SINGHANIA UNIVERSITY

CURRICULUM AND SYLLABUS

M.A. In Economics
### YEAR I

<table>
<thead>
<tr>
<th>Subject Code</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC- 101</td>
<td>Micro Economics</td>
</tr>
<tr>
<td>EC- 102</td>
<td>Public Finance</td>
</tr>
<tr>
<td>EC- 103</td>
<td>International Economics</td>
</tr>
<tr>
<td>EC- 104</td>
<td>Basic Statistics</td>
</tr>
<tr>
<td>EC- 105</td>
<td>Mathematics for Economics</td>
</tr>
<tr>
<td>EC- 106</td>
<td>Economics of Agriculture</td>
</tr>
<tr>
<td>EC- 107</td>
<td>Statistical Techniques</td>
</tr>
</tbody>
</table>

### YEAR II

<table>
<thead>
<tr>
<th>Subject Code</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC- 201</td>
<td>Economic of Growth and Development</td>
</tr>
<tr>
<td>EC- 202</td>
<td>Research Methodology for Economics</td>
</tr>
<tr>
<td>EC- 203</td>
<td>Methods of Econometrics</td>
</tr>
<tr>
<td>EC- 204</td>
<td>Banking and financial Institutions</td>
</tr>
<tr>
<td>EC- 205</td>
<td>Institutional Economics</td>
</tr>
<tr>
<td>EC- 206</td>
<td>Economics of Discrimination</td>
</tr>
<tr>
<td>EC- 207</td>
<td>National Income Accounting</td>
</tr>
</tbody>
</table>
Year-I

EC-101 Micro Economics - I

Topic I Introduction

1. Introduction to Microeconomics
2. Market and Price Mechanism
3. Disturbances to equilibrium, floor price, ceiling price.

Topic II Consumer Theory

1. The concept of and Measurement of Utility: Cardinal and Ordinal.
5. Concept and Measurement of Consumers’ Surplus.

Topic III Production Theory

2. Law of Variable Proportions Returns to the Variable Factor Returns to Scale.
3. Producer’s Equilibrium with One Input and Two Inputs.
6. Concept and Measurement of Producers’ Surplus.

Topic IV The Theory of Public Choice

1. Pareto Optimality
3. Compensation Criteria.
4. Arrow’s Social Welfare Function and Impossibility Theorem.

Recommended Books:

Year -I

EC-102 Public Finance

**Topic I Introduction**
1. Role of government in organized society: changing perspective
2. Government in a mixed economy, public and private sector, government as an agent for economic planning and development Stabilization policy
3. Private goods, public goods and merit goods.

**Topic II Rationale for Public Policy**
1. Allocation of resource provision of public goods
2. Voluntary exchange models – Impossibility of decentralized provision of public goods - contributions of Samuelson and Musgrave
3. Demand revealing schemes for public goods, contributions of Clark, Groves and Leyard, Tiebout model
4. Theory of club goods

**Topic III Public Expenditure**
1. Wagner’s law of increasing state activities
2. Wiseman-Peacock hypothesis, Pure theory of public expenditure
4. Gender budgeting

**Topic IV Taxation**
1. Theory of incidence Alternative concepts of incidence –
2. Allocative and equity aspects of individual taxes, Benefit and ability to pay approaches

**Topic V Public Debt**
1. Burden of public debt
2. Sources of public debt
3. Public borrowings and price level, Crowding out of private investment and activity

**Recommended Books**

2. Stiglitz Joseph – Economics of the Public Sector (different editions)
3. Herber – Modern Public Finance (different editions)
Year- I

EC-103 International Economics

Topic I Overview of classical and modern trade theories

1. Classical theories of trade – Ricardo and the concept of Comparative Cost theory - opportunity cost
2. Heckscher Ohlin theorem, Verification of physical criterion and price criterion, Leontief paradox
3. Factor price equalization and explanation with Edgeworth Box diagram

Topic II New trade theories

1. New theories of trade, product life cycle and technology gap models
2. Preference similarity and intra-industry trade, economies of scale and monopolistic competition – Krugman
3. Theory of economic geography – Krugman, Neo-Heckscher Ohlin theorem

Topic III Terms of Trade

1. Gains from trade – offer curve
2. Growth and Terms of Trade
3. Different concepts of Terms of Trade and factors affecting Terms of Trade

Topic IV Trade Policy

1. Free trade vs. controlled trade
2. Tariffs and non-tariff barriers on trade, Effects of tariffs under partial equilibrium. (Price effect, terms of trade effect, competitive effect, income effect, revenue effect)
3. Effects under general equilibrium, Stolper – Samuelson theorem

Topic V Regional Integration

1. Customs Unions: Features of customs union theory.
2. Trade creation and trade diversion under customs union (with graphical treatment)
3. The creation of European Union

Topic VI GATT and WTO

2. WTO, Important Agreements under WTO,
3. Major developments since 1995,
4. Expected effects on the Indian economy.

**Recommended Books**

6. GATT, the Dunkel Draft and India J. M. Economic and Political Weekly, Vol. 27, No. 4 (Jan. 25, 1992), pp. 140-142
Year- I
EC- 104 Basic Statistics

Topic I Basic Math

1. Ratios
2. Writing a ratio in its simplest form, average rate
3. Direct and Inverse proportion, Problems involving ratio, rate and proportion
4. Expressing one quantity as a percentage of another, comparing two quantities by percentage greater than 100 %, Increasing/Decreasing a quantity by a given percentage, reverse percentages, problems involving percentages

Topic II Graphs and Diagrams

1. Graphs and Interpretation of graphs
2. Types of graphs: Bar Diagram, Flow charts, Pie charts, Pictograph, line Graphs, time series graphs, Stem and leaf Plot, Histogram, Dot Plot, Scatter plot
3. Types of Functions, and functions and graphs

Topic III Set Theory

1. Set language and Notations

Topic IV Basic Statistics

1. Measures of Central Tendency
2. Dispersion and Standard deviation
3. Skewness and Kurtosis

Topic V Sampling and Sampling Techniques

1. Principles of Sampling and factors affecting the inferences drawn from a sample
2. Concept of population, Sample, Sampling Frame and Sampling unit
3. Characteristics of representative sample
4. Sampling error
5. Types of Probability sampling techniques
6. Types of Non-probability sampling techniques

Recommended Books

2. Mathematics and statistics for Economics- G.S. Monga
3. Statistical Methods - S.P. Gupta
5. Statistics- Schaum’s outlines , Murray R. Spiegel; Larry J Stephen
Year - I

EC-105 Mathematical techniques for Economics

**Topic I Basic Application in Economics**
1. Review and Basic Applications in Economics

**Topic II Exponential and Logarithmic Functions**
1. Single Variable Calculus
2. Marginal Concepts b Elasticity
3. Optimization Techniques in Consumer and Production Theory
4. Consumer and Producer Surplus

**Topic III Multivariate Calculus**
1. Economic Functions
2. Unconstraint Optimization
3. Constraint Optimization
4. Special Matrices (Jacobian and Hessian)
5. Comparative Statics and Concave Programming

**Topic IV**
1. First Order Differential Equation
2. First Order Difference Equations
3. Second Order Differential Equations

**Topic V Growth Models**

**Recommended Readings**
1. Introduction to Mathematical Economics - Edward Dowling
2. Mathematics for Economists - Simon and Blume
3. Fundamental Methods of Mathematical Economics - Chiang
3. Important International Financial Crisis and the role of IMF (Oil crisis, International debt crisis, South East Asian crisis, Brazil Argentina and Mexico, Russia and Eastern Europe, The sub-prime crisis)

**Recommended readings**

4. Maurice Levi: International Finance
6. Mukherjee Smriti, Capital Account Liberalization & Flexible Exchange Rate
7. Salvatore, D ., International Economics 8th edition John Wiley and Sons, Inc
EC-106 Economics of Agriculture

Topic I Introduction
1. Fundamental differences between agricultural economics and economics of other businesses
2. Agrarian Questions and Differing forms of Capitalist Agrarian Transition
3. Mode of Agricultural Sectors
4. Classification of Farmers
5. Structure of Backward Agriculture- Causes of low investment and low productivity
6. Risk and Uncertainty in production- Inputs related risk and risk aversion, Adoption of Modern Technology under production uncertainty

Topic II Demand and Supply of agricultural products
1. Production function analysis in agricultural production behavior
2. Economics of supply of agricultural products
3. Theories of Marketable and Marketed Surplus
4. Theory of Demand for agricultural products
5. Price and Income elasticities of Demand for agricultural products
6. Factors affecting demand for agricultural products

Topic III Price determination in agriculture
1. Free market mechanism analysis
2. Fluctuation in agricultural prices
3. Wholesale and retail markets
4. Price spread
5. Role of hedging and speculation
6. Forward markets in agricultural commodities.

Topic IV Major aspects of Indian Agriculture
1. Institutional aspects of agricultural development in India
2. Growth and fluctuations in Indian Agriculture
3. Farm size, productivity and efficiency in Indian Agriculture
4. Price and Terms of Trade
5. Risk and Uncertainty
**Topic V Agricultural Policy**

1. Agricultural Price Policy in India - Minimum Support Price
2. Food Security – Food Corporation of India and Public Distribution System
3. Indian Agriculture in context of WTO regime

**Recommended Books**

1) Drummond E. V. and Goodwin J. W. – Agricultural Economics
2) Penson J, Capps O and Rosson – Introduction to Agricultural Economics
3) Sadhu and Singh - Agricultural Economics
4) Reddy R and Sastry D – Agricultural Economics
5) Lakhi and Singh – Agricultural Economics
19) Rudra, Ashok (1984): Indian Agriculture: Myths and Realities
20) Joshi, P C (1987): Institutional Aspects of Agricultural Development
Year-I
EC-107 Statistical Techniques

Topic I Introduction to statistics
1. Overview of Basic statistical concepts,
2. Central tendency and dispersion, Skewness and Kurtosis

Topic II Correlation and regression
1. Correlation coefficient, Standard error and regression equations,
2. One variable regression analysis

Topic III Fundamentals of Probability
1. Random Variable, and Mathematical Expectation,
2. Theoretical Distributions (Binomial, Normal, and Poisson)

Topic IV Sampling Techniques
1. Fundamentals of Sampling, Estimation, Statistical Inference,
2. Chi-Square Test, F-Distribution, ANOVA, Association of Attributes, Non-Parametric Tests

Topic V Index Numbers and Time Series
1. Introduction to index numbers, construction of indices.
2. Different forms of indices Introduction to time series

Recommended Books:
1. Comprehensive Statistical Methods - Arora, P.N.; Arora, Sumeet; Arora,
2. Statistical Methods – S. P. Gupta
Year- II
EC-201 Economics of Growth and Development

Topic I Development and Underdevelopment: An Overview

1. The relevance of economic development. Problems in defining economic development
2. Economic growth in historical perspective: Marx, Schumpeter, Gerschenkron
3. Characteristics of LDCs - structural view of underdevelopment
5. Per capita income as an index of development. Difficulties of measurement and comparability problems involved in the calculation of per capita according to exchange rate and purchasing power parity
6. Alternative measures of development gap - HDI

Topic II Poverty and Inequality

1. Poverty and income distribution. Defining poverty and problems of measurement.
2. Income inequality, measurements of inequality.
3. Understanding inequality in the developed and underdeveloped worlds. Impact of inequality on the process of development.

Topic III Theories of Economic Growth and Development

1. The Harrod-Domar growth model and its application to LDCs
2. Solow’s model of economic growth - The production function approach to the study of causes of growth
3. The Cobb- Douglas Production function - Embodied and disembodied technical progress
4. Surplus labour (Lewis), big push (Rosenstein-Rodan) , Balanced growth (Nurkse) , Unbalanced growth (Hirshman) - The process of cumulative causation (Myrdal), the center and periphery hypothesis - the dependency school
5. New Endogenous growth models- Intellectual capital: role of learning, education and research; AK model — Explanations of cross country differentials in economic growth

Topic IV Population growth and economic development

1. Population - basic concepts –
2. the theory of demographic transition - age structures of population
3. Migration - Rural and Urban migrations -The Harris - Todaro Model - problems of urbanization
4. Employment markets - Formal and informal employments - wage rates
**Recommended Books**

3. Thirlwall A P.- Growth and Development (6th or 7th edition)
Year -II
EC-202 Research Methodology for Economics

**Topic I Meaning of Research**

1. Meaning of research in Economics.
2. Types of research (descriptive vs. analytical, fundamental vs. applied, qualitative vs. quantitative, conceptual vs. empirical, empirical vs. simulation based, conclusion oriented vs. decision-oriented, historical vs. a-historical.)
3. Importance and utility of Social Science research, Limitations of and difficulties in Social Science research.

**Topic II Research Design**

1. Stages involved in designing research -Conceptualizing the research topic.
2. Identifying and formulating the objectives.
3. Understanding the role played by methodology.

**Topic III Research Methods and Techniques**

1. Research methods and techniques- differences among them, the logical framework of investigation, the nature of problem and appropriate methodology.
2. Macro-level vs. Micro level research.
3. Data Collection, Sources of Data,
4. Primary Data, Surveys, Interviews, Questionnaires, personal interviews, group interviews, small group studies, Schedule, Observation, participant or nonparticipant observation.
5. Secondary data - Collection of Secondary data
6. Case studies.

**Topic IV Analysis of Data**

1. Examination of the collected data - (primary or secondary)
2. Classification and Tabulation, Bi-variate presentation.
3. Graphs and Diagrams
4. Measures of Central Tendencies. Dispersion, Correlation
5. Hypothesis Testing - Definition and Formulation
**Topic V Research Report Writing**

1. Stages of report writing - survey of literature, development of working hypotheses, preparation of research design, collection of information, processing of collected information, hypothesis testing, interpretation and generalization,
2. Report writing, references and bibliography.
3. Presentation - Power Point

**Recommended Books**

Year- II

EC- 203 Methods of Econometrics

**Topic I The nature of regression analysis**

1. Two variable Regression model: Concept of PRF, Meaning of Linear Stochastic specification of PRF

2. Significance of the Stochastic Disturbance Term

**Topic II Two variable regressions**

1. Estimation through OLS-Assumptions, Estimators and their Properties, Gauss-Markov Theorem, coefficient of determination,

2. Two Variable Regression: Interval Estimation and hypothesis Testing-Normality Assumption and Properties of OLS Estimators under Normality Assumption,

3. Confidence Interval and Test of Significance Approach for Regression Coefficients, Analysis of Variance, Extensions of Two Variable Linear Regression Model - Regression through the Origin, Functional Forms

**Topic III Multiple Regression Analysis**

1. Problem of Estimation, Meaning of Partial Regression Coefficients, Adjusted R Square, Partial Correlation Coefficients, Problem of Inference,

2. Hypothesis testing, Uses of F test, Relaxing the Assumption of the OLS Multicollinearity and Consequences, Detection through Graphical Method, Spearman's rank Correlation Method, Goldfeld-Quandt Test, White’s test-remedial measures, Autocorrelation.

3. Nature of the Problem, BLUE Estimator in the Presence of Autocorrelation, Consequences, Detection of the Problem through Graphical Method and Durbin-Watson d test, Remedial Measures
**Topic IV Regression on Dummy Variables**

1. Nature of Dummy Variables, Regression on Quantitative and Qualitative Variables,
2. Testing for Structural Stability, Interaction Effects, Use of Dummy variables in Seasonal Analysis,
3. Use of dummy variables in combining Time series and Cross Sectional Data

**Topic V Simultaneous Equation Models**

1. Examples, Simultaneous Equation bias, Problem of Identification Definition and Rules for Identification
2. Estimation of Simultaneous Equation models Recursive Models, Indirect Least Squares Two stage Least Squares

**Topic VI Introduction to Time Series**

1. Autoregressive and Distributed Lag Models, Stationary and Non-Stationary Process,
2. Concept of Unit Root Process and Testing, Transforming Non-Stationary Time Series,
3. Introduction to Forecasting using Time Series, Vector Autoregressive Model

**Recommended Books**

1. Basic Econometrics - Damodar Gujarati
2. Introductory Econometrics A Modern Approach - Jeffrey Wooldridge
3. Theory of Econometrics - A Koutsoyinnis
4. Introduction to Econometrics - G. S Maddala
5. Econometric Methods - G S Maddala
Year- II

EC- 204 Banking and Financial Institutions

Topic I Introduction


Topic II Banking system in India


Topic III Commercial Banking

1. Public Sector Banks- Nationalization of Banks – progress and problems post-nationalization,
3. Regional Rural Banks- Progress & Problems, Role of RRBs in Post reform period (1991)

Topic IV Banking sector Reforms after 1991


Topic V Non - Banking Financial Institutions

1. Definition of NBFC – RBI Classification of NBFCs. Non- banking Institutions-small savings, Pension Funds, Mutual Funds, Insurance Companies-Meaning & Features,
2. Regulations of NBFCs in India, Performance of NBFCs in India (since 1985) – Number, Size, volume and structure of deposits.

Recommended Books

5. Tannan M L (2010) “Banking Law and Practice in India” Lexis – Nexis India

Reports

1. Report on Trend & Progress of Banking - RBI Annual Reports
4. Report of the Committee on Financial Sector Reforms (Raghuram Rajan Committee)
Topic I Institutions

1. What are Institutions?
2. Social, Political, Cultural and Economic Institutions
3. What do the Institutions do?

Topic II What is Institutional Economics?

1. What does it try to do? The need for Institutional economics
2. Old Institutionalism and New Institutionalism, Challenges posed to Neo-Classical economics
3. Transactions Costs and Imperfect Information
4. Economies of Scale and Division of Labour

Topic III Institutions as a Fundamental Cause of Long Run Growth vs. High Growth leading to better Institutions- Empirical evidence.

Topic IV Interface between Institutional economics and Development economics

1. Institutions as a constraint for developing economies

Topic V How do institutions develop/change?

1. How and why do ‘good’ institutions not develop?
2. Which institutions matter?
3. How to get ‘good’ institutions? What should be the institutional agenda for developing economies? Debate between the two schools of thought
4. What are the ‘right’ institutions for a developing economy? Bardhan’s perspective on persistence of socially suboptimal institutions
5. Why poor nations remain poor?

Topic V Violence and Social Orders

1. Open Access Order and Limited Access Order

Recommended Books

Year- II

EC-206 Economics of Discrimination

Topic I Introduction, History and Economic Modeling

1. Introduction to Economics of Discrimination
2. Historical perspective on Discrimination
3. Causes and forms of Economic Discrimination
4. Economic models of Discrimination- Competitive and collective models, Overcrowding model, The Human capital Model

Topic II Inequality, Social Exclusion and Theories of Discrimination

1. Concept of Inequality- Group-based Inequality and Inter-personal Inequality
2. Social Exclusion: Concepts and types
3. Theories on Discrimination:
   i. Gary Becker (Test for Discrimination)
   ii. Kenneth Arrow (Belief Theory of Discrimination)
   iii. George Akerlof (Identity theory of Discrimination)
   iv. Herbert Blumer’s theory of discrimination

Topic III Market based Discrimination

1. Market discrimination- Discrimination in Factor Market
2. Input Market- Land Market, Labour Market, Gender, Occupation, and Agricultural Inputs
3. Discrimination in Commodity market-Discrimination in imperfect market
4. Econometrics models of labour market discrimination

Topic IV Public Policies to overcome Economic Discrimination and Experiences

1. Empowerment Policies,
2. Reservation policy or Affirmative Action Policies,
3. Land Policies, and
4. Experiences of USA, India, and South Africa

Recommended Books and Articles


41. Scoville, James (1996), Labour Market underpinnings of a caste economy, The
57. Thurow, Lester (1969), Poverty and Discrimination, Browking Institution, Washington, Chapter VII.

Year- II
EC- 207 National Income Accounting

Topic I Concept of National Product

1. Concept of Production. Production exchanged in the market, Self Consumed Produce, Services of Housewives, Owner Occupied Dwellings, and Consumer durables.
3. Distinction between Value added from a particular sector and the final product available from the sector.
4. Gross and Net Production: Netting for depreciation
5. Domestic Product and National Product at Market Prices and Factor costs

Topic II Treatment of Special Sectors

1. Valuing the Product of / Treatment of Government sector
2. Valuing the Product of /Treatment Financial Intermediaries
4. Accounts for the producing sector, Consuming Sector, the government sector and the Rest of World.

Topic III Methods of Income Estimation

1. The Product Method
2. The Income Method
3. The Expenditure Method
4. The Equivalence of the three methods.

Topic IV Accounts for Different Sectors

1. Accounts for the producing sector
2. Accounts for the Consuming Sector
3. Accounts for the government sector
4. Accounts for the Rest of World
Topic V Related Topics

3. Green GDP

Recommended Book