

# **ORDINANCES FOR M.A. ECONOMICS**

## **(Credit Based Semester Programme)**

### **Admission**

- University offers full time M.A. Economics programme of 4 semesters.
- Admission to MA 1<sup>st</sup> year in Semester I will be made as per the rules prescribed by the University from time to time.
- The reservation policy as prescribed by the Central and the State Government or its directions regarding admission from time to time shall be adhered in the admission.
- If, at any time after admission, it is found that a candidate has not fulfilled all the requirements stipulated in the offer of admission or has committed some fraudulent act at any stage then the university reserves the right to revoke the admission of the candidate.

### **Eligibility For Admission**

- A candidate shall be eligible for admission if he/she possess Bachelor's Degree under 3years pattern of education with Economics/Statistics/Mathematics as a subject in the third year of graduation and a minimum 40% marks in aggregate in graduation.
- The exact eligibility criteria for admission M.A. Economics programmes shall be as prescribed by the University from time to time and university has the power to repeal and modify the eligibility criteria for admission in future.

### **PROGRAMME DURATION**

- The duration of the M.A. programme for the candidates admitted in semester I will be of two academic years (4 semesters).
- The duration of each semester will generally be 90 working days. There are two regular semesters in a year. The semester that begins in July (*July to December*) is known as *Odd Semester* and the semester that begins in Jan (*Jan to June*) is known as *Even Semester*.

## **EXAMINATION AND ASSESSMENT**

- Each course in each of the 4 semesters will be of 100 marks in which 70 marks are devoted to semester end exam and 30 marks for internal evaluation. Internal evaluation of each paper shall consists of— (i) Seminar- 10 marks, (ii) One sessional test-10 marks; and (iii) attendance and overall performance.
- In assessing the performance of student in exams, awarded marks obtained by students will be converted into letter grades and grade points as per the procedure recommended by the UGC to compute the Semester Grade Point Average (**SGPA**) and Common Grade Point Average (**CGPA**).

## **OBJECTIVES:**

1. Prepare Students with knowledge of basic economic theories, methods of economic theories and methods of economic analysis.
2. Training students in conventional economics and new developments in theories and economic policies.
3. Enabling students to understand analyze economic issues, ideas and problems correctly.
4. Covering the syllabus of important competitive examination to prepare students for competition.
5. Keeping pace with latest developments, approaches and policies in the field of economics.

## **OUT COME:**

After successful completion of the course, the students

- Would be able to find out respectable and rewarding job both in public and private sector.
- Would be able to start its own business, career in academics, computer related services, consultation services etc.
- Would be able to take admissions in quality institutions for research activities.
- Would have better understanding and skill in policy formation, economic analysis and entrepreneurship.

## **STRUCTURE**

MA Economics (Choice Based Credit Semester System) will be a 100 credit course. Overall total 20 courses are well spread over 4 semesters. These courses are divided in to three categories- Core Courses (5 credit each), Sub Elective Courses (5 credit each) and Open Elective Courses (5 credit each).

### **Number of Courses and Credits**

<b>S.N.</b>	<b>Types of course</b>	<b>Numbers of credit per course</b>	<b>Total Number of course Type</b>	<b>Total credit for the particular type</b>
1	Core	5	12	60
2	Sub Elective	5	4	20
3	Open Elective	5	4	20
<b>Total Credit</b>				<b>100</b>

### **Semester wise Break-up of courses**

<b>S.N.</b>	<b>Types of course</b>	<b>Semester I</b>	<b>Semester II</b>	<b>Semester III</b>	<b>Semester IV</b>	<b>Total</b>
1	Core	3(15)	3(15)	3(15)	3(15)	12(60)
2	Sub Elective	1(5)	1(5)	1(5)	1(5)	4(20)
3	Open Elective	1(5)	1(5)	1(5)	1(5)	4(20)
<b>Total</b>		<b>5(25)</b>	<b>5(25)</b>	<b>5(25)</b>	<b>5(25)</b>	<b>20(100)</b>

Note: Figures in brackets are credits.

**Core Courses:** These courses will be compulsory for all students. There will be 12 (Twelve) core courses in all Out of these, 3 (three) courses would be taught in each Semester.

**Elective Courses:** These courses are divided in to two categories - Sub Elective Courses (5 credits each) and Open Elective Courses (5 credits each). Students would be required to elect any 1 (one) course from the list of sub elective and any 1 (one) course from the list of open elective in each Semester. Students from other discipline can elect any 1 (one) course from the list of open elective.

For each course of 5 credits, there will be 6 sessions in every week. Each session will be of 50 minutes duration. Out of 6 sessions per week, 4 sessions will be devoted to lectures and 2 sessions for tutorials for intensive teacher- taught interaction, exercise, project work and seminar in both core and elective courses.

### Credit Structure of M.A. Economics

#### First Year: Semester I

##### Core Courses

Course No.	Course code	Course Name	L	T	Credit	Max. Marks	SE	IE
I	ECC-101	Microeconomic Analysis	60	30	5	100	70	30
II	ECC-102	Public Finance	60	30	5	100	70	30
III	ECC-103	Problems of Indian Economy: Basic Issues	60	30	5	100	70	30

##### Elective Courses

Sub Elective(Any One Course to be offered)								
IV	ESE-104	Statistical Methods	60	30	5	100	70	30
V	ESE-105	Theory of Agricultural Economics	60	30	5	100	70	30
Open Elective(Any One Course to be offered)								
VI	EOE-106	Industrial Economics	60	30	5	100	70	30
VII	EOE-107	Indian Public Finance	60	30	5	100	70	30

**Total 5 Courses (3 + 1+1)**

**Credit = 25**

#### First Year: Semester II

##### Core Courses

Course No.	Course code	Course Name	L	T	Credit	Max. Marks	SE	IE
I	ECC-201	Advanced Economic Theory	60	30	5	100	70	30
II	ECC-202	Fiscal Economics & Federal Finance	60	30	5	100	70	30
III	ECC-203	Indian Economy Industrial & External Sector	60	30	5	100	70	30

### Elective Courses

<b>Sub Elective(Any One Course to be offered)</b>								
IV	ESE-204	Probability Theory and Statistical Inference	60	30	5	100	70	30
V	ESE-205	Agricultural Reforms and Marketing	60	30	5	100	70	30
<b>Open Elective(Any One Course to be offered)</b>								
VI	EOE-206	Project Appraisal	60	30	5	100	70	30
VII	EOE-207	Economics of Social Sector	60	30	5	100	70	30

**Total 5 Courses (3 + 1+1)**

**Credit = 25**

### Second Year: Semester III

#### Core Courses

Course No.	Course code	Course Name	L	T	Credit	Max. Marks	SE	IE
I	ECC-301	Monetary Economics	60	30	5	100	70	30
II	ECC-302	International Trade	60	30	5	100	70	30
III	ECC-303	Environmental Economics	60	30	5	100	70	30

#### Elective Courses

<b>Sub Elective(Any One Course to be offered)</b>								
IV	ESE-304	Demography	60	30	5	100	70	30
V	ESE-305	Econometric Methods	60	30	5	100	70	30
<b>Open Elective(Any One Course to be offered)</b>								
VI	EOE-306	History of Economic Doctrines	60	30	5	100	70	30
VII	EOE-307	Economic Growth	60	30	5	100	70	30

**Total 5 Courses (3 +1+1)**

**Credit = 25**

## Second Year : Semester IV

### Core Courses

Course No.	Course code	Course Name	L	T	Credit	Max. Marks	SE	IE
I	ECC-401	Monetary Institutions and Policy	60	30	5	100	70	30
II	ECC-402	International Macroeconomics	60	30	5	100	70	30
III	ECC-403	Economic Approach to Environmental Issues	60	30	5	100	70	30

### Elective Courses

<b>Sub Elective(Any One Course to be offered)</b>								
IV	ESE-404	Population Problems	60	30	5	100	70	30
V	ESE-405	Econometric Theory	60	30	5	100	70	30
<b>Open Elective(Any One Course to be offered)</b>								
VI	EOE-406	History of Economic Thought: Keynes & Indian	60	30	5	100	70	30
VII	EOE-407	Modern Growth Theory	60	30	5	100	70	30

**Total (3 +1 + 1)**

**Credit = 25**

**Abbreviation: L = Lectures, T = Tutorials, SE = Semester Exam, IE = Internal Evaluation**

## Semester wise Syllabi (MA Economics)

### Semester I

Course code	Course Name	Type of Course
ECC-101	Microeconomic Analysis	Core
ECC-102	Public Finance	Core
ECC-103	Problems of Indian Economy: Basic Issues	Core
ESE-104	Statistical Methods	Sub Elective
ESE-105	Theory of Agricultural Economics	Sub Elective
EOE-106	Industrial Economics	Open Elective
EOE-107	Indian Public Finance	Open Elective

### ECC-101: Microeconomic Analysis

<b>Unit I</b>	Types of Equilibrium, Stability of Equilibrium, Cobweb Theorem, Demand Function, Elasticity of Demand, Theory of Consumer behaviour: Marginal Utility Theory, Indifference Curve Technique, Revealed Preference Theory, General Equilibrium: Walras	12 Lectures
<b>Unit II</b>	Recent Development in Demand : Economics of Risk and Uncertainty , Neumann-Morgenstern measure of Utility, Consumer Behaviour in Gamble, Insurance, Choice between Gamble & Insurance, Friedman Savage hypothesis, Constant Elasticity demand Function, Indirect Utility Functions, Expenditure Function, Lancaster's Theory, Bandwagon, Snob & Veblen Effects	12 Lectures
<b>Unit III</b>	Production Function: Cobb-Douglas, CES and VES function, Production Laws: Short run and long run, Least cost factor combination, Cost Functions from production function, Technical change and production function.	09 Lectures
<b>Unit IV</b>	Theory of Pricing: Basic features and equilibrium of firm in short and long run in perfect competition, monopoly and monopolistic competition, Price discrimination, Economic Surplus, Dead weight loss, Excess capacity of Chamberlin, Bilateral monopoly, Models of Collusive and Non Collusive oligopoly, Non Price Competition.	15 Lectures
<b>Unit V</b>	Theory of Games: Two person zero sum game, Games under pure & mixed strategies , Non cooperative games, Prisoners' Dilemma , Implications for Imperfect markets.	12 Lectures

#### Books Recommended:

- Henderson J, and R.E. Quandt: Microeconomic Theory: A Mathematical Approach , Mc Grow Hill, New Delhi
- Koutsoyiannis A: Modern Microeconomics: ELBS, Macmillan, Tokyo
- Varian, H.R.: Intermediate microeconomics: A Modern Approach, East West Press, New Delhi
- Hirshleifer, J and A Glazer: Price Theory and Applications, Prentice Hall of India, New Delhi
- Browning & Browning: Microeconomic Theory and Application, Kalyani Publications.
- Rubin field & Pindyck: Micro economics , Maxwell Macmillan.
- H.L. Ahuja: Advanced Economic Theory (Hindi & English)
- Mishra & Puri: Advanced Microeconomics, Himalaya Publishing House.
- M.L. Jhingan: Advanced Economic Theory, Vrinda Publications, Delhi
- P.K. Gupta & D.S. Hira: Operation Research, S. Chand & Company.

## ECC-102 : Public Finance

<b>Unit I</b>	Role of Government in Organized Society. Concepts of Public Goods, Private Goods and Merit Goods; Causes of Market Failure -- Imperfections, Decreasing costs, Externalities and nature of public goods.	10 Lectures
<b>Unit II</b>	Theory of Social Goods, Musgrave's Budget Model, Political Process of Voting and the Provision of Public Goods.	15 Lectures
<b>Unit III</b>	Public Expenditure: Structure and Growth of Public Expenditure - Wagner's Law of Increasing State Activities, Wiseman- Peacock hypothesis. Public Expenditure in Relation to Economic Activity, Employment and Income Distribution.	13 Lectures
<b>Unit IV</b>	Public Revenue: Principles of taxation -- Benefit Theory of Taxation, Ability to Pay Theory of Taxation.	10 Lectures
<b>Unit V</b>	Theories of incidence; Excess burden, Effects of taxation, Double taxation, Taxation and Incentives, Theory of Tax Structure, changes during economic development. Goods and Service Tax (GST).	12 Lectures

### **Books Recommended:**

- Musgrave, R.A. and P.B. Musgrave, Public Finance in Theory and Practice, McGraw Hill, Kogakusha, Tokyo.
- Herber, B.P., Modern Public Finance, Richard D. Irwin, Homewood.
- Musgrave, R.A., The Theory of Public Finance: A Study in Public Economy, Tokyo, McGraw Hill Book Co. and Kogakusha Co., ( International student Edition)
- Musgrave, R.A., Fiscal Systems.
- Houghton, R.W., Public Finance
- Cutt, James.,Taxation and Economic Development in India, Frederick A Praegar Publishers, New York.
- Gandhi, V.P., Some Aspects of India's Tax Struture, Vora and Company, Bombay.

### ECC-103 : Problems of Indian Economy: Basic Issues

<b>Unit I</b>	National Income: Concept, Trends, Composition and Structural change, Sectoral growth, Income Distribution and Income Inequality, Regional Disparities.	12 Lectures
<b>Unit II</b>	Poverty in India: Absolute and Relative, Poverty indices- Poverty Ratio; Poverty Gap Index and Squared Poverty Index; Multi-dimensional Poverty index; Analysis of Poverty in India, Inclusive Growth, Unemployment- Unemployment Rates; Elasticity; Structure and Jobless Growth; Social Welfare Schemes; Interrelation between Population, Development and Environment. Labour Force and Occupational Distribution of Population, Population Growth, Population Problem, Latest Census, Population Policy.	18 Lectures
<b>Unit III</b>	Planning in India: Objectives and Strategy of Planning; Achievements of Plans, Plan Models in India.	8 Lectures
<b>Unit IV</b>	Resource Base and Infrastructure: Energy-Hydro,Thermal, Nuclear, Transport and Communication,Social infrastructure -- Education, Health and Environment, Sustainable Development	7 Lectures
<b>Unit V</b>	Agriculture Sector: Role of Agriculture, Interrelationship between Agriculture and Industry, Growth of Indian agriculture. Institutional aspects -- Land reforms, Green Revolution, Technological Change in Agriculture, Agriculture Price Policy of India, Agricultural Finance, Agricultural Marketing, Food Security.	15 Lectures

#### ***Books Recommended:-***

- Datt, R. and K.P.M. Sundharam, Indian Economy, S. Chand & Company Ltd., New Delhi.
- Misra, S.K. and V.K. Puri, Indian Economy -- Its Development Experience, Himalaya Publishing House, Mumbai.
- Kapila, Uma., Indian Economy : Since Independence
- Agrawal, A.N., Indian Economy, New Edge International Pvt Limited, New Delhi.
- Government of India, Economic Survey (Annual), Economic Division, Ministry of Finance, New Delhi.
- Ahluwalia, I.J. and I.M.D. Little (Eds), India's Economic Reforms and Development ( Essays in honour of Manmohan Singh), Oxford University Press, New Delhi.
- Jalan, B, India's Economic Policy -- Preparing for the Twenty-first Century, Viking, New Delhi.

- Parikh, K.S., India Development Report -- 1999-2000, Oxford University Press, New Delhi.
- Datt, R. (Ed.), Second Generation Economic Reforms in India, Deep & Deep Publications, New Delhi.
- Wadhawa, Charan, D., Some Aspects of Indian Economy
- Lucas and Papanek, The Indian Economy-Recent Development and Future Prospects
- Uppal, J.S., India's Economic Problems
- Agrawal, A.N and S.P.Singh., The Economics of Under Development
- Myrdal, Gunnar, Asian Drama (Vols. I and II)
- Sen, A.K. Choice of Techniques
- Hicks, Mukherjee and Ghosh, The Economic Framework of the Indian Economy
- Ahluwalia, Isher, J. Industrial Growth in India
- Bhagwati, J.W. and Desai, Padma., India: Planning for Industrialisation
- Bagchi, A., The Political Economy of Under Development in India
- Dandekar, V.M. and N. Rath, Poverty of India

### ESE-104 : Statistical Methods

<b>Unit I</b>	Measures of Central Tendencies: Mean, Median, Mode, Quartiles and Percentiles. Measures of Dispersion: Mean and Standard Deviation, Skewness and Kurtosis, Moments upto fourth order.	12 Lectures
<b>Unit II</b>	Correlation Analysis: Assumptions and Concept of Correlation, Karl Pearson's and Spearman's Rank Correlation Coefficients and their Properties, Partial and Multiple Correlation. Association of Attributes, Independence of Attributes, Coefficients of Association.	14 Lectures
<b>Unit III</b>	Regression Analysis: Dependent and Independent Variables, Curve Fitting by Method of Least Squares (First and Second Degree Curves), Lines of Regression, Coefficients of Regression.	12 Lectures
<b>Unit IV</b>	Index Number: Concept of Index Number, Chain Base and Fixed Base Index Number, Laspeyre, Paasche and Fisher Index Number, Tests for an Ideal Index Number.	10 Lectures
<b>Unit V</b>	Interpolation and Extrapolation: Concept, Assumptions and Uses of Interpolation and Extrapolation. Methods of Interpolation and Extrapolation -- Binomial Expansion and Newton's Formula.	12 Lectures

#### **Books Recommended:**

- Mood, A.M. and P.A. Graybill: *Introduction to the Theory of Statistics*.
- Yule, G.U. and M.G. Kendall: *An Introduction to the theory of Statistics*.
- Gupta, S.C. and V.K. Kapoor: *Fundamentals of Mathematical Statistics* (eighth edition), S. Chand & Sons Publications, New Delhi.
- Gupta, S.C. and V.K. Kapoor: *Fundamentals of Applied Statistics* (third edition), S. Chand & Sons Publications, New Delhi.
- Gupta, S.C. and V.K. Kapoor: *Elements of Mathematical Statistics* (fourth edition), S. Chand & Sons Publications, New Delhi.
- Elhance, D.N.: *Fundamentals of Statistics* (Hindi Ed.)
- Agarwal, D.R.: *Statistics for Economists*, Vrinda Publications, New Delhi.
- Gupta, B.N.: *Statistics* (fourth edition), Sahitya Bhawan Publication, Agra (UP).
- Shukla S.M. and Sahay S.P.: *Statistical Analysis* (Hindi Ed.), Sahitya Bhawan Publication, Agra (UP).
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## ESE-105 : Theory of Agricultural Economics

<b>Unit I</b>	Nature and Scope of Agricultural economics; Difference between agricultural economics and industrial economics; Problems of agriculture in developing countries.	10 Lectures
<b>Unit II</b>	Role of agriculture in economic development; Economic growth with traditional agriculture; Economic theories of agriculture development: Lewis, Fei-Ranis and Mellor Thoery.	15 Lectures
<b>Unit III</b>	Agriculture production functions: Concept and Types of Agricultural Production Function. Returns to scale in agriculture, Production Decesions: Factor-Product Relationship, Factor-Factor Relationship, Product-Product Relationship,	18 Lectures
<b>Unit IV</b>	Economics of Farm size, Agriculture productivity in developing Countries.	7 Lectures
<b>Unit V</b>	Problems of Unemployment and under employment in agriculture; Saving and capital formation in agriculture.	7 Lectures

### ***Books Recommended:***

- The Indian Society of agricultural Economics. Readings in Agriculture Economics. Comparative Experience of Agricultural development in Developing Countries.
- Khusro, A.M., Reading in Agricultural Development
- Eicher and Witt, Agricultural and Economics Development
- Sowth W. and Jhonston, Agricultural Development and Economics Growth
- Mellor, J.W., The Economics of Agricultural Development
- Scultz, T.W., Economics Growth and Agricultural.
- Heady, E.O., Economics of Agricultural Production and Resuorces Use.
- Shukla, Tara, Economics and Under-development Agriculture.
- Shukla, Tara, Capital Formation in Agriculture.

- Shephered, G.S., Agricultural Price Analysis
- Singh, Baljit, Whether Agriculture in India
- Sen, S.R., The Straegy for Agricultural Development
- Jain, S.C., Agriculture Policy in India
- Dwivedi, R.C., New Strategy of Agricultral Development in India
- N.C.A.E.R., A Strategy for Agriculture Planning.
- Planning Commission, Five Year Plans
- Planning Commission, Reports of the Committee of the Panel on Land  
\_\_\_\_\_ReformsU.N.O.,
- Land Reforms Reports.

### EOE-106 : Industrial Economics

<b>Unit I</b>	Meaning and Scope of Industrial Economics, Basic Concepts of Industrial Economics -- Concept and Types of Firm, Concepts of Industry, Market, Market Structure, Market Power, Market Conduct and Market Performance. Profit maximizing Goals and Alternative Goals of a Firm.	15 Lectures
<b>Unit II</b>	Expansion and Growth of Firm: Concept, Types and Motives of Diversification, Vertical Integration, Merger. Growth of Firm: Need for Growth of a firm, Theories of Growth of Firm – Downie, Penrose and Maris Model.	15 Lectures
<b>Unit III</b>	Market Innovation: Concept of Innovation Process -- Innovation, Invention and Imitation, Measurement of Innovation Activities, Determinants of Innovation Activities. Advertisement activity of Firm.	12 Lectures
<b>Unit IV</b>	Concept of Industrial Efficiency – Technical Efficiency, Factor Price Efficiency and Productive Efficiency. Factors Determining Industrial Efficiency, Concept and Measurement of Industrial Productivity.	12 Lectures
<b>Unit V</b>	Industrial Concentration – Concept, Types and Measurement of Industrial Concentration, Industrial Concentration in India.	6 Lectures

**Books Recommended :**

- Divine, P.J. and R.M. Jones et. al.: *An Introduction to Industrial Economics*, George Allen and Unwin Ltd., London.
- Hay, D. and D.J. Morris.: *Industrial Economics -- Theory and Evidence*, Oxford University Press, London.
- Bains, J.S.: *Industrial Organisation*, Cheltenham, U.K.
- Barthwal, R.R.: *Industrial Economics* (second edition), New Age International Pvt. Ltd., New Delhi.
- Martin, Stephen: *Industrial Economics – Economic Analysis and Public Policy*, Macmillan Publishing Company, London.
- Singh, A and Sadhu, A.N.: *Industrial Economics*, Himalaya Publishing House, New Delhi.
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### EOE-107 : Indian Public Finance

<b>Unit I</b>	Theory of Federal Finance; Fiscal Federalism -- Principles and Problems, other aspects of Union-State relationship.	12 Lectures
<b>Unit II</b>	India's Fiscal Policy: Long-term fiscal policy; Demand Management; Resource Mobilisation for Financing of Five Year Plans; Domestic and Foreign Finance; Fiscal sector and Fiscal Sector Reforms in India.	12 Lectures
<b>Unit III</b>	Public Debt in India, Trends in Plan and Non-Plan Expenditure; Control of Public Expenditure.	9 Lectures
<b>Unit IV</b>	India's Tax Structure; Tax Policy -- Objectives and Instruments; Taxation of Income; Corporate Taxation; State Taxes and Expenditure. Agriculture taxation; Taxation of production and sale; Value Added Tax. A survey of Tax Reforms in India.	15 Lectures
<b>Unit V</b>	Structure and Classification of Budgets -- Functional and Economic; Performance budgeting; Zero base budget. Local Finance: Urban and Rural -- A detailed Study of Central, State and Local Finance.	12 Lectures

#### ***Books Recommended:***

- Kaldor, N., Indian Tax Reform
- James Cutt, Taxation of Economic Development of India
- Bhargava, R.N., A Manual of Economic and Functional Classification of Government Transaction
- U.N., A Manual for Programme and Performance Budgeting
- N.C.A.E.R., Economic Functional Classification of Central and State Government Budget 1957-58
- Govt. of India, Annual Budgets

## Semester II

<b>Course Code</b>	<b>Name of Course</b>	<b>Type of Course</b>
ECC-201	Advanced Economic Theory	Core
ECC-202	Fiscal Economics & Federal Finance	Core
ECC-203	Indian Economy Industrial & External Sector	Core
ESE-204	Probability Theory and Statistical Inference	Sub Elective
ESE-205	Agricultural Reforms and Marketing	Sub Elective
EOE-206	Project Appraisal	Open Elective
EOE-207	Economics of Social Sector	Open Elective

## ECC- 201: Advanced Economic Theory

<b>Unit I</b>	Alternative Theory of Firm: managerial Theories of firm: Baumol's sales Revenue Maximisation, Mariss's Maximisation of Balanced Rate of Growth & Williamson's Managerial Discretion, Bain's Limit price Theory, Behavioural Theory of Cyret & March, Pricing Strategies.	15 Lectures
<b>Unit II</b>	Input-Output Analysis: I-O Table, Transaction matrix, Coefficient Matrix, Leontief Matrix, Static Model, Utility of I-O Analysis, Hawkins-Simon Condition, Linear Programming: Graphical Solution & Simplex Method, Uses of LP.	12 Lectures
<b>Unit III</b>	Theory of Distribution: Theory of Factor Pricing, Classical and Modern theories of Rent, Theory of Profit- knight & Shackles, Modern Theories of Interest, Product Exhaustion Theorem.	9 Lectures
<b>Unit IV</b>	Welfare Economics: Economic Welfare Criterion, Pareto Oprimality Conditions, Social Welfare Function, Compensation Principles, Social Choice Theory of Arrow, Rawl's Theory of Justice.	11 Lectures
<b>Unit V</b>	Theories of Search: Models of Stigler, Nelson Salop, Rothschild, Nelson Varian, Economics of Information: Asymmetric Information: Problem of adverse selection of Akerlof, Moral Hazard, Market Signalling (Spence).	13 Lectures

### **Books Recommended:**

- Henderson J, and R.E. Quandt: Microeconomic Theory: A Mathematical Approach , Mc Grow Hill, New Delhi
- Koutsoyiannis A: Modern Microeconomics: ELBS, Macmillan, Tokyo
- Varian, H.R.: Intermediate microeconomics: A Modern Approach, East West Press, New Delhi
- Hirshleifer, J and A Glazer: Price Theory and Applications, Prentice Hall of India, New Delhi
- Browning & Browning: Microeconomic Theory and Application, Kalyani Publications.
- Rubin field & Pindyck: Micro economics , Maxwell Macmillan.
- H.L. Ahuja: Advanced Economic Theory (Hindi & English)
- Mishra & Puri: Advanced Microeconomics, Himalaya Publishing House.
- M.L. Jhingan: Advanced Economic Theory, Vrinda Publications, Delhi
- P.K. Gupta & D.S. Hira: Operation Research, S. Chand & Company.

## ECC-202 : Fiscal Economics and Federal Finance

<b>Unit I</b>	Public Debt: Nature and Management, Burden of Public debt, Methods of Redemption.	10 Lectures
<b>Unit II</b>	The Budget, Budget Making and the Budgetary Process, Theory of Optimum Budget. Zero-base Budgeting system; Performance based budgeting system. Alternative concepts of deficits and their implications	18 Lectures
<b>Unit III</b>	Fiscal Policy: Objectives and Instruments, Compensatory Finance, Functional Finance, Interdependence of fiscal and monetary policies, Fiscal policy for developing economies.	13 Lectures
<b>Unit IV</b>	Fiscal Federalism: Fiscal federalism in India, Vertical and Horizontal fiscal imbalance, Fiscal Federalism: Principles & Problems, Union- /State Financial Relations in India.	12 Lectures
<b>Unit V</b>	Reports of Finance Commission in India; Problems of states' resources and indebtedness, Problems of Local Finance.	7 Lectures

### **Books Recommended:**

- Musgrave, R.A. and P.B. Musgrave, Public Finance in Theory and Practice, McGraw Hill, Kogakusha, Tokyo.
- Herber, B.P., Modern Public Finance, Richard D. Irwin, Homewood.
- Musgrave, R.A., The Theory of Public Finance: A Study in Public Economy, Tokyo, McGraw Hill Book Co. and Kogakusha Co. (International student Edition )
- Musgrave, R.A., Fiscal Systems.
- Houghton, R.W., Public Finance
- Cutt, James., Taxation and Economic Development in India, Frederick A Praegar Publishers, New York.
- Gandhi, V.P., Some Aspects of India's Tax Structure, Vora and Company, Bombay.

### ECC-203 : Indian Economy: Industrial and External Sector

<b>Unit I</b>	Industrial Sector: Growth and Structure of Indian industries; Industrial productivity - measurement, partial and total trends; Industrial policy of India; Policies towards public sector enterprises -- Privatisation and Disinvestment Policy.	15 Lectures
<b>Unit II</b>	Policy towards cottage and small-scale industries; Industrial sickness and problem of underutilisation of capacity.	5 Lectures
<b>Unit III</b>	Industrial labour and industrial relation, issues in labour market reforms, Exit policy.	10 Lectures
<b>Unit IV</b>	External Sector: Composition and direction of foreign trade of India; Balance of payments situation; Trade and exchange rate policies, FEMA; Inflow and outflow of foreign capital and MNCs in India.	15 Lectures
<b>Unit V</b>	Economic Reforms: Fiscal sector reforms, Financial sector reform; Globalisation of Indian economy, WTO and its impact on Indian economy; Issues in competition and safety nets in Indian economy.	15 Lectures

#### ***Books Recommended:-***

- Datt, R. and K.P.M. Sundharam, Indian Economy, S. Chand & Company Ltd., New Delhi.
- Misra, S.K. and V.K. Puri, Indian Economy -- Its Development Experience, Himalaya Publishing House, Mumbai.
- Kapila, Uma., Indian Economy : Since Independence
- Agrawal, A.N., Indian Economy, New Edge International Pvt Limited, New Delhi.
- Government of India, Economic Survey (Annual), Economic Division, Ministry of Finance, New Delhi.
- Ahluwalia, I.J. and I.M.D. Little (Eds), India's Economic Reforms and Development ( Essays in honour of Manmohan Singh), Oxford University Press, New Delhi.
- Jalan, B, India's Economic Policy -- Preparing for the Twenty-first Century, Viking, New Delhi.
- Parikh, K.S., India Development Report -- 1999-2000, Oxford University Press, New Delhi.
- Datt, R. (Ed.), Second Generation Economic Reforms in India, Deep & Deep Publications, New Delhi.

## ESE-204 : Probability Theory and Statistical Inference

<b>Unit I</b>	Probability Theory: Trial and Event, Exhaustive Events, Favourable Events, Mutually Exclusive Events, Equally Likely Events, Independent Events. Definition of Probability, Additive and Multiplicative Theorem of Probability. Concept of Random Variable, Elementary idea about Mathematical Expectation.	14 Lectures
<b>Unit II</b>	Sampling Theory: Sample and Population, Sampling Distribution, Standard Error, Concept of Hypothesis, Error Sampling -- Type I and Type II Error, Critical Region and Level of Significance, One-tail and Two-tail tests. Sampling Methods -- Simple Random Sample, Cluster Sampling, Multi-stage Sampling.	14 Lectures
<b>Unit III</b>	Theoretical Statistical Distribution: Binomial Distribution, Poisson Distribution and Normal Distribution -- Properties and Uses.	10 Lectures
<b>Unit IV</b>	Test of Significance: Large and Small Sample Tests, Sample tests based on Normal Distribution.	10 Lectures
<b>Unit V</b>	Chi square test and goodness of fit, Contingency table and goodness of fit. Basic idea of test of significance based on t, Z and F distributions.	12 Lectures

### **Books Recommended:**

- Mood, A.M. and P.A. Graybill: *Introduction to the Theory of Statistics*.
- Yule, G.U. and M.G. Kendall: *An Introduction to the theory of Statistics*.
- Gupta, S.C. and V.K. Kapoor: *Fundamentals of Mathematical Statistics* (eighth edition), S. Chand & Sons Publications, New Delhi.
- Gupta, S.C. and V.K. Kapoor: *Fundamentals of Applied Statistics* (third edition), S. Chand & Sons Publications, New Delhi.
- Gupta, S.C. and V.K. Kapoor: *Elements of Mathematical Statistics* (fourth edition), S. Chand & Sons Publications, New Delhi.
- Elhance, D.N.: *Fundamentals of Statistics* (Hindi Ed.)
- Agarwal, D.R.: *Statistics for Economists*, Vrinda Publications, New Delhi.
- Gupta, B.N.: *Statistics* (fourth edition), Sahitya Bhawan Publication, Agra (UP).

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### **ESE-205 : Agricultural Reforms and Marketing**

<b>Unit I</b>	Economics of land reforms; Land reforms and economic development; Co-operative and Collective Farming; Technological reforms; Green Revolution, Farm Machanisation, Irrigation System in India.	15 Lectures
<b>Unit II</b>	Agricultural Marketing; Types, structure, and functions and problems, cost analysis, Cost-Price structure in agriculture.	10 Lectures
<b>Unit III</b>	Pricing of agriculture products; Price fluctuation of agricultural products ,Price stabilization measures; Agricultural price policy in India.	15 Lectures
<b>Unit IV</b>	Indian Agriculture: Agricultural finance, Land Utilization; New agricultural strategy Cropping Pattern and Crop Insurance.	10 Lectures
<b>Unit V</b>	Agricultural growth in India: Food Security, Food policy; Public distribution system Agricultural Trade, State Trading in food grains.WTO and Indian agriculture	10 Lectures

***Books Recommended:***

- The Indian Society of agricultural Economics. Readings in Agriculture Economics. Comparative Experience of Agricultural development in Developing Countries.
- Khusro, A.M., Reading in Agricultural Development
- Eicher and Witt, Agricultural and Economics Development
- Mellor, J.W., The Economics of Agricultural Development
- Heady, E.O., Economics of Agricultural Production and Resuorces Use.
- Shukla, Tara, Economics and Under-development Agriculture.

- Shukla, Tara, Capital Formation in Agriculture.
- Shepherd, G.S., Agricultural Price Analysis
- Singh, Baljit, Whether Agriculture in India
- Sen, S.R., The Strategy for Agricultural Development
- Jain, S.C., Agriculture Policy in India
- Dwivedi, R.C., New Strategy of Agricultural Development in India
- N.C.A.E.R., A Strategy for Agriculture Planning.
- Planning Commission, Five Year Plans
- Planning Commission, Reports of the Committee of the Panel on Land Reforms U.N.O.,  
Land Reforms Reports.

## EOE-206 : Project Appraisal

<b>Unit I</b>	Project Appraisal: Cash - Flow Analysis of a Project, Break - even - Point, Pay - back Period, Margin of Safety, Contribution, Profit - Volume Ratio.	10 Lectures
<b>Unit II</b>	Methods of Project Appraisal: Pay -back Period Method, Return on Capital Method, Cost-Benefit Analysis -- Net Present Value Method, Internal Rate of Return Method, Appraisal of Public Projects--Social Cost-Benefit Analysis.	16 Lectures
<b>Unit III</b>	Industrial Location analysis: Determinants of Industrial Location, Theories of Industrial Location -- Weber Theory, Sargent Florence Theory.	14 Lectures
<b>Unit IV</b>	Industrial Finance: Need for Industrial Finance -- Short-term, Medium-term and Long- term Finance, Sources of Industrial Finance -- Internal and External Sources. Debt and Equity Capital, Types of Shares -- Ordinary and Preferential Shares, Types of Debentures.	12 Lectures
<b>Unit V</b>	Sources of Industrial Finance in Indian Market, Development of Financial Institutions and Capital Market in India.	8 Lectures

### **Books Recommended :**

- Smith, D.M.: *Industrial Location -- An Economic and Geographic Analysis*, John Wiley, New York.
- Barthwal, R.R.: *Industrial Economics* (second edition), New Age International Pvt. Ltd., New Delhi.
- Prasanna and Chandra: *Project Appraisal and Investment Planning*.
- Singh, A and Sadhu, A.N.: *Industrial Economics*, Himalaya Publishing House, New Delhi.
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### EOE-207: Economics of Social Sector

<b>Unit I</b>	Education and Eco Development: Concepts, Significance, Economic Value of Education, Human Capital and Human Resource, Demand and Supply of Education, Determinants of demand for education, Cost & Benefits of Education.	12 Lectures
<b>Unit II</b>	Educational Planning and Economic Growth: Manpower Requirements and Techniques of Manpower forecasting, Educational Financing: Sources of Educational Finance, Expenditure on Education, Private Sector Investment.	12 Lectures
<b>Unit III</b>	Health and Economic Development, Demand and Supply of Medical Care, Health Insurance, Public-Private participation Issue in Health Services, Role of Government & Private Sector in Health Services.	12 Lectures
<b>Unit IV</b>	Determinants of Health Status: Nutrition and Health, Development and Health, Poverty and Malnutrition, Social determinants of Health, Financing of Health Care: Principles and Constraints, Health care expenditures & Assistance.	12 Lectures
<b>Unit V</b>	Inequality and Development: Rotation, Inverted U Hypothesis, Empirical Evidences, Measurement of Inequality, Inequality and Poverty: Income and Marginalised groups, Poverty and Nutrition, Poverty & Social Conflict.	12 Lectures

***Books Recommended:***

- Mark Blaug (1960): Economics of Education.
- T. Shultz (1960): Investment in Human Capital, American Economic Review, vol. 60
- N.V. Varghese (2006): Reforming Education Financing, www.indiaseminar.com.
- Manpower Profile India Year Book, Institute of Applied Manpower Research, New Delhi.
- Feldstein, P.J. (1979): Health care Economics: John Wiley & Sons, New York.
- Follard, Goodman & Stano (1997): The Economics of Health & Health Care, Prentice Hall, New Jersey.
- C. Gopalan (1992): Under Nutrition: Measurement and Implications in Nutrition and Poverty ed. Osmani S.R., Clarendon Press Oxford.
- Todaro, Michael and Stephen Smith (2005): Economic Development, Pearson Education, London
- Human Development Reports of UNDP
- Anthony J. Cuyler & Joseph P. (ed) (2000): Handbook of Health Economics: New House, North-Holland, Elsevier Science.
- Reports and Publications of WHO

### Semester III

<b>Course Code</b>	<b>Name of Course</b>	<b>Type of Course</b>
ECC-301	Monetary Economics	Core
ECC-302	International Trade	Core
ECC-303	Environmental Economics	Core
ESE-304	Demography	Sub Elective
ESE-305	Econometric Methods	Sub Elective
EOE-306	History of Economic Doctrines	Open Elective
EOE-307	Economic Growth	Open Elective

### ECC-301 : Monetary Economics

<b>Unit I</b>	Definition of Monetary Economics; Nature and scope of Monetary Economics; significance of Monetary economics; Concept and significance of money and liquidity; Neutrality and non - neutrality of money; Money in closed and open economy; Paper currency standard and principles of Note issue; Circular flow of Money.	12 Lectures
<b>Unit II</b>	Meaning of demand for money; Classical approach to demand for money; Keynes' approach to demand for money; Post Keynesian approach to demand for money (Friedman, Buamol, Tobin); Keynesianism and Monetarism;	12 Lectures
<b>Unit III</b>	Inflation-causes, types, effects and control Classical, Keynesian and Monetarist approach to inflation; Structural theory of inflation; Open and suppressed Inflation, demand pull and cost push inflation; wicksell's theory of Price fluctuations; Philips curve analysis; Samuelson and Solow's contribution- the natural rate of unemployment hypothesis; Tobin's modified Philips curve; Adaptive expectations and rational expectations; Deflation-causes ;types and control; Stagflation and Policies to control stagflation.	18 Lectures
<b>Unit IV</b>	Quantity Theory of Money, Liquidity Theory of Money, Patinkin's Real Balance Effect.	9 Lectures
<b>Unit V</b>	Measurement of value of money, Monetary Theories of Business cycle, Theories of Interest rate determination.	9 Lectures

***Books Recommended:***

- Keynes, J.M., Treatise on Money.
- Keynes, J.M., The General Theory of Employment Interest and Money
- Halm, G.N., Monetary Theory.
- Kurihara, K., Monetary Theory and Public Policy.
- Hansen, B., A Study in the Theory of Inflation. ,
- Dillard, D.H., The Economics of J.M. Keynes

### ECC-302 : International Trade

<b>Unit I</b>	Classical Theories of International Trade: Absolute Advantage and Comparative Advantage Theory, Theory of Reciprocal Demand, Evaluation of the Classical Theory. Neo-classical theories of Trade: Opportunity Cost Theory, Trade Equilibrium through Production Possibility Curve and Community Indifference Curve, Gains from Trade, Economic Growth and International Trade, Immizerising Growth.	13 Lectures
<b>Unit II</b>	Offer Curve Analysis, Trade Indifference Curve, Derivation of Offer Curve using Trade Indifference Curve, General Equilibrium in Trade. Terms of Trade – Concepts and Measurements, International Trade and Economic Development.	12 Lectures
<b>Unit III</b>	Specific Factor Model of Trade, Factor Proportion Theory of Trade (H-O Theorem), Factor Price Equalisation, Leontief Paradox, Stolper - Samuelson Theorem, Rybczynski Theorem, Effect of Change in Demand on Trade. Intra-industry Trade and Trade under Imperfect Competition. International Capital Movement – FDI and FPI.	13 Lectures
<b>Unit IV</b>	Commercial Policy: Free Trade vs Protection, Arguments for and against the Policy of Protection, Theory of Tariff and Quota, Dumping and Most Favoured Nation Clause, Other Tools of Commercial Policy. International Trading Environment – GATT and WTO.	12 Lectures
<b>Unit V</b>	Economic Integration: Different Forms of Economic Integration, Theory of Customs Union, Effects of Custom Unions -- Static and Dynamic Framework, Lipsey Model, Vanek Model, Some Examples of Economic Integration – EU, NAFTA and LAFTA.	10 Lectures

**Books Recommended:**

- Sodersten, Bo and Reed, G.: *International Economics* (third edition), Macmillan, London.
- Krugman, P., Obstfeld, M and Melitz, M.J.: *International Economics – Theory and Policy* (ninth edition), Pearson Education Ltd, England.

- Salvatore, D: *International Economics* (seventh edition), John Wiley & Sons, New York.
- Kindleberger, C.P.: *International Economics* (eighth edition), Richard. D. Irwin Inc, Homewood.
- Kenan, P.B.: *The International Economy* (fourth edition), Cambridge University Press, UK.
- Mannuar, H.G.: *International Economics* (second edition), Vikas Publication House Pvt. Ltd., Noida (UP).
- Mithani, D.M.: *International Economics* (sixth edition), Himalaya Publication, New Delhi.
- Ohlin, B.: *Interregional and International Economics*, Oxford University Press, London.
- Ellsworth, P.T. and Leith, J.C.: *The International Economy* (sixth edition), Macmillan Publication, New York.
- Haberler, G.V.: *The Theory of International Trade*, W. Hodge & Company, London.
- Ellis, I I. S. and Metzler (ed.): *Readings in the Theory of International Economics*.
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### ECC-303 : Environmental Economics

<b>Unit I</b>	Environmental Economics: Meaning and Scope, Environment and Economy: Neo-classical and Ecological Perspectives, Interlinkages, Material Balance Model, Environment and Development Trade-off.	12 Lectures
<b>Unit II</b>	Deviation from economic efficiency, Pollution and Externality, Environmental Quality as Public Good, Case of Market failure, optimal level of pollution and Changes.	12 Lectures
<b>Unit III</b>	Economics of Environmental Regulations: Liability Laws, Allocation of Property Rights, Emission Standards, Pollution Tax and Transferable Pollution Permit.	14 Lectures
<b>Unit IV</b>	Limits to Growth: Malthusian, Neo-classical and Ecological Economics Perspectives. Sustainable Development: Concept, Rules, Approaches to sustainability and indicators, Sustainable Agriculture, Sustainable Industrialisation	12 Lectures
<b>Unit V</b>	Common Property Resources: Problem and Management, CPR: Indian Context	10 Lectures

**Books Recommended:**

- Ehrlich, P., A. Ehrlich and J. Hilden, Economics, Population, Resources, Environment, W.H. Freeman, San Francisco.
- Hemple, Lamont C., Environmental Economics: The Global Challenge, First East West Press, Edinburgh.
- Ahmad.M.Hussen: Principle of Enviromental Economics. Pouledge & Taylor & Francis Group.
- R.N. Bhattacharya: Environmental Economics, Air India Perspective, oxford university Press.
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- Thomas & Callan : Enviromental Economics.
- Nick Hanley, F. Shogran & J. Whitel : Enviromental Economics Theory & Practice, Oxford University Press
- K.V. Pavitran : A Text Book of Enviromental Economics, New Age India Publications.
- U. Sarkar : Enviromental Economics (edited).
- Erach Bharucha : Enviromental Studies, Orient Lorgman.
- Karpagam. M. A Text book of Enviromental Economics, Sterling Publisher Home.
- Nahoral Enviroment Policy 2006, CSO, India.

### ESE-304 : Demography

<b>Unit I</b>	Demographic Analysis: Concept, Scope, Subject Matter, Importance and Tools,	8 Lectures
<b>Unit II</b>	Population Theories: Malthus, Optimum Theory, Herbert Spencer Logistic Curve Theory, Harvey Liebenstein, Demographic Transition.	15 Lectures
<b>Unit III</b>	Demographic Measurements: - Meaning, Difference between Fertility and Fecundity, Determinants and Measurements- Fertility Rates: CBR, GFR, SFR, TFR, and Reproduction Rates: GRR, NRR.	15 Lectures
<b>Unit IV</b>	Mortality and Morbidity; Concepts Causes of Death, Importance and Measurement-CDR,ASDR, IDR, SDR, Correction Factor	10 Lectures
<b>Unit V</b>	Life Table: Construction, Types, Importance, Uses in Demography.	12 Lectures

#### ***Books recommended :***

- Thompson, S.W. and T Lewis: Population Problems
- Smith, Kenneth: The Malthusian Controversy
- Malthus, T.R.: An Essay on Population
- Cox, P.R.: Demography
- Bose, Ashish: Pattern of Population Change in India
- Joseph. J. Spengler and Dudley Ducan, Population theory and Policy
- Kanitkar Tara, Bhende Asha
- Rawat, Ishwar Modi: Ageing and Human Development-- Global Perspective.

### **ESE-305 : Econometric Methods**

<b>Unit I</b>	Methodology of Econometrics, Economics and Econometrics, Method of Ordinary Least Squares, Two-Variable Linear Regression Model, Best Linear Unbiased Estimator, Significance Tests of Parameters, Maximum Likelihood Estimators -- MOM and GMM Estimators.	13 Lectures
<b>Unit II</b>	General Linear Regression Model -- Estimation and Properties of Estimators, Test of Overall Significance of the Regression.	13 Lectures
<b>Unit III</b>	Problem of Misspecification and Multicollinearity, Restricted Least Squares.	12 Lectures
<b>Unit IV</b>	Heteroscedastic Disturbance, Problem of Autocorrelation, Generalized Least Squares: Aitken's Procedure, Properties of GLS Estimators.	12 Lectures
<b>Unit V</b>	Instrumental Variables, Errors in Variables, Dummy Variables, Ridge Regression.	10 Lectures

#### ***Books Recommended:***

- Gujarati, D.N.: *Basic Econometrics* (fourth edition), McGraw Hill.
- Johnston, J.: *Econometric Methods*, McGraw Hill.
- Madala, G.S.: *Econometrics* (third edition), McGraw Hill.
- Klein, L.R.: *Text Book of Econometrics*
- Theil, H.: *Principles of Econometrics*
- Kmenta, J.: *Elements of Econometrics*
- Imtriligator, M.D.: *Econometric Models -- Techniques and Applications.*
- Malinvaud, E.: *Statistical Methods in Econometrics.*

### EOE-306 : History of Economic Doctrines

<b>Unit I</b>	Pre Classical Period: Mercantism and Physiocrats, Classical Thoughts: Adam Smith, J. Benham, T.R. Malthus, J.S. Mill & D. Ricardo.	12 Lectures
<b>Unit II</b>	Subjectivism and Marginalism: Mathematical Schools- H.H. Gossen, W.S. Jevens, Leon Walras, The Australian School: Karl Menger, Von Wieser, Bohm-Bawerk.	12 Lectures
<b>Unit III</b>	Neo Classical: A. Marshall and The Cambridge School, Wicksell and The Stockholm School, Socialist Thinking: State Socialism, Karl Marx.	14 Lectures
<b>Unit IV</b>	Institutionalism: Veblen, Commons and Mitchell, Economic Thought Development in America: J.B. Clark, I. Fisher, F.W. Taussing, H.J. Devenport, A. Hansen.	12 Lectures
<b>Unit V</b>	Welfare Economics: Pigou, Parato, New Trends in Welfare Economics, Kalder-Hicks, Arrow & Rawls, The Keynesian Economics: Theories on Money and other macroeconomic issues.	10 Lectures

#### **Books Recommended:**

- Eric Roll: A History of Economic Thought , Faber & Faber.
- Charles Guide & Charles Rist: A History of Economic doctrines, George G. Harrap & Co.
- Lewis H. Haney: History of Economic Thought, Macmillan & Co.
- T.W. Hutchison: A Review of Economic Doctrine.
- Bell John Fred: A History of Economic Thought, The Ronald Press.
- Mark Blaug: Economic Theory in Retrospect.
- T.N. Hajela: History of Economic Thought, Ane's Student Edition, Ane Books Pvt. Ltd, New Delhi.
- H. L. Bhatia: History of Economic Thought, Vikas Publishing House Pvt. Ltd, New Delhi.
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### EOE-307 : Economic Growth

<b>Unit I</b>	Problem of Economic Growth and General Solution, Growth equilibrium -- Existence, Uniqueness and Stability (local and global), Steady State Growth Equilibrium.	10 Lectures
<b>Unit II</b>	Classical growth model: Constant Returns, Stationary State, Growth with technical progress.	10 Lectures
<b>Unit III</b>	Post Keynesian Growth Models: Harrod and Domar, the Problem of Inherent instability.	10 Lectures
<b>Unit IV</b>	Neo Classical growth Models: Solow, Swan, Phelps - Golden Rule of Accumulation, Uzawa's two-sector growth model.	15 Lectures
<b>Unit V</b>	Neo-Keynesian Growth Models: Kaldor, Pasinetti, Joan Robinson, Concept of Golden Age.	15 Lectures

***Books Recommended:***

- Sen, A.K., Growth Economics
- H. Wan, Jr., Economic Growth
- Finetein, Socialism Capitalism and Economic Development
- Jones, An Introduction to Modern theories of Economic Growth
- Hahn, F II., Readings in the theory of growth.
- Hicks, J.R., Capital and Growth
- Solow, R.M., Growth Theory -- An Exposition
- Hamberg, D., Models of Economic Growth
- Nell, E.J.(ed.), Growth-Profits and Productivity
- Jones, Charles, Economec growth
- Barro R.E. Salaw- Martin; Euromic Growth
- Romer; Advanced Macrocuroemics

## Semester IV

<b>Course Code</b>	<b>Name of Course</b>	<b>Type of Course</b>
ECC-401	Monetary Institutions and Policy	Core
ECC-402	International Macroeconomics	Core
ECC-403	Economic Approach to Environmental Issues	Core
ESE-404	Population Problems	Sub Elective
ESE-405	Econometric Theory	Sub Elective
EOE-406	History of Economic Thought: Keynes & Indian	Open Elective
EOE-407	Modern Growth Theory	Open Elective

### ECC-401 : Monetary Institutions and Policy

<b>Unit I</b>	Monetary Institutions - Objectives of central banking; Function of Central Bank; The Reserve Bank of India; Function of Commercial Banks; Role of commercial bank in the economy; Different types of Commercial Banking Systems; policies and principles of commercial banking; process of credit creation of commercial banks; role of Non- banking companies in an Economy.	15 Lectures
<b>Unit II</b>	Money Supply :- Exogenous and endogenous Money supply; theoretical and empirical concepts of money supply; different money stocks in India (M0,M1,M2,M3, M4);The Reserve Bank of India approach to measure money supply; High-powered money and money multiplier theory; Budget deficit and money supply; Money supply in open economy ; commercial banks and money supply	12 Lectures
<b>Unit III</b>	Monetary Policy: Meaning of monetary policy; Objectives of monetary policy; Types and tools of monetary policy; monetary policy and economic stabilization; Monetary policy and economic growth; Effectiveness of monetary policy and fiscal policy; Review of monetary policy of the Reserve Bank of India;	15 Lectures
<b>Unit IV</b>	Reforms: Banking and financial sector reforms; recent trends in banking sector	9 Lectures
<b>Unit V</b>	International Monetary Institutions: Problem of International Liquidity; International Monetary Fund ;Role of SDRs and Euro; Exchange rate and money market.	9 Lectures

***Books Recommended:***

Keynes, J.M., Treatise on Money.

Keynes, J.M., The General Theory of Employment Interest and Money..

Halm, G.N., Monetary Theory.

Kurihara, K., Monetary Theory and Public Policy, De Cock, M.N., Central Banking

Basu, S.K., A Review of Current Banking Theory and Practice.,

### ECC-402 : International Macroeconomics

<b>Unit I</b>	The Balance of Payments Accounts: Current Account and Capital Account, Current Account Balance, Capital Account Balance and other concepts of Balance in BoP. Autonomous and Accommodating Transactions, Concept of Disequilibrium in BoP, Causes of Disequilibrium in the Balance of Payment. National Income in an Open Economy, Foreign Trade Multiplier, Foreign Repercussion.	10 Lectures
<b>Unit II</b>	Foreign Exchange: Meaning of Foreign Exchange Rate, Spot Rate and Forward Rate, Currency Swaps, Arbitrage, Hedging and Speculation in Foreign Exchange Market. Exchange Rate Determination – Exchange Rate Determination under Gold Standard, Purchasing Power Parity Theory of Exchange Rate Determination, Balance of Payments Theory of Exchange Rate Determination, Fixed and Flexible Exchange Rate System, Monetary Approach and Asset Approach to Balance of Payments and Exchange Rate Determination. Exchange Control and Exchange Management.	15 Lectures
<b>Unit III</b>	Balance of Payments Accounts Adjustment: BoP Settlement and Adjustment, Automatic Adjustment Process of BoP Disequilibrium, Alternative Mechanism of Adjustments in BoP Disequilibrium -- Devaluation and Absorption Approach.	10 Lectures
<b>Unit IV</b>	Macroeconomics Adjustment Policy in Open Economy: BoP Equilibrium in IS-LM Framework (BB Schedule), Capital Mobility and BP Schedule, Simultaneous Equilibrium in Goods Market, Money Market and Balance of Payment, Effect of Fiscal and Monetary Policy on BoP, Meaning of Internal and External Balance, Fiscal and Monetary Policy for Internal and External Balance, Assignment Problem – Mundell Model, Swan Model. Prices and Output in an Open Economy – Aggregate Demand Aggregate Supply.	15 Lectures
<b>Unit V</b>	International Monetary Systems: Breton Woods System, Collapse of Breton Woods Systems, Emerging International Monetary Systems, Optimum Currency Area, Problems of International Liquidity, Euro-currency Market.	10 Lectures

### **Books Recommended:**

- Sodersten, Bo and Reed, G.: *International Economics* (third edition), Macmillan, London.
- Krugman, P., Obstfeld, M and Melitz, M.J.: *International Economics – Theory and Policy* (ninth edition), Pearson Education Ltd, England.
- Salvatore, D: *International Economics* (seventh edition), John Wiley & Sons, New York.
- Kindleberger, C.P.: *International Economics* (eighth edition), Richard. D. Irwin Inc, Homewood.
- Kenan, P.B.: *The International Economy* (fourth edition), Cambridge University Press, UK.
- Mannuar, H.G.: *International Economics* (second edition), Vikas Publication House Pvt. Ltd., Noida (UP).
- Mithani, D.M.: *International Economics* (sixth edition), Himalaya Publication, New Delhi.
- Ohlin, B.: *Interregional and International Economics*, Oxford University Press, London.
- Ellsworth, P.T. and Leith, J.C.: *The International Economy* (sixth edition), Macmillan Publication, New York.
- Haberler, G.V.: *The Theory of International Trade*, W. Hodge & Company, London.
- Ellis, I I. S. and Metzler (ed.): *Readings in the Theory of International Economics*.

### ECC-403 : Economic Approach to Environmental Issues

<b>Unit I</b>	Global Environmental Problems and International Policy: Conventions and Treaties, Economics of Climate Change, Economics of Biodiversity and Ecosystem Services.	10 Lectures
<b>Unit II</b>	Assessment of Worthiness of Environmental Projects: Social Cost-Benefit Analysis and Environment Impact Assessment, Tourism and Environment: Responsible Tourism.	10 Lectures
<b>Unit III</b>	Issues of Trade and Environment, Environmental Accounting, Population, Poverty and Environmental Degradation in Developing Countries.	12 Lectures
<b>Unit IV</b>	Economic Valuation of Environment: Market Price Approach, Replacement Cost Approach, Hedonic Price Method, Defensive Expenditure method, Travel Cost Method and Contingent Valuation Method.	15 Lectures
<b>Unit V</b>	Economics of Resources Use: Resource Scarcity, Conservation Methods, Models of optimum use of renewable (fisheries) and non-renewable resources.	13 Lectures

#### **Books Recommended:**

- Ehrlich, P., A. Ehrlich and J. Hilden, Economics, Population, Resources, Environment, W.H. Freeman, San Francisco.
- Hemple, Lamont C., Environmental Economics: The Global Challenge, First East West Press, Edinburgh.
- Lopez, R.E., Where Development Can Go Or Can Not Go, The Role of Poverty-Environment Linkages, Annual World Bank Conference on Development Economics, World Bank, Washington D.C.
- Maler, K.G., Environment, Poverty in Economic Growth, Annual World Bank Conference on Development Economics, World Bank, Washington D.C.
- Mehrotra, S. and J. Richard, Development With a Human Face, Oxford University Press, New Delhi.
- Ahmad.M.Hussen: Principle of Environmental Economics 3rd edition, Poulledge & Taylor & Francis Group.
- R.N. Bhattacharya: Environmental Economics, Air India Perspective, oxford university Press.
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- Thomas & Callan : Environmental Economics.
- Nick Hanley, F. Shogran & J. Whitel : Environmental Economics Theory & Practice, Oxford University Press
- K.V. Pavitran : A Text Book of Environmental Economics, New Age India Publications.
- U. Sarkar : Environmental Economics (edited).
- Erach Bharucha : Environmental Studies, Orient Lorgman.
- Karpagam. M. A Text book of Environmental Economics, Sterling Publisher Home.

- National Environment Policy 2006, CSO, India.

### ESE-404: Population Problems

<b>Unit I</b>	Demographic Data: Sources, Importance, Census, Trends of birth and death in India, composition of Population.	12 Lectures
<b>Unit II</b>	Occupational and regional distribution, Measurement of population growth, Population Projection.	12 Lectures
<b>Unit III</b>	Fertility Patterns in India, Population Policy of India.	10 Lectures
<b>Unit IV</b>	Migration: Meaning, Theories and Models, Classification, Industrialisation and Migration, Measurement, Urbanisation, Cycle of and Urban isation, Urbanisation in India, Population, Economy and Environment, Human Resources Development and Economic Development	14 Lectures
<b>Unit V</b>	Demographic Trends in selected countries: USA, Japan and China, World Population Trends.	12 Lectures

***Books recommended :***

- Thompson, S.W. and T. Lewis, Population Problems (Fifth ed.)
- Smith, Kenneth, The Malthusian Controversy
- Malthus, T.R., An Essay on Population
- Cox, P.R., Demography
- Bose, Ashish, Pattern of Population Change in India
- Joseph. J. Spengler and Dudley Ducan, Population theory and Policy
- Cox P.R., Andendum to Demography
- Barclay, George, Techniques of Population Analysis
- Coal,A.J. and E.M.Hoover, Population Growth and Economic Development in Low Income Countries
- Agrawal, S.N., Some Problems of India's Population
- Davis, Kingsley, Population of India and Pakistan
- U.N.O., Determinants and Consequences of Population Trends
- Coontz, S.I I., Population Theories and Their Economic Interpretations

World Bank, Workd DevelopmentReport.

### ESE-405 : Econometric Theory

<b>Unit I</b>	Grouping of Observations and Equations, Mixed Estimation, Random Coefficient Method of Estimation.	12 Lectures
<b>Unit II</b>	Distributed Lags Model, Koyack Reduction, Partial Adjustment and Adaptive Expectation, Almon's Approach.	13 Lectures
<b>Unit III</b>	Simultaneous Equation Method of Estimation: Identification Problem – Rank and Order Condition, Identification Problem with Restrictions on Variances and Co-variances.	10 Lectures
<b>Unit IV</b>	Indirect Least Squares, Two-stage and Three-stage Least Square Methods, K-class Estimators, Full Information and Limited Information Methods of Estimation.	13 Lectures
<b>Unit V</b>	Time series Econometrics, Vectors, Auto Regressor, Unit Roots and Co Integration. Pooling of the cross-section and time series Data; Specification and Estimation of Demand Function and Production Function.	12 Lectures

**Books Recommended:**

- Gujarati, D.N.: *Basic Econometrics* (fourth edition), McGraw Hill.
- Johnston, J.: *Econometric Methods*, McGraw Hill.
- Madala, G.S.: *Econometrics* (third edition), McGraw Hill.
- Klein, L.R.: *Text Book of Econometrics*
- Theil, H.: *Principles of Econometrics*
- Kmenta, J.: *Elements of Econometrics*
- Imtriligator, M.D.: *Econometric Models -- Techniques and Applications.*
- Malinvaud, E.: *Statistical Methods in Econometrics.*
- Walter Ender.: *Applied Econometric -- True Series.*

### EOE-406 : History of Economic Thought: Keynes & Indian

<b>Unit I</b>	Economics Thoughts of J. Robinson, J. R, Hicks, Robbins, Schumpeter, The Stockholm (Swedish) School: Ideas of Wicksell, B. Ohlin, G. Myrdal, Friedman, Leontief & Nurkse.	13 Lectures
<b>Unit II</b>	Indian Economic Thought: Ancient and Medieval Economic Thought: Idea of Kautilya, Vallavar, Somdev Suri.	10 Lectures
<b>Unit III</b>	Indian Economic Thought: Indian Nationalist Economists: Nauroji, Ranade, Wchu, Dutt & Gokhale, Visveshwaraya, Sarvodaya Arthshastra.	10 Lectures
<b>Unit IV</b>	Modern Economic Thoughts in India: Economic ideas of M.K. Gandhi, Kole, Brij Narain, Shah, Mukherjee and J.K. Mehta.	12 Lectures
<b>Unit V</b>	Modern Economic Thoughts in India: C.H. Vakil, D.R. Gadgil, V.K.R.V. Rao, Economic Planning Logic, Democratic Socialism, New Economic Thinking (Economic Policy in Liberalised setup), New Setup of Indian Economy.	15 Lectures

#### **Books Recommended:**

- Eric Roll: A History of Economic Thought, Faber & Faber.
- Charles Guide & Charles Rist: A History of Economic doctrines, George G. Harrap & Co.
- Lewis H. Haney: History of Economic Thought, Macmillan & Co.
- T.W. Hutchison: A Review of Economic Doctrine.
- Bell John Fred: A History of Economic Thought, The Ronald Press.
- Mark Blaug: Economic Theory in Retrospect.
- T.N. Hajela: History of Economic Thought, Ane's Student Edition, Ane Books Pvt. Ltd, New Delhi.
- H. L. Bhatia: History of Economic Thought, Vikas Publishing House Pvt. Ltd, New Delhi.
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- prqosZnh feffkys'k% lkfgR; Hkou ifCyds'kUI, vkxjk
- B.G. Gokhle: Indian Thoughts Through The Ages, New York.
- B.N. Ganguli: Dadabhai Naoroji and the Drains Theory, Asia Publishing House.
- M.G.Ranade: Essays on Indian Economics, Thacker and Co. Ltd.

### EOE-407: Modern Growth Theory

<b>Unit I</b>	Technology and Growth: Neutral technical change, Kaldor's technical progress function; Kennedy and Weizsacke's Invention Possibility Frontier, Arrow's learning by doing.	15 Lectures
<b>Unit II</b>	Convergence Analysis: The Classical Approach, Danny Quah's 'Twin-peaks' model.	8 Lectures
<b>Unit III</b>	Endogenous Growth Models: AK Model, Lucas Model of Human Capital, Romar's model of endogenous innovation.	10 Lectures
<b>Unit IV</b>	Models of Optimum Growth: General formulation and its solution, Keynes-Ramsey-Rule.	15 Lectures
<b>Unit V</b>	Money and Growth: Tobin, Johnson model.	12 Lectures

***Books Recommended:***

- Sen, A.K., Growth Economics
- H. Wan, Jr., Economic Growth
- Finetein, Socialism Capitalism and Economic Development
- Jones, An Introduction to Modern theories of Economic Growth
- Hahn, F II., Readings in the theory of growth.
- Hicks, J.R., Capital and Growth
- Solow, R.M., Growth Theory -- An Exposition
- Hamberg, D., Models of Economic Growth
- Nell, E.J.(ed.), Growth-Profits and Productivity
- Jones, Charles, Economec growth
- Barro R.E. Salaw- Martin; Euromic Growth
- Romer; Advanced Macrocuroemics