faculty of Social Sciences
DEPARTMENT OF ECONOMICS

SYLLABUS — MASTER OF ARTS (ECONOMICS)
IN FORCE FROM SESSION 2021-22

Objectives

1. Training Students in basic economic theory and techniques of economic analysis.
2. Generalized training with more intensive specialization in selected area
3. Enabling students to analyse economic issues and find solutions to complex economic problems and take correct economic judgment.
4. Keeping tact with the latest development in the dynamic field of economic science.

Outcome

After Successful completion of the course the taught —

- would be able to find a rewarding job in the organized job market in the private and the public sector.
- would be able to start his/her own business like setting up his/her own concerns or taking up consultancy services
- would be able to undertake quality research for himself/herself/ the organization he/she decides to serve
- would be better equipped in policy formulation and economic administration.

Structure

M.A. will be a 64 credit Course. Total Number of Courses spread over 4 Semesters in the MA Course will be – 20. These Courses are divided into four broad categories- Core or Compulsory Courses (3 Credits each), Electives (3 credits each), Specialization Courses (4 credits each) and Field/Project Work/Dissertation (4 credits). The number of these Courses is as follows:

Sl. No.	Type of Course	Number of Credits Per Course	Total Number of Course of the type	Total Credits for the Particular Type
1	Core/Compulsory Courses	3	12	36
2	Electives	3	4	12
3	Specialization	4	3	12
4	Project/Field Work/ Dissertation	4	1	4

The Semester wise breakup of the Courses is given below:

Semester-wise Details of Core, Elective & Specialization Courses

Type of Courses	Semester I	Semester II	Semester III	Semester IV	TOTAL
Core/Compulsory	05	05	01	01	12
Specialization	00	00	02	01	03
Project/Field Work/ Dissertation	00	00	00	01	01
Electives	00	00	02	02	04
TOTAL	05	05	05	05	20

Course	Semester-I Core Courses-05	Course	Semester-II Core Courses-05
ECM-101	Microeconomics	ECM-201	Public Economics & Policy
ECM-102	Macroeconomics	ECM-202	Social Sector & Environment
ECM-103	Quantitative Methods	ECM-203	Development Economics
ECM-104	Statistics	ECM-204	Dynamic Macroeconomics
ECM-105	International Economics	ECM-205	Introductory Econometrics

Course	Semester-III Core Course - 01 Specialization - 02 Electives – 02	Course	Semester-IV Core Course - 01 Specialization- 01 Electives-02 Field Work/Dissertation & Viva- Voce – 01
ECM-301	Research Methodology & Computer Applications in Economics	ECM-401	Indian Economy
ECM-302	Elective – I Paper—I	ECM-402	Elective – I Paper--II
ECM-303	Elective – II Paper—I	ECM-403	Elective – II Paper--II
ECM-304	Specialization - Paper I	ECM-404	Specialization- Paper -III
ECM-305	Specialization- Paper -II	ECM-405	Field Work/Dissertation & Viva- Voce

A brief description of the Core/Compulsory, Elective and Specialisation Courses is given below:

Core/Compulsory Courses

Core/ Compulsory Courses will be mandatory for all the students. There will be 12 (Twelve) Core Courses in all. Out of these 5 (five) Courses each would be taught in Sem-I & Sem-II, while 1 (one) Course each would be taught in Sem-III & Sem-IV, mentioned as above.

Electives Offered -The Department offers a number of courses as electives for MA Economics Students. The Electives shall be offered in pairs only. Hence if a student for example chooses as elective Paper-XIII Semester-III Agricultural Economics-I then in

Paper-XVIII in Semester-IV, he has to choose Agricultural Economics-II only. **A student shall have to choose two pairs of electives from the list of electives given below-**

Electives Offered by the Department for MA (Economics) Students

Course	Elective Paper-I	Course	Elective Paper-II
ECM-303 A	Applied Microeconomics	ECM-403 A	Applied Macroeconomics
ECM-303 B	Agricultural Economics-I	ECM-403 B	Agricultural Economics-II
ECM-303 C	Health Economics-I	ECM-403 C	Health Economics-II
ECM-303 D	Gender Economics-I	ECM-403 D	Gender Economics-II
ECM-303 E	Financial Institutions & Market -I	ECM-403 E	Financial Institutions & Market -II
ECM-303 F	Economics of Infrastructure-I	ECM-403 F	Economics of Infrastructure-II
ECM-303 G	Institutional Economics-I	ECM-403 G	Institutional Economics-II
ECM-303 H	Indian Public Finance-I	ECM-403 H	Indian Public Finance-II
ECM-303 I	Behavioural Economics-I	ECM-403 I	Behavioural Economics-II

Specialisation Courses

Students would be required to choose any one of the 8 (eight) areas of Specialisation offered by the Department. There would be 3 (three) Courses of specialisation in all. Out of these, two Courses of the specialisation would be taught in Sem-III as Course- XIV & Course-XV. The remaining Course would be taught in Sem-IV as Course-XIX. As already mentioned, the Specialisation Courses would be of 4 credits each. Out of a total contact 60 contact hours (which are required for a 4-credit course), 45 would be devoted to lectures and remaining 15 to tutorials. In order to facilitate more intensive student- teacher interaction in the area of specialisation of the students’ tutorials would be organised accounting for a total of 15 contact hours.

Specialization Offered for MA (Economics) Students

	Specialization		Specialization
A.	Development Economics ECM-304A-Development Economics-I ECM-305A-Development Economics-II ECM-404A-Development Economics-III	E.	Industrial Economics ECM-304E-Industrial Structure & Organization ECM-305E-Principles & Practices of Management ECM-404E-Marketing Dynamics
B	Econometrics ECM-304B- Econometrics of Panel Data ECM-304B-Time Series Econometrics ECM-404B-Non-Linear Econometrics	F.	International Business ECM-304F-International Business-I ECM-305F-International Business-II ECM-404F-International Business-III
C.	Resource & Environmental Economics ECM-304C-Fundamentals of Environmental Economics ECM-305C-Natural Resource Economics ECM-404C-Environmental Problems & Policy Issues	G.	Labour Economics ECM-304G-Economics of Labour ECM-305G-Industrial Relations & Social Security ECM-404G-Indian Labour Problem

	Specialization		Specialization
D.	Population Studies ECM-304D-Population Studies-I ECM-305D-Population Studies-II ECM-404D-Population Studies-III	H	Regional Economics ECM-304H-Regional Economics-I ECM-305H- Regional Economics-II ECM-404H- Regional Economics-III

Fieldwork/Project Work/Dissertation

The MA students in the final semester would be required to do project work/field work/dissertation. The project work is to be related to the specialization area chosen by the student. For example, a student who has chosen Labour Economics as specialization will have to do a project/field work related to Labour economics and submit a dissertation. Dissertation would be based on the field work conducted by the student and would be evaluated by Internal Examiners appointed by the Department for marks of 60 (Sixty). Remaining 40(Forty) marks would be for Viva-Voce that will be conducted by the Department as per the rules and regulations of the University. 50% in the viva would be given to the field work done by the candidate and 50% on the dissertation submitted.



Master of Arts (Economics)
Semester-wise Syllabi
Semester-I

Course	Semester-I Core Courses-05	Credit
ECM-101	Microeconomics	3
ECM-102	Macroeconomics	3
ECM-103	Quantitative Methods	3
ECM-104	Statistics	3
ECM-105	International Economics	3

Semester-I Core Paper
ECM-101: Microeconomics

Theory of Consumer Behaviour: The duality approach in demand theory : Preferences and utility: Axioms of utility function, Comparative statics, relationships between utility maximization (primal) and expenditure minimization (dual), consumer's indirect utility and expenditure functions, uncompensated and compensated demand curves for normal goods, relationship between uncompensated and compensated (Hicks and Slutsky) demand curves, duality between direct and indirect utility functions, with examples from C-D, CES and VES utility function.

Slutsky's approach of decomposition of price effect into substitution effect and income effect for normal goods, Economic interpretation of the Slutsky equation Compensating Variation & Equivalent variation Principle. Revealed Preference Theory. Consumer's choices under risk and uncertainty: The Neumann-Morgenstern Method; Network externalities: Positive and negative network externalities, Bandwagon, Snob and Veblen effects Illustration and comparison. (16 Lectures)

Theory of Production & Alternative Theories of the Firm: Introduction of Profit Maximization (primal) and Cost Minimization (dual) problem, Cost minimisation with multiple plants, Linearly Homogeneous Production Function Properties, Elasticity of Input Substitution, Ridge Lines, Expansion Path and Homothetic production Function,

Alternative theories of the firm managerial theory of the firm: Baumol's Theory of Sales Revenue Maximisation, effect of changes in overhead costs on price and output; Behavioural theories of the firm: Cyert and March model; Full cost pricing principle; Bains Limit Pricing Principle.

The Economics of Information Perfect information and first best economy, complete contracts, market response to Informational asymmetries and incomplete contracts, moral hazard and principal agent problem, Signalling and screening, Spence's labour market signalling model. (12 Lectures)

Suggested Readings:

1. Varian, Hal R. (1992), Microeconomic Analysis, W. W. Norton & Company 3rd edition
2. Nicalson & Snyder (2012), Microeconomics theory: Basic principles and extensions, 11th edition,
3. Andreu Mas-Colell Michael D. Whinston & Jerry R. Green (1995): Microeconomics theory, Oxford University Press, New York
4. David M. Kreps (1990), A course in Microeconomics theory, Princeton University Press
5. Geoffrey A. Jehle, Philip J. Reny (2011), Advance Microeconomics theory, Prentice Hall 3rd edition,
6. Hugh Gravelly & Ray Rees (2004): Microeconomics, Prentice Hall, 3rd edition,
7. Koutsoyiannis, A. (1975). *Modern microeconomics*. Springer.
8. Pindyck, R. S., Rubinfeld, D. L., & Mehta, P. L. (1995). *Microeconomics* (Vol. 4). Englewood Cliffs, NJ: Prentice Hall.
9. Henderson, James M. & Quandt, Richard E (1980): Microeconomic Theory: A Mathematical Approach, McGraw-Hill, 1st Edition,
10. Choudhury Kalyanjit, (2004), Modern Microeconomics, Pragati Publication, Part-1 & 2

Semester-I Core Paper
ECM-102: Macroeconomics

Money & Inflation: - Post Keynesian Theories of Demand for Money-Baumol, Tobin and Patinkin-An Overview, Friedman and the Modern Quantity, Theories of Inflation-Structural and Monetarist Approaches; Phillips Curve Controversy, The Natural Rate of Unemployment Hypothesis-Adaptive Expectation and Rational Expectation models, NRU and full employment, NRU and NAIRU, Understanding Inflation in India. (14 Lectures)

New-Classical Model of Macroeconomics: Models of Income and Employment Determination: An Overview, New Classical Macroeconomics, The Real Business Cycle Theory –The Model of Kydland and Prescott, Understanding Recent Economic Crises. (10 Lectures)

New-Keynesian Model of Macroeconomics: -Wage and Price Stickiness- Normal Rigidities-Wage Contract Models, Real Rigidities- Search Models-An Elementary Treatment, Staggered Price Adjustment Model-Menu Cost Argument, Sources of Rigidity-Imperfect Information & Coordination Failure. (10 Lectures)

Inter-temporal Decision Making: - Introduction to Infinite Time Horizon Model- Ramsey and after, Overlapping Generation Model- OLG with production: dynamic inefficiency and altruism. Social Security models under OLG. (8 Lectures)

Macro Policy- Coordination of Fiscal and Monetary Policy, Rules versus Discretion, Monetary Transmission Mechanism and Targeting. (3 Lectures)

Suggested Readings:

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1. Frisch, H: Theories of Inflation, Cambridge University Press
2. Dornbusch, Fischer & Startz, Macroeconomics, Tata McGraw-Hill Publishing Co. Ltd.
3. Olivera, J.H., "On Structural Inflation and Latin American Structuralism" Oxford Economic Courses, Nov.1964
4. Snowdown Brian and Richard Vane, 'Modern Macroeconomics' Edward Elgar Publishing House
5. Shapiro, Edward., Macroeconomic Analysis, Golgotia Publications Pvt.Ltd., New Delhi
6. Blanchard Olivier & Fischer Stanley. Lectures on Macroeconomics. Cambridge: MIT Press,
7. Mankiw, G & Romer D, "New Keynesian Economics" Vol-1 & 2 The MIT Press
8. Lewis M. K. and P.D.Mizen (2000) Monetary Economics, , 1st Edition, Oxford
9. Thorn, R.S. Edited (1976), "Monetary Theory and Policy" Praeger Publishers, New York
10. Levacic, R. and A. Rebman: Macroeconomics: An Introduction to Keynesian and Neo-Classical Controversies.

Semester-I Core Paper **ECM-103: Quantitative Methods**

Classical Optimization

Unconstrained Optimization - global and local extrema of real-valued functions, necessary and sufficient conditions for the extrema values of functions of one variable, of several variables; Hessian determinant, optima of convex and concave functions; some economic examples.

Optimization subject to equality constraints: The Lagrange Multiplier method; Necessary and Sufficient conditions, properties of convex and concave functions in this context, Quasi Convexity and Concavity. Interpretation of Lagrangian Multiplier. Some economic application examples. (13 Lectures)

Differential Equations & Difference Equations -First order differential equations, -Second Order Differential Equation, Non-linear differential equations, Differential equations application in Economics,

First Order Difference Equations, Second-order Difference Equations, Non-linear Difference Equations, Difference Equations in Economics,

Simultaneous Differential and Difference equations. Applications in trade cycle models, Growth models and lagged market equilibrium models. (10 Lectures)

Game Theory -Rules of the Game, The Extensive and Strategic form of Games. Solutions: Dominant Strategy, Dominance Solvability, Nash Equilibrium. Applications: Cournot Duopoly, Stackelberg model, The commons problem; Mixed strategies and their applications: Natural Monopoly and Bankruptcy Law, Zero-sum games, Playing safe:

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Maximin, Playing sound: Minimax, Playing both safe and sound: Playing Nash.
(12 Lectures)

Matrix and Determinant & Input-Output Analysis-Recap of Matrix & Determinants, Differentiation of Matrix, Positive/negative/semi-definite matrices.

Static Open model, Hawkins-Simon Theorem, A linear Programming Interpretation, Theorem on non-substitution: Samuelson's version, Leontief's dynamic input-output system: Causal Indeterminacy in dynamic model. (10 Lectures)

Essential Readings:

1. Chiang, Alpha C. and Kevin Wainwright (2005): *Fundamental Methods of Mathematical Economics*, 4/E, McGraw-Hill
2. Dutta Prajit K *Strategies and Games: Theory and Practice*. [MIT Press](#).
3. Sydsaeter, K. & Hammond, P. (2016). *Mathematics for Economic Analysis*. New Delhi: Pearson Education Inc.
4. Dowling, E. T. (2012). *Schaum's Outlines-Introduction to Mathematical Economics*. (3rd ed.). New York: McGraw Hill.

Suggested Reading -

1. Simon, C. P., & Blume, L. (1994). *Mathematics for economists* (Vol. 7). New York: Norton.
2. Bradley, T. (2013). *Essential Mathematics for Economics and Business*. United Kingdom: John Wiley & Sons.
3. Rosser, M. (2003). *Basic Mathematics for Economists*. (2nd ed.). New York: Routledge.
4. Renshaw, G. (2011). *Maths for Economics*. (4th ed.). Oxford. Oxford University Press.

Semester-I Core Paper

ECM-104: Statistics

A review of One Sample Statistics: Moments: Correlations (Simple, Multiple and Partial) and Regression Analysis. (5 Lectures)

Probability: concept, measures and Algebra; objective probability theorems, Subjective probability: Bayes Theorem; Random variables and Expectation, probability Mass/density function. Expectation, Multiple random variables, Bi- Variate, marginal and conditional distribution, Convergence in Probability, Concept of probability limit. (8 Lectures)

Probability Distributions: Concept, Functions; Discrete Probability Distributions (Binomial, Negative Binomial, Poisson, Geometric) Continuous Probability Distributions (Normal, Truncated Normal, Logistic, Beta and Gamma); Multivariate Distributions and Properties (without proof). (8 Lectures)

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Introduction to Sampling Theory: Population and Sample, Sampling Procedures; Central Limit Theorem and Law of Large Numbers. (7 Lectures)

Sampling distributions: Concepts and Properties, (Chi Square, t, F), Large Sample Test Z. (8 Lectures)

Theory of Estimation: Estimate and Estimator, Properties of Good Estimator; Hypothesis Testing; Interval and Point Estimation. (9 Lectures)

Essential Reading –

1. Gupta, S. C. (2011). *Fundamentals of statistics* (pp. 18-1). New Delhi: Himalaya Publishing House.
2. Gupta, S. C., & Kapoor, V. K. (2020). *Fundamentals of mathematical statistics*. Sultan Chand & Sons.
3. Bluman, A. G. (2013). *Elementary statistics: A step by step approach: A brief version* (No. 519.5 B585E.). McGraw-Hill.
4. Field, A. (2013). *Discovering statistics using IBM SPSS statistics*. sage.
5. Berenson, M. L., Stephan, D. F., Krehbiel, T. C., & Levine, D. M. (2011). *Statistics for Managers using MS Excel*. Pearson Higher Ed.
6. Freund, J. E., Miller, I., & Miller, M. (2004). *John E. Freund's Mathematical Statistics: With Applications*. Pearson Education India.

Suggested Reading

1. Croxton, F. E., & Cowden, D. J. (1964). *Applied General Statistics*. (2nd ed.). New Delhi: Prentice Hall of India Private Limited.
2. Freund, J. E., & Perles, B. M. (2007). *Modern Elementary Statistics*. (12th ed.). New Jersey: Prentice Hall.
3. Larsen, R. J., & Marx, M. L. (2012). *An Introduction to Mathematical Statistics and its Applications*. (5th ed.). New Jersey: Prentice Hall.
4. Anderson, D. R., Sweeney, D. J., Williams, T. A., Camm, J. D., & Cochran, J. J. (2014). *Essentials of Statistics for Business and Economics*. Boston: Cengage Learning.
5. Lind, D. A., Waite, C. A., Marchal, W. G., & Wathen, S. A. (2005). *Basic Statistics for Business & Economics*. New York: McGraw-Hill.

Note: Research Materials will be added in the PG papers to make the subjects more application oriented. The paper will be having 30 marks as practical test.

Semester-I Core Paper
ECM-105: International Economics

Limitations of H-O theory in explaining Intra-industry trade and trade between developed countries. (4 Lectures)

Modern Theory of trade of market imperfections (Helpman, Krugman, Lancaster), Dynamic Version of trade theories, International Economies of Scale, Intra-industry trade (Grubel & Lloyd, Greenway & Tortensson, Ruffin), Gravity Model, Technological-gap model (Posner theory), The Diamond model (Michael Porter). (13 Lectures)

Effects of trade on welfare, income distribution and growth. International technology transfer and foreign trade. Environment and International Trade, Kuznets curve. (10 Lectures)

Effect of Tariffs: (General Equilibrium) and non-Tariff barriers; Optimum Tariff, Metzler Paradox. Dumping, subsidies, technical administration and other regulations, Tariffs as instrument to market imperfection and strategic device, Preferential trading. (9 Lectures)

Forms of Economic Integration, Custom Union: Trade Creation and Trade Diversion, Optimum currency area theories, Economic Integration and regional groupings; NAFTA, ASEAN, BRICS, EU-Brexit, SAPTA. (9 Lectures)

Selected Readings:

1. Salvatore, Dominick: International Economics, John Wiley
2. Dennis Appleyard, Alfred Field Jr: International Economics: Trade Theory and Policy, • McGraw-Hill UK, 2001. ISBN 10: 0071181016
3. Daniele Archibugi, Jonathan Michie (Eds.): Trade, Growth and Technical Change, • Cambridge University Press, 1998. ISBN 10: 0521556414
4. Van Den Berg: International Economics Publisher: McGraw-Hill US, 2003. ISBN 10: • 0071215174
5. Jitendra Borkakoti: International Trade: Causes and Consequences, Palgrave Macmillan, • 1998. ISBN 10: 0333725565
6. Luis A. Rivera-Batiz, Maria-A. Oliva: International Trade: Theory, Strategies and Evidence, Oxford University Press, 2004. ISBN 10: 0198297114
7. Bo Sodersten, Geoffrey Reed: International Economics, Publisher: Palgrave Macmillan, 1999. ISBN 10: 0333763653
8. M.C. Vaish; Sudama Singh: International Economics, Publisher: Oxford and IBH Publishing Co. Pvt. Ltd. ISBN: 9788120416949
9. Ellsworth, Paul T. J. Clark Leith: The International Economy, ISBN: 0029461316 ISBN-13: 9780029461310, 978-0029461310, Macmillan Pub Co
10. Bhagwati, Jagdish: In Defense of Globalization, Oxford University Press, 2004. ISBN 10: 0195170253
11. Rajat Acharyya: International Economics, Oxford

12. Krugman and Obstfeld: International Economics; Theory & Practice, Pearson

Semester-II

Course	Semester-II Core Courses-05	Credit
ECM-201	Public Economics & Policy	3
ECM-202	Social Sector & Environment	3
ECM-203	Development Economics	3
ECM-204	Dynamic Macroeconomics	3
ECM-205	Introductory Econometrics	3

Semester-II Core Paper

ECM-201: Public Economics & Public Policy

Economic role of Government in a Mixed Economy, Sources of Market Failure; Public Goods – Concept of Public & Private Goods, Mechanisms for revelation of preferences of Public Goods; Problem of Free Riding; Private provision of Public Goods; Local Public Goods: Tiebout Hypothesis, club goods, Externalities: The problem and its solutions, Taxes versus Regulation. (10 Lectures)

Public expenditure Policy – Leviathan Hypothesis; Bureaucracy and Growth of Government; Bureaucracy and Allocative Efficiency Model- Niskanen Model; Regulated Monopoly; Interest Group and Growth of Government. (9 Lecturers)

Tax Policy - Income and Expenditure taxes; Dead Weight Loss and Distortion; Efficiency and Equity considerations in Taxation; Incidence of Taxation in a General Equilibrium Framework; Harberger's Incidence Model; Design of Optimum Tax Schemes; Tax Avoidance & Tax Evasion. (12 Lecturers)

Analytical aspects of fiscal policy: Fiscal policy rules: types and characteristics; Measurement and determinants of deficits; Discretionary fiscal policy changes; Fiscal Federalism. (8 Lecturers)

An Economic Theory of Democracy: Rent Seeking and Directly Unproductive Profit Seeking Activities. (6 Lectures)

Selected Readings:

1. Arrow Kenneth, J. (1963); Social Choice and Individual value, Yale University Press, New Haven.
2. Atkinson, A. and Stiglitz, J. (1980); Lectures in Public Economics, McGraw Hill, London.
3. Bagchi, Amaresh (2005); Readings in Taxation, Oxford Press.
4. Browning, Edgar K. and Browning, Jacqueline, M. (2004); Public Finance and the Price System, Pearson Education Pvt. Ltd. Delhi.
5. Cullis, John & Jones, Philip (2009): Public Finance and Public Choice, Oxford University Press, Oxford.
6. Downs, A. (1957); An Economic of Democracy.

7. Gruber, Jonathan (2016). Public Finance and Public Policy (5th ed.). New York: Worth Publishers. ISBN 978-1-4641-4333-5.
8. Harberger, Arnold, C. (1966); Efficiency Effects of Taxes on Income from Capital; Effects of Corporation Income Tax, Wayne State University Press, Detroit.
9. Jha, Raghendra (1999); Modern Public Economics, Routledge, London and New York.
10. Mueller, D.C. (1989); Public Choice II, Cambridge University Press, Cambridge.
11. Musgrave, R.A., and Musgrave, P.B. (1989); Public Finance in Theory and Practices, McGraw Hill, New York.
12. Niskanen, William A. (1971); Bureaucracy and Representative Government, Chicago, Aldine.
13. Niskanen, William A. (1994); Bureaucracy and Public Economics.
14. Tiebout, C. (1956), "A Pure Theory of Local Expenditures", Journal of Political Economy,

Semester-II Core Paper

ECM-202: Social Sector & Environment

Development and Social Sector-Concepts of social security: Safety Net -Promotive and Protective notions, Social Security & Insurance, Vulnerability: Concepts & measurements. (5 Lectures)

Economics of Education- Education and Development, Role of human capital, Human Capital Theory, Access , Massification, Equity , Governance & Educational Growth, Education-Investment in Human Capital, Rate of return to education- private and social; Approaches & Measurements, Theories of discrimination; Gender and caste discrimination in India, Education Sector in India:-An Overview of educational reforms-NEP 2020, Expenditure on education, Resource Mobilization ,private cost, social cost, wastage and stagnation; (12 Lectures)

Health Economics- Challenges of Public Health, Health and Economic Development Interlinkages, Interconnection between poverty, malnutrition and environmental issues; Economic dimensions of health care: demand and supply, financing, constraints in accessing health care; Role of Institutions: public and private health care, PPP model; Evaluation of Policy and reforms: NRHM and NUHM, Inequalities in health - class, caste, gender perspectives and regional imbalances; Measurement of Health: Global Burden of Disease, DALY and QALY, New Challenges during Pandemic with special references to COVID-19 (12 Lectures)

Economics of Environment-Elementary Concepts of Ecology, Eco-system, Environment and Economy- The Inter-linkages, Economy- Environment Interlinkage, Importance of Eco-system Services and Functions in Economic Development and Eradication of Poverty; Valuation of the Environment. (3 Lectures)

Economics of Natural Resource Management-Natural Resources: An Introduction, meaning and types, scarcity issues. (4 Lectures)

Sustainable Development-Need & Importance, Economic, Social and Environmental aspects, Indicators of Sustainable Development (5 Lectures)

Environmental Accounting: An Introduction (4 Lectures)

Selected Readings:

1. Baru, R.V. (1998), Private Health Care in India: Social Characteristics and Trends, Sage Publications, New Delhi.
2. Berman, P. (Ed.) (1995), Health Sector Reform in Developing Countries: Making Health Development Sustainable, Boston: Harvard Series on Population and International Health.
3. Berman, P. and M.E. Khan (1993), Paying for India's Health Care, Sage Publications, New Delhi.
4. Bhattacharya, R.N. (Ed.) (2001): Environmental Economics: An Indian Perspective, Oxford University Press, New Delhi.
5. Blaug, M. (1972), Introduction to Economics of Education, Penguin, London.
6. Charles, Kolstad., (2010), Environmental Economics, London: Oxford University Press.
7. Cohn, E. and T. Gaske (1989), Economics of Education, Pergamon Press, London.
8. Folland, S., A.C. Goodman, and M. Stano (2001). The Economics of Health and Health Care. New Jersey: Prentice Hall.
9. Hanley, N., Shogren, J.F., and White. B., (2013). Introduction to Environmental Economics, London: Oxford University Press.
10. Hussen, Ahmed M. (2019); Principles of Environmental Economics and Sustainability, London: Routledge
11. McMohan, W.W. (1999), Education and Development: Measuring the Social Benefits, Oxford University Press, Oxford.
12. Panchmukhi, P.R. (1980), Economics of Health: A Trend Report in ICSSR, A Survey of Research in Economics, Vol. VI, Infrastructure, Allied, Delhi.
13. Pearce, D.W. and Turner, R. K., (2014). Economics of Natural Resources and the Environment, Baltimore: The Johns Hopkins University Press.
14. Perman, R., Ma, Yue., Common, M., Maddison, D., and McGilvray, J., (2011), Natural Resource and Environmental Economics, 4th Edition, Boston: Addison-Wesley (Pearson).
15. Phelps, Charles E. (2010). Health Economics. 4th edition, Prentice Hall.
16. Tilak, J.B.G. (1994), Education for Development in Asia, Sage Publications, New Delhi.

17. Walker, Melanie, and Elaine U. (eds.) (2007). Amartya Sen's Capability Approach and Social Justice in Education. Macmillan.

Semester-II Core Paper

ECM-203: Development Economics

Overview of the World Economy: Indicators of development, international comparisons of countries. (4 Lectures)

History, Expectations and Development: Interrelationships, multiple equilibria and coordination failures, Murphy- Shleifer- Vishny model, O-ring theory. (7 Lectures)

Capability Approach: Functionings and capabilities as doings and beings, capabilities as real freedoms, conversion factors, the means-ends distinction, selecting and aggregating of capabilities; Gross National Happiness. (8 Lectures)

Poverty and Inequality:

Poverty- Identification issues and measurement, poverty and under-nutrition, the functional impact of poverty, the multidimensional poverty Index, poverty traps, Inequality-concept and measurement, functionalist perspective, Growth vs. Inequality. (12 Lectures)

Dual Economy Models: The Lewis model, the Fei-Ranis model, the Harris-Todaro model. (7 Lectures)

Markets in Developing Countries: Information asymmetric and market failure: land market and labour market, credit market and insurance market; Market Signalling: Spence model of market signalling. (7 Lectures)

Selected Readings:

Note: Following are basic readings. Topic wise reading material shall be provided by the instructor and it shall keep on changing with the availability of new literature.

1. A.P.Thirlwall: Growth and Development, ELBS
2. D Ray: Development Economics, OUP.
3. S Ghatak: Introduction to Development Economics, Routledge.
4. Y Hayami and Y Godo: Development Economics, From the Poverty to the Wealth of Nations (3rd Edition), OUP
5. P.Dasgupta: In Inquiry into Well Being and Destitution, OUP
6. Meier and Rauch: Leading Issues in Economic Development (8th Editions), OUP
7. M.P.Todaro and S.C.Smith: Economic Development (8th Edition), Pearson.
8. Basu, Majumdar and Mitra (ed): Capital, Investment and Development, Essays in memory of Sukhamoy Chakravarty, OUP
9. Amartya Sen: Development As Freedom, OUP
10. Amartya Sen: Poverty and Famine, Essay on Entitlement, OUP.
11. Kaushik Basu: Analytical Development Economics, The Less Developed Economy Revisited, OUP.

Semester-II Core Paper

ECM-204: Dynamic Macroeconomics

Problem of Economic Growth- Problem of Economic Growth and the General Solution;
Growth Equilibrium: Existence, Uniqueness and Stability. (4 Lectures)

Neo-Keynesian Models of Growth & Distribution- N. Kaldor, L. Pasinetti and Mrs. Joan
Robinson; Concept of Golden Age and Golden Rule of Accumulation. (9 Lectures)

Technology and Growth- Hicks, Harrod and Solow- Neutrality of Technical Change,
Technical Progress and Steady State-Solow and Kaldor. (8 Lectures)

Money and Growth- James Tobin and H.G. Johnson. (6 Lectures)

Models of Optimum Economic Growth- Keynes-Ramsey Rule and further modifications
(4 Lectures)

Endogenous Growth Models- AK Models, Lucas Model of Human Capital, Romer Model
of Endogenous Innovation. (9 Lectures)

Convergence Analysis- The Classical Approach to Convergence Analysis, Quah's Model
of Twin Peaks. Growth Accounting and Structural Breaks. (5 Lectures)

Selected Readings:

1. Blanchard, O. and Fischer, S. 1989. Lectures on Macroeconomics,
2. Cass, D. 1965. Optimum Growth in an Aggregative Model of Capital Accumulation," Review of Economic Studies 32, 233-240.
3. Koopmans, T. 1965. On the Concept of Optimal Growth," in The Econometric Approach to Development Planning, Chicago, Rand- McNally.
4. Barro, Robert J. and Xavier Sala-i-Martin, Economic Growth, McGraw-Hill,
5. Romer, David, Advanced Macroeconomics, New York: McGraw-Hill,
6. H.G. Jones, "An Introduction to Modern Theories of Economic Growth" McGraw-Hill Book Company
7. Stiglitz J.E. & Uzawa H, "Readings in Modern Theory of Economic Growth" The M.I.T. Press
8. Hahn F.H., "Readings in Theory of Growth" Macmillan
9. Jones C.I., "Introduction to Economic Growth" W.W. Norton & Company, New York
10. Romer David, "Advanced Macroeconomics" McGraw Hill Co.
11. Sen, A.K., ed. (1970) Growth Economics, Penguin Books.

Semester-II Core Paper

ECM-205: Introductory Econometrics

Fundamentals of Regression -Estimating Function: OLS, Maximum Likelihood (ML), Method of Moments, Instrumental Variable, Chi square, Absolute Deviation Method.

(7 Lectures)

Violation of OLS Assumptions- Heteroskedasticity, Autocorrelation and Multicollinearity- Causes, consequences, common tests and remedies, Weighted & Restricted Least Square.

(5 Lectures)

Simultaneous-Equation Models-Nature of Simultaneous-Equations Models; Simultaneous Equation Bias; Structural Models; Reduced Form Models; Identification Problem; Rules of Identification; Tests for Simultaneity and Exogeneity; Recursive Model, Method of Indirect Least Squares; Method of Two-Stage Least Squares. (10 Lectures)

Dummy Variable & Qualitative Regression Models-Dummy Variable technique: The Nature of Dummy Variables; Dummy Variable Trap; Use of Dummy variables: Structural Break; Seasonal Adjustment; and Interaction effects; Nature of Qualitative response models: Linear Probability Model; Logit Model; Probit Model, Tobit Model. (10 Lectures)

Dynamic Econometric Models-Lags in Econometric Models; Distributed Lag Model; Autoregressive Lag Model; Reasons for Lags; Estimation of Distributed-Lag Model, The Koyck Approach to Distributed-Lag Model; Rationalization of Koyck Model: The Adaptive Expectations Model, Partial Adjustment Model; Estimation of Autoregressive Models; The Method of Instrument Variable; Almon Approach. (8 Lectures)

Time Series & Panel Data Regression-Serial correlation, Auto Regression, Stationarity, Fixed Effect LSDV Model; Within Group model, Random Effect Model. (5 Lectures)

Essential Reading:

1. Gujarati, D. N., Porter, D.C., & Gunasekar, S. (2017). *Basic Econometrics*. (5th ed.). New Delhi, McGraw Hill.
2. Gujarati, D. N. (2011). *Econometrics by Example* (1st ed.). New Delhi: Palgrave.
3. Wooldridge, J. M. (2018). *Introductory econometrics: A modern approach*, (7th Ed), CENGAGE.

Suggested Readings -

1. Koutsoyiannis, A. (1973). *Theory of Econometrics*. New York: Harper & Row.
2. Pindyck, R. S., & Rubinfeld, D. L. (1990). *Econometric Models and Econometric Forecasts* (4th ed.). New York: McGraw-Hill.
3. Dougherty, C. (2016). *Introduction to Econometrics* (5th ed.). New York: Oxford University Press.
4. Greene, W. H. (2002). *Econometric analysis*. Pearson Education India, 5th Edition.
5. Mukherjee, C., White, H., & Wuyts, M. (2013). *Econometrics and data analysis for developing countries*. Routledge.

Semester-III

Course	Semester-III	Course
	Core Course - 01 Specialization - 02 Electives – 02	
ECM-301	Research Methodology & Computer Applications in Economics	3
ECM-302	Elective – I Paper—I	3
ECM-303	Elective – II Paper—I	3
ECM-304	Specialization - Paper I	4
ECM-305	Specialization- Paper -II	4

Semester-III Core Paper

ECM-301: Research Methodology & Computer Applications in Economics

Nature of Economic Reality, Research, its types and approaches: An Overview

(4 Lectures)

The Scientific Method; Western and Indian Approaches. Introduction to Positivist, Interpretive and Critical Theory Methods in Post Modern Period, Theory, Empiricism, generalization and prediction.

(6 Lectures)

Formulation of a Research Problem: The Steps Involved, Writing a Research Proposal, Hypothesis, Formulation, Types and Sources of Hypothesis, Value neutrality of hypothesis, Research Design – Quantitative, Qualitative and Mixed. Qualitative Research Approaches- Case Study, Ethnography and Phenomenology: Basic Features and Methods, Review of Literature (traditional and systematic) and Citation.

(12 Lectures)

Data Collection and Sampling - Types of Sampling, Determination of the size of sample, Sampling Procedure, Choice of Sampling Technique, Designing and Using Questionnaire and Interviews as Methods of Data Collection, Focus Group.

(12 Lectures)

Analysis and Discussion; Use of Statistical tools and their limitations, Report/Dissertation Writing, Ethics in Research: Plagiarism.

(3 Lectures)

Computers Application in Research- Introduction to SPSS: Theoretical background of statistics; creating a new file; opening a file; data setup; reverse coding; selecting cases; splitting a file; graphical representation of data: creating graphs and charts using chart builder. Parametric tests: 't' test: One sample t test; independent t test; paired sample t test. F-test, Analysis of variance (ANOVA).

Non-parametric tests: Introduction to non-parametric tests; Chi-square test; Mann-Whitney test; Wilcoxon test; Kruskal-Wallis test; Friedman's ANOVA. Correlation: Simple correlation; Multiple correlation; Partial correlation. Regression: Simple linear and multiple linear regression model.

(8 Lectures)

Selected Readings:

1. Field, A. (2013). Discovering statistics using IBM SPSS statistics. Sage.
2. Kothari R.C. Research Methodology, Methods and Techniques, New Age International Publishers, 11nd revised edition, reprint 2008.
3. Cooper D.and Schindler P. Business Research Methods, Tata McGraw Hill.
4. Don E. Ehridge Research Methodology in Applied Economics: Organizing ,Planning and Conducting Economics Research ,John Wiley and sons, April 2004
5. John W. Best and James V. Kahn, Research in Education.
6. Goode and Heart, Research Method
7. Jerry W. Willis, Foundations of Qualitative research: Interpretative and Critical Approaches. Sage.
8. Creswell; Qualitative Inquiry and research Design: Choosing among Five Traditions, Sage.
9. Flick Uwe; An Introduction to Qualitative Research, Sage.
10. Anselm Strauss and Juliet Corbin; Basics of Qualitative Research: Grounded Theory Procedures and techniques, Sage.

Course-XII

Electives Offered for MA (Economics) Students

Course	Elective Paper-I
ECM-303 A	Applied Macroeconomics
ECM-303 B	Agricultural Economics-I
ECM-303 C	Health Economics-I
ECM-303 D	Gender Economics-I
ECM-303 E	Financial Institutions & Market -I
ECM-303 F	Economics of Infrastructure-I
ECM-303 G	Institutional Economics-I
ECM-303 H	Indian Public Finance-I
ECM-303 I	Behavioural Economics-I

Semester-III Elective- Applied Microeconomics
ECM-303 A: Applied Microeconomics

Consumer Demand Theory, Specification and Demand Theories-Preference and Utility Maximization, Duality and Consumer Demand, Restrictions in Consumer Demand,

Static Versus Dynamic Demand Relation: Distributed Lag Demand Function, Nerlove's stock adjustment Principle, Short run and Long run demand function, Houthakker and Taylor's habit formation principle, The Cobb Douglas & Constant Elasticity of Demand Function, Nested CES Utility Function. (12 Lectures)

Partial & Complete Demand System -Partial Demand System: Empirical Content (numerical estimates) to Various Partial Demand System – Engel Expenditure Model: marginal propensities to consume and income elasticities of demand, Estimates of various Engel Functions, Engel Expenditure Elasticities using Cross-section Data; Comparing Linear versus Log –Log Demand function, Consumption Expenditure Function: Estimation of MPC and Elasticity of Consumption Expenditure with respect to Level of Income using Time-series Data.

Complete Demand System: Demand Function for Commodities –LES Demand, AIDS Model – Linear and Quadratic, Own Price, Cross Price and Income Elasticities of Demand.

Application: Estimation of Demand function for India, Some studies using the above models. (18 Lectures)

Production Function & Cost Function Estimation-Production functions: Duality: Profit Maximization & Cost minimization, Estimation of Factor Demand, Cobb-Douglas, Leontief, CES, VES, Transcendental, Translog Production Function and Its Properties; Efficiency and Total Factor Productivity.

Derivation of Cost Function from Production Function, Empirical Cost Studies – Polynomial Cost Function: Linear, Quadratic and Cubic Cost Functions.

Application: Estimation of Production & cost function & TFP, Some studies using the above models, Methods of measuring efficiency: Parametric and non-parametric. (15 Lectures)

Selected Readings:

1. Deaton, A. (1992). *Understanding consumption*. Oxford University Press.
2. Deaton, A., & Muellbauer, J. (1980). *Economics and consumer behavior*. Cambridge university press.
3. Deaton and Muellbauer. (1980). *An Almost Ideal Demand System*. American Economic Review 70 (3): 312-326.
4. Banks, Blundell and Lewbel. (1997). *Quadratic Engel Curves and Consumer Demand*. Review of Economics and Statistics 79(4): 527-539.

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5. Pollak, R. A., & Wales, T. J. (1992). *Demand system specification and estimation*. Oxford University Press on Demand.
6. Barnett, W. A., & Serletis, A. (2008). *Consumer preferences and demand systems*. *Journal of Econometrics*, 147(2), 210-224.
7. Haque, M. O. (2006). *Income elasticity and economic development: Methods and applications* (Vol. 42). Springer Science & Business Media.
8. Phlips, L. (2014). *Applied consumption analysis: advanced textbooks in economics*. Elsevier.
9. Heathfield, D. F. (2016). *An introduction to cost and production functions*. Macmillan International Higher Education.
10. Stone, R. (1954). *Linear expenditure systems and demand analysis: an application to the pattern of British demand*. *The Economic Journal*, 64(255), 511-52.
11. Krishna, K. L. (Ed.). (1997). *Econometric Applications in India*. Oxford university press.
12. Radhakrishnan, R (2019). *Essay on the Econometrics of Consumer behavior*, Academic Foundation
13. Edgerton, D. L., Assarsson, B., Hummelose, A., Laurila, I. P., Rickertsen, K., & Vale, P. H. (1996). *The econometrics of demand systems: with applications to food demand in the Nordic countries* (Vol. 34). Springer Science & Business Media.
14. Cameron, A. C., & Trivedi, P. K. (2005). *Microeconometrics: methods and applications*. Cambridge university press.
15. Keller, W. J. (1976). *A nested CES-type utility function and its demand and price-index functions*. *European Economic Review*, 7(2), 175-186.

Semester-III Elective- Agricultural Economics **ECM-303 B: Agriculture Economics-I**

Conceptual Framework- Schultz model of transforming traditional agriculture, Boserup's theory of agrarian change, Mellor's theory of Agricultural Development, Overview of approaches to agricultural development (basic idea) – frontier model, conservation model, urban industrial impact model, diffusion model and high payoff input model. (13 Lectures)

Land Resources in Agriculture: Land and its carrying capacity, Effects of urbanization on agricultural land use, Process of conversion of agricultural land to non-agricultural use; Peri Urban Agriculture Shift in cropping pattern, factors influencing it and its implications for food security, Economics of share tenancy. (12 Lectures)

Water Resources in Agriculture: Agricultural water use, Water Saving Technologies, Issues related to large and small irrigation works; Institutional arrangements in water allocation in agriculture: water rights (user groups, water users' cooperatives, Pani panchayat, Public- private participation), Water markets, Water pricing. (12 Lectures)

Credit in Indian Agriculture: Sources of finance and changes in their respective share. Factors determining demand for credit, Imperfections in rural credit markets in India, recent policy changes in regard to farm credit and their implications. (8 Lectures)

Selected Readings

Conceptual Framework

1. Theodore W. Schultz, Transforming Traditional Agriculture, New Haven, Yale University Press, 1964
2. H.A Innis and D.C. North (Review of the above Book) , Institute of Developing Economies, (to be accessed at www.ide.go.jp)
3. M. Nerlove, Transforming Economics: Theodore W Schultz, WP 98-28, Department of Agricultural and Resource Economics, The University of Maryland, 1998 (to be accessed at ageconsearch.umn.edu)
4. Ester Boserup, The Conditions of Agricultural Growth: The economics of agrarian change under population pressure, Routledge, 1993 edition.
5. D. Grigg, Ester Boserup's theory of agrarian change: A critical Review, (to be accessed at pubmed.ncbi.nlm.nih.gov)
6. John.W. Mellor, The economics of agricultural development, Cornell University press, 1966
7. Colin Clark (Review of the above book), The Economic journal , Volume 77, issue 307, 1967
8. (accessible at <https://doi.org/10.2307/2229008>)
9. John.W. Mellor, Agricultural Development and Economic Transformation: Promoting Growth with Poverty Reduction, Palgrave Mac Millian , 2017
10. V. W. Ruttan and Y. Hayami, Strategies for Agricultural Development, 1972 (to be accessed at ageconsearch.umn.edu)

Land Resources in Agriculture

11. John. M. street, An evaluation of the concept of carrying capacity, The professional geographer, volume 21, 1969, issue 2, republished online March 15,2010 (can be accessed online at tandfonline.com)
12. Yao Quian et. al, A Comparative Analysis on Assessment of Land Carrying Capacity with Ecological Footprint Analysis and Index System Method, PLoS One, published online June 29, 2015 (can be accessed at ncbi.nlm.nih.gov)
13. Suman Patra et.al, Impacts of urbanization on land use /cover changes and its probable implications on local climate and groundwater level, Journal of Urban Management Volume 7, Issue 2, September 2018, Pages 70-84 (can be accessed online at Sciencedirect.com)
14. Christopher Bryant, The Impact of Urbanization on Rural Land Use, Encyclopedia of Life Support Systems (can be accessed at eolss.net)
15. D. Telentilo, F. Marshall and D.S Bhupal , Peri urban Agriculture, FAO (can be accessed at FAO.org)
16. Urban and peri Urban Agriculture, FAO briefing Guide, July 2001. (can be accessed at FAO.org)
17. Mruthyunjaya, and Praduman Kumar. "Crop Economics and Cropping Pattern Changes." Economic and Political Weekly, vol. 24, no. 51/52, 1989

Water Resources in Agriculture

18. FAO , Water for sustainable food and agriculture, 2017 (can be accessed at FAO.org)
19. Paolo D'Odorico et.al., The Global Value of Water in Agriculture , Proceedings of the national Academy of sciences, USA (accessible at pnas.org)

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20. Clinton.C. Shock et.al, Strategies for efficient water use, Oregon state University.(can be accessed at oregonstate.edu)
21. Ashok .K . Mitra , Irrigation Sector Reforms, Issues and approaches, Economic and Political Weekly, Vol 31, No 13 , March 30, 1996.
22. Upali Amarsinghe & Stephanos Xenarios , Strategic Issues in Indian Irrigation : Overview of the Proceedings ,2009 (can be accessed at ageconsearch.umu.edu)
23. C. Mandri Perott and David Stiggers, Public private partnerships in the water sector, IWA, 2013
24. Olivia Jensen, Public private partnership for water in Asia: A review of two decades of experience, International Journal of Water resources Development, 2016 (can be accessed at tandfonline.com)
25. National water policy, 1987. Ministry of Water Resources, Govt of India
26. Manish Thakur and Binay .K. Pattnaik , How Effective are Pani panchayats ? Sociological Bulletin, September 2002, Vol 51, No 02
27. Report of the Internal working group to review agricultural credit, RBI, 2019
28. Rakesh Mohan, Agricultural Credit in India, RBI Bulletin, 2004

Semester-III Elective- Health Economics

ECM-303 C: Health Economics-I

Health Economics -The state and scope of health economics; Human capital and health; Health as a Social Indicator; Health and Economic Development: Inter-linkage; Determinants of health: Poverty, Malnutrition and Environmental quality; Change of health status over time; Components of economic appraisal of health programmes.

(12 Lectures)

Demand for Health and Healthcare Services -Theoretical and empirical investigations; health insurance and demand for medical care, adverse selection, moral hazard and consumer incentive in health care. Supply of health and healthcare services

(10 Lectures)

Relevance of production function, Issues and Challenges of healthcare production; Estimating a Household (health) health production functions. Factors affecting the supply of healthcare services; Public-Private Dichotomy in Providing Healthcare Services.

(6 Lectures)

Valuing Health and Health Damage-Human capital approach: measurement of mortality: value of life, years of life lost; morbidity valuation: cost of illness, Burden of disease: Meaning and significance, DALY: A measure of the burden, The DALY framework: Components and postulates, DALY and QALY; The GBD assessment, BD and DALY: A critical appreciation.

(10 Lectures)

Health Accounting- National health accounts, from SNA to NHA, Health expenditure efforts.

(7 Lectures)

Selected Readings:

1. Anthony J. Cuyler and Joseph P.(ed) (2000), Handbook of Health Economics, Newhouse, North-Holland, Elsevier Science.
2. Clewar, Ann, and David Perkins. 1998. *Economics for Health Care Management*. London: Prentice Hall.
3. Folland, Sherman, Allen Goodman, and Miron Stano. 2001. *The Economics of Health and Health Care*. New York: Macmillan, Third Edition.
4. Rice, Thomas. 1998. *The Economics of Health Reconsidered*. Chicago: Health Administration Press.
5. Sherman Folland, Allen C. Goodman, and Miron Stano, (2004.), *The Economics of Health and Health Care, 4th Edition*, Prentice Hall.
6. Santerre and Neun, (2004) *Health Economics: Theories, Insights, and Industry Studies*, Thomson/South Western.
7. Feldstein, P. J., (1979), *Health Care Economics*, John Wiley & Sons, New York.
8. Folland, Goodman & Stano (1997), *The Economic of Health and Health Care*, Prentice Hall, New Jersey.
9. Musgrove P (1996), *Public and Private Roles in Health: Theory and Financing Patterns*, Discussion Paper No. 319, World Bank, Washington DC.

Semester-III Elective- Health Economics

ECM-303 D: Gender Economics-I

Introduction to Gender Economics: Exploitation vs. oppression – Issue of private property – Access and control over economic resources. [6 Lectures]

Gender and Microeconomics: Gender Bias in the Theories of Value and Distribution – issues and alternative theories of rationality, consumption, production and exchange – Gender critic of rational choice, externalities, social welfare function and welfare economics – Human capital and discrimination theories. [12 Lectures]

Gender and Macroeconomics: Engendering macroeconomic perspectives, approaches and methodologies – political economy of macroeconomic modelling – Gendering fiscal and monetary policies – concept, critic and methods of gender budget analysis. [12 Lectures]

Women and Development: Engendering developmental theories – Gender Development Index and Gender Empowerment Measures – Visibility of women and biases inherent in data system – Limitation of National Income Statistics - Mainstreaming gender into development policies – Gender planning techniques - Gender sensitive governance - Paradigm shifts from women's well-being to women's empowerment - Democratic decentralization (panchayats) and women's empowerment in India. [15 Lectures]

**Selected Readings:
(Valid for Course 304 D also)**

Note: Following are basic readings. Topic wise reading material shall be provided by the instructor and it shall keep on changing with the availability of new literature.

1. Government of India: Towards Equality — Report of the Committee on the Status of Women in India, Department of Social Welfare, Ministry of Education and Social Welfare, New Delhi.
2. ILO: Women's Participation in the Economic Activity of Asian Countries.
3. Kabeer, N. and R. Subrahmanyam (Ed.): Institutions, Relations and Outcomes: A Framework and Case Studies for Gender-aware Planning.
4. Kalpagam, U.: Labour and Gender: Survival in Urban India.
5. Krishnaraj, M., R.M. Sudarshan and A. Shariff: Gender, Population and Development.
6. Papola, T.S. and A.N. Sharma (Eds.): Gender and Employment in India.

Semester-III Elective- Financial Institutions and Market

ECM-303 E- Financial Market-I

Financial System & Its Components: Financial System and Economic Development, Reforms in Financial system, Money market & Capital Market-Its Instruments, Money market Derivatives, Reserve Bank of India and Money Market Regulation, Reforms in Capital market. (10 Lectures)

Primary and Secondary Market for Securities: Book Building, Resource mobilization from International Market, Special Features of the Different Types of Equity and Debt Instruments, The Procedure and mechanism of trading in Capital Market including Dematerialization of Securities and Dematerialised Trading, Dividend Capitalization – Valuation and Listing of Security in India-BSE Index & Sensex, Stock Exchanges in India-BSE, NSE and OTCEI, SEBI: Organization, Management, Functions and Powers, its Impact on the Working of Capital Market in India. (20 Lectures)

Derivative Market & its Instruments: Derivatives- Meaning, types and uses; Mechanics of future markets and price determination, hedger, speculators, hedging strategies, Options and option pricing, the payoffs from buying and selling of options, put call ratio and parity, Mechanics and properties of stock options. (8 Lectures)

Role of Financial institutions & Insurance- Risk Management: Role of Non-Banking Financial Corporation's (NBFCs), Different Types of Foreign Capital Investment in India –NRI Investments and Deposits, Investment by Foreign Institutional Investors, Expansion and Growth of India's Financial Market, Measures of Financial Risk Management. (7 Lectures)

Selected Readings:

1. Paul, J. and P. Suresh (2008), Management of Banking and Financial Services, Pearson Education, Delhi.
2. Khan, M.Y. (2007): Financial Services, Tata McGraw Hill, New Delhi.

3. Hull John (2002): Introduction to Futures and Options Market, Prentice Hall of India, New Delhi
4. .E Gardon & K Natarajan: Financial Markets & Services.
5. Avadhani : Financial Services and Markets, Himalaya Publishing House
6. Sharma & Gupta, Financial Services, Kalyani Publishers
7. Vasantha Desai: The Indian Financial System, Himalaya Publishing House

Semester-III Elective- Economics of Infrastructure
ECM-303F Economics of Infrastructure –I

Role of Infrastructure in Economic Development: Introduction to Infrastructure Economics, Development Linkages; Infrastructure as Public Good, Physical and Social Infrastructure; Nature of Public Utilities; The Peak-Load, Off-Load Problem, Challenges for Infrastructure Development, Issues in Privatisation of Infrastructure, Marginal Cost Pricing Vs. Other Methods of Pricing in Public Utilities. (8 Lectures)

Physical Infrastructure: Transportation-Railways, Roadways, Airways and Waterways, Progress, Pricing; Technological Advancement and Challenges, New policies/programmes related to each mode of transportation, Telecommunications Sector in India, Tele-density, Mobile and Internet, Principles of Rate Fixation & Decreasing Costs in Telephone industry, Privatization & Competitiveness, Growth of IT –ITES. (12 Lectures)

Economic Infrastructure: Energy and Power Sources, Sources of Commercial and Non-Commercial Energy resources, Conventional & Non- Conventional Sources, including Nuclear, Solar and Wind Energy; Energy Conservation; Growth and Present Status, Energy Crisis in India. (12 Lectures)

Electricity and Special Economic/Investment Zones: An overview of the Power Sector in India: - Hydel, Thermal and Nuclear Power Plants, Growth and Present Status, Rural Electrification in India –Problems &Prospects, Power Pricing, Power Generation, Problems and Potential of SEZs, Export Processing Zones (EPZs) and Special Investment Region (SIR). (10 Lectures)

Suggested Readings

1. Picot, Arnold, Florio, Massimo, Grove, Nico, Kranz, (Ed.) (2021), The Economics of Infrastructure Provisioning -The Changing Role of the State, The MIT Press
2. Claudio Ferrari Anna Bottasso Maurizio Conti Alessio Tei, (2018) Economic Role of Transport Infrastructure 1st Edition Theory and Models, Elsevier
3. Pratap, Kumar V., Chakrabarti, Rajesh (2017) Public-Private Partnerships in Infrastructure Managing the Challenges, Springer International Publishing
4. Walter Ingo (ed.) (2016) The Infrastructure Finance Challenge, Open Book Publisher

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5. Goodman, Alvin, Hastak, Makarand, (2015), Infrastructure Planning, Engineering and Economics, Second Edition, McGraw-Hill Education
6. Cockburn, J.M., Dissou, Y., Duclos, J.-Y., Tiberti, L. (Eds.) (2013) Infrastructure and Economic Growth in Asia, Springer International Publishing
7. Jonkhoff, Wouter, Manshanden, Walter (Eds.), (2011) Infrastructure Productivity Evaluation, Springer International Publishing
8. Majumder, Rajarshi (2008) Infrastructure And Development In India: Interlinkages and Policy Issues, Rawat Publications
9. Dash, L.N (2007) , Economics of Infrastructure: Growth and Development, Regal Publications

Semester-III Elective- Institutional Economics

ECM-303 G: Institutional Economics-I

Preliminaries of the Old Institutional Economics: The concept of institution in the New Institutional Economics: Adam Smith's "The Theory of the Moral Sentiments." TB Veblen: The Theory of the Leisure Class. R Commons and JK Galbraith – formal (legalized) institutions, Scientific investigation methods. WC Mitchell- Establishment of Institutions. G Myrdal – interdependence of social, political, economic and institutional phenomena, modernization ideals. Religion as an institution. (15 Lectures)

Introduction to Institutional Analysis: Institutions and organizations. Interaction situations and the types of norms: prisoners' dilemma-type situation; co-ordination situation; inequality situation. Enforcement characteristics. Institutional structure of a society. Formal and informal institutions. (7 Lectures)

Transaction Cost: The concept of transaction. Market and intra firm transactions. Transaction costs as friction in the economy Transaction costs and transformation costs. Interdependency between transaction costs and transformation costs, Transaction costs, the main types of economic exchange and their institutional structure. (8 Lectures)

Economic Theory of Property Right: The definition of property rights. Property rights in different legal traditions. The property rights approach: some basic concepts. The Coase Theorem, Critic of Coase Alternative property rights regimes. Common property (open access), Exclusive property rights. The optimistic theory of the emergence of property rights (naïve model). The interest-group theory of property rights. The costs of collective action. The theory of rent-seeking. Interest-groups and rent-seeking in an economy. (15 Lectures)

Selected Readings:

(Also Valid for Course-G.2)

1. Eggertson Thr. Institutions and Economic Behaviour.
2. North D. Institutions, Institutional Change and Economic Performance. Cambridge University Press, 1990,
3. Cooter R. The Theory of Market Modernization of Law. 16 International Review of Law and Economics, pp. 141-172 (1996).

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4. Posner E. Social Norms and the Law, Harvard University Press, Cambridge, Mass., 2000; Ch.2 A Model of Cooperation and the Production of Social Norms.
5. Ullman-Margalit E. The Emergence of Norms. Oxford, Clarendon Press, 1977. Ch.1, 2, 3,4.
6. Young P. H. The Economics of Convention. 10 Journal of Economic Perspectives, pp. 105 -122 (1996).
7. Coase R. The Nature of the Firm. 4 Economica, pp. 386-405 (1937).
8. Milgrom P., Roberts J. Economics, Organization and Management. - Prentice-Hall Int., 1992.
9. North D. Institutions, Institutional Change and Economic Performance. Cambridge University Press, 1990, Ch.8.
10. Niehans J. Transaction Costs. In: The Palgrave Dictionary of Economics. London, Macmillan, 1987, pp. 676-679
11. North D. Integrating Institutional Change and Technical Change in Economic History. A Transaction Cost Approach. 150 Journal of Institutional and Theoretical Economics, pp. 609-624 (1994).
12. Williamson O. The Economic Institutions of Capitalism. The Free Press, N.Y. 1985, Ch.2, pp. 43-67.
13. Economic Theory of Property Rights (Main Reading)
14. Coase R.H. The Problem of Social Cost. 3 Journal of Law and Economics 1-44 (1960).
15. Kreps D. Corporate Culture and Economic Theory. In: Perspectives on Positive Political Economy. Cambridge: Cambridge University Press, 1990.
16. Menard C. Inside The Black Box: The Variety of Hierarchical Forms. In: Transaction Cost Economics and Beyond. ed. Groenewegen J. L., Kluwer Academic Publishers, pp.149-170.
17. Shelanski H., Klein P. Empirical Research in Transaction Cost Economics: A Review and Assessment. Journal of Law, Economics and Organization, 1995, Vol. 11, N 2., pp.335-361.
18. Williamson O. Comparative Economic Organization: The Analyses of Discrete Structural Alternatives. In: Mechanisms of Governance, Oxford University Press, 1996.
19. Williamson O. The Economic Institutions of Capitalism. The Free Press,
20. Kreps D. Corporate Culture and Economic Theory. In: Perspectives on Positive Political Economy. Cambridge: Cambridge University Press, 1990.
21. Menard C. Inside the Black Box: The Variety of Hierarchical Forms. In: Transaction Cost Economics and Beyond. ed. Groenewegen J. L., Kluwer Academic Publishers, pp.149-170.
22. Williamson O. Comparative Economic Organization: The Analyses of Discrete Structural Alternatives. In: Mechanisms of Governance, Oxford University Press, 1996.
23. Eirik G. Furubotn and Rudolf Richter (1997), *Institutions and Economic Theory: The Contribution of*

Semester-III Elective- Indian Public Finance
ECM-303 H: Indian Public Finance-I

The Public Budget: Kinds of Budgets, Revenue and Capital Budgets, Economic and Functional Classification of Budget, Budgetary Procedure in India – Preparation,

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Enactment, Presentation and Execution of the Budget; Consolidated, Contingency Funds, Public Account, Votable and Non-Votable Items. Critical evaluation of the Recent Budget in India. (08 Lectures)

Tax Structure in India-

Union Taxes: Taxation of Income: Concept of Income, basis of liability to Tax, Rate Structure, Tax Incentive/Tax Expenditure, Double Taxation; Corporation Tax in India; trends in receipts from Income and Corporation Taxes in India, Taxation of Capital Gains. Taxes on Commodities and Services: Changing scenario in respect of receipts from Commodities and Services; Customs Duties; Union Excise Duties. Tax Revenue Receipts and Tax-GDP Ratios. (12 Lectures)

State Taxes: Taxes on Income: Agriculture Income Tax, Tax on Professions. Taxes on Property and Capital transaction – Stamps and Registration Fees, Land Revenue, Urban Immovable Property Tax, State Excise Duties, Share in Central taxes. (08 Lectures)

New Tax Regime: Goods and Services Tax (GST): Evolution and problems (4 Lectures)

Non-Tax Revenue Sources: Union Government– Contribution of PSUs, Interest Receipt, Fiscal Services, General Services, Social & Community Services, Economic Services. State Government - Contribution of PSUs, Interest Receipts, General Services, Social and Community Services, Economic Services, Grants from Centre. (6 Lectures)

Major Issues in Taxes: Tax Reforms after 1991, Changes in Composition of Tax Structure, Tax Administration, Tax Avoidance and Evasion, GAAR, Proposed Direct Tax Code (DTC). (7 Lectures)

Suggested Reading **(Also valid for Course-IPF-II)**

1. Annual Reports, Ministry of Finance, Government of India.
2. Bhargava, P.K. (1991), India's Fiscal Crisis, Ashish Publishing House, New Delhi.
3. Bhargava, R.N. (1971), The Theory and Working of Union Finance in India, Chaitanya Publishing House, Allahabad
4. Chelliah, Raja J. (1969), Fiscal Policy in Underdeveloped Countries, George Allen and Unwin Ltd., London
5. Chelliah, R.J. (Ed.) (1996), Towards Sustainable Growth: Essays in Fiscal and Financial Sectors Reforms in India, Oxford University Press, Bombay.
6. Gaur, A.K. (1988), Federal Finance in India, Deep & Deep Publications, New Delhi
7. Government of India, Ministry of Finance (2002), Reports of the Task Force on Direct and Indirect Taxes.
8. Government of India: Economic Survey, and Union Budget different years.

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9. Jain, Anil Kumar & Parul Jain (2007), Reforms in Direct Taxes through Union Budgets: A Commentary, RBSA Publishers, Jaipur
10. Jha, Praveen (2011) (Ed.), Progressive Fiscal Policy in India, Sage Publications India Pvt. Ltd. New Delhi
11. Kumar, Arun (1999), The Black Economy in Indian, Penguin Books, New Delhi
12. Kumar, Arun (2017), Demonetization and the Black Economy, Penguin Books, New Delhi.
13. Singh, Tejinder (2000), The Corporation Tax in India, Classical Publishing Company, New Delhi
14. Srivastava, D.K. (Ed.): Fiscal Federalism in India.
15. Srivastava, D.K. (2005), Issues in Indian Public Finance, New Century Publications, New Delhi.

Semester-III Elective- Behavioural Economics

ECM-303 I: Behavioural Economics-I

Introduction: Behavioural Economics-Past, Present, Future, The Historical Context of Behavioural Economics, The Methods of Behavioural Economics, Basic Concepts- Intertemporal Choice, Time Discounting, Preference over Risky and Uncertain Outcomes, Fairness and Social Preferences. (6 Lectures)

Endowment Effect, Bilateral Bargaining and Coase Theorem, Choices Between Goods, Mental Accounting-Mental Accounting Decision Making
The Framing of Gains and Losses- The Value Function, Hedonic Framing, Transaction Utility, Payment Decoupling, Self-Control and Gift Giving, The Diversification Heuristic (6 Lectures)

Developments in Non-Expected-Utility Theory: Choice Under Risk, Expected Utility Theory, The “Fanning-Out” Hypothesis, Non-Conventional Theories: The Procedural Approach and Reference Dependence, Nontransitive Preference Theory. (8 Lectures)

Prospect Theory, The Equity Premium, The Disposition Effect, Asymmetric Price Elasticities of Consumer Goods, Savings and Consumption: Insensitivity to Bad Income News, Racetrack Betting: The Favourite-Longshot Bias (6 Lectures)

Time Discounting and Time Preference: Discounted-Utility Model, Utility Independence, Consumption Independence, Stationary Instantaneous Utility, Discounted Utility Anomalies-Hyperbolic Discounting, The “Sign Effect”, The “Magnitude Effect”, The “Delay-Speedup” Asymmetry, Preference For Improving Sequences, Models of Hyperbolic Discounting, Self-Awareness, Explaining Bargaining Impasse, Psychological Research on the Self-Serving Bias, Theory and Experiment in the Analysis of Strategic Interaction. (10 Lectures)

Fairness as a Constraint on Profit Seeking: Reference Transactions, The Coding of Outcomes, Occasions for Pricing Decisions, Enforcement, Economic Consequences, Inequity-Aversion, Fairness, Retaliation, and Competition, Market Game with Responder

Competition, Cooperation and Retaliation—Cooperation Games, Dictator and Gift Exchange Games, Incorporating Fairness into Game Theory and Economics.

(9 Lectures)

Selected Readings:

1. Akerlof, George A. 1991. "Procrastination and Obedience." *American Economic Review*, 81(2): 1–19.
2. Camerer, Colin F. 1987. "Do Biases in Probability Judgment Matter in Markets? Experimental evidence." *American Economic Review*, 77: 981–97.
3. Dreyfus, Mark K., and W. Kip Viscusi. 1995. "Rates of Time Preference and Consumer Valuations of Automobile Safety and Fuel Efficiency." *Journal of Law and Economics*, 38(1): 79–105.
4. Green, Jerry, and Bruno Jullien. 1988. "Ordinal Independence in Nonlinear Utility Theory." *Journal of Risk Uncertainty*, 1: 355–87.
5. Gul, Faruk. 1991. "A Theory of Disappointment in Decision Making under Uncertainty." *Econometrica*, 59: 667–86.
6. Hagen, Ole. 1979. "Towards a Positive Theory of Preferences under Risk." In *Expected Utility Hypotheses and the Allais Paradox*, edited by M. Allais and O. Hagen. Dordrecht: Reidel.
7. Hammack, Judd, and Gardner Mallard, Brown, Jr. 1974. *Waterfowl and Wetlands: Toward Bio-economic Analysis*. Baltimore: Johns Hopkins Press (for Resources for the Future).
8. Kahneman, Daniel, Jack L. Knetsch, and Richard Thaler. 1986. "Fairness as a Constraint on Profit Seeking: Entitlements in the Market." *American Economic Review*, 76 (September): 728–41.
9. Marwell, Gerald, and Ruth Ames. 1981. "Economists Free Ride, Does Anyone Else? Experiments on the Provision of Public Goods, IV." *Journal of Public Economics*, 15: 295–310.
10. Olmstead, Alan L., and Paul Rhode. 1985. "Rationing Without Government: The West Coast Gas Famine of 1920." *American Economic Review*, 75: 1044–55.
11. Prelec, Drazen, and Duncan Simester. 1998. "Always Leave Home without It." Working paper, MIT Sloan School.
12. Rabin, Matthew. 1998. "Risk Aversion, Diminishing Marginal Utility, and Expected-Utility Theory: A Calibration Theorem." Working paper, Department of Economics, University of California, Berkeley.
13. Shefrin, Hersch, and Meier Statman. 1985. "The Disposition to Sell Winners too Early and Ride Losers too Long." *Journal of Finance*, 40: 777–90.
14. Siegel, Jeremy, and Richard Thaler. 1997. "The Equity Premium Puzzle." *Journal of Economic Perspectives*, 11(Winter): 191–200.
15. ———. 2003. *Behavioural Game Theory: Experiments on Strategic Interaction*. Princeton: Princeton University Press.

Specialisation Semester-III

	Specialization		Specialization
A.	Development Economics ECM-304A-Development Economics-I ECM-305A-Development Economics-II	E.	Industrial Economics ECM-304E-Industrial Structure & Organization ECM-305E-Principles & Practices of Management
B.	Econometrics ECM-304B- Econometrics of Panel Data ECM-304B-Time Series Econometrics	F.	International Business ECM-304F-International Business-I ECM-305F-International Business-II
C.	Resource & Environmental Economics ECM-304C-Fundamentals of Environmental Economics ECM-305C-Natural Resource Economics	G.	Labour Economics ECM-304G- Labour Economics-I ECM-305G- Labour Economics-II
D.	Population Studies ECM-304D-Population Studies-I ECM-305D-Population Studies-II	H.	Regional Economics ECM-304H-Regional Economics-I ECM-305H- Regional Economics-II

Semester- III Specialization- Development Economics
ECM-304-A: Development Economics - I

Re-examining Development-Rethinking Development: Limitations of earlier understanding; Development – Market, State, Institutions and Globalisation; Potentials and limitations of Capability Approach. (8 Lectures)

Political Economy of Development: Role of State; Rent Seeking and Government Failure. (8 Lectures)

Features of Underdevelopment: - A. Dualistic Structure: Critic of Lewis Model; Centre-Periphery Models – Prebisch, Seers, Amin, Wallerstein, Myrdal; Rural-Urban Wage Gap – Labour Turnover Model, Duopsony. (9 Lectures)

B. Surplus Labour: The Wage-Productivity Model; Surplus Labour and Efficiency Wage; Surplus Labour in the Casual Labour Market (10 Lectures)

C. Backward Agriculture: Theory of Stagnation – Bhaduri, Newbery, Griffin, Epstein; Stagnation and Tenurial Laws; Land Contract and Incentives; Risk, Tenancy and Share Cropping. (10 Lectures)

Selected Readings:

1. Debraj Ray: Development Economics, OUP
2. Michael P. Todaro & Stephen C. Smith: Economic Development, Pearson Education
3. Kaushik Basu: Analytical Development Economics, The Less Developed Economy Revisited, OUP
4. Ha-Joon Chang (ed): Rethinking Development Economics, Anthem Press
5. G. M. Meier and J E Rauch: Leading Issues in Economic Development, OUP
6. A P Thirlwall: Growth & Development, Palgrave

Semester- III Specialization- Development Economics

ECM-305-A: Development Economics – II

Land Market: Relationship between land size and productivity; technology, insurance, labour and farm productivity; principal –agent theory- risk, moral hazard and the agency problem in land market. (8 Lectures)

Labour Market: Segmentation in labour market and labour tying; informal labour market: concepts and theories; labour market discrimination. (8 Lectures)

Rural Credit: Characteristics of rural credit markets; interlinked rural credit markets; informational asymmetries in rural credit market - types of default, and credit rationing, the lender's risk hypothesis. (12 Lectures)

The Informal Economy: Characterisation of informal sector, theories of informal sector, inter-linkage between formal and informal sectors. (8 Lectures)

Migration: Rural-urban linkages and migration; migration and urban unemployment, decent work, International labour mobility and its importance for less developed countries. (9 Lectures)

Semester- III Specialization- Econometrics

ECM-304B: Panel Data Econometrics

Introduction to Panel data in Economics- Advantages of Panel data, Issues of Panel data, Non-stationarity, Panel Co-integration. (10 Lectures)

Review Of Spatial Panel Data Models -Fixed and Random effect models: Specification, estimation and inference; Error components: A variance decomposition, GLS within groups and between groups, Testing for correlated unobserved Heterogeneity, Arellano Specification test, Robust Alternative; Introduction to unbalanced Panel data models. (14 Lectures)

Dynamic Panel Data Models-Lagged dependent variable model, GMM Estimation, Time Varying co-efficient model, Simultaneous Equation model in Panel Data. (10 Lectures)

Bayesian and Non-Parametric Estimation -Non parametric estimation- theoretical bias and variance of Nadaraya – Watson estimators, confidence interval, Band width choice, treatment effect, Introduction to Bayesian Regression. (11 Lectures)

Essential Readings -

1. Baltagi, B. (2008). *Econometric analysis of panel data*. John Wiley & Sons.
2. Cameron, A. C., & Trivedi, P. K. (2005). *Microeconometrics: methods and applications*. Cambridge university press.
3. Wooldridge, J. M. (2010). *Econometric analysis of cross section and panel data*. MIT press.
4. Green, W. H. (1997). *Econometric analysis*. Maxwell Macmillan International.

Suggested Readings -

1. Baltagi, B. H. (Ed.). (2015). *The Oxford handbook of panel data*. Oxford Handbooks.
2. Arellano, M. (2003). *Panel data econometrics*. Oxford university press.
3. Baltagi, B. H., & Hashem Pesaran, M. (2007). Heterogeneity and cross section dependence in panel data models: theory and applications introduction.
4. Baltagi, B. H., & Song, S. H. (2006). Unbalanced panel data: A survey. *Statistical Papers*, 47(4), 493-523.
5. Biørn, E. (2016). *Econometrics of panel data: Methods and applications*. Oxford University Press.
6. Breitung, J., & Pesaran, M. H. (2008). Unit roots and cointegration in panels. In *The econometrics of panel data* (pp. 279-322). Springer, Berlin, Heidelberg.
7. Edward W. Frees (2004): *Longitudinal and Panel Data*, Cambridge University Press.
8. Elhorst, P., Zandberg, E., & De Haan, J. (2013). The impact of interaction effects among neighbouring countries on financial liberalization and reform: A dynamic spatial panel data approach. *Spatial Economic Analysis*, 8(3), 293-313.
9. Hsiao, C. (2014). *Analysis of panel data* (No. 54). Cambridge university press.
10. Lee, L. F., & Yu, J. (2010). Some recent developments in spatial panel data models. *Regional Science and Urban Economics*, 40(5), 255-271.
11. Pesaran, M. H. (2015). *Time series and panel data econometrics*. Oxford University Press.

Semester- III Specialization- Econometrics

ECM-305-B - Time Series Analysis

Time Consideration in Data Analysis -Recap of Distributed Lag and Autoregressive Models

Deterministic and stochastic trends, trend stationery and difference stationary process; Integrated process and random walk, random walk with drift, Unit root and tests for unit root- Dickey-Fuller and Augmented Dickey Fuller tests, Phillips-Perron Test and KPSS

test, Unit Roots and Structural Breaks, Unit roots in regression residuals and spurious regression. (8 Lectures)

Time Series Models -Stationary time series models: AR, MA and ARMA processes – their properties, conditions for stationarity and invertibility, autocorrelation function (ACF), partial autocorrelation function (PACF), identification based on ACF and PACF, estimation, order selection and diagnostic tests. Non-stationary models: ARIMA model, Box-Jenkins Approach- Identification, estimation, diagnostic checking; Forecast function; SARIMA Modeling for seasonal data. (8 Lectures)

Spatial Data Models -Spatial Data Models Linear Models for Spatial Data- Modelling Spatial Data, Stationarity; Best Linear Unbiased Prediction of Spatial Data- Block Kriging; Prediction Based on the Semivariogram; Measurement Error and the Nugget Effect; The Effect of Estimated Covariances on Prediction; Models for Covariance Functions and Semivariograms; Covariance Models for Lattice Data; Estimation of Covariance Functions and Semivariograms. (5 Lectures)

Difference in Differences Regression -Treatment Effects, Examining the effects of discrete policy changes. (2 Lectures)

Cointegration and Error-correction Models -Linear Combinations of Integrated Variables, Cointegration and Common Trends, Cointegration and Error Correction, Testing for Co integration -The Engle–Granger Methodology, Error Correction Model; Johansen Procedure, ARDL Bounds Testing Approach.

Causality: Causal Relations in Bivariate Models; Causality Tests- Granger Causality test, Haugh Pierce Test, Hsiao Procedure, Toda-Yamamoto test; Causality Tests in a Multivariate Setting. (6 Lectures)

Modeling Volatility Clustering-Volatility-Meaning and measurement, Volatility clustering, Econometric models of volatility, ARCH Processes; GARCH Processes, Properties of GARCH Processes, and Maximum Likelihood Estimation of GARCH Models. (5 Lectures)

Multi-equation Time-Series Models-Intervention Analysis, Transfer Function Models, Estimating a Transfer Function, Limits to Structural Multivariate Estimation, Introduction to VAR Analysis, Estimation and Identification, The Impulse Response Function, Testing Hypothesis, Structural VARs. , The Blanchard and Quah Decomposition. (4 Lectures)

Forecasting -Simple exponential smoothing, Holt-Winters method, minimum MSE forecast, forecast error, in-sample and out-of-sample forecast. (3 Lectures)

Frequency Domain Analysis of Time Series-Spectral density function and its properties, Spectral density function of AR, MA and ARMA processes, and periodogram analysis. (4 Lectures)

Essential Readings

1. Gujarati, D. N., Porter, D. C., & Gunasekar, S. (2012). Basic econometrics. Tata McGraw-Hill Education.
2. Kirchgässner, G., Wolters, J., & Hassler, U. (2012). Introduction to modern time series analysis. Springer Science & Business Media.
3. Enders, W. (2008). Applied econometric time series. John Wiley & Sons.
4. Christensen, R. (2019). Advanced linear modeling: statistical learning and dependent data. Springer Nature.
5. Greene, W. H. (2003). Econometric analysis. Pearson Education India.
6. Hyndman, R. J., & Athanasopoulos, G. (2018). Forecasting: principles and practice. OTexts.

Suggested Readings -

1. Gujarati, D. N., Porter, D. C., & Gunasekar, S. (2012). Basic econometrics. Tata McGraw-Hill Education.
2. Kirchgässner, G., Wolters, J., & Hassler, U. (2012). Introduction to modern time series analysis. Springer Science & Business Media.
3. Brockwell, P. J., Brockwell, P. J., Davis, R. A., & Davis, R. A. (2016). Introduction to time series and forecasting. springer.
4. Chatfield, C. (2013). The analysis of time series: theory and practice. Springer. Introduction to Statistical Time Series: W. A. Fuller
5. Feuerverger, A. (1976). The Statistical Analysis of Time Series (TW Anderson).
6. Shumway, R. H., Stoffer, D. S., & Stoffer, D. S. (2000). Time series analysis and its applications (Vol. 3). New York: springer.
7. Maddala, G. S., & Kim, I. M. (1998). Unit roots, cointegration, and structural change.
8. Tsay, R. S. (2005). Analysis of financial time series (Vol. 543). John wiley & sons.
9. Christensen, R. (2019). Advanced linear modeling: statistical learning and dependent data. Springer Nature.
10. Hill, R. C., Griffiths, W. E., & Lim, G. C. (2018). Principles of econometrics. John Wiley & Sons.
11. Greene, W. H. (2000). Econometric analysis 4th edition. International edition, New Jersey: Prentice Hall, 201-215.
12. Hyndman, R. J., & Athanasopoulos, G. (2018). Forecasting: principles and practice. OTexts.
13. Ward, M. D., & Gleditsch, K. S. (2018). Spatial regression models (Vol. 155). Sage Publications.

Semester- III Specialisation- Resource & Environmental Economics

ECM-304-C: Fundamentals of Environmental Economics

The Role of Economics in Environmental Management: Paradigms in Environmental Economics, An Intellectual History of Environmental Economics, The Whistle Blowers, (The Institutional Approach), Issues in Environmental Economics: From Linear to Circular Economy; The Material Balance Model (Economics of Waste and Waste Management). (5 Lectures)

Environment and Development Debate: Relation between development and environmental stress; Environmental Kuznet's Curve hypothesis – theory and empirical evidences; Porter's hypothesis; differential environmental standards – race to bottom and pollution havens hypothesis; case studies; Welfare Economics and the Environment: Poverty and Environment. (8 Lectures)

Market Inefficiency and Environment: (Environmental Pollution as Economic Problem)- Market failure in the Environment Realm, Meaning & Nature, Market Failure Externalities, Classification of Externalities – positive, negative and ecosystem externalities; Pigouvian solution – taxes and subsidies; Coase theorem: Bargaining Solutions (A Case Illustration) ; Pigouvian vs Coasian solution; Market Failure Other Cases: Incomplete Markets, Non-Exclusion and Open Access Resources, Non-Rival Consumption of Public Goods, Non-Convexities, Asymmetric Information. (8 Lectures)

Pollution Control: Conventional Regulations and Alternative Market Based Instruments- Command and Control (Regulations), Economic Incentives for environmental protection; pollution taxes (Pigovian Solution), double dividend hypothesis, emission fees, tradable pollution permits (Cap-&-Trade in Practice), refundable deposits, subsidies, government spending, Command and Control versus Market Based Instruments. (8 Lectures)

Environmental Valuation and Techniques: Need for valuation, Cost Benefit Analysis and Source of Value; Market and Non-market Valuation Approaches; Direct and Indirect Valuation Methods: Hedonic (price) Method, Revealed Preference versus Stated Preference, Travel Cost Method; Contingent Valuation; Case Studies of Health, Forest and Biodiversity, Recreation and Water Quality with Particular focus on Indian Cases. (8 Lectures)

Sustainable Development: Sustainability and Sustainable Development; The Hartwick-Solow approach to sustainability; The ecological economic approach to sustainability; The safe minimum standard (SMS) approach to sustainability; Indicators of Sustainable Development- DPSIR. (8 Lectures)

Selected Readings:

1. Baumol, W.J. and W.E. Oates,. (2012) The theory of Environmental Policy, New York: Cambridge University Press.
2. Berck, Peter. & Helfand, Gloria., (2011), The Economics of the Environment, Boston: Pearson (Addison-Wesley).
3. Cato, M.S., (2020), Environment and Economy, London: Routledge.
4. Charles, Kolstad., (2010), Environmental Economics, London: Oxford University Press.

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5. Field, B., and M,Field.,(2016), Environmental Economics: An Introduction, The Mcgraw-hill Education, New York
6. Freeman, A. M., (2003), .The Measurement of Environmental and Resource Values, Washington, D.C :Resources for the Future,
7. Hanley, N., Shogren, J.F., and White. B., (2013). Introduction to Environmental Economics, London: Oxford University Press.
8. Harris, Jonathan M. & Brian, Roach., (2018), Environmental and Natural Resource Economics: A Contemporary Approach, London: Routledge.
9. Hussen, Ahmed M. (2019); Principles of Environmental Economics and Sustainability, London: Routledge
10. Lewis, Lynne. & Tietenberg, Thomas H., (2019), Environmental Economics and Policy, London: Routledge.
11. Pearce, D.W. and Turner, R. K., (2014). Economics of Natural Resources and the Environment, Baltimore: The Johns Hopkins University Press.
12. Perman, R., Ma,Yue., Common,M., Maddison, D., and McGilvray, J., (2011), Natural Resource and Environmental Economics, 4th Edition, Boston: Addison-Wesley (Pearson).
13. Sengupta, R. P. (Ed.) (2001): Ecology and Economics: An Approach to Sustainable Development, Oxford University Press, New Delhi.
14. Shankar, U. (2001): Environmental Economics, Oxford University Press, New Delhi.
15. Bhattacharya, R.N. (Ed.) (2001): Environmental Economics: An Indian Perspective, Oxford University Press, New Delhi.

Semester- III Specialisation- Resource & Environmental Economics

ECM-305-C: Natural Resource Economics

Natural Resources: Meaning, Types, Classifications (Renewable and Non-Renewable and Environmental; Energy and Mineral, Exhaustible and Inexhaustible); Resource Scarcity; Dimensions of Resource Scarcity: Physical Measures and Economic Measures- Mc. Kelvy Diagram. (06 Lectures)

Elementary Capital Theory and Natural Resources Economics: Discounting and choice of discount rate; social discount rate, Net Present Value, Internal Rate of Return, payback period, Resources and Asset Prices; Inter-temporal Choice: time preference. (06 Lectures)

Optimal Depletion of Exhaustible Resources: (a) A Simple Model of Optimal Depletion, (b) Cake Eating Theory, (c) Resource Substitution Theory, (d) Time Preference and Discounting. (08 Lectures)

Exhaustible Resource Management: Conditions and Principles: User Cost, the Fundamental Principle: Hotelling's Rule, Backstop Substitute, Extraction and Price Paths, Exploration and Technological Progress, Resource Extraction and Environment Cost.

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Economics of coal, petroleum and natural gas; pricing of exhaustible resources; energy prices– theory and empirics; economic regulation of energy markets; electricity regulation and restructuring. (12 Lectures)

Economics of Renewable Resources:

Economics of Renewable Resources: The Allocation Problem and the Method of Lagrange Multiplier. Economic models of fisheries: Net Biological growth: Functional Forms, Production Functions, The Yield-Effort Function, Models of Open Access: Static and Dynamic Analysis. Economics of optimal harvest cycles of forests. (10 Lectures)

Common Property Resources and Management Issues: Tragedy of the Commons; Common Property Resources: Management Issues. (03 Lectures)

Selected Readings:

1. Clark, Colin W., (2010), Mathematical Bio economics: The Mathematics of Conservation, New Jersey: Wiley–Blackwell.
2. Common, M.S., (1996), Environmental and resource economics: an introduction, Essex, London: Longman Group UK Limited.
3. Conrad, J.M. and C. Clark (1987), Natural Resource Economics – Notes and Problems, New York: Cambridge University Press.
4. Conrad, Jon. M., & Rondeau, Daniel., (2020), Natural Resource Economics: Analysis, Theory and Applications, New York: Cambridge University Press.
5. Conrad, Jon. M., (2010), Resource Economics, New York: Cambridge University Press.
6. Dasgupta, P and Heal, G. M. (1979), Economic Theory and Exhaustible Resources. Cambridge: Cambridge University Press.
7. Grafton, Q., Adamowicz, W., Dupont, D., Nelson, H., Hill, R.J., Renzetti, S. (2004), The Economics of Environment and Natural Resources, New Jersey: Wiley-Blackwell.
8. Hanley, N. and Spash, C.L., (1993), Cost Benefit Analysis and the Environment, Cheltenham: Edward Elgar
9. Hoel. M. (2016), Optimal control theory with applications to resource and environmental economics, Memorandum no. 8, Department of Economics, University of Oslo.
10. Karp, L. and C. Traeger., (2013), Online, See homepage Traeger, Dynamic Methods in Environmental and Resource Economics.
11. Kneese, A.V., and J. Sweeney (1993), Handbook of Natural Resource and Energy, Volume 3, Amsterdam: North Holland Publishers.
12. Kula, E, (1992) Economics of Natural Resources and the Environment, Netherlands: Springer
13. Lewis, Lynne. & Tietenberg, Thomas H., (2019), Natural Resource Economics: The Essentials, London: Routledge.
14. Prato, T., (1999), Natural Resource and Environmental Economics, New Jersey: Wiley-Blackwell. Tietenberg, T. H., (2018), Environmental and Natural Resource Economics, London: Routledge

Semester- III Specialisation- Population Studies
ECM-304 D Population Studies – I
(Population Dynamics and Demographic Indicators)

Population and its Measurement-Meaning and scope of Demography, Components of Population Growth and their interdependence, Measures of Population Change, Spatial and temporal changes in the size, composition and distribution of population – global perspective with special reference to India, Demographic, social and economic composition. (8 Lectures)

Sources of Population Data-Demographic Events, Identification of the different sources of population data, Census, Registration of vital events, Demographic surveys and population Register, Importance and limitations of Population Data Census of India-2021: Operations & Challenges. (7 Lectures)

Fertility and Nuptiality-Concept and measures of Nuptiality and Fertility, Nuptiality indicators – their computation and source of data, Marriage & divorce, Fertility indicators – their computation and sources of data, Crude birth rate (CBR), General Fertility rate (GFR), Age Specific Fertility Rate (ASFR), Total Fertility Rate (TFR), Gross Reproduction rate (GRR), Net Reproduction Rate (NRR), Cohort. (15 Lectures)

Mortality, Morbidity and Health -Mortality concept and measures, Mortality indicators – their computation and sources of data, Crude Death rate (CDR), Age Specific death rate (ASDR), Infant Mortality Rate (IMR), Maternal Mortality rate (MMR), Causes of Death Statistics, Concept and definition of Health and Morbidity, Sources of Morbidity Data, Pandemic, Epidemic and Endemic. (15 Lectures)

Selected Readings:
(Valid for all Courses of Population Studies Specialization)

1. Arthur Haupt and Thomas T Kane, Population Reference Bureau, Population Handbook, 5th edition (2004), ISBN 0-917136-12-8
2. Asha A Bhende , Tara Kaniitkar , Himalaya Publishing House , ISBN 978-93-5051-415-3, 21st Edition (2011) , Principles of population Studies.
3. Bose, Ashish;(2006), Beyond Demography: Dialogue with People, B R Pub, ISBN: 81-7646-565-8
4. Gupta, Monica Das, Chen, Lincoln C, Krishnan, T.N, (Ed) Oxford India, ISBN 019564656-8, Health, Poverty & Development in India.
5. Hansraj – Fundamentals of Demography, Surjeet Publications, ISBN-81-229-0336-3
6. Krishnamurthy Srinivasan, Population Concerns in India: Shifting Trends, Policies and Programs, Sage Publication, 2017
7. Newell, Colin; (1990), Methods and Models in Demography.
8. Patra, Aditya Kumar and Panigrahy, Rajib Lochan;(Ed).,(2010), Population and Health, Discovery, ISBN : 81-8356-584-4

9. R.K.Jain, (2013) Textbook of Population Studies , Neha Publishers & Distributors, ISBN-10 - 9789382126331
10. Ramachandrudu, G. and Prasada, Rao M, (2004), (Ed)., Census 2001 and Human Development in India, Serials Pub,ISBN : 81-86771-45-X
11. Ranganathan,C.R.,(2006), A First Course in Mathematical Models of Population Growth (With MATLAB Programs), Associated Pub, ISBN : 81-85211-63-9
12. Rawat, Ishwar Modi;(2001)(Ed).,Ageing and Human Development : Global Perspectives, ISBN : 81-7033-686-4

Semester- III Specialisation- Population Studies

ECM-305 D Population Studies – II
(Population Theories and Issues)

Population Theories-Theories of Population Growth – Malthus to Modern, Hebert Spencer, Pearl & Reed, Dumont, Karl Marx, Leibenstein., Meadows, Enke, and Simons view on Population, Limits to population Growth, Optimum theory of Population, Theory of Demographic Transition. (15 Lectures)

Migration and Urbanization-Basic concepts and definition of Migration and Urbanization, Types of Migration – Internal and International, Determinants and Consequences of Migration, concept and definition of Urban, Trends and Patterns of Migration in India, Issues in Urbanization and Urban Problems in developing countries with focus in India. (15 Lectures)

Population Movements-Basic Concept and Definition, Difference between Migration and Mobility, theories of Migration, Pull and Push Factors, lee's Theory of Migration, Ravenstein's Law of Migration, Stouffer's model of intervening opportunities and competing Migration, Gravity Model, Harris- Todaro Model of Migration, Rural – Urban Movement, Population projection. (15 Lectures)

Semester- III Specialisation- Industrial Economics

ECM-304-E: Industrial Economics –I
(Industrial Structure & Organization)

Market Structure: Market structure, Economic costs and the optimal size of the firm, Competing Through Quantity and Price, Price Discrimination in different markets, Theoretical analysis of Product Differentiation, Oligopoly Theory–Cournot, Stackelberg, Dominant firm model-Bertrand (12 Lecture)

Business Goals & and Decision Making: Business Goals and Profit maximization, Managerial Objectives, Managerial theories of the firm, Constraints on Managerial Decision Making, Advertising and market structure, Advertising – Dorfman–Steiner condition, Advertising as a barrier to entry, Research in Marketing Communications, Cultural and Ethical concerns in advertising. (10 Lecture)

Organizational Behaviour: Concepts and significance, The role of Individual Behaviour in Organizations: Motivation and Needs, Contribution of Maslow, Herzberg, Foundations of Individual Behaviour- Communication and perceptions, Leadership, Team Building & Group Dynamics and its effectiveness, Leadership Traits, Empirical evidences
(12 Lecture)

Competition in Address: Mergers & Acquisitions -Types of mergers and corporate takeovers, Uncertainty – Diversification, Rationing and Assurance of supply – Information and agency problems, Globalization of Indian Markets & Innovation, Empirical evidences
(10 Lectures)

Selected Readings:

1. Kei-Mu Yi, Michael Sposi, Jing Zhang, (Ed) (2019) Recent Developments in the Economics of Structural Change, Edward Elgar Publishing
2. Lehmann, Erik E., Keilbach, Max (Eds.) (2019) From Industrial Organization to Entrepreneurship A Tribute to David B. Audretsch, Springer
3. Mehrotra M.A. (2016) Industrial Structure Organization, Disha International, New Delhi
4. Dwivedi D.N., (2015) Managerial Economics, Vikas Publishing House
5. Gupta C.B., (2014) A Textbook of Organisational Behaviour, S Chand & Company
6. Tremblay, Victor J., Tremblay, Carol Horton, (2012) New Perspectives on Industrial Organization, With Contributions from Behavioral Economics and Game Theory, Springer
7. Brooks, Stephen G., (2007) Producing Security: Multinational Corporations, Globalization, and the Changing Calculus of Conflict, Princeton University Press
8. Das, Satya P, (2007) Microeconomics for Business, Sage Publications Pvt. Ltd,
9. Andreosso, Bernadette, Jacobson, David, (2005) Industrial Economics and Organisation, McGraw-Hill Publishing Co
10. Don Waldman and Elizabeth Jensen. S, (2000) Industrial Organization, 2nd edition
11. Church, Jeffrey and Ware, Roger, (2000) Industrial Organization: A Strategic Approach, McGraw-Hill Publishing Co., 1st edition
12. Cabral, Luis M.B., (2000) Introduction to Industrial Organization, MIT Press,
13. J. Tirole, (1988) The Theory of Industrial Organization, MIT Press
14. Spulber, Daniel F., Market (1999) Microstructure: Intermediaries and the Theory of the Firm, Cambridge University Press,
15. George, Kenneth D., Joll, Lynk, Caroline, E. L., (1992) Industrial Organization: Competition, Growth and Structural Change, Routledge,
16. N.Mishra, Modern Business Organization, Sahitya Bhawan, New Delhi
17. R.K. Lele, and J.P. Mahajan, Business Organisation, Pitamber Publishing, New Delhi
18. U.C.Mathur, Corporate Governance and Business Ethics, paperback (2005).

19. Martin, Stephen Advanced Industrial Economics, Blackwell Publishing, ,(2001)
20. Maurice, S. Charles, Thomas, Christopher R. Managerial Economics, McGraw Hill Higher Education, (2004)
21. Pepall, Lynne, Richards Dan, Norman George., Industrial Organization: Contemporary Theory and Empirical Applications, Blackwell Publishing, (2008)
22. Peterson, Lewis, Jain (2005) Managerial Economics, Pearson Education India
23. Philips, Louis (Ed), Applied Industrial Economics, Cambridge University Press, (1998),
24. Stead, Richard, Curwen, Peter, Lawler, Kevin, Industrial Economics, McGraw-Hill UK, (1996)
25. Schmalensee Richard, Willig Robert, (1989) Handbook of Industrial Organization, Volume 2 1st Edition, Elsevier

Semester- III Specialisation- Industrial Economics

ECM-305-E: Industrial Economics –II
Principle & Practices of Management

Principles of Management - Concepts and significance of management, Roles and responsibilities, Principles of Management evolution, Introduction to Scientific Management- Contribution of Taylor, Fayol, Weber, Bernard and Elton Mayo, Indian v/s Western Management, Work Ethos and Values for Indian Managers- Relevance of Value Based Management in Global Change, Trans-Cultural Human Values. (12 Lectures)

Management Practices: Planning and basic framework of Management By Objective (MBO), Framework of Ethical Decision-making-Duty, Rights based, consequence based, virtue based, Neutralization of behavior and decision-making, Strategic Business Units and Leading function, Empirical Indian cases from corporate bodies, Authority and Power, Staffing function and practices followed globally, Basic control process, Control techniques, MBE, Preventive control, Use of Information and Data Sciences in control. (12 Lectures)

Financial Management: Meaning and Scope of Financial Management, Estimating Firm's financial requirements, Capital structure – Incentive, signalling and control arguments, Separation of ownership and control, cost of capital, size of working capital, capital market, institutional mechanism for Funds, Leasing and Sub-contracting, Investment Decisions: Criteria for investment appraisal, Risk analysis in Investment decisions. (10 Lectures)

India In the Global Setting: Emergence of the New World Order in the 21st century, Globalization – traditional and modern viewpoints, India at the centre-stage of Globalization, Challenges on the Macro and micro environment fronts, Indian concept of Globalization, Evolving management practices in MNCs and TNCs, Role of Indian Ethos in Managerial Practices (8 Lectures)

Selected Readings:

1. Pasad L.M. (2019) Principles and Practice of Management, Sultan Chand & Sons
2. Khan M.Y. & Jain P.K., (2018) Financial Management: Text, Problems and Cases, McGraw Hill Education
3. Khan M.Y. & Jain P.K., (2018) Financial Management: Text, Problems and Cases | 8th Edition, McGraw Hill Education
4. Bajpai Naval (2017) Business Research Methods, Pearson Education
5. Pandey, I.M., (2016) Financial Management, Vikas Publishing House
6. Kaul, Vijay Kumar, (2015) Principles and Practices of Management, Vikas Publishing House
7. Sengupta Partho S., (2010) Principles and Practices of Management, Vikas Publishing House
8. Pillai R.S.N., Kala S., (2013) Principles and Practice of Management, S Chand & Co.
9. J.P. Mahajan (2015): Managing Human Resources, Vikas Publishing House,
10. Shejwalkar and Ghanekar (2011) Principles and Practices of Management, 20th Edition.
11. P.K Saxena (2009), Principles & Practices of Management
12. Tim Hannagan, (2007) Management Concepts & Practices
13. Donald A. Hay & Derek J. Morris (1991) Industrial Economics and Organization: Theory and Evidence, Oxford University Press, Revised edition
14. S.A. Sherlekar (1990) Modern Business Organisation and Management: Systems-based Contingency Approach to the Organisation and Management of Business, Himalaya Publishing House
15. M.Y. Khan & Jain, Management Accounting, 1984, 3rd Edition.
16. Harold Koontz, (1972) Principles of Management: An Analysis of Managerial Functions,

Semester- III Specialization- International Economics

ECM-304 F International Economics

Ancient Indian Foreign Trade: Trading activities, silk route. (4 Lectures)

Foreign exchange market efficiency, Exchange rate determination, Real and Nominal Effective exchange rates (REER and NEER), Fixed and Floating exchange rates, How Exchange Rates are affected by financial integration and deregulation. (4 Lectures)

Intertemporal current account models. International Real Business Cycle and Price Adjustments with empirical evidences. IS-LM-BP Model: Swan Diagram, Mundell-Flemming Model. Inflation and Exchange Rate Dynamics. (15 Lectures)

International Borrowing and Lending, Activities of traders, investors and speculators in spot and forward exchange market, Investment in international asset; Asset Market, Portfolio Adjustment and Exchange Rate with cross country empirical evidences. (14 Lectures)

International Human Resource Management and Strategy. International Labour Migration, Global Platform workers, Welfare Effect and Wage Convergence. (8 Lectures)

Semester- III Specialization- International Economics

ECM-305-F: International Business-II

Risk in international business. International risk sharing. Country Risk Analysis- Political, Social and Economic-Cultural and Ethical Practices-Responsibilities of International Business (with cross country empirical examples and case studies). (8 Lectures)

Institutional theory and comparative management; theories of firm boundaries. (7 Lectures)

Management of inter-firm supply network across national borders: Global value and supply chain network; markets for technology and the changing division of innovative labor in industry value chains. (with cross country empirical examples and case studies). (8 Lectures)

Foreign Direct Investment and MNCs: its Impacts, Strategy in Emerging Markets, Entry Mode in Foreign Markets: Choosing appropriate Marketing Channels, Export Pricing Methods (with cross country empirical examples and case studies). (12 Lectures)

Bilateral and Multilateral Trade, Laws- (GATT), WTO- Seattle, Doha round of talks- Dispute settlement mechanism under WTO, Problems of Patent Laws- International convention on Competitiveness, TRIPS, TRIMS, Labour standards, multi-fiber Agreement. (10 Lectures)

Semester- III Specialisation- Labour Economics

ECM-304 G Labour Economics-I

Meanings of Labour - Labour Process: Alternative Approaches. (6 Lectures)

Supply and Demand of Labour-Concept of Labour Force, Determinants of Labour Force Participation, Unemployment, Issues relating to Quality of Labour and Human Capital, Migration. Theories of Labour Demand in the Short Run and the Long Run, Technological Change and Labour Demand; Reserve Army of Labour. (15 Lectures)

Theories of Wages- Wage Differentials, Market Rigidities and Flexibilities, Internal Labour Markets, Segmented Labour Markets, Labour Market as a Social Institution. (10 Lectures)

Labour Institutions- Labour Legislation, Collective Action, Trade Unions etc. and their implications for Wages, Employment Security and Efficiency; Linkage between Labour Institutions and Macro-Economic outcomes in general. (14 Lectures)

Selected Readings:

1. Abraham, K.G. and R.B. Mckersie (eds.) (1990), New Developments in Labour Market: Towards a New Institutional Paradigm.
2. Akerlof, G.A. and J.L. Yellen (eds.) (1996), Efficiency Wage Models of the Labour Market.
3. King J.E.(1983), Labour Economics.
4. Smith R.S. & Ehrenberg R.G. (2012), Modern Labour Economics Theory and Public Policy.
5. Hicks, J.R.: The Theory of Wages
6. Berg Janine and David Kucera (eds.) (2008), In Defence of Labour Market Institutions: Cultivating Justice in the Developing World.

Semester- III Specialisation- Labour Economics

ECM-305 G Labour Economics-II

Capital – Labour Relations -Historical trajectories of class formation, Taylorism, Fordism and Post-Fordism, New International Division of Labour, Globalization and Labour.

(12 Lectures)

Labour Market-Nature and characteristics of labour markets in developing countries; Paradigms of Labour Market Analysis- Classical, New Classical and dualistic economy; demand for labour in relation to size and pattern of investments; Supply of labour in relation to growth of labour force; Segmented labour markets –Discrimination in Labour market, Labour flexibility, Informal sector.

(13 Lectures)

Decent Work- Concept, Measurement and Policy Response, Conditions of work

(9 Lectures)

Labour Welfare-Approaches to labour welfare – The Paternalistic Approach, The Industrial Efficiency Approach and Social Approach; Theories of labour welfare- Policy Theory, Religious Theory Public Relation Theory and the Functional Theory; ILO and labour welfare work.

(7 Lectures)

Labour Questions-South-South, North-South, North-North Coordination. (4 Lectures)

Selected Readings:

1. Bharadwaj, Krishna (1976), Classical Political Economy and Rise to Dominance of Supply and Demand Theories.
2. Bharadwaj, Krishna (1980), On Some Issues of Method in the Analysis of Social Change.
3. Bhattacharya S. and J. Lucassen (eds.) (2005), Workers in the Informal Sector: Studies in Labour History 1800-2000.
4. Bieler, Andreas et al (eds) (2008), Labour and the Challenges of Globalisation: What Prospects for Transnational Solidarity?
5. Boeri, Tito et al (eds) (2001), The Role of Unions in the Twenty-First Century.

6. Braverman, Harry (1974), Labour and Monopoly capital.
7. Burawoy, Michael (1985), The Politics of Production.
8. Cazes Sandrine and Verick Sher (eds.) (2013), Perspective on Labour Economics for Development.
9. Jha, Praveen et al (2021): Labour Questions in Global South

Semester- III Specialisation- Regional Economics

ECM 304 H - Regional Economics-I

Concepts – meaning and importance of regional economics; different types of region; regional income; problems of estimation; indicators of regional development, Location of firms – one market one input case. More generalized version. Locational interdependence; Hotelling phenomena; general equilibrium; uncertainty; maximizing vs. satisficing.

Regional Growth – Neo – Classical growth models – cumulative causation model; Center – periphery model; growth pole analysis; convergence and divergence of disparities in per capita regional income.

Techniques of regional analysis – regional and inter-regional input – output analysis; attraction model; Gravity model; Shift Share analysis; Impact studies.

Regional policy – People prosperity versus place prosperity; formulation of inter-regional objectives; consistency between national and regional objectives; alternative regional policy measures; Historical evidence.

Inter – regional differentials in India's development – Agriculture, Industry, physical infrastructure, social sector. Regional policy in India.

Selected Readings:

1. Chand, M. *Regional Planning in India*, Allied Publishers, New Delhi
2. V.K. Puri, Hoover, E.M. *An Introduction to Regional Economics*, Alfred. A. Knopf, New York
3. Isard, W. *Methods of Regional Analysis*, MIT Press, Cambridge
4. Richardson, H.W. *Regional Economics*, Weidenfield and Nicolson, London
5. Dholakia, R.H. *Regional Disparity in Economic Growth in India*, HPH, Bombay
6. Friedman, J. *Regional Policy Readings in Theory & Application*, MIT Press W. Alonso (Eds)
7. Rao, H. *Regional Disparities & Development in India*, Ashish Publishing House, New Delhi
8. Richardson, H.W. *Input – Output and Regional Economics*, John Wiley, New York
9. Seth, V.K. *Industrialization in India; A Spatial Perspective*, Commonwealth Publishers, New Delhi
10. Siebert, H. *Regional Economic Growth; Theory & Policy*, International Textbook Company, Scranton

Semester- III Specialisation- Regional Economics

ECM 305 H -Regional Economics-II

Regional Inequalities: Growth, density and spatial inequalities of population distribution, spatial patterns and characteristics of occupational types

Rural Development: Meaning, scope and overview of rural development, Historical Perspective: Rural Development Programmes in India, Problem/perception and Identification, Rural area Planning-Programmes for Rural Development, their coverage and outcomes, Rural Infrastructure Development – Bharat Nirman, Rural Building Centres, PMGSY, IAY, Rajiv Gandhi Technology Mission, Central Rural Sanitation Programme, PURA, Rural Employment Schemes

Regional Development and Planning: Role of Regional Planning Experience of regional planning in India, Five Year Plans, Integrated rural development programmes, Panchayati Raj and Decentralized Planning, Command Area Development, Watershed Management, Planning for backward area, desert, drought prone, hill, tribal area development, multi-level planning, development of island territories

Regional Planning and Management: Planning for Rural Areas, Planning Challenges for Rural Areas and Mega Cities, Housing and Community Planning, Metropolitan Region Planning, Special Area Planning

Regional Development Policies in India: Policies aimed at industrialization of lagging regions, development of irrigation agriculture and allied activities, providing infrastructural facilities, policy measures to abolish regional imbalance in India

Semester-IV

Course	Semester-IV	Credit
	Core Course - 01 Specialization- 01 Electives-02 Field Work/Dissertation & Viva- Voce – 01	
ECM-401	Indian Economy	3
ECM-402	Elective – I Paper—II	3
ECM-403	Elective – II Paper—II	3
ECM-404	Specialization- Paper -III	4
ECM-405	Field Work/Dissertation & Viva-Voce	4

Semester-IV Core Paper
ECM-401: Indian Economy

Foundations of Economic Reforms-Critique of Nehru – Mahalnobis Model; Crisis of 1991 – Genesis, Political Economy, Market versus Plan, Debate on abandonment of Planning, Phases of Neo-liberalism, Relation between Global Capitalism and Neo-liberalism in India. (10 Lectures)

National Income-Issues in Measurement; Structural Change and Structural Break; De-industrialisation Hypothesis; Rise of Service Sector, Convergence/Divergence Hypothesis; Inclusiveness of Growth. (10 Lectures)

Poverty-Issues in Measurement; Measurement versus Identification; Multidimensionality; Growth-Poverty Relationship. (8 Lectures)

Unemployment-Issues in Measurement; Output-Employment Relationship; Poverty-Employment Relationship; Changes in Quality of Employment; Changes in World of Work. (8 Lectures)

Economic Inequality-Bases of Inequality; Issues in Measurement; Sources of Inequality; Political Economy of Inequality; Inequality-Poverty Relationship. (9 Lectures)

Reading list for above mentioned topics shall be updated and supplied by the teacher concerned every year. Topics mentioned above are mostly in form of debate where contesting view are in public domain. The teacher is expected to make students familiar with these contesting views and students are supposed to be familiar with this. Therefore, it is expected that teacher shall focus on latest available literature and students shall go through the same on these topics. The latest available literature shall be the primary focus of questions to be asked in the end semester and the internal examinations.

Course-XVII
Elective - II

Course	Elective Paper-II
ECM-403 A	Applied Macroeconomics
ECM-403 B	Agricultural Economics-II
ECM-403 C	Health Economics-II
ECM-403 D	Gender Economics-II
ECM-403 E	Financial Institutions & Market -II
ECM-403 F	Economics of Infrastructure-II
ECM-403 G	Institutional Economics-II
ECM-403 H	Indian Public Finance-II
ECM-403 I	Behavioural Economics-II

Semester-IV Elective- Applied Macroeconomics

ECM-403 A: Applied Macroeconomics

Growth and Regional: Disparities: National Income: Method of Splicing a time series data, Non stationarity & Stationarity, Identification of Structural Breaks –Exogeneity & Endogeneity, Different test: Chow, Zivot- Andrew, Bai-perron Computation of Growth Rates – CAGR, Annual Average. Empirical Measurement of Regional Disparity – Sigma & Beta Convergence Analysis, Discussion on Literatures on Growth & Regional Disparities on India. (10 Lectures)

Aggregate Demand Estimation: Consumption Function- Estimation of Consumption Function-Absolute Income, Life Cycle and Permanent Income Hypotheses, Investment: Estimation of Investment Function, Accelerator & Distributed Lag Models, Neoclassical Models, Endogeneity and Dynamic Models. Empirical Estimation of Demand Function for and Supply Function of Exports. (12 Lectures)

Money and Inflation Dynamics: Demand Function for Money-Short-run and long-run demand functions for money; Inflation targeting and Sacrifice Ratio, Estimation of Philips curve, Supply Response Function- estimates of linear, log-linear and short-run and long-run price elasticities. (10 Lectures)

Macro Econometrics Models for India: Evolution of Macro-econometric models for India, Estimating Macro-econometrics Models for Indian Economy, Structural Equation Models, Estimation of Interaction of different markets, Policy Simulation. (13 Lectures)

Suggested Readings

1. Flaschel, P., Groh, G., Proaño, C., & Semmler, W. (2008). *Topics in applied macrodynamic theory* (Vol. 10). Springer Science & Business Media.
2. Hoover, K. D. (2011). *Applied intermediate macroeconomics*. Cambridge University Press.
3. Heijman, W. J. M. (2000). *Applied Macroeconomics*. Cereales.

4. Acemoglu, D. (2012). Introduction to economic growth. *Journal of economic theory*, 147(2), 545-550.
5. Mills, T., & Patterson, K. (Eds.). (2009). *Palgrave Handbook of Econometrics: Volume 2: Applied Econometrics* (Vol. 2). Springer.
6. Bårdsen, G., Jansen, E. S., Eitrheim, Ø., & Nymoene, R. (2005). *The econometrics of macroeconomic modelling*. OUP Oxford.
7. Balakrishnan, P. (2010). *Economic growth in India: History and prospect*. Oxford University Press.
8. Das, P. (2007). Economic growth and structural break in India: Testing unit root hypothesis. *The Journal of income and wealth*, 29(2), 29-43.
9. DeLong, J. B. (2003). India since independence: An analytic growth narrative. *In search of prosperity: Analytic narratives on economic growth*, 184-204.
10. Cherodian, R., & Thirlwall, A. P. (2015). Regional disparities in per capita income in India: convergence or divergence? *Journal of Post Keynesian Economics*, 37(3), 384-407.
11. Bakshi, S., Chawla, A., & Shah, M. (2015). Regional disparities in India: A moving frontier. *Economic and Political Weekly*, 44-52.
12. Ghosh, M. (2013). *Liberalization, growth and regional disparities in India*. Springer Science & Business Media.
13. Krishnamurthy, K. 2002. Macro-econometric models for India: Past, present and prospects. *Economic and Political Weekly* 37(42): 4295–4308.
14. Yoshino, N., Paramanik, R. N., & Gopakumar, K. U. (2020). An Aggregate-Level Macro Model for the Indian Economy.
15. Rangarajan, C., & Arif, R. R. (1990). Money, output and prices: A macro econometric model. *Economic and Political Weekly*, 837-852.
16. Jadhav, N., & Singh, B. (1990). Fiscal-Monetary Dynamic Nexus in India: An Econometric Model. *Economic and Political Weekly*, 159-165.
17. Bodkin, R. G., Klein, L. R., & Marwah, K. (1991). A history of macro-econometric model-building. *Books*.
18. Diebold, F. X. (1998). The past, present, and future of macroeconomic forecasting. *Journal of Economic Perspectives*, 12(2), 175-192.
19. Krishna, K. L., Krishnamurty, K., Pandit, V., & Sharma, P. D. (1991). Macro-econometric modelling in India: a selective review of recent research. *Econometric Modelling and Forecasting in Asia*.
20. Krishnamurty, K., & Pandit, V. (1984). Macro-econometric Modelling of the Indian Economy: An Overview. *Indian Economic Review*, 19(1), 1-15.
21. Pandit, V., & Bhattacharya, B. B. (1987). Resource Mobilization, Growth, and Inflation: A Trade-Off Analysis for India. *Asia pacific Economies: Promises and Challenges, Research in International Business and Management*, 6(Part A).
22. Padoan, P. C. (1990). Macro-econometric Modelling of the Indian Economy. *Studies on Inflation and Growth*.
23. Boumans, M., & Duarte, P. G. (2019). The History of Macro-econometric Modelling An Introduction. *History of Political Economy*, 51(3), 391-400.

24. Kalirajan, K., & Bhide, S. (2017). *A disequilibrium macro-econometric model for the Indian economy*. Routledge.
25. Srivastava, D. K. (1981). Policy simulations with a macro-econometric model of the Indian economy. *Journal of Policy Modeling*, 3(3), 337-359.
26. Palanivel, T., & Klein, L. R. (1999). An econometric model for India with emphasis on the monetary sector. *The Developing Economies*, 37(3), 275-327.

Semester-III Elective- Agricultural Economics

ECM-403 B: Agriculture Economics-II

Incentives and Disincentives for Growth: Resource allocation and its Impact on agricultural growth after 1991, Public and private investment in agriculture, Issues related to agricultural Subsidy. (6 Lectures)

Agricultural Price Policy-Fixation of Prices, Terms of trade between agricultural and non-agricultural sectors, Supply Response in Indian Agriculture, Issues relating to specification of supply response function. (9 Lectures)

Agricultural Markets & Marketing Efficiency- Regulated markets; Role of FPOs in agricultural marketing, Recent policies with respect to agricultural marketing (6 Lectures)

Political Economy of Indian Agriculture: Land reforms, The Farm size and productivity relation in Indian agriculture, Agricultural growth after 1991 and doubling farmers' income. (9 Lectures)

Sustainable Agriculture: Meaning and importance, Indicators of Sustainable Agriculture, Issues related to genetically modified seeds in India, Legislation on Plant Varieties and Farmers' Rights Protection, Contract Farming - Present Status and Future directions, Organic farming in India, Climate change in agriculture. (12 Lectures)

WTO and Indian Agriculture: Agreement on Agriculture, The issue of farm subsidies (North vs South Debate). (3 Lectures)

Selected Readings

1. The World Bank (2005), *Reenergizing the agricultural Sector to sustain growth and reduce poverty*, OUP, New Delhi
2. Confederation of Indian Industry (1998) *An Agenda for Reforms in Indian Agriculture Sector*
3. Anjani Kumar et.al, (2020), *Changing composition of private investment in Indian Agriculture and its relationship with public investment and input subsidies*, IFPRI discussion paper 01905 (can be accessed from elibrary.IFPRI.org)
4. S. Bbisaliah & S. Mahendra Dev (2010), *Private Capital Formation in Indian Agriculture*, (can be accessed at FAO.org)

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5. B.D Dhawan and S.S Yadav (1997), Public Investment in Indian Agriculture: Trends and Determinants, EPW Vol 32, No 14, April 1-05
6. N. Akber & K.R. Paltasingh, (2019) Is public investment complimentary to private investment in Indian Agriculture? Evidence from NARDL approach, Agricultural Economics, Vol 50, issue 05.
7. B. Ramaswamy (2019), Agricultural subsidies (Study prepared for XV Finance Commission) (accessible at fincomindia.nic.in)
8. M. Gautam (2015), Agricultural Subsidies, resurging Interest in a perennial debate, Indian Journal of Agricultural Economics, Vol 70, No 1, Jan -March
9. OECD (2018), Agricultural Policies in India (can be accessed at oecd-ilibrary.org)
10. S. Saini & A. Gulati, (2017), Price distortions in Indian Agriculture, IBRD, Washington (can be accessed at icrier.org)
11. M. Raghavan (2004), Terms of trade between Agriculture and non-agriculture in India, 1950/51 to 2000/01, Social Scientist, Vol 32, No 03/04, March-April
12. T. Palanivel (1995), Aggregate Supply Rresponse in Indian Agriculture: Some Empirical Evidence and Policy Implications, Indian Economic Review, New Series, Vol XXX, No 02, July-December
13. G. Mmythili (2012), Supply response of Indian farmers: Pre and Post Reforms, WP-2006-009.pdf
14. (can be accessed at oii.igidr.ac.in)
15. M. Rao(1989) , Agricultural Supply Response: A Survey , Agricultural Economics, Vol 03, Issue 01, March
16. R. Chand (2020), New Farm Acts: Understanding the Implications, NITI Aayog (can be accessed at niti.gov.in)
17. NABARD (2020) , Farmer Producers' Organization (FPOs) : Status, Issues and Policy Reforms, National Paper PLP 2019-20 (can be accessed at nabard.org)
18. Ministry of Agriculture and Farmer's Welfare, GOI (2018), Report of the Committee on Doubling of Farmers' Income , Vol I and II
19. M. Ghatak & S. Roy (2007), Land reform and agricultural productivity in India: a review of the evidence, Oxford Review of Economic policy, Volume 23, Number 02 (can be accessed at personal.lse.ac.uk/ghatak)
20. P. Dorner (1972), Land reforms and economic development, Penguin
21. M.L Dantwala & C. H . Shah (1971) , Evaluation of land reforms, University of Bombay press
22. N.E Rada & K.O. Fuglie (2019), New perspectives on farm size and productivity, Food policy, Vol 84, April. (can be accessed at sciencedirect.com)
23. G.R. Saini (1969) , Farm size, productivity and returns to scale, EPW, Vol 04, No 26, June
24. C.H. Hanumantha Rao (1965), Agricultural Production Functions, Costs and Returns in India, Asia Publishing house, Bombay
25. G. Dyer (1998) , Farm Size and Productivity : A new look at the old debate revisited , EPW, Vol 33, No 26, June-July
26. FAO (2020) , Methodological Note on SDG indicator 2.4.1 (can be accessed at FAO.org)

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27. M. Shukla et. al., (2018), Status of Research, regulations and Challenges for genetically modified crops in India, GM crops and Food, Vol 09, issue 04 (can be accessed at tandfonline.com)
28. V. Shiva (2021), Violence of the Green Revolution, Natraj Publishers, U.K edition
29. Ramanna (2003), India's plant variety and farmer's rights legislation, EPTD Discussion Paper, IFPRI (can be accessed at IFPRI.org)
30. H.R Prajapati (2020), Organic Farming: Economics, Policy and Practices, Sage Publications.
31. C. Eaton and A.W. Shepherd (2001), Contract Farming: Partnerships for Growth, FAO Agricultural Services Bulletin No 145 (can be accessed at FAO.org)
32. The Farmers (empowerment and protection) agreement on price assurance and farm services Act, 2020 (egazette.nic.in)
33. R.M. Adams (1989) , Global Climate Change and Agriculture : An Economic perspective, American Journal of Agricultural Economics, Vol 71, Issue 05, December
34. B. Praveen & P. Sharma (2019), Climate change & its impact on Indian Agriculture: An econometric analysis, Journal of Public Affairs, Vol 20, issue 01 (can be accessed at onlinelibrary.wiley.com)
35. WTO (2016), Agriculture, WTO Agreements Series, 3rd edition
36. Ministry of Commerce & Industry, Gol (2020) , Background Note on the WTO negotiations (can be accessed at commerce.gov.in)
37. T. Bernhardt (2014), North South Imbalances in the international trade regime: Why the WTO does not benefit developing countries as much as it could? Consilience: The journal of sustainable development, Vol 12, Issue 01.

Semester-IV Elective- Health Economics

ECM-403 C: Health Economics-II

Arrow's Concept of the Health Care Consumer, The Demand for Medical Care: Conceptual Framework. (3 Lectures)

The National and International Health Scenario- Health output and input indicators and their correlation with the level of economic development and with the public expenditure on health. (5 Lectures)

Resource Allocation in Health Sector- Magnitude of Healthcare Needs/Expenditure: Implications for Resource Mobilisation; Resource Allocation problem in private and government hospitals, productivity, efficiency and equity considerations applied to the hospital sector, spatial distribution of health care facilities, Pricing of Health Services the problems of multiple services of a hospital and pricing of these services, the trade-off between quantity and quality. (12 Lectures)

Costs and Benefits of Health Services-Private benefits and costs of providing health services, Impact of Technological Change on the Cost of Health Services; the failure of the market to provide essential health services, the provision of health services by the government, application of cost benefit analysis to public health and family planning

projects, benefits and costs (both private and social) of training to professional manpower in health sector. (10 Lectures)

Financing of Health Services-A review of per capita expenditure on health services over time and space, An analysis of the sources of public finance for health, Financing health services through specific (health cess) and general (direct and indirect taxes) local government revenue, the role of development financing institutions in financing health services, public private partnership in financing health care services, The need for general health insurance, the need for special health insurance for the poor, disabled and the aged. (12 Lectures)

A review of the Indian National Health Policy and discussion of feasible alternatives. (3 Lectures)

Selected Readings:

1. Alexander S. Preker and others, (2000), 'Make or Buy' Decisions in the Production of Healthcare Goods and Services: New Insights from Institutional Economics and Organisational Theory", Bulletin of World Health Organisation, 78(6), pp 779-790.
2. O'Donnell, O., and others. (2005a), 'Who Pays for Health Care in Asia?', EQUITAP Working Paper 1, Erasmus University, Rotterdam and Institute for Policy Studies, Colombo.
3. O'Donnell, O., and others. (2005b), 'Who Benefits from Public Spending on Health Care in Asia?' EQUITAP Working Paper 3, Erasmus University, Rotterdam and Institute for Policy Studies, Colombo.
4. Pablo Gottret & George Schieber (2006), Health Financing Revisited – A Practitioner's Guide, The World Bank.

Semester-IV Elective- Financial Institutions and Market

ECM-403 D: Gender Economics-II

Women and Work: Valuation of women's work - Factors affecting female entry in labour market - Supply and demand for female labour - Wage differentials in female activities - Determinants of wage differentials - Impact of technology on women's work participation. [12 Lectures]

Demography of female population - Women and their access to nutrition - Health, education, and social and community resources. [8 Lectures]

Factors affecting decision making by women - Property rights, access to and control over economic resources and assets - Power of decision making at household, class, community level - Economic status of women and its effect on work-participation rate, income level, health, and education in developing countries and India - Female contribution to national income. [15 Lectures]

Social Security of Women: Entitlements - ensuring economic independence and risk coverage - Access to credit and insurance markets - Labour market biases and gender discrimination - Affirmative action for women and improvement in their economic and social status. [10 Lectures]

Semester-IV Elective- Financial Institutions and Market

ECM-403 E: Financial Institutions & Market- II

Financial Services: An overview: Concept of Financial Services, Organization and Growth of Financial Services in India. (2 Lectures)

Investment Trusts- Meaning & Types. Merchant Banking, Concept, functions and regulation by SEBI, Issue Management Function, Merchant Banking in India, Underwriting of Capital Issues – Concept, Organisational Set-up and Regulation of Underwriting of Capital Issue, Recent Trends in Underwriting in India. (10 Lectures)

Mutual Funds – Concept and Objectives, Types of Mutual Funds and Designing, Launching and Marketing of Mutual Fund Schemes, Regulation of Mutual Funds, Asset Management Company, Income Funds, Gilt Funds, Open-ended and close ended schemes, Venture Capital Funds – Concept and Functions, Regulations of Venture Capital Funds, Trends in Venture Capital Funds in India. (10 Lectures)

Leasing and Factoring: Leasing Concept and Types of Leases, Leasing Services in India. Factoring and Forfaiting – Nature and Functions, Types of Factoring Services, Factoring Services in India. Insurance Services- Principles & Kinds of Insurance, Insurance Sector after Liberalisation, IRDA. (12 Lectures)

Corporate Restructuring-Legal and Procedural Aspects of Mergers, Amalgamations and Acquisitions, Credit Rating and Depository Services: Credit Rating – Concept and Need for Credit Rating, Credit Rating Agencies in India – CRISIL, ICRA and CARE. Depository Services – Need, Functions and Present Arrangement for Depository Services in India. (10 Lectures)

Semester-IV Elective- Economics of Infrastructure

ECM-403F Economics of Infrastructure –II

Governance and Regulation of Infrastructure in India-market size, Investment & Outcomes, Infrastructure Policy and Regulation; Infrastructure Finance; Public-Private Partnership (PPP); Models and Examples in PPP; Regional Disparities and recent initiatives. (10 Lectures)

Economic Model for Infrastructure Development: Infrastructure in a Structural Model of Economic Growth, Smart City: Key Components, Performance and Challenges, Modelling the Impact of Large Infrastructure Projects: A Case Study from Smart City projects in India with special reference to Socio –Environmental Risk, Risk Management framework for Infrastructure Projects (12 Lectures)

Special Initiatives/Programmes in Rural and Urban Infrastructure: Rural & Urban Infrastructure Development, Public-Private Partnership in Infrastructure Development, Provision of Urban Amenities in Rural Areas (PURA); PMGSY; Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY); Reviving Water Harvesting Systems and Watershed; Swachh Bharat Mission (Rural and Urban). (12 Lectures)

Banking and Financial Services: Macroeconomic Assessment of Public Investment Options, Better Business models for Infrastructure, Spread and Performance of Banking Services; Technology Interface of Financial Services; Financial Inclusion Initiatives. (8 Lectures)

Suggested Readings:

1. Picot, Arnold, Florio, Massimo, Grove, Nico, Kranz, (Ed.) (2021), The Economics of Infrastructure Provisioning -The Changing Role of the State, The MIT Press
2. Claudio Ferrari Anna Bottasso Maurizio Conti Alessio Tei, (2018) Economic Role of Transport Infrastructure 1st Edition Theory and Models, Elsevier
3. Pratap, Kumar V., Chakrabarti, Rajesh (2017) Public-Private Partnerships in Infrastructure Managing the Challenges, Springer International Publishing
4. Walter Ingo (ed.) (2016) The Infrastructure Finance Challenge, Open Book Publisher
5. Goodman, Alvin, Hastak, Makarand, (2015), Infrastructure Planning, Engineering and Economics, Second Edition, McGraw-Hill Education
6. Cockburn, J.M., Dissou, Y., Duclos, J.-Y., Tiberti, L. (Eds.) (2013) Infrastructure and Economic Growth in Asia, Springer International Publishing
7. Jonkhoff, Wouter, Manshanden, Walter (Eds.) ,(2011)Infrastructure Productivity Evaluation, Springer International Publishing
8. Majumder,Rajarshi (2008) Infrastructure And Development In India: Interlinkages and Policy Issues,Rawat Publications
9. Dash,L.N (2007) ,Economics of Infrastructure: Growth and Development, Regal Publications
10. Goodman,Alvin, Hastak,Makarand,(2006), Infrastructure Planning Handbook, McGraw-Hill Education

Semester-IV Elective- Indian Public Finance

ECM-403 G: Institutional Economics – II

Theory of Contract: The definition of a contract. Legal and economic approach to contracts. Freedom of contract, Bounded rationality and contractual incompleteness. Asymmetric information and opportunistic behaviour. Adverse selection and the closing of markets. Signaling, screening and self-selection. Principal-agent problem and agency costs. Attributes of transactions and the choice of a contract. Asset specificity, types of specific assets, Institutional environment and its role in the choice of contract. The role of trust. (15 Lectures)

The Institutional Theory of The Firm: Explanations of the firm in the New Institutional theory (F.Knight, R. Coase, A. Alchian and H.Demsetz, O.Williamson,), The market and

the firm. Comparative analyses of the alternative coordination forms. Internal market and influence costs. The boundaries of the firm. Ownership structure of the firm., Separation of ownership and control in the open corporation. Opportunistic behaviour of the managers and corporate control. (10 Lectures)

The Theory of Institutional Change: Stability of institutions and institutional change. The main sources of institutional change. The role of the state in the process of institutional change. The problem of compensation of the disadvantaged groups. (10 Lectures)

The Institutional Theory of State: Social mechanisms for constraining open access. Contractual theories of the state. Hobbes predatory theory of the state. North's model of the state. Corruption and its economics: the principal-agent framework; incentive structures; the threat system and the authority; collusion, Rent-seeking behaviour and free-riding. Basil model of corruption and its analysis. (10 Lectures)

Semester-IV Elective- Indian Public Finance

ECM-403 H: Indian Public Finances -II

Public Expenditure: Union Government – Growth and Composition of Expenditure – Revenue and Capital, Development and Non-Development, reasons for growth in Public Expenditure, Subsidies: Explicit Subsidies of the Union Government and Problem of increasing Subsidies.

State Government – Growth and Composition of states' Expenditure, Non-Development and Development Expenditure, Revenue and Capital Expenditure, reasons for growth in States' Public Expenditure. (12 Lectures)

Public Debt: Internal Public Debt: Trends in India's Internal Public Debt, Composition of Public Debt of the Union and State Government, Public Debt Management in India. External Public Debt. (7 Lectures)

Fiscal Policy: Deficit: Revenue Deficit, Effective Revenue Deficit, Primary Deficit, Fiscal deficit, Trends in Deficit Indicators. Problem of increasing Deficit at the Central and State levels, Fiscal Sector Reforms in India–Fiscal Consolidation; Fiscal Responsibility and Budget Management Act-2003; Fiscal Crisis in India, Roadmap for future Fiscal reforms in India. (10 Lectures)

Fiscal Federalism :A brief scenario of Federal Finance in India, Constitutional provisions and Statutory provisions relating to appointment of Finance Commission, issues and approaches of various Finance Commission, changing criteria for Transfer of Resources from Central to States, Devolution of Resources and Grants from Central to States; Problems of Horizontal and Vertical Imbalances, Increasing dependence of States on the Centre, Recommendations of the Fourteenth and Fifteenth Finance Commission- Criteria of Devolution, Move from Planning Commission to NITI Aayogz. (16 Lectures)

Semester-IV Elective- Behavioural Economics

ECM-403 I: Behavioural Economics-II

Behavioral Game Theory: Predicting Human Behaviour in Strategic Situations, Social Utility, Iterated Reasoning in First-Period Play and One-Shot Games, Judgment and Choice in Games, Framing, Coordination, and Representation (8 Lectures)

Cooperative Game Theory, Evolutionary Game Theory, Signaling Games, Coordination Games, Unstructured Bargaining. (6 Lectures)

Fairness and Retaliation: The Economics of Reciprocity, Positive and Negative Reciprocity, Public Goods to Social Norms, Reciprocity as a Contract Enforcement Device, Work Motivation and Performance Incentives, Wage Rigidity, Rent-Sharing, and Competition, Foundations of Incomplete Contracts, The Effect of Incentives and Punishments, Decision Theory. (12 Lectures)

Applications in Macroeconomics: Mental Accounting, Saving, and Self-Control, Self-Control and Temptation, The Differential Marginal Propensity to Consume (MPC) Hypothesis, Pensions and Saving, Individual Retirement Accounts, Housing Wealth, Saving Adequacy, Nonproportionality, Policy Implications, Golden Eggs and Hyperbolic Discounting, The Consumption Decision, Equilibrium Strategies. (10 Lectures)

Applications in Labour Economics: The Fair Wage-Effort Hypothesis and Unemployment, Equity Theory, Relative Deprivation Theory, Social Exchange Theory, Wage-Salary Secrecy, Wage Patterns, Patterns of Unemployment. (6 Lectures)

Applications in Finance: Money Illusion, Earnings, Transactions, Contracts, Money Illusion in Solow's Model of Efficiency Wages. (3 Lectures)

Selected Readings:

1. Crawford, Vincent, and Bruno Broseta. 1998. "What Price Coordination? The Efficiency-enhancing Effect of Auctioning the Right to Play." *American Economic Review*, 88: 198–225.
2. Crawford, Vincent, and Hans Haller. 1990. "Learning How to Cooperate: Optimal Play in Repeated Coordination Games." *Econometrica*, 58: 571–95.
3. Forsythe, Robert, John Kennan, and Barry Sopher. 1991. "An Experimental Analysis of Strikes in Bargaining Games with One-Sided Private Information." *American Economic Review*, 81: 253–70.
4. Friedman, Daniel. 1996. "Equilibrium in Evolutionary Games: Some Experimental Results." *Economic Journal*, 106: 1–25.
5. Fudenberg, Drew, and David Levine. 1998. *The Theory of Learning in Game*. Cambridge: MIT Press.
6. Fudenberg, Drew, and Jean Tirole. 1991. *Game Theory*. Cambridge: MIT Press.
7. Gale, John, Kenneth Binmore, and Larry Samuelson. 1995. "Learning to Be Imperfect: The Ultimatum Game." *Games and Economic Behaviour*, 8: 59–60.

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8. Goeree, Jacob, and Charles Holt. 1999. "Stochastic Game Theory: For Playing Games, Not Just for Doing Theory." Proceedings of the National Academy of Sciences, 96: 10564–567.
9. Holbrook, Robert. 1966. "Windfall Income and Consumption: Comment." American Economic Review, 56: 534–40.
10. Manchester, Joyce M., and James M. Poterba. 1989. "Second Mortgages and Household Saving." Regional Science and Urban Economics, 19: 325–46.
11. Rea, Samuel A., Jr. 1984. "Efficiency Implications of Penalties and Liquidated Damages." Journal of Legal Studies, 13: 147–67.
12. Runkle, David E. 1991. "Liquidity Constraints and the Permanent-Income Hypothesis." Journal of Monetary Economics, 27: 73–98.
13. Shea, John. 1995. "Union Contracts and the Life Cycle/Permanent-Income Hypothesis." American Economic Review, 58: 186–200.
14. Souleles, Nicholas. 1995. "The Response of Household Consumption to Income Tax Refunds." Mimeo, MIT.
15. Tidd, K. L., and J. S. Lochard. 1978. "Monetary Significance of the Affiliative Smile: A Case for Reciprocal Altruism." Bulletin of the Psychonomic Society, 11: 344–46.
16. Williamson, Oliver. 1985. The Economic Institutions of Capitalism. New York: Free Press. Valenzi, Enzo R., and I. Robert Andrews. 1971. "Effects of Hourly Overpay and Underpay
17. Inequity When Tested with a New Induction Procedure." Journal of Applied Psychology, 55: 22–27.
18. Walster, Elaine, G. William Walster, and Ellen Berscheid. 1977. Equity: Theory and Research. Boston: Allyn and Bacon.
19. Yellen, Janet L. 1984. "Efficiency Wage Models of Unemployment." American Economic Review, 74: 200–05.

Specialisation Semester-IV

	Specialization		Specialization
A.	Development Economics ECM-404A-Development Economics-III	E.	Industrial Economics ECM-404E-Marketing Dynamics
B.	Econometrics ECM-404B-Non-Linear Econometrics	F.	International Business ECM-404F-International Business-III
C.	Resource & Environmental Economics ECM-404C-Environmental Problems & Policy Issues	G.	Labour Economics ECM-404G-Indian Labour Problem
D.	Population Studies ECM-404D-Population Studies-III	H.	Regional Economics ECM-404H- Regional Economics-III

Semester-IV Specialisation- Development Economics

ECM-404 A: Development Economics-III

Major current issues in development: Globalisation versus de-globalisation; Land acquisition; Labour flexibility; international economic governance; safety nets and welfare

state; democracy and development; direct benefit transfers; development – environment trade-off.

Development Strategy and Policy: Evaluation of alternative development strategies and policies, Redistribution with growth, Structural adjustment and economic growth; redefining development; measurement of Sustainable development

Financing Development: Prior saving versus forced saving approach; Inflation saving and growth; Keynesian and Quantity theory approach to the financing of development; Aid, growth and development; Aid and the public sector; Aid and the conditionality and improvement and aid effectiveness; Aid, poverty and welfare; capital formation and foreign aid; saving constraint, foreign exchange constraint and aid.

Trade: Trade, growth and poverty alleviation; import substitution vs. export promotion, Dutch disease, export-oriented industrialization and multinationals, the advantage of cheap labour; political economy of tariffs.

Suggested Readings

1. A P Thirlwall: Growth & Development, Palgrave
2. Bank for International Settlements Papers No 100 “Globalisation and deglobalisation Monetary and Economic Department” December, 2018
3. Debraj Ray: Development Economics, OUP
4. G. M. Meier and J E Rauch: Leading Issues in Economic Development, OUP
5. Ha-Joon Chang (ed): Rethinking Development Economics, Anthem Press
6. Kaushik Basu: Analytical Development Economics, The Less Developed Economy Revisited, OUP
7. Michael P.Todaro & Stephen C. Smith: Economic Development, Pearson Education
8. Ministry of law and Justice, Government of India “The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013” (Land Acquisition Act, 2013)
9. Perkins, Radelet, Lindauer & Block: Economics of Development, W.W.Nortan and Co. Newyork
10. Simone Raudino & Arlo Poletti (ed) Global Economic Governance and Human Development, Routledge, 2018

Semester-IV Specialisation- Econometrics

ECM 404 B: Non-Linear Econometrics

Review of General Nonlinear Estimator Theory -Assumptions, Orthogonality condition, Large sample theory, asymptotic theory, Large sample properties of Nonlinear Estimator, Computation, Application, Hypothesis testing, Confidence Interval, Forecast and Calibration, & parametric restriction. (10 Lectures)

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Methods of Non-Linear Model-Maximum Likelihood estimation (MLE), Generalized method of moments (GMM), Minimum Distance, Extremum, Linear Approximation, Gauss Herton Algorithm, Taylor expansion. (12 Lectures)

Limited Dependent and Qualitative Variable -Models of Limited Dependent Variable, Discrete Regression Model, Probabilistic Choice Model, Multivariate Qualitative Variables, Censored & truncated regression model, Two stage estimation method, Tobit Model, Models with self-selectivity, Disequilibrium model. (12 Lectures)

Quantile regression (QR) and Distributional Methods-Quantile regression: integral transformation/Skorohod representation, conditional means vs. conditional quantiles, inference for quantile regression, and high-tech, 3-step procedure for censored QR, digression: duration models; Application- wage decomposition. (11 Lectures)

Essential Readings –

1. Cameron, A. C., & Trivedi, P. K. (2005). *Microeconometrics: Methods and Applications*. Cambridge University Press.
2. Greene, W. H. (2003). *Econometric analysis*. Pearson Education India.
3. Wooldridge, J. M. (2010). *Econometric analysis of cross section and panel data*. MIT press.
4. Maddala, G. S. (1986). *Limited-dependent and qualitative variables in econometrics*. Cambridge university press.

Suggested Readings -

1. Takeshi, A., & AMEMIYA, T. A. (1985). *Advanced econometrics*. Harvard university press.
2. Amemiya, T. (1994). *Introduction to statistics and econometrics*. Harvard University Press.
3. Amemiya, T. (1983). Non-linear regression models. *Handbook of econometrics*, 1, 333-389.
4. Seber GAF, Wild CJ (1989). *Nonlinear Regression*. John Wiley & Sons, New York.
5. Gallant, A. R. (2009). *Nonlinear statistical models* (Vol. 310). John Wiley & Sons.
6. Bierens, H. J. (2012). *Robust methods and asymptotic theory in nonlinear econometrics* (Vol. 192). Springer Science & Business Media.
7. Cameron, A. C., & Trivedi, P. K. (2010). *Microeconometrics using stata* (Vol. 2). College Station, TX: Stata press.
8. Mood, A., Graybill, F., & Duane, C. D. Boes (1974). *Introduction to the Theory of Statistics*.
9. Hansen Bruce.E (2021) , *Econometrics*
10. Hansen Bruce.E (2021) , *Introduction to Econometrics*
11. Van der Vaart, A. W. (2000). *Asymptotic statistics* (Vol. 3). Cambridge university press.

Semester-IV Specialisation- Resource & Environmental Economics

ECM-404 C: Environmental Problems and Policy Issues

Global Environmental Issues and Challenges, the Global Crisis -Trans-boundary environmental degradation; global economic integration and environment. (2 Lectures)

Economics of Global Climate Change -Introduction-Science and Economics of climate change; global and regional climate predictions; uncertainty in science; physical impacts of climate change – agriculture, sea level rise, health, extreme events; policy debate. (14 Lectures)

Climate Change Policy – Mitigation-Costs and benefits of greenhouse gas mitigation; integrated assessment models; simulation exercises based on DICE model and its variants; sensitivity and uncertainty analysis; Stern review.

Climate Change Policy – Adaptation-Climate change impact assessment – applications for agriculture, sea level rise and health; vulnerability assessment; economics of adaptation; measurement of adaptation cost; issues in financing adaptation; case studies Climate Change Negotiations and Equity Criteria for distribution of emission reduction burden; distribution criteria for adaptation fund; inter and intra-generational equity issues; discounting in climate change context.

International Environmental Policy and Global Politics -Conventions and treaties, Rio process 1992 to 2012, International agreements, RIO Conventions, Kyoto protocols, UNFCCC, Bali Action Plan, Paris Agreements, Carbon Market and Market Mechanisms, Climate Change Finance and Green Climate Fund, International / Multilateral Agreements and India. (10 Lectures)

Trade and Environment -Impact of trade on environment and environment on trade; Emissions Trading, Tradable permits for emission reduction – theory; carbon markets – emphasizing developing nations specially Indian market; carbon price signals; clean development mechanism and emerging trading units (6 Lectures)

Macro-Economic Policy and Environment -Green GDP, UN Methodology of Integrated Environmental and Economic Accounting, Environmental Disclosure, Corporate Environmental Responsibility. (6 Lectures)

Environmental Policy in India-Evolution of Environmental Policy; Constitutional provisions, Institutions and Legislations, Market Based Instruments, Enforcement and Implementation Issues, Environmental Governance issues and challenges; State pollution control boards and local agencies. (7 Lectures)

Selected Readings:

1. Dessler, Andrew E., (2015), *Introduction to Modern Climate Change*, Cambridge, England: Cambridge University Press

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2. FitzRoy, Felix R.& Papyrakis, Elissaios.,(2016), An Introduction to Climate Change Economics and Policy, London: Routledge
3. Giddens, Anthony., (2011), The Politics of Climate Change, New Jersey: Wiley
4. House, Trevor., Solomon Hsiang, Robert Kopp, and Kate Larsen (2015), Economic Risks of Climate Change: An American Prospectus, New York: Columbia University Press.
5. Hunter, D., J. Salzman, and D. Zaelke, International Environmental Law and Policy, Foundation Press, 2006.
6. Nordhaus, W. (2008), A Question of Balance: Weighing the Options on Global Warming Policies, Yale University Press, New Haven.
7. Nordhaus, W. and J. Boyer, Warming the World: Economic Models of Global Warming, MIT Press, 2003.
8. Nordhaus, W.D., Managing the Global Commons: The Economics of Climate Change, MIT Press, 1994.
9. S. Niggol Seo (2017), The Behavioral Economics of Climate Change, Cambridge, Massachusetts: Academic Press
10. Stavins, Robert N., ed. (2019), Economics of the Environment: Selected Readings, Seventh Edition. Northampton, Massachusetts: Edward Elgar Publishing, Inc.
11. Stern, N., (2006),The economics of climate change – The Stern Review, *Cambridge, England*: Cambridge University Press
12. Toman, M.A., U. Chakravorty, and S. Gupta,(2003), India and Global Climate Change: Perspectives on Economics and Policy from a Developing Country, Washington DC :RFF Press,.
13. Wagner, Gernot., and Martin L. Weitman., (2015), Climate Shock: The Economic Consequences of a Hotter Planet, Princeton, New Jersey: Princeton University Press

Semester-IV Specialisation- Population Studies

ECM-404 D Population Studies – III **(Contemporary Population Issues)**

Challenges of Population-Population Trends in the Twentieth Century, Population Explosion, Global perspective of Population change in the size, composition and distribution, Demographic burden Vs Dividends, Individual Ageing and Population Ageing and its impact, Interrelationship between Nutrition, Health, education and productivity. (10 Lectures)

Population and Environment-Introduction to Linkages between population and Environment, Population growth, Environment degradation and Poverty, Implication of population growth on food supply, water, sanitation, housing, employment, health and education, Sustainable development issues and population growth. (15 Lectures)

Population and Gender-Concept of Gender – its relationship with components of population – fertility, mortality and Migration, Status of women – social, economic, cultural and health, Women Empowerment and its demographic consequences. (10 Lectures)

Population Policies and Human Development -Issues Global population Policy, Evolution of new Population Policy, Strategies, Problems and prospects of population Policies, Human Development Issues, Human Capital Formation, Knowledge based Revolution, Need for Skill development. (10 Lectures)

Semester-IV Specialisation- Industrial Economics

E. Industrial Economics-III
ECM-404 E: Marketing Dynamics

Marketing Concepts: Approaches, Marketing Process, Functions, Changing marketing Strategies, Role and Techniques of Marketing Research, Analyzing trends of Micro & Macro Environment. Marketing Audit and control, Market Segmentation – Bases for market segmentation of consumer goods, industrial goods and services, Market Targeting and positioning strategies. (10 Lectures)

Product Marketing: New Product Decision Process, Types of new products, Marketing Mix – Four P's, Managing the product in Product Life Cycle, Significance in emerging global environment, Test Marketing of a new product, Packaging & Branding – Purpose, Types and New Trends in packaging. (10 Lectures)

Services Marketing: Foundation of Service Industry, Nature & Characteristics & Classification of Services, Four I's of services, Services Market Segmentation: Positioning and Differentiation of Services, Customer Satisfaction & Service Quality in Service Marketing, The trend and prospects of Service Sector – Global & Indian Scenarios. (10 Lectures)

Retail Marketing & Emergence of New areas: -Concepts & its Importance –Types of Retailing and Franchising, Emerging trends of E-Commerce and M-Commerce in India, Business to Business and Business to Customer Marketing strategies in emerging Indian market, Digital Marketing, Affiliate Marketing, Corporate Marketing and its impact in Global Scenario, Network and customer relationship management, Innovation and Technological advancements, Digital Transformation in New Normal (12 Lectures)

Selected Readings:

1. Philip Kotler and Gary Armstrong, (2017) Principles of Marketing, Pearson, 17 Student Edition, Pearson
2. Philip Kotler, & Kevin Lane Keller, (2017) Marketing Management, Pearson, 15 Edition
3. Philip Kotler, (2016) Marketing Management, Pearson
4. Srinivas,R. (2014) Case Studies in Marketing - Indian context, Prentice Hall of India
5. Kumar Arun & Meenaxi, (2011) Marketing Management, Vikas Publishing
6. Saxena Rajan (2009) Marketing Management, Tata McGraw Hill

7. V.S.Ramaswamy and S.Namakumari, (2002)Marketing Management ,Mcmillan India
8. V.S.Ramaswamy and S.Namakumari, (2002)Marketing Management ,Mcmillan India
9. Courtland L. Bovee and John V. Thill, (1992) Marketing, Tata Mcgraw Hill
10. William J. Stanton, (1986) Fundamentals of Marketing

Semester-IV Specialisation- International Economics

ECM-404 F: International Business-III

International Business Environment- Globalization- Forces, Meanings, dimensions and stages in Globalization- Kenchi Ohmae Model, Regionalism vs globalization.

(09 Lectures)

Financial Markets and Instruments- Introduction to Export and Import Finance (EXIM Bank, ECGC, Commercial Banks) Methods of Payment in International Trade. Risk Involved in Foreign Currency Financing, Managing Transaction Exposure, Suppliers Line of Credits.

(06 Lectures)

EURO Currency and Bond Markets, International Financial Management: Option contracts and Currency Futures and OPTIONS, Interest rate and Currency Swaps.

(10 Lectures)

Cases of Financial Crisis and their impacts (Asian crisis of 1998 and 2008 Global meltdown), International capital and financial centres- New York, Tokyo, London, Bombay. Indian and International Credit Rating Agencies- Moody, CRISIL. (08 Lectures) Import-Export Management; Understanding trade Logistics-Transportation, Packaging, Shipping etc. Promotion for Global reach: Social Media/Digital Marketing, Green strategy for global operations and Logistics, Emerging areas of exports in India. (12 Lectures)

Selected Readings:

1. Prakash G Apte : International Finance; A Business Perspective, McGraw Hill Professional Series in Finance
2. Paul Aserkar: Export Import Management, Oxford
3. A.C.Shapiro: Multinational Financial Management, Wiley
4. Alexander & Doherty: International Retailing, Oxford.
5. Rakesh Mohan Joshi: International Marketing, Oxford
6. Kenchi Ohmae: The Borderless World
7. Ruchir Sharma: The Rise and fall of Nations, Penguin Books
8. Paul Wetherly and Dorrton Otter: The Business Environment; Themes and Issues, Oxford South Asia Edition.

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9. Chopra and Peter Meindl: Supply Chain Management; Strategy, Planning & Operation, PHI Learning Pvt Ltd.
10. Rajat Acharyya: International Economics, Oxford
11. Wendell L. French, Cecil H. Bell & Robert A. Zawacki: Organization Development and Transformation; Managing Effective Change, Mcgraw Hill Company
12. ADB Korea Capital Market Structure: Asian Capital Market Development and Integration; Oxford
13. R.S.Sharma: India's Ancient Past, Oxford
14. Ranabir Chakravarti: Trade and Traders in Early Indian Society, Manohar Publishers
15. Kautilya, The Arthashastra, Penguin Classics.

Semester-IV Specialisation- Labour Economics
ECM-404 G Labour Economics-III

Production condition and Labour Regimes in Rural India since Independence.

(6 Lectures)

Evolution and Formation of Urban and Industrial Labour in India; Contemporary Issues and Challenges.

(6 Lectures)

State and Labour in India.

(4 Lectures)

Special Problems of labour Child and Female labours, Agricultural and rural labour; Discrimination and gender bias in treatment of labour; Second National Commission on labour: Globalisation and labour market.

(20 Lectures)

Introduction to Labour Statistics, Labour Commissions in India: Recommendations of NCEUS.

(5 Lectures)

Recent Developments: Types and Significance of Labour Code, Labour Security during Lack-down and Pandemic

(3 Lectures)

Selected Readings:

1. Government of India, NCEUS, (2007), Report on Conditions of Work and Promotion of Livelihood in the Unorganized Sector.
2. Debroy Bibek and P.D. Kaushik (eds.) (2005), Reforming the Labour Market.
3. Deshpande L.K. (1985), Segmentation of Labour Market: A Case Study of Bombay.
4. Bhaduri, Amit (2005), Development with Dignity: A Case for Full Employment
5. Jha, Praveen (1997), Agricultural Labour in India.
6. Jha, Praveen & S. Golder (2008), Labour market Regulation and Economic Performance: A Critical Review of Arguments and Some Plausible Lessons for India.

7. Jha, Praveen (2009), The Well-being of Labour in Contemporary Indian Economy: What's Active Labour Market Policy Got to do with it?
8. Thorat S.K. et.al (2010), Blocked by Caste

Semester-IV Specialisation- Regional Economics

ECM - 404:H - Regional Economics-III

Regional Dynamics: Growth of Mega and Metro Regions, Complexity and its impact on National and International scenario, convergence and divergence, Regional Economy, Competitiveness among regions, backward and leading regions in development. Special Regions: SEZ, Agro Regions, Ecological Regions (15 Lectures)

Regional Institutionalism: Institutional Ways of Regional Development, Ethical Theory for Planners and Policymakers-Ethical Land Use, Design with Nature, Property Rights, Exclusions and Entitlements, Governance Structure and Regulatory Tools, Regional Planning for Sustainability. (15 Lectures)

Cultural Setting and Regional Planning: Racial, linguistic and ethnic diversities, religious minorities, major tribes, tribal areas and their problems, cultural regions, culture specific regional planning, Cultural Attributes of a Region: Sex-ratio, age structure, literacy rate, family structure. (15 Lectures)

Semester-VI Compulsory Paper

ECM-405: Field Work/Project Work/ Dissertation

The objective of this paper would be to expose the students pursuing MA in Economics to the real world outside and develop their writing and presentation skills. The students would be therefore required to do field work and submit a dissertation/project report. The paper would be divided into two components-

- a. **Part-'A' - 60 Marks** – This would consist of doing a field survey and project work and Writing Dissertation/Project Report in the area of specialisation chosen by the students. Hence, for example, a student who has chosen Development Economics as specialization will have to do a project work related to Development Economics and submit a dissertation/project report on that. Dissertation/Project Report submitted by the students would be evaluated by the Board of Internal Examiners constituted by the Policy Planning Committee of the Department. It would be mandatory for every student to carryout field study related to the topic chosen by him/ her for the dissertation/project work.

- b. **Part-‘B’ - 40 Marks** -This would consist of Viva, fifty percent of which would give weight to the field survey conducted by the students and fifty percent to the dissertation/project report submitted.

