

REVISED SYLLABUS FOR B.A. ECONOMICS (HONS.)

General Note: The nature of several of the courses is such that only selected readings can be laid down in advance. The reading lists will be supplemented/updated in regular annual meetings of all college teachers of the University teaching B.A.(Hons.) Economics courses that the Department of Economics organises.

Course 01: PRINCIPLES OF ECONOMICS

1: Exploring the subject matter of Economics

Why study Economics? Scope and Method of Economics; The Economic Problem: Scarcity and Choice; the question of What to Produce, How to Produce and How to Distribute Output; Science of Economics; The Basic Competitive Model; Prices, Property Rights and Profits: Incentives and Information, Rationing; Opportunity Sets; Economic Systems; Reading and Working with Graphs.

2: Supply and Demand: How markets work, Markets and Welfare

Markets and Competition; Determinants of individual demand/supply, Demand/Supply schedule and demand/supply curve, Market versus individual demand/supply, Shifts in the demand/supply curve, Demand and Supply together, How Prices allocate resources. Elasticity and its application; Controls on Prices; Taxes and the Costs of Taxation; Consumer, Producers and the Efficiency of the Markets.

3: The Households

The consumption decisions -- budget constraints, consumption and income/price changes, demand for all other goods and price changes, Description of preferences [Representing preferences with indifference curves. Properties of Indifference curves], Consumers' optimum choice, income and substitution effects.

The investment decision -- investment alternatives for a household, Desirable attributes of investments

Labor Supply and Savings decision -- Choice between leisure and consumption, labour force participation, tax policy and labour supply, Human capital and education, Budget constraints and Savings, Savings and interest rate, Other factors affecting savings.

4: The Firm and Perfect Market Structure

Financing, controlling and managing firms -- The firm's legal form, Corporate Finance, why corporations care about financial structure, takeover and the market for managers, making decisions, centralization and decentralization, the boundaries of the firm.

Behaviour of profit maximizing firms and the production process, Short run costs and output decisions, costs and output in the long run.

5: Imperfect Market Structure

Monopoly and antitrust policy, government policies towards competition.

Imperfect information in the product market--The information problem, The market for lemons and adverse selection, the incentive problem, the search problem, advertising, the importance of imperfect information, government and information.

6: Input Markets

Labour and Land Markets--Basic concepts [derived demand, productivity of an input, marginal product of labour, marginal revenue product]; demand for labour; input demand curves; shifts in input demand curves; elasticity of demand in input markets; competitive labour markets; labour markets and public policy; Land markets and pure rent.

7: Exploring International Economics

The International Economy--Trade surpluses and deficits, the economic basis for trade--absolute advantage versus comparative advantage, terms of trade, exchange rates; Sources of comparative advantage -- Heckscher-Ohlin Theorem and other explanations. Trade Barriers--tariffs, subsidies and quotas; free trade or protection--case for free trade, case for protection.

8: Introduction to Macroeconomics

The roots of macroeconomics, macroeconomic concerns, the role of government in the macroeconomy, the components of the macroeconomy, the methodology of macroeconomics.

9: Introduction to National Income Accounting

Concepts of GDP and national income, approaches to calculating GDP, GDP and personal income, Nominal and real GDP, Limitations of the GDP concept, GDP and the black economy.

10: The Classical System: The Full-Employment Model

Macroeconomic Equilibrium, the labour market, the product market, the capital market; extending the full employment model

11: The Simple Keynesian Model

Aggregate expenditure and equilibrium output--aggregate output and aggregate income, equilibrium aggregate output; Government participation in the economy; Fiscal policy at work--The Multiplier effect.

12: Money in the Modern Economy

Characteristics of a monetary economy; The demand for money; The supply of money and overall liquidity position; credit creation.

13: Inflation

The causes of inflation, level of prices and the value of money, The Fisher effect, The cost of inflation.

14: Exploring the Macroeconomics of an Open Economy

Balance of Payments--The current and capital account; Determining equilibrium output in an open economy; Open economy with flexible exchange rates--Markets for foreign exchange, Factors affecting exchange rates, effects of exchange rates on the economy.

Readings

1. Karl E. Case and Ray C. Fair (2002), *Principles of Economics*, 6th Edition, Pearson Education Asia Low Price Edition.
2. N. Gregory Mankiw, (2002), *Principles of Economics*, Thomson.
3. J.E. Stiglitz, and C.E. Walsh (2002), *Principles of Economics*, 3rd Edition, W.W. Norton & Company, New York.
4. R. Stone and G. Stone (1962), *National Income and Expenditure*, Bowes and Bowes London.

Course 02: MATHEMATICAL METHODS FOR ECONOMICS

1. *Preliminaries*

Elements of logic and proof: converse and contra positive, necessary and sufficient conditions, proof by contradiction, mathematical induction. Sets and set operations. Ordered pairs, Cartesian products of sets. Relations. Functions: one-to-one and onto functions, composite functions, the inverse function. The real numbers: natural numbers, integers, rational and irrational numbers; absolute value and intervals; inequalities.

2. *Elementary Linear Algebra*

2-, 3-, and n -dimensional row and column vectors; vector addition and scalar multiplication; length of a vector, scalar products, orthogonality. Geometric representation, lines and planes in R^2 and R^3 . Linear and convex combinations of vectors. Linear independence. Convex sets.

Matrices and matrix operations: addition, scalar multiplication, matrix multiplication. The transpose. The inverse of a square matrix. Rank. Elementary row operations and computation of rank. Invertibility and rank for square matrices.

Determinants: definition, properties, minors and cofactors, the Laplace expansion, expansion by alien cofactors; singularity and invertibility; the adjoint matrix and formula for the inverse.

Linear equation systems in matrix and vector notation (m equations, n variables). The rank criterion for consistency (existence of solutions). Uniqueness of solutions; redundancy and degrees of freedom. The case $m = n$: homogeneous and inhomogeneous systems, determinantal criteria for consistency and uniqueness, matrix methods of solution and Cramer's Rule.

3. *Functions of One Real Variable and Applications of Calculus*

Examples (linear functions, polynomials, etc.) and elementary curve types. Sets of points in the plane determined by equations or inequalities.

Infinite sequence and series: the concepts of convergence and limits; algebraic properties of limits. Present discounted values and elements of investment analysis.

The limit of $f(x)$ as $x \rightarrow a$. Continuity. The intermediate-value theorem.

The derivative of a function. Differentiability and continuity. Techniques of differentiation; sums, products and quotients of functions; composite functions and the chain rule. Inverse functions. Implicit differentiation. Second and higher order derivatives. Concavity and convexity of functions: Jensen's inequality; the second derivative criterion. Points of inflexion. Differentials and linear approximation. Taylor's theorem and polynomial approximation. Indeterminate forms and L'Hôpital's Rule.

Exponential and logarithmic functions. Logarithmic differentiation. Examples of the use of the exp and log functions (proportional rates of change, elasticities, continuous compounding etc.)

Optimization: stationary points, local and global optima; location of turning points and points of inflexion using derivatives; the role of concavity and convexity. Applications.

4. *Functions of Several Variables*

[*The emphasis throughout should be on functions of two variables (and related geometrical interpretation) without, however, restricting the discussion only to this case.*]

Geometric representation; level curves. Partial differentiation; plane sections and geometrical interpretation. Tangent planes to a surface. Higher-order partial derivatives, Young's Theorem. Partial derivatives in economics.

Linear approximation and differentials. The chain rule. The implicit function theorem (statement only), first- and higher-order derivatives of functions defined implicitly, geometric interpretation.

Homogeneous and homothetic functions. Elasticity of substitution.

Concave and convex functions, Jensen's inequality and characterization in terms of the Hessian (statement only). Convex sets. Quasiconcave and quasiconvex functions.

Maxima and minima, saddlepoints, unconstrained optimization, necessary and sufficient conditions for local optima.

Constrained optimization (equality constraints). The method of Lagrange multipliers. Interpretation of the necessary conditions and of the Lagrange multiplier; geometrical meaning. Sufficient conditions. Envelope results. Economic examples.

Readings

- 1 Knut Sydsaeter and Peter J. Hammond (2002) *Mathematics for Economic Analysis*. Pearson Educational Asia: Delhi (reprint of 1st 1995 edition).
- 2 Alpha C. Chiang (1984) *Fundamental Methods of Mathematical Economics*. McGraw Hill (3rd edition).

Course 03: STATISTICAL METHODS IN ECONOMICS

1. *Elementary Distribution Theory*

Univariate Frequency Distributions measures of location, Dispersion, Skewness and Kurtosis; the first four moments about zero and central moments.

2. *Elementary Probability Theory*

Concepts of Sample space and events, probability of an event; addition and multiplication theorems; conditional probability and independence of events. Bayes rule.

Concept of a random variable; Probability distribution, Joint Marginal and Conditional Distributions, Independence of random variables; mean and variance of a random variable; binomial and normal distribution; Law of large numbers and central limit theorem.

3. *Introduction to Estimation and Hypothesis Testing*

Methods of sampling; sampling distribution of a statistic; distribution of the sample mean; sampling error and standard error of a statistic with special reference to the mean; Point and interval estimation of parameters; properties of an estimator; unbiasedness, relative efficiency and consistency.

Testing of Hypothesis; type I and type II errors, power of a test; large sample tests, t test for the mean; one tail and two tail tests for difference of means; Chi-square test for (i) goodness of fit and (ii) independence of two attributes.

4. *Bivariate Distributions and Simple Linear Regression:*

Marginal and conditional distributions: discrete case; Covariance and correlation: rank correlation.

Simple linear regression; method of least squares; Derivation of the normal equation; standard error of regression (SER), properties of the least squares estimator, Gauss-Markov Theorem, Simple tests of hypothesis on regression coefficients, linear and exponential trend, point and interval forecasts.

5. *Index Numbers:*

Concept of an index number. Laspeyer's, Paasche's and Fisher's Index Numbers; Time Reversal, Factor reversal and circular tests; Chain base index; Problems in the Construction of an index number; splicing; base shifting and use of index number for deflating other series.

Readings:

1. P.H. Karmel and M. Polasek, *Applied Statistics for Economists* (4th edition), Pitman, Australia.

2. Allen Webster, *Applied Statistics for Business and Economics*, (3rd edition), McGraw Hill, International Edition 1998.
3. M.R. Spiegel (2nd edition), *Theory and Problems of Statistics*, Schaum Series.

Course 04: MICROECONOMICS

1. **Consumer Theory:**
Preference, utility, budget constraint, choice, demand, Slutsky equation, buying and selling, choice under uncertainty, inter temporal choice, revealed preference.
2. **Production and Costs:**
Technology, Isoquants, production with one and more variable inputs, Returns to scale, short run and long run costs, cost curves in the short run and long run.
3. **Market Structure and Game Theory**
Review of perfect competition and monopoly; Pricing with market power; price discrimination, peakload pricing, two-part tariff; monopolistic competition and oligopoly; Game Theory and competitive strategy
4. **General Equilibrium and Economic Efficiency**
Exchange, production and welfare
5. **Market Failure**
Externalities, public goods, markets with asymmetric information

Readings:

1. Robert S. Pindyk and D.L. Rubinfeld, (2000), *Microeconomics*, 3rd edition, Prentice Hall India.
2. Hal R. Varian (1993), *Intermediate Microeconomics, a Modern Approach*, 3rd edition, Affiliated East-West Press.

Course 05: MACROECONOMICS

1. ***The Closed Economy in the Short Run***
Classical and Keynesian Systems; IS-LM model; fiscal and monetary multipliers; aggregate demand and aggregate supply, the accounting identities.
2. ***Inflation and Aggregate Supply Curve***
Phillips curve; adaptive and rational expectations; policy ineffectiveness debate.
3. ***The Medium Run***
Government budget constraint; financing government expenditure through taxes, bonds money creation.
4. ***Open Economy Models***
Short run open economy models: the Mundell Fleming model.
Exchange rate determination: purchasing power parity, asset market approach; Dornbusch's overshooting model. The monetary approach to balance of payments.
5. ***Economic Growth***
Harrod-Domar model; Solow model; elements of endogenous growth.
6. ***Microeconomic Foundations***
Consumption; investment; demand for money and supply of money.

Readings:

1. Rudiger Dornbusch, Stanley Fischer and Richard Startz, *Macroeconomics*, 7th or later edition, McGraw Hill.
2. N. Gregory Mankiw *Macroeconomics*, 4th or later edition, Worth Publishers.
3. Jones, Charles I. (1998), *Introduction to Economic Growth*, W.W. Norton & Company, Chapters 1, 2, 8.
4. Sen, A.K.,ed.(1970) *Growth Economics*, Penguin Books.
5. Attfield, C.L.F., D. Demery and N.W. Duch (1991), *Rational Expectations in Macroeconomics*, 2nd edition, Blackwell, Chapters 1, 2, 4,.
6. Sheffrin, Steven, M. (1996), *Rational Expectations*, 2nd edition, Cambridge University Press.

Course 06: ECONOMIC HISTORY OF INDIA 1857-1947

1. Colonial India: An Overview
2. Trends in macroeconomic aggregates: Population, labour force and occupational structure; National Income; Foreign trade and balance of payments; Saving and investment; Money supply and prices.
3. Railways and Economic Change
4. Agriculture, land, labour, capital, technology, commercialization, famines and environment.
5. Traditional and Modern Industry: The deindustrialization hypothesis, rise of the modern industrial sector during the pre-war and the interwar period, industrial labour, growth of entrepreneurship.
6. The Role of Government
7. The Indian Economy at Independence

Readings

1. A.K. Bagchi (1976), "Deindustrialization in India in the Nineteenth Century: Some theoretical implications", *Journal of Development Studies*.
2. A.K. Bagchi (1972), *Private Investment in India*, Orient Longman (1st ed), Ch.2.
3. J.N. Bhagwati and Padma Desai (1970), *India, Planning for Industrialization*, Oxford University Press, Chs. 2 & 3.
4. Basudev Chatterjee, *Trade, Tariffs & Empire, Lancashire and British Policy in India, 1919-1939*, Oxford University Press, New Delhi, 1992, ch.2.
5. Rajnarayan Chandavarkar (1985), "Industrialization in India before 1947: Conventional Approaches and Alternative Perspectives", *Modern Asian Studies*.
6. Jean Dreze, "Famine Prevention in India", in J. Dreze, and A.K. Sen, (eds), *Political Economy of Hunger*, WIDER Studies in Development Economics.
7. D.R. Gadgil (1971), *The Industrial Evolution of India in Recent Times*, Oxford University Press.
8. Omkar Goswami (1989), "Sahibs, Babus and Banias: Changes in Industrial Control in Eastern India", *Journal of Asian Studies*.
9. Sumit Guha (1991), "Mortality Decline in Early 20th Century India", *Indian Economic and Social History Review*.

10. Sumit Guha (1999), *Environment and Ethnicity in India, 1200-1991*, Cambridge University Press, Ch.8.
11. Ira Klein(1984), "When Rains Fail: Famine Relief and Mortality in British India", *Indian Economic and Social History Review*.
12. Dharma Kumar (ed.) (1983), *The Cambridge Economic History of India, Vol. II*, Cambridge University Press, Chs. 4, 5, 6, 8.2, 10 & 12,
13. Morris D. Morris (1965), *The Emergence of an Industrial Labour Force in India: A Study of the Bombay Cotton Mills 1854-1947*, Oxford University Press, last chapter.
14. Rajat Ray (ed) (1992), *Entrepreneurship and Industry in India, 1800-1947*, Oxford University Press, Introduction.
15. Rajat Ray (1979), *Industrialization in India*, Oxford University Press, Ch. 4.
16. Tirthankar Roy (2000), *The Economic History of India, 1857-1947*, Oxford University Press, Ch.3, 4, 7, 8 & 9.
17. Sivasubramonian (1997), "Revised estimates of the national income of India, 1900-1901 to 1946-47", *Indian Economic and Social History Review*.
18. B.R. Tomlinson (1993), *The Economy of Modern India*, Cambridge University Press, Ch.1 & 2.
19. B.R. Tomlinson (1979), *The Political Economy of the Raj 1914-1947: The economics of decolonization in India*, Macmillan, Ch. 3 & 4.

Course 07: India's Economic Development since 1947

Unit 1: Major features of Indian economy at Independence

Unit 2: Growth, development and structural change

- a) The experience of growth and development: planning and the market
- b) Growth and Development experience in different Phases of Growth defined broadly (but not exclusively) by reference to changes in policy regimes and goals of development.

Growth and structural change
Growth and distribution
Human development and environment
Regional contrasts

- c) Indian development experience in international perspective: factors, strategy and policy

Unit 3: Issues in Indian economic Policy

- a) Population and Human resource development
- b) Growth, unemployment and poverty
- c) Macro economic stabilisation: Trade, Fiscal and Monetary policy issues.
- d) Agriculture, industry, services and trade

Unit 4: India's development prospects - looking ahead

Readings: (To be reviewed annually to keep abreast of new Readings)

1. Montek S. Ahluwalia, (2002), "State-level Performance under Economic Reforms in India", in A.O. Krueger (ed), Economic Policy Reforms and the Indian Economy, The University of Chicago Press.
2. Pranab Bardhan (2003), Poverty, Agrarian Structure and Political Economy in India: Selected Essays, OUP, Ch.5.
3. Jagdish Bhagwati, (1993), India in Transition, Freeing the Economy, Clarendon Press, Ch.2.
4. _____ and Padma Desai,(1970) India: Planning for Industrialization (Oxford University Press), Ch.2.
5. S. Chakravarty, (1987), Development Planning: The Indian Experience, Clarendon Press, Chs. 2,3 and 5.
6. V.M. Dandekar, (1992), "Forty Years After Independence" in Bimal Jalan (ed.), The Indian Economy, Problems and Perspects, Viking Press.
7. Angus Deaton and Jean Dreze (2002), "Poverty and Inequality in India: A Re-examination", EPW, September 7, 2002.
8. Jean Dreze and Amartya Sen,(2002), India Development and Participation, OUP, Chs. 2,3,5,6 and 7.
9. Jean Dreze and Gita Kingdon (2001), " School Participation in Rural India", Review of Development Economics, Vol.5, No.1.
10. Rakesh Mohan (2003), "Small Scale Industry Policy in India: A Critical Evaluation" in A.O. Krueger (ed.) Economic Policy Reforms and the Indian Economy.
11. Sebastian Morris (2001), "Issues in Infrastructure Development Today: The Inter linkages", in India Infrastructure Report, OUP.

12. B.S. Minhas (1991), Public vs. Private Sectors: Neglect of Lessons of Economics in Indian Policy Formulation, R.R. Kale Lecture, Gokhale Institute of Politics & Economics, Pune.
13. R. Nagaraj (2003), "Industrial Policy and Performance Since 1980", EPW, August 30 – September 7, 2003.
14. Kirit S. Parikh, A. Ganesh Kumar and Gangadhar Darbha (2003), "Growth and Welfare Consequences of Rise in MSP", EPW, March 1, 2003.
15. Mihir Rakshit (2001), "On Correcting Fiscal Imbalances in the Indian Economy: Some Perspectives", Money and Finance, ICRA Bulletin, July-September 2001.
16. Mihir Rakshit (2002), "Food Policy in India: Some Longer-Term Issues", Money and Finance, ICRA Bulletin, April-September, 2002.
17. V.M. Rao, and P.D. Jeromi,(2000) "Modernizing Indian Agriculture: Priority Tasks and Critical Policy" Study No.21, DRG, RBI.
18. S.K. Ray (1996), "Land Systems and the Reforms in India", Indian Journal of Agricultural Economics, January-June 1996.
19. T.N. Srinivasan, (2000), Eight Lectures on India's Economic Reforms, OUP.
20. T.N. Srinivasan (2003), "India's Fiscal Situation: Is a crisis Ahead?" in A.O. Krueger (ed.), Economic Policy Reforms and the Indian Economy.
21. T.N. Srinivasan, and Suresh D. Tendulkar (2003), Reintegrating India with the World Economy, OUP, Chs. 2 and 3.
22. K. Sundaram and Suresh D. Tendulkar (2002), The Working Poor in India: Employment Poverty Linkages and Employment Policy Options, Issues in Employment and Poverty, Discussion Paper 4, ILO, Geneva, September 2002.

Course 08: ECONOMY, STATE AND SOCIETY

1. *Analysing Socio-Economic Change in Historical Perspective.*
2. *Capitalism as an Economic System:* Origins, nature and structure of capitalism; Accumulation and crisis; Alternative perspectives on capitalism.
3. *The transition from Feudalism to Capitalism.*
4. *The Evolving Structure of Capitalism:* Monopoly capitalism; The modern corporation: divorce between ownership and control; The institutional diversity of capitalism; Alternative perspectives on the role of state.
5. *Capitalism in a Global Context:* Multinational corporations and their impact on the developing economies; imperialism.

Readings:

1. Gurley (1978): "The Materialist Conception of History", Ch.2.1 in R. Edwards, M.Reich and T. Weisskopf (ed.), *The Capitalist System* (2nd edition), and editorial comment in 3rd edition (1986) pp. 7-10, Prentice Hall.
2. O. Lange, *Political Economy*, vol 1 , Chapters 1 and 2.
3. R.L. Heilbroner (1987), "Capitalism", in *The New Palgrave Dictionary of Modern Economics*, Macmillan. Also reprinted as Chapter 2 in *Behind the Veil of Economics* by R.L. Heilbroner (1988), W.W.Norton.
4. D. Foley (1983), "Commodity", in T. Bottomore et al (ed.) , *The Dictionary of Marxist Thought.*, OUP. (Indian edition, Maya Blackwell, 2000) .
5. A. Shaikh (1983), "Economic Crises" and "Falling Rate of Profit", in T. Bottomore et al (eds.) , *The Dictionary of Marxist Thought* , OUP. (Indian edition, Maya Blackwell, 2000) .
6. P. Kenway (1987), "Crises" and "Realisation Problem" in *The New Palgrave Dictionary of Modern Economics*, Macmillan.
7. T. Bottomore (1985), *Theories of Modern Capitalism*, Allen & Unwin. Chapters on Weber and Schumpeter.
8. J. Schumpeter (1942), *Capitalism, Socialism and Democracy*, George Allen and Unwin (1976 edition), Chapters 7 and 8.
9. P. Baran (1957), *The Political Economy of Growth*, Chapter 3, (Pelican edition, 1973).
10. J.K. Galbraith (1967), *The New Industrial State*, Chapters 2 – 7.
11. R. Blackburn,(ed.) (1972), *Ideology in Social Science*, Chapter 8, Fontana.

12. S. Hymer : Part I of "The Multinational Corporation and the Law of Uneven Development", in H. Radice (ed.) *International Firms and Modern Imperialism* (also in J. Bhagwati (ed.) *Economics and the World Order from the 1970s to the 1990s*)
13. W. Lazonick (1994), "Social Organisation and Technological Leadership", in W. Baumol et al (ed.) *Convergence of Productivity* , Oxford .
14. P. Hirst and J. Zeitlin (1997), "Flexible Specialisation : Theory and Evidence in the Analysis of Industrial Change", in R. Boyer et al (ed .), *Contemporary Capitalism*, Cambridge University Press.
15. M. Kalecki (1943), "Political Aspects of Full Employment", in E.K. Hunt and J.G. Schwarz (eds.) *A Critique of Economic Theory* (Also in Kalecki, *Selected Essays on the Dynamics of the Capitalist Economy* , Cambridge University Press, 1971).
16. T.N. Srinivasan (1985), "Neoclassical Political Economy", chap. X.10.1 in G.M. Meier (ed.) *Leading Issues in Economic Development* (6th edition), OUP India, 1995.
17. Peter Evans (1998), "Transnational Corporations and the Third World States", in R. Kozul - Wright and R. Rowthorn (ed.), *Transnational Corporations and the Nation State* (till sec 6.2), Macmillan.
18. Prabhat Patnaik (1986), "Introduction" (pp. 1-21) in *Lenin and Imperialism*, ed. P. Patnaik , Orient Longman.
19. Prabhat Patnaik (1996): "Globalisation of Capital and the Theory of Imperialism", *Social Scientist*, Nov.- Dec., pp. 5 - 17.
20. Rodney Hilton (ed.) *The Transition from Feudalism to Capitalism*, Introduction.
21. Paul Sweezy, A. Critique, in Hilton (ed.)
22. Maurice Dobb, A. Reply, in Hilton (ed.)

Course 09:DEVELOPMENT THEORY AND EXPERIENCE

Part I: Growth and Development

Development and underdevelopment (size of the market; characteristics and measures of development); Historical experience of development (stages of growth; late industrialization; structural analysis).

Poverty and inequality (conceptual issues and measurement; capabilities and entitlements; policies for poverty reduction)

State and the market (market failure; government failure; conflict versus complementarity)

Project Appraisal and Social Cost Benefit Analysis

Part II: Resources

Capital and technical progress (role of capital; capital output ratio; resource allocation; level and pattern of capital formation; patterns of technical progress; technology and unemployment; obsolescence; choice of techniques)

Labour and employment issues (population growth; demographic transition; human resource development; surplus labour; open and disguised unemployment; informal sector; rural-urban migration)

Land and the rural economy (overview of farm and non-farm sector; credit and micro-credit; interlocked markets; natural resources; environment and sustainable development)

The Environment and Sustainable Development, Non Renewable resources.

Part III: Globalisation and Development

Trade policy debate (export promotion and import substitution, WTO – structure and functions; WTO and LDCs)

Foreign capital (role and limitations; MNCs; Third World debt crisis; private foreign investment; IMF and World Bank)

Part IV: Overview and Contemporary Issues

Readings

1. Michael P. Todaro (1997), *Economic Development*, International Student (Sixth) Edition, Addison-Wesley
2. Debraj Ray (1998), *Development Economics*, OUP
3. Gerald M. Meier (1995), *Leading Issues in Economic Development*, Sixth Edition, OUP
4. Jean Dréze and Amartya Sen (1995), *Economic Development and Social Opportunity*, OUP
5. A.P. Thirlwall (1999), *Growth and Development with Special Reference to Developing Economies*, Macmillan, 6th Edition
6. S Chakravarty, “The State of Development Economics” based on Lecture at Manchester University in 1985, Ch.8, pp.184-203 in S. Chakravarty (1997): *Writings on Development*, Oxford University Press.

COURSE 10: INDIAN AGRICULTURE AND INDUSTRY

PART-I: AGRICULTURE

1. ***Agricultural Performance since Independence***
Output and productivity growth: regional and crop perspectives. Growth and instability.
2. ***The Policy Environment***
Agricultural price policy and subsidies; The public distribution system
3. ***Resource Use Efficiency***
Fertiliser, Water, Other inputs
4. ***Current Issues in Indian Agriculture (selected topics)***
Sustainable agricultural growth—concepts and constraints
Prospects for dryland agriculture
International trade in agriculture
Technology policy
Market infrastructure
Crop insurance
5. Agricultural Exports
Quantitative Restrictions (QRs) and Non tariff barriers
WTO and Subsidies in Developed Countries
Management of Shortages and surpluses.

Readings

1. Vaidyanathan, A. (1994), "Performance of Indian Agriculture since Independence" in Kaushik Basu (ed.), *Agrarian Questions* Oxford University Press.
2. V.M. Rao, (2001), "The Making of Agricultural Price Policy: A Review of the CACP Reports" *Journal of Indian School of Political Economy* vol. XIII, no. 1, Jan-March.
3. Robert Evenson, Carl Pray and Mark Rosegrant (1999), *Agricultural Research and Productivity Growth in India* (IFPRI Research Report 109).
4. Gunvant Desai and A. Vaidyanathan (1995), *Strategic Issues in Future Growth in Fertiliser Use in India*, Macmillan.
5. Ashok Gulati (2000), "Indian Agriculture in an Open Economy: Will it Prosper?" in Ahluwalia and Little (eds.), *India's Economic Reforms and Development: Essays for Manmohan Singh*, Oxford University Press.

PART-II: INDUSTRY

1. ***Overview of the Industrial Scene in India***
Trends in growth and productivity; Competitiveness and changes in Policy Regimes
2. ***Issues relating to the Composition of Indian Industry***
 1. Small vs. Large Industry
 2. Public vs. Private Sector, with emphasis on:
 3. Performance of the public sector
 4. Privatisation
 5. Dynamics of the Industrial Sector: Growth and Sickness

3. Trends in Industrial Regulation and Control

Pricing in the public and private sectors

Employment growth in the industrial sector

4. Policy Issues and Future Prospects

Infrastructure; Technology

5. Issues of Management

Limiting market abuses

FDIs/FIIs

6. Financing of Industry

Ownership and Efficiency

Equity markets

Readings

1. J. Bhagwati (1993), *India in Transition: Freeing the Economy*, Clarendon Oxford 1993
2. Mrinal Datta Chaudhri (1990), Market Failure and Government Failure: *Journal of Economic Perspectives*
3. NCAER *The India Infrastructure Report* (Rakesh Mohan Committee)
4. Department of Disinvestment, White Paper, 2000
5. Dilip Mookherjee, ed. (1995), *Indian Industry*, Oxford University Press, New Delhi.

Course 11: MONEY AND FINANCIAL MARKETS

1. *Money in the Financial System*

Money and its functions; financial markets, financial instruments and money; Demand for money -- various approaches, Money and Capital market, Financial deepening.

2. *Money Supply Analysis*

Theory of money supply; money multiplier analysis; monetary aggregates; monetary aggregates in India; financial innovations
Central Bank's Functions, Reserve/High Powered Money.
Monetary Survey and Central Bank's Balance sheet.

3. *Analysis of Interest Rates*

Interest rates in closed and open economies; Theories of term structure

4. *Financial Markets*

Banking system, bond market, foreign exchange market, equity market
Introduction to the concept of Derivatives
Futures, Options, Call/Put.

5. *Monetary Policy*

Goals, targets, indicators and the transmission mechanism; instruments of monetary policy

6. *Monetary Management in An Open Economy*

International capital markets, portfolio diversification; the international monetary system; monetary policy in India's open economy; financial sector reforms in India. The Narasimham Committee Report.

Readings

1. M.K. Lewis (2000), *Monetary Economics*, OUP
2. M.R. Baye, D.W. Jansen (1996), *Money Banking and Financial Markets*, AITBS, (Indian Edition)
3. Maurice Levi (1999), *International Finance*, Tata McGraw Hill
4. L.M. Bhole (1999), *Financial Institutions and Markets*, Tata McGraw Hill
5. R.B.I. *Bulletin, Annual Report*; *Report on Currency and Finance*
6. R.B.I. - Report of the Committee on the Financial System (Narasimham Committee Report I)

7. R.B.I. - Report of the Committee on Banking Sector Reforms (Narasimham Committee Report II) Summary in RBI Bulletin, July, 1998.
8. R.B.I. - Report of the Working Group : Money Supply Analytics and Methodology of Compilation, 1998.
9. Y.V. Reddy (2000), *Monetary and Financial Sector Reforms in India* UBSPD, New Delhi

Course 12: PUBLIC ECONOMICS

Part I: Theory

1. Fiscal functions: An overview
2. Tools of normative analysis: Pareto efficiency, equity and the social welfare function; market failure
3. Public goods: definition, models of efficient allocation, pure and impure public goods, free riding
4. Externalities: The problem and its solutions, taxes versus regulation, property rights, the Coase Theorem
5. Taxation: Its economic effects; dead weight loss and distortion, efficiency and equity considerations, tax incidence, optimal taxation
6. Fiscal federalism, the economic basis of decentralisation.

Part II: Indian Public Finances

1. The Indian tax system
2. Public expenditure in India: Its pattern and growth
3. Public debt, deficits and subsidies in the Indian economy
4. Centre-State financial relations

Readings

1. R.A. and P.B. Musgrave, (1989), *Public Finance in Theory and Practice*, McGraw Hill.
2. Harvey Rosen (1999), *Public Finance*, McGraw Hill.
3. John Cullis and Philip Jones (1998), *Public Finance and Public Choice*, Oxford University Press.
4. J. Richard Aronson (1985), *Public Finance*, McGraw Hill.
5. Government of India (1992), Interim Report of the Tax Reforms Committee, Ministry of Finance.
6. R.J. Chelliah (1996), *Towards Sustainable Growth*, Oxford University Press.
7. Mihir Rikshit (2000), "On Correcting Fiscal Imbalances in the Indian Economy: Some Perspectives", *ICRA Bulletin*.
8. Mahesh Purohit (2001), *Value Added Tax*, Gayatri Publications.
9. Rakesh Mohan (2000), "Fiscal Correction for Economic Growth: Data, Analysis and Suggestions", *Economic and Political Weekly*, June 10.
10. D.K. Joshi and J.L. Bajaj (1999), *Government Finances*, NCAER (mimeo).
11. M.G. Rao and Tapas Sen (1996), *Fiscal Federalism in India*, Macmillan.
12. Government of India (2000), Report of the Eleventh Finance Commission.
13. D.K. Srivastava (ed.) (2000), *Fiscal Federalism in India: Contemporary Challenges*, Har Anand Publications, New Delhi.

Course 13: COMPARATIVE ECONOMIC DEVELOPMENT [1850-1950]

Perspectives on Comparative Economic Development: (a) Features of and trends in Modern Economic Growth -- a brief discussion of Kuznets' findings (b) Gerschenkron's hypothesis of Economic Development in Historical Perspective

An overview of economic development of the countries selected for case studies -- Britain, Germany, U.S.A., Japan and USSR.

Changes in the structure of agriculture and economic development -- Britain, Japan and U.S.S.R.

Role and pattern of industrialisation in Britain, Japan and U.S.S.R.

Labour markets and labour processes - Britain and Japan

Financial institutions and economic development in Germany, U.S.A and Japan

Foreign trade and economic development -- Britain, Japan and USA.

Role of the State in economic development (regulatory and developmental role) -- Japan, USA and USSR.

Readings

1. G.C. Allen, "Industrialisation of the Far East" in *Cambridge Economic History of Europe (CEHE)*, Vol.VI, Part II,
2. W.A. Cole, "The Growth of National Incomes", *CEHE*, Volume VI, Part I.
3. Richard A. Easterlin, Davis and Parker (1972) *American Economic Growth: An economist's History of the United States*. Harper & Row Chs. 1, 9,14 and 17.
4. Phyllis Deane (1966), *The First Industrial Revolution*, Cambridge University Press, Ch.3
5. Phyllis Deane, "Great Britain" Ch.3 in the *Fontana Economic History of Europe (FEHE)*, *The Emergence of Industrial Societies*, Part one.
6. Maurice Dobb (1977), *Soviet Economic Development since 1917* ed.6, Routledge & Kegan Paul, Chs. 9, 10
7. A. Gerschenkron (1969), *Economic Backwardness in Historical Perspective*, Harvard University Press, Ch.1
8. Bertrand Gille, "Banking and Industrialization in Europe 1730-1914", in *FEHE, The Industrial Revolution*. Vol. 3, Ch. 4.
9. Paul R Gregory and Robert C. Stuart (1986), *Soviet Economic Structure and Performance*, Harper & Row (3rd ed) Chs. 1,4,5 & 7.
10. Gregory Grossman, "Russia and the Soviet Union" in *FEHE*, Vol IV, Part II, Ch. 8.

11. Y Hayami (1975), *A Century of Agricultural Growth in Pre-War Japan: Its Relevance to Asian Development*. University of Minnesota Press, Chs. 1, 3, and 8.
12. E.J. Hobsbawm (1968), *Industry and Empire: An Economic History of Britain since 1750*. Weidenfeld & Nicholson, Chs.1,2,3,5,6.
13. E.J. Hobsbawm (1984), *World of Labour: Further studies in the history of labour*. London Weidenfeld & Nicholson, Ch. 11
14. Chalmers Johnson (1982), *MITI and the Japanese Miracle: The Growth of Industrial Policy 1925-1975*, Stanford University Press, Chs.1,9.
15. Okochi, Karsh and Levine (1965), *Workers and Employees in Japan, The Japanese Employment relations system*, University of Tokyo, Ch.13
16. Simon Kuznets, *Economic Growth and Structure*, Oxford & IBH, Ch.1.
17. Simon Kuznets (1966), *Modern Economic Growth: Rate, Structure & Spread*, Yale University Press, Ch 10.
18. W.W. Lockwood (ed) (1965), *State and Economic Enterprise in Japan*, Princeton University Press, Ch.2, 195-215.
19. W.W. Lockwood (1966), *Economic Development of Japan*, Expanded edition, Princeton University Press, Chs.6,7 & 10
20. Peter Mathias (1983), *The First Industrial Nation, An Economic History of Britain, 1700-1914*. 2nd edn, Methuen Chs.1,3,8 and 15.
21. Roderick Floud and D. McCloskey (ed) (1981), *Economic History of Britain Since 1700*, Cambridge University Press, (2nd ed) Ch. 12.
22. T. Nakamura (1983) *Economic Growth in Pre-War Japan*, Tr. by Robert A Feldman, Yale University Press, Chs. 1, 2, 3, 5 and 6.
23. Alec Nove (1969) *An Economic History of USSR*, Penguin, 1969, Chs.5,6,7,8,9.
24. Sidney Pollard, "Labour in Great Britain" in *CEHE*, ch3, Vol. VII, Part I.
25. Michael Piore and Charles Sabel *The Second Industrial Divide: Possibilities for Prosperity*. Basic Books.
26. Richard Tilly, "German Banking" in *Journal of European Economic History*, 1986, Vol. 15. No.1.
27. William Woodruff, "Emergence of International Economy 1700-1914" in *FEHE*, *The*

Course 14: INTRODUCTORY ECONOMETRICS

1. *Nature and scope of econometrics*
2. *Review of Statistics*
 - (i) Descriptive statistics: (a) the univariate case, (b) the bivariate case;
 - (ii) Random Variables and Probability distributions;
 - (iii) Estimation of parameters; Testing of hypotheses
3. *Classical Linear Regression Model : Two Variable Case*
 - (i) Descriptive Aspects
 - (ii) Properties of Least Squares estimates; tests of hypotheses and confidence intervals; Gauss - Markov Theorem
 - (iii) Forecasting
4. *Classical Multiple Linear Regression Model.*
 - (i) Descriptive Aspects : Least Squares Estimation ; R^2 and Adjusted R^2 ; Partial Correlations
 - (ii) The Classical Model : Gauss - Markov Theorem ; Standard Error of Estimate
Standard errors of regression coefficients
 - (iii) Tests of Hypotheses : Single Parameters ; Sets of Parameters
 - (iv) Forecasting
 - (v) Functional Forms of Regression Models
 - (vi) Dummy Variables
5. *Violations of Classical Assumptions and Remedies*
 - (i) Multicollinearity
 - (ii) Heteroscedasticity
 - (iii) Auto-correlation
6. *Specification Analysis*
 - (i) Omission of a relevant variable
 - (ii) Inclusion of irrelevant variable
 - (iii) Tests of Specification Errors
7. *Simple Applications of Least Squares*
 - (i) Estimation of Engel Functions
 - (ii) Estimation of Cobb-Douglas Production function
 - (iii) Estimation of Consumption function

Readings

1. D. Gujarati (1999), *Essentials of Econometrics*, McGraw Hill.
2. A.S. Goldberger (1998), *Introductory Econometrics*, Harvard University Press, Cambridge.

Course 15: TOPICS IN MICROECONOMICS

1. *Decision theory under uncertainty*

2. *Basic notions of non-cooperative game theory*

Complete information games in extensive form (relatively informal introduction) and strategic form; pure and mixed strategies; dominant strategies equilibrium, Nash equilibrium and subgame perfect equilibrium.

3. *Applications of material in Section 2*

Cournot, Bertrand, Stackelberg, Hotelling, Prisoners' Dilemma, Centipede, Battle of the Sexes, Chicken, Simple dynamic game (e.g. entry deterrence), Auctions (sealed-bid first price, sealed bid second price, English, Dutch), etc.

4. *Incomplete information games*

5. *Moral hazard problems*

6. *Adverse selection problems*

7. *Signaling games*

Readings

1. L.M.B. Cabral, (2000) *Introduction to Industrial Organization*, MIT Press.
2. P.K. Dutta (1999) *Strategies and Games: Theory and Practice*, MIT Press.
3. E. Rasmusen (1994) *Games and Information: An Introduction to Game Theory*, 2nd Edition, Blackwell.

Course 16: TOPICS IN MACROECONOMICS

1. **Mathematical Prerequisites:**
Difference equations; differential equations; phase plane analysis; dynamic optimization
2. **Growth Theory:**
Solow model; optimal growth; overlapping generations model; endogenous growth
3. **Rational Expectations:**
Lucas critique; policy ineffectiveness; time inconsistency; Dornbusch's overshooting model
4. **New Keynesian Models:**
 - (a) Real and nominal price rigidity: menu costs; co-ordination failures; imperfect competition
 - (b) Real and nominal wage rigidity: insider-outsider models; efficiency wages; implicit contracts.
5. **Non Walrasian Economics:**
Dual decision hypothesis; Keynesian and Classical unemployment
6. **Structuralist Macroeconomics:**
Closed and open economy structuralist models.

Readings

1. M. Hoy, J. Livernois, C. McKenna, R. Rees, T. Stengos (1996), *Mathematics for Economics*, Addison-Wesley.
2. A.C. Chiang (1992), *Elements of Dynamic Optimization*, McGraw Hill.
3. C. Jones (1998), *Introduction to Economic Growth*, Norton.
4. O. Blanchard and S. Fischer (1989), *Lectures on Macroeconomics*, MIT.
5. W. Scarth (1996), *Macroeconomics*, Dryden.
6. S. Sheffrin (1996), *Rational Expectations*, Cambridge University Press.
7. R. Dornbusch (1980), *Open Economy Macroeconomics*, Basic Books.
8. N. Mankiw and D. Romer (1991), ed., *New Keynesian Economics*, MIT, 2 volumes. Selected Readings.
9. W. Branson (1989), *Macroeconomic Theory and Policy*, 3rd Edition, Harper Collins.
10. L. Taylor (1991), *Income Distribution, Inflation and Growth*, MIT.

Course 17: INTERNATIONAL ECONOMICS

Part I

The subject matter of international economics

Comparative advantage: Ricardian, specific-factors, and Heckscher-Ohlin models.

Terms of trade, immiserising growth, and the transfer problem.

New trade theories: economics of scale and imperfect competition

International factor movements: labour migration and foreign investment.

Trade policy and welfare, with special reference to developing countries.

The international trading system: WTO and preferential trading agreements.

Part II

Review of national income and balance of payments accounting.

The foreign exchange market and exchange rate determination.

Open economy macro-economics: Determination of output, interest rates and exchange rates in the long and short runs.

Macro-economic policy in an open economy and international policy coordination: fixed and flexible exchange rates.

International monetary institutions and issues: IMF, currency crises, stabilization and other contemporary issues.

Readings:

1. Paul Krugman and Maurice Obstfeld, *International Economics: Theory and policy*, latest edition, Pearson Education low-price edition, distributed in India by Addison-Wesley Longman.
2. W.M. Corden (1974), *Trade Policy and Welfare*, Clarendon Oxford , Chapters 1,2 and 9.
3. T.N. Srinivasan (1998), *Developing Countries and the Multilateral Trading System*, OUP, Delhi, Chapters 5-8.
4. Amitav K. Dutt (1995), "The Open Economy" in Prabhat Patnaik (ed.), *Macro-economics*, OUP, Delhi.